Sustainability Impact

Make a difference with investments – October 2017
Contents

Foreword 3
Sustainability Impact: focus on effectiveness 4
Sustainability reports will not save the planet 4
Challenges create opportunities 4
Make a positive impact 4
Generate returns with impact 5
Impact bonds – a rapidly growing niche 5
Based on a proven process 5
Investment sectors with the best prospects 5
Energy 6
Energy transformation – protecting the climate 6
Energy efficiency – why less is more 6
More than non-consuming energy 6
Case study: Vestas 7
Mobility 8
Mobility change, not climate change 8
Dreaming of freedom – as a service? 8
Impending gridlock in developing countries 8
Case study: Delphi Automotive 9
Resources 10
Recycling, not landfill 10
Water – a vital resource for life 10
How much water does beef need? 10
Case study: GEA Group 11

Health 12
Living healthily 12
Innovative therapies 12
Affordable medical care 12
Case study: Orpea 13

Finance 14
Vital for society 14
Micro-finance – help for self-help 14
Financial resilience 14
Case study: PT Bank Rakyat 15

Knowledge 16
Knowledge – the key to tackling poverty 16
Education for all – still not a matter of course 16
Networking for better solutions 16
Case study: Millicom International 17

Pioneer in sustainable investments 18
Sustainability Research Analysts 18
Investment solutions with impact 19

Further information:
swisscanto.com

Disclaimer
This publication is intended for distribution in Switzerland and is not intended for investors in other countries. This information is for information purposes only and constitutes neither investment advice nor a recommendation.

The sole binding basis for purchasing Swisscanto funds are the respective published documents (fund agreements, contract terms, prospectuses and/or key investor information and annual reports). These can be obtained free of charge from www.swisscanto.ch or in paper form from Swisscanto Fund Management Company Ltd., Bahnhofstrasse 9, CH-8010 Zürich, which is the representative for Luxembourg funds. Funds marked with (LU) are constituted under Luxembourg law; the paying agent for Luxembourg-based funds is Basler Kantonalbank, Spiegelgasse 2, 4002 Basel.

Structured products are not collective investment schemes in the meaning of the Collective Investment Schemes Act (CISA). They are subject to neither authorisation requirements nor the oversight of FINMA, and investors do not enjoy the specific investor protection of the CISA.

The prospectuses and term sheets applicable for the products can be obtained from documentation@zkb.ch. This concerns products subject to risk including financial losses; each investor must be aware of the risks associated with such products.

Moreover, we refer to the brochure «Risks in Securities Trading», which can be ordered from us. The information contained in this document has been compiled with the greatest of care by Swisscanto or respectively Zürcher Kantonalbank. The information and opinions originate from reliable sources. Despite following professional procedures, Swisscanto or Zürcher Kantonalbank cannot guarantee the correctness, completeness or accuracy of the information. Swisscanto and Zürcher Kantonalbank decline all liability for investments which are made on the basis of this document.

This document was not produced in compliance with the Directives on the Independence of Financial Research and is also not subject to the ban on trading following the publication of financial analyses. Every investment involves risks, especially with regard to fluctuations in value and return. Past performance is no indicator or guarantee of future success. Investments in foreign currencies are subject to exchange rate fluctuations.

This publication and the information contained herein must not be distributed and/or redistributed to any person who may be a US person under Regulation S of the US Securities Act of 1933. By definition, «US person» includes any US resident, any corporation, company, partnership or other entity organized under any law of the United States. The categorisation under Regulation S likewise applies.

This publication does not constitute an offer to sell or a solicitation or invitation to subscribe to or to make an offer to buy any securities, nor does it provide a basis for any contract or obligation of any kind.

This publication and the information contained in it must not be distributed and/or redistributed to, used or relied upon by, any person (whether individual or entity) who may be a US person under Regulation S of the US Securities Act of 1933. US persons include any US resident; any corporation, company, partnership or other entity organized under any law of the United States; and other categories set out in Regulation S.
Society is facing major challenges at the beginning of the 21st century, encompassing issues such as climate change, demographic change, resource scarcity, poverty, security of the energy supply, increased mobility or sharply rising healthcare costs. Overcoming these challenges promises to open up some exciting opportunities for investors: find out how Swisscanto Invest regards impact investing and in which areas promising investment opportunities are being identified.

Iwan Deplazes
Head of Asset Management
Swisscanto Invest by Zürcher Kantonalbank
Sustainability Impact: focus on effectiveness

Sustainable investments is a term that covers a broad range of concepts and practices, from ESG integration, to best-in-class or impact investing. Sustainability Impact allows investors to contribute to sustainable development in addition to generate returns. That’s why Swisscanto Invest focuses precisely on this strategy in its sustainable, active investments.

Sustainability reports will not save the planet

Every year, a growing number of companies attempt to take up the cause of sustainability. In the meantime, more than 90% of the world’s 250 largest companies (the Fortune 250) publish a sustainability report that informs the general public about their sustainability management. Although this development should be rather pleasing, it contradicts the condition of our planet. So far, it has not been possible to decouple economic growth from environmental consumption; for instance, in the last century, global population has quadrupled and energy consumption has even increased sixteen-fold. We consume more resources and produce more waste and pollution than our planet can bear. In view of this fact, the question is raised as to whether the sustainability initiatives taken by large companies actually accomplish their stated aims, or whether they are merely «greenwashing» campaigns to assuage the guilty conscience of companies and their customers.

Challenges create opportunities

Humanity is facing significant challenges at the beginning of the 21st century, encompassing issues such as climate change, demographic change, scarce resources, poverty, security of the energy supply or healthcare provision. The challenges are global to a large degree, but some also have a regional focus.

