



Emerging Sustainability

Sustainability analysis of emerging
market companies

May 2010

Contents

Foreword	1
Summary	2
Investment opportunities in emerging markets	3
The downsides of growth: environmental and social risks	6
Sustainability now a success factor for companies	11
Corporate sustainability assessment	17
Contacts	21
Publications	22

Foreword



Dear Reader

At no other bank does the art of sustainable asset management have such a long and illustrious tradition as at Bank Sarasin. For over a hundred years now, both our corporate mission and our business and asset management strategy have been firmly linked to the principles of sustainable management.

Sustainably managed companies create a threefold benefit for their shareholders, for society and the natural world. Firstly, they generate sustainable profits through a first-rate clientele and a balanced business model. Secondly, they create a healthy balance between the interests of their clients, their shareholders and the society in which they are active. And thirdly, they are concerned to give back to the natural environment the resources they require to carry out their commercial activities. This holistic approach avoids long-term risks, which the capital market would in any case not compensate shareholders for, thereby increasing the attractiveness of the company to investors.

At Bank Sarasin, these principles not only inform our corporate philosophy, but also determine our asset management approach, which is by nature conservative. For us, managing assets always means in the first instance preserving and increasing the real purchasing power of an asset for present and future generations. Given this backdrop, we think it is imperative to invest in securities of companies that can be measured against the same strict principles that we as a management team apply to our own corporate governance and asset management activities. This principle has always paid off for our clients and shareholders in the form of superior performance. Clients have confirmed this to us again and

again, particularly during and after the financial crisis of 2008. Our sustainable universe of shares and bond investments has performed very well both in an industry comparison and against the benchmarks. This is borne out by the many international awards that we repeatedly receive for the quality of our asset management, as well as the record levels of net new money that our asset managers have attracted in recent months.

One investment theme in particular is currently winning our attention, namely emerging market companies. Following the 2008 financial crisis, the emergence of a new global economic order has gathered pace dramatically. While the national debts of some industrialised nations have doubled virtually over night, with no end to the spiral of government debt in sight, the so-called emerging market economies are today conducting themselves like model students of budgetary discipline. Their national debt is often only a fraction of the corresponding level for industrialised countries, and their economies enjoy exceptionally high rates of structural growth. In parallel with this, however, certain risks are also increasing as the environmental and social downsides of growth – such as environmental pollution or precarious labour conditions – increasingly act as a drag on economic prosperity. For this reason, an unconditional sustainability analysis of emerging market companies is an important step on the road to recognising risks and seizing opportunities.

Yours sincerely

Burkhard P. Varnholt
Chief Investment Officer and
Executive Committee Member

Summary

Emerging market countries are attractive for sustainably oriented investors. Economic growth in these countries contributes to reducing poverty and thus to sustainable development, while at the same time promising attractive returns. However, the risks increase in parallel, as the environmental and social downsides of growth such as environmental pollution or precarious working conditions have an increasingly inhibiting effect on economic development. The results of our sustainability analysis show that, on average, the sustainability profile of companies in emerging economies is below firms in industrialised countries. Nonetheless, there are a number of pioneers who minimise environmental and social risks, exploit opportunities in this area and in the process provide superior return potential.

Emerging market countries are attractive for investors

As beneficiaries of the globalisation of the world economy, developing countries have enjoyed dynamic economic growth over the last two decades. This growth is expected to become more broadly based and stable over the coming decade. For this reason, emerging market stocks remain attractive to investors.

Downsides of growth: new risks

From the viewpoint of sustainable development, the growth of emerging market countries is positive, because it helps to narrow the wealth gap and therefore reduces the potential for conflict between rich and poor countries. However, with increasing economic growth the environmental and social downsides become more significant – be they the increasing scarcity of raw materials on a global scale, a higher environmental burden or precarious working conditions. These downsides are having a growing impact on companies active in emerging markets. They also increase the risks for investors, which are already high due to the more unstable general economic and political conditions.

Sustainability becomes a success factor

As a reaction to the various environmental and social challenges, a shift towards sustainable development is evident on various levels within the emerging economies. Increasing resource scarcity is leading to a long-term rise in energy and raw material prices, while mounting environmental pollution encourages authorities to impose constraints forcing companies to make investments in wastewater purification and air quality control. There is also pressure to improve social standards, particularly in

the field of working conditions, because on the one hand consumers are increasingly demanding products which are produced in an ecologically and socially acceptable manner, and on the other because labour is in some cases becoming scarcer in emerging market nations. The financial market, too, is beginning to promote and reward concern for environmental and social issues. Sustainability, i.e. the proactive search for solutions to these challenges, is therefore becoming a success factor for companies in emerging markets. Risks are reduced, while at the same time opportunities emerge, for example for providers of environmentally friendly technologies.