In order to achieve sustainable development, the UN has drawn up 17 Sustainable Development Goals. These goals were published in 2015 by the United Nations General Assembly and entered into force on 1 January 2016 (Figure 1).

«Every unsolved social or global problem is nothing more than a big, undiscovered market opportunity.»
Peter Drucker, Philosopher and Economist

Profit-driven companies can also contribute directly to achieving some of these goals. The focus here lies on the issues of environmental protection, education, healthcare and equal opportunities.

Make a positive impact

According to Swisscanto Invest, companies that use their products, services or production methods to contribute to sustainable development in line with the Sustainable Development Goals have a sustainability impact.

«Genuine sustainability management is not geared to mitigating the negative impact of one’s own activities, but to devising positive solutions to society’s sustainability problems.»
Prof. Thomas Dyllick, University of St. Gallen

Sustainable enterprise is not only about optimising production processes or fulfilling statutory requirements and social standards. Rather it’s a matter of which developments are initiated by business activities and what ability companies have to implement necessary changes. One example is the energy revolution which seeks to replace fossil fuels with renewable energies and energy efficiency.

Figure 1: Sustainable Development Goals
Source: UN (2016)
Non-sustainable production processes or products must be dropped and new ones created in their place. Sustainable companies use their innovative power to create environmentally compatible and socially responsible products and services.

**Generate returns with impact**
Swisscanto Invest is convinced that companies that provide a social benefit are more successful, as they have products and services that will generate above-average demand in the medium term. If the companies are protected from competition by barriers to entry, they can grow to become more profitable. A favourable valuation in terms of their capital profitability and growth makes the companies an attractive investment.

**Impact bonds – a rapidly growing niche**
In the bonds asset class, a specific impact segment has developed over the course of recent years: impact bonds exclusively aim to finance ecological (green bonds) or social projects (social bonds) and thereby contribute to sustainable development. The investors not only seek to generate returns as usual, they are also able to make a positive contribution to the environment and society with their investment. Since the first green bond was issued in 2006, the segment has grown very dynamically, both in terms of volume as well as the type of issuer. The Green Bonds Principles were drawn up in 2014 by several financial institutions as voluntary standards in order to promote the transparency of green bonds by setting minimum requirements. In addition, there are dedicated guidelines for climate bonds which finance certain projects in the context of climate change.

**Based on a proven process**
All Sustainability Impact securities of Swisscanto Invest undergo the systematic sustainability analysis process (Figure 2) and thereby also meet the strict specifications, for example concerning exclusionary criteria, ESG factors and media research. The Sustainability Council of Swisscanto Invest safeguards this process as an external expert body.

**Investment sectors with the best prospects**
Swisscanto Invest has defined six investment sectors in which equity and bond investments can be used to contribute to sustainable development. An overview of these six «Sustainability Impacts» and the subsections can be found below on this page. Each investment sector is briefly introduced below and illustrated using a business example. The Sustainability Impact profiles each show the social benefit, business model, growth and barriers to entry.

### The six investment sectors

<table>
<thead>
<tr>
<th>Energy</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy</td>
<td>Access to health care</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>Public health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mobility</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transport and logistics</td>
<td>Financial inclusion</td>
</tr>
<tr>
<td>Private transport</td>
<td>Financial infrastructure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Education</td>
</tr>
<tr>
<td>Resource efficiency</td>
<td>Connectivity</td>
</tr>
</tbody>
</table>
Energy

Energy transformation – protecting the climate
Around 30% of global greenhouse gas emissions come from the power plant sector. The current composition of electricity generation consists predominantly of coal, oil, natural gas, nuclear and hydro power. To achieve the 2-degree target of climate policy, the portion of energy sources with low greenhouse gas emissions would have to increase from 30% to at least 80% by the middle of the 21st century. Electricity generation from renewable energy sources is normally characterised by no or low operating costs for the use of the energy sources, a substantially reduced burden on the environment compared to conventional power plants and a decentralised nature. Electricity generated from the sun (photovoltaics) has made huge progress in terms of production technologies and cost reductions in the last decade. As a result, photovoltaics have already become competitive in very sunny regions. Today, power generated from wind energy is also able to compete with electricity from fossil fuel power stations in many cases. Electricity generated by wind energy or photovoltaics has thus far had the disadvantage that it is dependent on weather, unlike electricity generated from fossil fuels. This disadvantage can be offset by power stores in the form of batteries. The costs of batteries will fall substantially as electric vehicles become increasingly prevalent. It will therefore be possible to store power from renewable energy sources in batteries in a cost-effective manner and provide it to electricity customers when needed.

Energy efficiency – why less is more
In the USA, electricity consumption in 2015 was practically just as high as it was in 2010, although the economy – measured by gross domestic product – grew by 11% in this period. This decoupling is largely attributed to energy efficiency measures, such as standards for product efficiency, construction regulations and efficiency programmes by energy suppliers. Besides renewable energy sources, energy efficiency also plays a pivotal role in reducing greenhouse gas emissions: among all the scenarios for achieving the climate goals, those that focus on improving energy efficiency in accordance with the International Energy Agency clearly exhibit the lowest overall costs. In order to achieve the goals of the Paris Climate Change Conference, the relevant investments must increase significantly, however.

More than non-consumed energy
Statutory regulations are the most important drivers for investment in energy efficiency measures. For example, the EU Energy Efficiency Directive provides a framework for defining national energy efficiency targets, such as in the renovation of buildings or the construction of power plants. The potential for efficiency in the construction sector, in transport and in industry is particularly great – and these investments offer business opportunities for providers of the right solutions. In Switzerland, around one quarter of energy consumption is accounted for by the residential sector, and a significant proportion of buildings are in need of energy modernisation. Important measures include the prevention of heat loss (insulation in roofs, walls and windows, and comfort ventilation systems) as well as efficient appliances for heating, hot water and lighting. In the latter area, light-emitting diodes (LEDs) have changed the market substantially thanks to their energy efficiency and long lifespan. Digital control systems will provide further efficiency gains in the future. Information and communication technologies will increasingly be used to relieve power grids through the smart management of supply and demand (smart grids).

Figure 3: US electricity production in 2015 and savings through energy efficiency measures since 1990 in billion kWh

Source: American Council for an Energy-Efficient Economy (ACEEE)

Energy efficiency is more than just «non-consumed energy»: if energy savings in the USA were compared with the electricity generated, energy efficiency would be the third largest energy source according to ACEEE (Figure 3). Energy efficiency can be considered an actual energy source that is still not fully exploited by any means.
Vestas

Sustainability Impact profile

Company description
Sector: Electrical appliances
Country: Denmark
Employees: 21,824
Turnover: EUR 10.2 billion
Market capitalisation: EUR 16.4 billion

Vestas Wind Systems develops and produces onshore and offshore wind turbines. The production sites are located in Europe, China, USA and Brazil, and the turbines are sold in 75 countries. At the same time, services are a growing business area.

Geographic positioning (turnover)

- Denmark: 3%
- USA: 45%
- Germany: 14%
- Others: 38%

Data as at September 2017

Sustainability Impact and business model

The portion of electricity production in worldwide greenhouse gas emissions equals around 30%. In contrast to fossil fuels, wind energy is endlessly available and does not cause any ongoing fuel costs; it has low overall CO₂ emissions and low water consumption. Today, power generated from wind energy is able to compete with electricity from fossil fuel power stations and also has a dampening effect on spot market energy prices. The share of wind energy in global electricity generation by 2050 may lie between 15 and 30%, depending on the scenario; it currently lies at 7%. The time it takes for a turbine to recover its own production energy (energy payback period) only amounts to just over half a year. Vestas has two product platforms (2 MW and 3 MW). The offshore wind turbines are manufactured in cooperation with Mitsubishi Heavy. At over 80 GW, the company operates the world’s largest base of installed wind power plants.

Growth and barriers to entry

The conversion of electricity generation to renewable energy sources for environmental protection reasons as well as economic considerations is stimulating strong growth. Wind energy is increasingly becoming the cheapest source of energy. Vestas expects annual growth of around 5%. The company is the global market leader of wind turbines, with a share of 16% (onshore), and is able to execute greater investment in research and development, such as for new developments like weak-wind turbines that are designed for locations with less favourable wind conditions. Scaling effects can be exploited to reduce production costs and the associated costs per generated kilowatt-hour for the customer. The company offers a wide range of products and is also geographically highly diversified. The higher-margin and less cyclical business with services is becoming more and more important due to the growing base of installed wind turbines. Around half of the order book relates to service provision. High barriers to entry exist here.

Risks

The political risks include a possible cessation of state support instruments. Moreover, the increasing competition for contract awards, partly also due to the emergence of Chinese manufacturers, may have an impact on growth and margins. Another risk factor includes fossil fuel energy costs being too low.
Mobility

Mobility change, not climate change

Sharply rising traffic volumes are leading to an exacerbation of climate issues, resource scarcity and poor air quality in cities. Mobility is a basic need for any society and a requirement for its development. The transport sector is responsible for around 23% of global greenhouse gas emissions (energy), and the trend is increasing (Table 1). 75% of greenhouse gases in the transport sector come from road transport.

<table>
<thead>
<tr>
<th>Transport share in CO₂ emissions (energy)</th>
<th>Urbanisation rate</th>
<th>Cars per 1,000 inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>23%</td>
<td>52%</td>
</tr>
<tr>
<td>USA</td>
<td>28%</td>
<td>83%</td>
</tr>
<tr>
<td>EU</td>
<td>29%</td>
<td>74%</td>
</tr>
<tr>
<td>China</td>
<td>8%</td>
<td>51%</td>
</tr>
<tr>
<td>India</td>
<td>9%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Sources: IEA, EEA, EPA

There are also further significant negative effects on the environment and society, such as deaths and injuries due to traffic accidents or noise pollution. In order to prevent these traffic effects and optimally satisfy the growing need for mobility, a number of different strategies are applied. When considering the sustainability performance of various modes of transport, rail transport is clearly in the lead for land transport (Figure 4). In terms of CO₂ emissions, trains are more than twice as good as motorised personal transport and even five times as good in freight transport.

Dreaming of freedom – as a service?

For motorised personal transport, more environmentally compatible drive systems are particularly critical. These include more efficient and low-emission engine technologies, lightweight design and the electrification of drive systems (hybrid or electric vehicles) in conjunction with the expansion of renewable energy sources. Support provided by driver assistance systems through to autonomous driving contributes to road traffic safety. Non-motorised transport, such as high-performance e-bikes or a developed infrastructure, is becoming increasingly attractive, even for moderate distances, and also promotes healthy exercise in everyday life.

Furthermore, new mobility concepts are gaining substantial momentum, especially due to the openness to the sharing economy as well as car and bike sharing projects. Will we soon stop buying cars and instead consider mobility a service?

Impending gridlock in developing countries

Here, there is a need to intelligently integrate various modes of transport, particularly with public transport: this will enable commuters and travellers to reach their urban destinations quickly by metro and rental bike. Especially in developing countries, the high rate of population growth and increasing urbanisation are ushering in major challenges: megacities with several million inhabitants are being choked by cars and are suffering severely from poor air quality, since there is still a lack of efficient public transportation systems. Public transport offers huge efficiency advantages in particular: it is designed according to ecological concerns and is the best solution for transporting large populations. Even electric vehicles are subject to congestion! The global promotion of public transportation systems benefits metro manufacturers, for example, or companies in the traffic management and telematics sectors.

Video conferences can already make many business trips obsolete. As further progress is also made in digitalisation, such as with virtual realities, traffic will be either reduced or prevented to increasing degrees in the future. The challenges associated with increasing urbanisation and the importance of transport for climate change are driving the current investment theme of mobility.
Delphi Automotive Plc

**Sustainability Impact profile**

**Company description**

Sector: Automotive parts  
Country: USA  
Employees: 145,000  
Turnover: USD 16.7 billion  
Market capitalisation: USD 25.2 billion

Delphi Automotive Plc is a global automotive supplier. The company is active in three segments: electrical/electronic architecture (components and systems for vehicle electronics, 55% of turnover), powertrain systems (drive trains for combustion engines, 27%), electronics, safety and thermal systems (systems and software for active and passive safety solutions, 18%).

**Geographic positioning (turnover)**

- USA: 36%  
- Asia/Pacific: 26%  
- EMEA: 24%  
- Germany: 26%  
- Others: 6%

**Business areas (turnover)**

- Electrical/Electronic Architecture: 55%  
- Powertrain Systems: 27%  
- Electronics & Safety: 18%

Data as at September 2017

**Sustainability Impact and business model**

Road traffic accounts for the largest share of traffic volume; it causes around 75% of greenhouse gas emissions in the transport sector. Combustion engines still have great potential for efficiency increases. In the medium term, the significantly higher efficiency of electric motors seems to support the complete electrification of the drive system and the conversion of the energy supply to renewable energy sources. A further challenge facing the automotive industry lies in improving road traffic safety. Delphi is superbly positioned to benefit from the electrification of automobiles, the increasing safety requirements and self-driving vehicles. Delphi plays a leading role in relevant safety and driver assistance systems. A partnership has been launched with Mobileye for autonomous driving systems. In the context of electrification, the company supplies battery management systems as well as charging stations, critical data transmission systems, converters and inverters. Delphi is also working towards improving the combustion engine, such as with petroleum injection technology or variable valve control. The 48-V architecture (instead of 12 V conventionally) is particularly interesting as it enables mild hybrid technology. It comprises a generator / electric motor that provides initial drive support and is able to recover braking energy. These kinds of systems increase fuel efficiency by up to 15%. Moreover, the 48-V technology is a prerequisite for more sophisticated safety systems. Delphi also supplies efficient inverters, converters, battery management systems and more. At the beginning of 2017, the split of the company into two divisions was announced (focusing on the powertrain and electronics respectively).

**Growth and barriers to entry**

The company’s alignment towards the areas of electrification and safety is expected to deliver above-average growth in turnover compared with other industry players (6 to 8% over the next three years); productivity gains and the product mix should also make it possible to increase margins. In terms of competition, the high level of innovation and the well-positioned product portfolio pose barriers to entry.

**Risks**

Recalls and product liability represent a relevant risk factor for the automotive sector. Shared mobility, autonomous driving and new mobility services may lead to a decline in volumes in the medium term. The customer concentration, for example, on GM, Ford and Fiat Chrysler (25% of turnover) shows a relatively strong dependency on the US automotive market.
**Resources**

**Recycling, not landfill**
The growth in population and prosperity is leading to a continuous increase in demand for natural resources, instances of resource scarcity and heightened levels of environmental pollution. A large proportion of manufactured goods still go to landfill or incineration plants after use. In order for non-renewable resources not to be wasted in future, it is important to ensure closed cycles of resource flows; this could be achieved, for example, by manufacturing products such that the materials used can be fully recycled. Economical dismantling and recycling processes produce essential preconditions for a more efficient and sustainable approach to handling valuable and scarce resources. Decoupling resource consumption and water usage from economic growth will become important investment themes of the 21st century.

**Water – a vital resource for life**
Water has a unique characteristic that sets itself apart from other resources: there is no substitute for water. Around a third of people suffer from «water stress», which means that their water supply can be at risk during several months of the year. It is presumed that by 2050, the number of people suffering from water stress will at least double. The main reason for this is higher consumption due to population growth and increasing wealth. In addition, global warming has a negative effect on the availability of water in many regions due to changing rainfall patterns, increased evaporation resulting from higher temperatures and the melting of mountain glaciers. At the regional level, these changes will cause severe problems and threaten millions of people with water shortages. Existing water infrastructures are significantly outdated to a large extent and require modernisation. There is a massive need for investment. It is often the case in developing countries that appropriate infrastructures must first be built. Consequently, huge volumes of water are still going to waste in distribution. For instance, Mexico City experiences water losses of more than 40%, while this proportion is estimated at around 20% for France. These tremendous losses are costly as the lost water is typically treated beforehand at significant expense. Accordingly, smart water management systems have been developed for water distribution, for example, in order to find evidence of leakages. Another significant problem is often the very low water tariffs. Demand for water purification and waste water treatment technologies is increasing around the world. Seawater desalination plants are also becoming increasingly important. Clean water is crucial in tackling diseases and epidemics.

**How much water does beef need?**
The «water footprint» represents the amount of water used by a country’s inhabitants in total. Figure 5 shows the water footprint of a German consumer. Direct water consumption in households for eating, drinking and water is infinitesimal compared to indirect consumption, such as due to beef consumption. One 100-gram beef fillet requires over 1,500 litres of water in production.

![Water footprint of a German consumer (3,900 litres/day)](source: Mekonnen & Hoekstra 2011, UNESCO)

The agricultural sector consumes around 70% of freshwater resources used around the world. From a sustainability standpoint, there are many arguments in favour of organic farming. It dispenses with the use of chemical-synthetic pesticides and fertilisers, as they are problematic for health and the environment (particularly bodies of water) and impair the fertility of the soil. Organic farms provide a much higher degree of biodiversity than conventional farms and they require far less energy per kilogram of food produced since they forego the use of chemical-synthetic agents. Incidentally, there is huge potential to save water and protect the climate in how we treat food: around 50% of food products end up as waste!
Focus on Sustainability – Sustainability Impact

GEA Group

Sustainability Impact profile

Company description
Sector: Machinery
Country: Germany
Employees: 16,900
Turnover: EUR 4.4 billion
Market capitalisation: EUR 7.2 billion

The GEA Group is one of the largest providers of machinery and process technology for food processing in the world. Over 70% of its turnover is generated in this sector, with a key area being the dairy industry. The company is considered a market and technology leader.

Geographic positioning (turnover)

Business areas (turnover)

Data as at September 2017

Sustainability Impact and business model

The machinery marketed by GEA contributes to reducing food wastage and to increasing food safety, as well as energy and resource efficiency. Reductions can be achieved in water consumption in particular: both directly as a result of the more efficient processes in food processing and indirectly due to the decrease in food wastage (water consumption in agriculture). GEA processes are thus able to significantly extend the shelf life of fresh milk, for example, and around 60% of the water used and 40% of energy consumed during homogenisation can be saved. By focusing on the food industry, GEA is subject to less cyclical markets in comparison to other machine manufacturers. GEA has a broadly diversified customer base; the 200 largest customers account for approximately 35% of turnover. GEA is characterised by its high level of innovation, quality and the performance of its machines and processes. It occupies a leading position in the food and drinks industry. High efficiency, reliability and safety are important for its customers in order to ensure food safety for end customers.

Growth and barriers to entry

Population growth and urbanisation are driving above-average demand for processed foods. An annual growth rate of around 5% is expected and the planned cost reductions will expand margins. The food industry has a minimum tolerance for errors and exhibits the most stringent quality requirements, directly resulting in high barriers to entry for suppliers.

Risks

An economic slump in developing countries would pose a risk since this is where around one third of turnover is generated. There is likewise a dependency on the dairy market: the development of dairy and feed prices is critical for investments. There is evidence of aggressive accounting practices (in terms of revenue recognition) and the majority of directors are not considered autonomous.
Health

Living healthily
A health sector that enables a life in good health and wellbeing forms a core part of sustainable development. Thanks in part to medical progress, global life expectancy has risen sharply (from 52.5 years in 1960 to 71.7 in 2015) and the infant mortality rate has fallen (from 121.9 per 1,000 births to 31.7). Although many life-threatening diseases are now treatable, the challenges facing the global healthcare sector are tremendous. Examples include increasing cases of chronic diseases, new epidemics and greater antibiotic resistance. Our healthcare system also has to adapt to demographic changes, particularly to diseases associated with an ageing population such as dementia or increased blood sugar levels. In the healthcare sector, we expect innovative companies to launch new therapies and treatments on the market and improve affordable access to healthcare.

Innovative therapies
After infectious diseases, cancer is the second most common cause of death around the world. A range of new innovations particularly in gene therapy, cell therapy and genome sequencing are creating new treatment options, such as in oncology and cardiology, as well as for rare conditions, autoimmune and infectious diseases. In immuno-oncology, for instance, a new era is beginning in which the patient’s own defence system is used to attack cancer cells. This enables individualised therapy with fewer side effects. These kinds of ground-breaking therapy and treatment methods are incredibly important; at the same time, it is imperative that affordable access is guaranteed for the wider population.

Affordable medical care
Affordability is a key challenge facing the healthcare sector. Even if medication prices only account for 15 to 20% of total healthcare costs, they have risen sharply in recent years partly as a result of the new options available. The medicines developed by Gilead for the successful treatment of hepatitis C have been sold in the USA for around USD 100,000, for example. In India or Egypt, the same medicines have been sold for approximately USD 1,000 in order to provide the less affluent population access to this important medication. In many countries, there is only limited insurance coverage available, if any. In certain developing countries, the patients bear more than 90% of the costs themselves (Figure 6). The pent-up demand for greater access to health provision and care is particularly high in these regions. The «Access to Medicine Index» indicates the degree to which companies are committed to affordable access in developing countries. The index assesses the pricing for medicine provision as well as the development effort taken to combat neglected diseases.

Extremely high prices are also not sustainable in the long term for insurers and uninsured patients in developed countries. This explains, for example, why people with hepatitis C travel to India to purchase medication. Generic medicines, biosimilars (imitators of biopharmaceuticals) and vaccines make an important contribution for affordable healthcare. The use of new technologies can also help increase cost efficiency, in addition to improving quality. Insurance companies and entities such as hospitals are increasingly using IT solutions to achieve better treatment processes with a more precise interpretation of diagnostic data and optimise cost management. Another relevant area for healthcare is preventive medicine, but sufficient exercise and a healthy diet are also indispensable. Companies in the health promotion sector also play a role in increasing quality of life and reducing overall healthcare costs.
Orpea

Sustainability Impact profile

Company description
Sector Healthcare
Country France
Employees 49,185
Turnover EUR 2.8 billion
Market capitalisation EUR 6.0 billion

Orpea offers various kinds of care services, such as inpatient care facilities, rehabilitation centres or psychiatric clinics. Orpea is active in France, Germany and seven other countries, with 77,094 beds in total. The company has an extensive property portfolio.

Geographic positioning (turnover)

Business areas (turnover)

Sustainability Impact and business model
Orpea focuses on care homes (70,000 beds in nine countries) for elderly people who are no longer able to live at home due to their intensive care needs. Most patients are women over 85 and they spend an average of 18 months in the care home. Demographic change will lead to greater demand for care services. Today, around 47 million people worldwide suffer from dementia, and according to estimates by Alzheimer’s Disease International, there are around 7.7 million new cases each year. No effective drug therapy has yet been found for dementia. Orpea therefore concentrates on non-drug therapy methods, such as providing rooms that are furnished in a way similar to the Alzheimer patient’s time at school, for example. Remembering the past has a positive effect on the wellbeing of many patients and improves mental capacity. In addition, activities such as music therapy, therapeutic gardening or cooking workshops are offered. The business model of Orpea is based on organic growth as well as on the acquisition of smaller care homes whose infrastructure and facilities are fully modernised with substantial investments. In the last 25 years the Orpea Group has continuously developed according to its pledge to provide residents and patients with the best possible quality of care. The group provides good social benefits and is distinguished by a low staff turnover (5% per year).

Growth and barriers to entry
We expect turnover growth of around 10% per year over the coming years. Organic and inorganic annual growth will likely be equally strong, each at around 5%. The strong growth in turnover will lead to greater margins due to scaling effects, which in turn will generate 20% profit growth per year. Organic growth lies above average at 5% in particular, because the number of people aged over 80 in Europe is rising by 2 to 4%. Orpea care homes are designed specifically for this age group. In this business area, the barriers to entry are primarily concessions and secondly the company’s good reputation based on its care and the excellent facilities of its care homes.

Risks
A potential real estate crisis poses a risk, since the value of Orpea properties accounts for around 50% of its valuation. The company has grown quickly over recent years by means of acquisitions: integrating the new companies is challenging.
Vital for society
Whatever one may think of banks, the financial industry plays an indirect, yet important role when it comes to the direction in which our society is to develop. No economic system could function without access to financial resources, growth-inducing loans, property and life insurance, and the relevant infrastructure; innovations and new technologies would not be able to take root.

The digitalisation of financial infrastructure can help execute processes and business transactions in a quicker, more cost-effective manner. The increasing level of networking has enabled novel forms of financial services, such as crowd investing which has made it easier for start-ups and small businesses to access capital and investors. It is more frequently becoming the case that these types of services no longer even require a conventional bank.

Micro-finance – help for self-help
Even for the smallest economic units such as communities or families, it is difficult to evade poverty without investing in the future. But purchasing a school uniform, medication or a bicycle is almost impossible for people with no or very low incomes.

According to estimates by the World Bank, more than 700 million people worldwide still lived in extreme poverty in 2015. At the same time, two billion adults had no bank account, and hence practically no access to the financial system. Conventional loans are also inaccessible in these cases, as there is either a lack of collateral required by commercial banks or such small amounts are not even offered in the first place. This is where micro-financial institutions (MFIs) come in: even relatively small loans – typically between 50 and a few thousand US dollars – enable people to establish a livelihood for themselves. Due to the fact that there is a lack of asset securities in these cases, other approaches are developed for financial protection, such as getting to know the exact life circumstances of the borrower or forming cooperatives. For many MFIs, women represent a large proportion of the customer base: The improved financial situation brought about by micro-financing improves the position women occupy in society – and in many instances, women have emerged as the most reliable borrowers (Figure 7).

Financial resilience
Losses due to illness and death, theft, poor harvests and natural catastrophes have a particularly severe effect on the poorest share of the population. Ideally, besides loans, micro-insurance schemes should also be available that allow insured people to protect themselves against losses by paying in very small premiums over a period of time. Even in developed countries, such acts of fate can affect livelihoods in the worst cases. Insurance protection increases the acceptability of health, age-related, economic and ecological risks by collectivising them and spreading them out over time.
PT Bank Rakyat Indonesia

Sustainability Impact profile

Company description

Bank Rakyat Indonesia Persero (BRI) was founded in 1895 during the period under Dutch colonial rule. It is Indonesia’s oldest bank and became known by its current name after the country’s independence. The bank provides a wide range of banking services, focusing particularly on micro, small and medium-sized enterprises (MSMEs).

Geographic positioning (turnover)

Business areas (turnover)

Data as at September 2017

Sustainability Impact and business model

For private individuals and companies from all economic sectors, safe investment opportunities, access to payment transactions, loans and insurance services form a precondition for absorbing income risks and fluctuations, and for saving up for important, larger investments. These may include education for children or establishing an independent business. BRI is the oldest lender in Indonesia, and also the largest measured by assets, with more than 1,000 branches and over 25,000 cash dispensers.

Growth and barriers to entry

Indonesia is home to 261 million inhabitants and is one of the most populous countries in the world. In 2014, however, only 36% of adults had a bank account; less than 30% of adults in rural regions had a bank account and this proportion was even lower at less than 22% for the poorest 40% of the population. BRI therefore has huge potential for growth due to its business activity almost exclusively in Indonesia; its turnover growth is expected to lie at over 10% p.a. At a regional level, the bank is the largest provider by far in this segment, with 56% of outstanding loans issued to MSMEs (micro, small and medium-sized enterprises). In terms of their number, MSMEs account for almost 100% of companies in Indonesia and they employ 97% of workers (2013 data). BRI has already demonstrated over many years that it has the leading edge over competitors when it comes to also providing cost-effective financial products to customers in rural regions. It does this through small and sometimes mobile branch offices, and also increasingly via digital solutions. The company is able to profit from the higher interest margin and low default rate in the micro segment (due in part to shorter durations). Since 2011, both the volume of micro-loans and the corresponding customer base have practically doubled.

Risks

The microloan programme of the government (KUR) stipulates volumes and interest rates to the major Indonesian state banks. KUR affects the profitability and credit quality of BRI products and creates uncertainty with regard to future development, as the requirements have been adjusted on multiple occasions in the past. The Indonesian government holds 57% of the voting rights in BRI and therefore has a veto right for specific resolutions. There are no female members on the board of commissioners. No information is published on how to handle credit risks associated with negative environmental influences for corporate customers (60% of the credit portfolio).
**Knowledge – the key to tackling poverty**

Access to knowledge and information is essential for society and individuals to be able to shape their lives independently. It is only in this way that we are able to fully utilise the options open to us, whether in exercising our political rights, accessing better-paid work to cover our healthcare costs or tackling climate change. The lack of access to information technology or inadequate education restricts the potential for society and the economy.

**Education for all – still not a matter of course**

Education means access to knowledge and learning the skills to use it. Good basic education for all – regardless of social background – is a necessity. Nevertheless, children from poorer families in developed and developing countries still receive a lower standard of education, because there is a lack of quality among public primary schools. School pupils from poorer social strata with the lowest level of competency have an 80% higher probability of unemployment and a 40% higher risk of health problems. This causes social unrest in many countries. According to OECD studies, higher incomes are only achievable with improved education and qualifications (Figure 8).

**Networking for better solutions**

Digital communication technologies (ICT) create economic and social networks which make access to knowledge, information, services or goods cheaper and more efficient. Studies show that improving access to mobile communications and the Internet has a positive effect on a country’s economy, as additional incomes can be generated and costs saved (Figure 9). Digital solutions also contribute to decoupling resource consumption from economic growth by means of efficiency gains or innovations. For this reason, connectivity to mobile networks is itself a sustainability goal.

![Figure 8: Income differences for selected countries in comparison with higher secondary stage education (=100)](image1)

![Figure 9: Additional GDP growth (in %) per 10% higher ICT coverage, 1980–2011](image2)

Despite rapid development in this area, there is still a significant «digital divide» between various global regions. Differences also exist within countries, for example, between urban and rural areas, different income groups and between men and women. A lack of infrastructure is not always the cause. Impediments also include lack of knowledge in dealing with communication technologies (digital literacy) or that, in certain cultures, women are obstructed from access to education, money and technology, and hence independence and self-determination. Private education services and the communication and technology sector make a vital contribution to tackling poverty.
Millicom International Cellular

Sustainability Impact profile

Knowledge
Connectivity

Company description

Sector: Telecommunications
Country: Sweden
Employees: 17,985
Turnover: USD 4.4 billion
Market capitalisation: USD 6.3 billion

Millicom International Cellular is an international mobile communications company. The company primarily focuses on Asia, Latin America and Africa, where landline coverage is inadequate or even non-existent. In various countries, Millicom offers inexpensive prepaid and contract services under the brand name Tigo.

Geographic positioning (turnover)

Adjusted by minorities

- Colombia: 60%
- Guatemala: 17%
- Paraguay: 6%
- Bolivia: 6%
- Others: 11%

Business areas (turnover)

- Mobile: 74%
- Cable and digital media: 15%
- Telephone and equipment: 9%
- Mobile financial service: 1%

Data as at September 2017

Sustainability Impact and business model

Digitalisation helps both the economic and social development of a region: cheap smartphones enable broad swathes of the population to have Internet access, and hence also access to knowledge and education. Access to innovation and a diverse media landscape is generally considered an important part of a functioning democracy. Millicom is a provider of mobile communications, cable, pay-TV, prepaid and corporate client services in frontier markets such as in Latin America. The company purports to follow a «4A» strategy in mobile communications: affordability, accessibility, availability and affinity. Customers not only have to be able to afford the mobile services, they must also have access to them. Moreover, relevant areas have to be developed for mobile communications and useful products provided for customers. The services offered by Millicom include very low mobile credit amounts and cheap data packages valid for short periods.

Growth and barriers to entry

In the markets in which the company is active, Millicom is working on expanding the mobile communication network; it also intends to make a name for itself as a provider of digital services. Its range of mobile financial services (money transfers, bill payments, etc.) is set to allow Millicom to profit from the driving force of digitalisation. With the exception of Colombia (16%), Ghana (18%) and Tanzania (18%), Millicom enjoys high shares (up to over 50%) in the mobile communications markets compared to its competitors, which enables high margins due to scaling effects. In the frontier markets it serves, Millicom benefits from a demographic growth rate of 1.3% p.a., longer-term GDP growth far above the level in the West and increasing digitalisation in the countries, which has only just begun. The cable network can be expanded for USD 250 per household (ARPU of 9 months), which further illustrates the enormous potential for profitable growth.

Risks

High inflation (particularly in Latin America) is slowing the real growth of the company. Besides food prices, inflation has been driven in particular by the depreciation of currencies. Furthermore, Millicom proactively reported a case of corruption in a joint venture in Guatemala to the US authorities; the case is not yet closed and the amount of the fine is still to be set. The accounting committee is not independent; the holding company Kinnevik, which is also involved to some degree in operations, possesses more than 35% of outstanding shares.
Focus on Sustainability – Sustainability Impact

Pioneer in sustainable investments

Swisscanto Invest is a pioneer in the area of sustainable investments and launched the first investment solutions back in 1998. In 2009, Zürcher Kantonalbank, the proprietor of the Swisscanto Invest brand, became one of the first full-service banks in Europe to sign the six Principles for Responsible Investment (PRI) of the United Nations. It thereby reiterated its conviction that the integration of ESG themes in investment decisions and active shareholder relations is a prerequisite for fiduciary responsibility in asset management. Swisscanto Invest’s sustainability research division prepares analyses and evaluations of equities and bonds according to environment, social and governance criteria (ESG) for various investment concepts and customer needs.

**ESG integration and engagement**

The sustainability indicator is Zürcher Kantonalbank’s approach to providing its customers with transparent information about the sustainability of their investments and was launched in 2011. Swisscanto Invest consistently integrates ESG factors into the fundamental investment process of traditional, non-sustainable equity vehicles in order to use the ensuing opportunities and risks to reach better investment decisions. This identifies substantive risks which have not yet been priced into the valuation and brings another dimension to conventional financial analysis. In addition to actively exercising voting rights, dialogue takes place with the companies (commitment) in the form of meetings with management, via the collaboration platform of the UN PRI and through various investor initiatives. These include the Montréal Carbon Pledge or the Carbon Disclosure Project.

**Responsible approach**

As part of the responsible approach, the companies rated most poorly in terms of sustainability are avoided. On the one hand, the process involves the use of a fundamental set of exclusion criteria, such as the manufacture of weapons or tobacco. On the other hand, the companies with the lowest ESG ratings per sector are also excluded.

**Sustainability Impact approach**

In order to select the most sustainable companies and debtors at the global level, strict exclusion criteria are applied, which encompass fossil fuel sources for example, and a specially developed valuation model is used according to the best-in-class principle. This model is based on environmental, social and governance criteria as well as product and sector-related aspects. The analysis process is concluded with media research. The securities are selected for the portfolios following a systematic approach and financial analysis by the experienced analyst and portfolio management team, comprising over 30 people. The team identifies the companies that contribute to sustainable development with their products and services (Sustainability Impact) and have an attractive valuation.

**Sustainability Research Analysts**

- Eve Morelli  
  Senior Analyst  
  Mas. Management

- Simone Schärer  
  Senior Analyst  
  Dipl. Natw. ETH, CIIA

- Roland Wöhr  
  Senior Analyst  
  Dipl. Ing. ETH, CIIA

- Marion Swoboda  
  Senior Analyst  
  Lic. oec. publ.

**Sustainability Advisory Committee**

An independent Sustainability Advisory Committee allows Swisscanto Invest to not only round off its expertise, but also safeguard risk control by an external body. Several renowned specialists, including from the Climate and Environmental Physics department of the University of Berne, monitor the current investment universe and provide support in the conceptual development of the sustainability approach.

Detailed information about the various sustainable investment solutions by Swisscanto Invest can be found on our website: swisscanto.com.
Investment solutions with impact

Swisscanto Invest offers you a broad range of investment products with impact. Consult your client advisor to determine your investment needs and decide on the right solution.

**Green Invest offering**
Would you like to make a contribution with your investments to environmental and social change and set investment focuses in areas like education, energy efficiency, healthcare or sustainable mobility? Choose the solution that fits your risk profile from the Green Invest offering.

**Water as a source of returns**
Are you interested in responsible and efficient approaches to dealing with the precious and limited resource of water? Swisscanto (LU) Equity Fund Global Water Invest allows you to invest specifically in this attractive investment theme. The fund participates, for example, in companies in the promising areas of water distribution, technology, processing or hydropower.

**Climate protection as a source of returns**
Are you interested in climate-friendly economic development? Swisscanto (LU) Equity Fund Global Climate Invest allows you to invest in companies that contribute to reducing the consumption of fossil fuels. The fund primarily focuses on the attractive growth areas of renewable energy sources, energy efficiency and mobility.

**Focus specifically on your chosen theme**
With the thematic indices in the MeinIndex Nachhaltigkeit range, you can focus specifically and cost-effectively on your convictions from among the eight themes of energy efficiency, energy generation, mobility, resources, water, solar and wind.

**Global equities**
Swisscanto (CH) Equity Fund Green Invest
Swisscanto (LU) Portfolio Fund Green Invest Equity
Swisscanto (CH) Equity Fund Nachhaltigkeit Large Cap
Swisscanto (CH) Equity Fund Nachhaltigkeit Small & Mid Cap
Swisscanto (CH) Equity Fund Nachhaltigkeit International

**Emerging markets equities**
Swisscanto (LU) Equity Fund Green Invest Emerging Markets

**Themed equities**
Swisscanto (LU) Equity Fund Global Water Invest
Swisscanto (LU) Equity Fund Global Climate Invest
ZKB MeinIndex Nachhaltigkeit Energieeffizienz
ZKB MeinIndex Nachhaltigkeit Energieerzeugung
ZKB MeinIndex Nachhaltigkeit Solar
ZKB MeinIndex Nachhaltigkeit Wind
ZKB MeinIndex Nachhaltigkeit Mobilität
ZKB MeinIndex Nachhaltigkeit Ressourcen
ZKB MeinIndex Nachhaltigkeit Wasser

**Mixed solutions**
Swisscanto (LU) Portfolio Fund Green Invest Balanced
Swisscanto (LU) Portfolio Fund Green Invest Yield

**Bonds**
Swisscanto (CH) Bond Fund Nachhaltigkeit
Swisscanto (LU) Portfolio Fund Green Invest Income
Swisscanto (CH) Bond Fund Nachhaltigkeit International
Swisscanto (CH) Bond Fund Nachhaltigkeit CHF

**Pensions**
Swisscanto BVG 3 Oeko 45