Sustainable investment creates added value in emerging markets too

Around 360 emerging market companies were analysed using the proprietary sustainability analysis system developed by Bank Sarasin. The average sustainability rating level is lower in the emerging market economies than in industrialised nations. Even so, we can still find a reasonable number of companies eligible for sustainable investment. These companies are best placed to meet the new environmental and social challenges. This enables the investor to reduce risks and to exploit opportunities for returns. In the period from June 2000 to the end of February 2010, our universe of sustainable stocks saw their value grow by 409% in back testing, while the MSCI Emerging Markets Index advanced 171%.

Investment opportunities in emerging markets

Emerging economies such as China, India, Brazil and Russia are powering ahead. With their rapidly growing economies they are increasingly determining the dynamic of the world economy. Investors in emerging market stocks have been able to share in the benefits of this growth, as their prices have risen at above-average levels in recent years. However, emerging market stocks also exhibit a relatively high level of volatility and therefore an increased level of risk. This has to do with the economic structure of the countries concerned, which is often oriented towards fewer, generally export-oriented sectors and therefore susceptible to global economic impacts. Nonetheless, the trend is towards broader and ultimately more consistent growth through the development of local consumption and thus domestic markets. Emerging market investments will continue to remain attractive into the future.

Emerging economies on the way to becoming industrialised nations

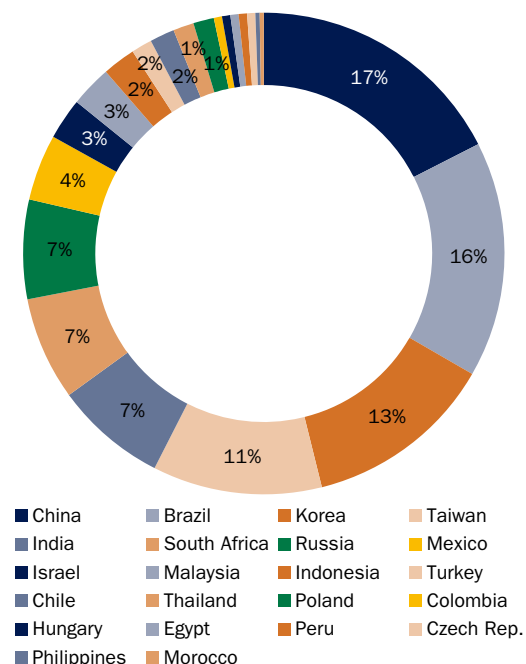
The term “emerging markets” has been used for over ten years to refer to aspirant developing countries which, starting from a relatively low level of prosperity, achieve higher than average rates of economic growth which brings them much closer to the level of industrialised nations. The ascendancy of emerging economies such as China in particular is symptomatic of the structural changes in the world economy towards a globalisation of the free-market system.

The classification of countries as emerging markets is done using the World Bank’s methodology based on the level of prosperity, measured by national income per head. A distinction is made between the following groups of countries: Low income – lower middle income – upper middle income – high income. Countries from the two middle income groups (around 1,000 – 12,000 USD per capita in 2008) can be considered to be emerging market nations. More relevant to the capital markets is the system used for compiling the MSCI¹ Emerging Markets share index. This also takes into account the accessibility of national capital markets to investors, as well as market capitalisation. For this reason, a number of countries with high incomes also fall into the category of emerging markets according to the MSCI system. The latter definition will be used in the present study.²

¹ Morgan Stanley Capital International

² Due to their strong business presence in emerging countries we expanded this concept to companies from Hong Kong and Singapore.

Fig. 1: Capitalisation share of countries in the MSCI Emerging Markets Index



Source: MSCI as at 31 January 2010

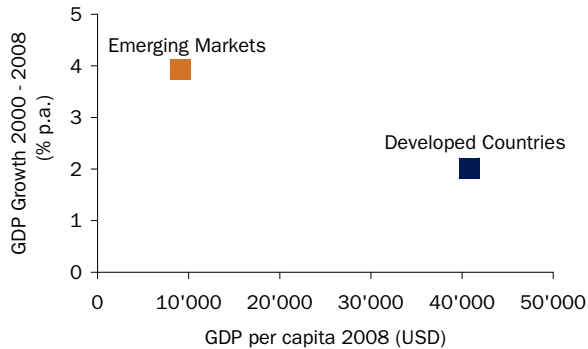
The growth of the emerging markets supports global sustainable development...

The rise of the emerging market nations is leading to a reduction in the global wealth gap between rich and poor countries that has tended to increase when viewed over a longer time frame: the gross domestic product (GDP) per capita of the emerging market economies is on average

Investment opportunities in emerging markets

still only a quarter of that of developed countries, but their economies are growing around twice as quickly.

Fig. 2: Growth and wealth in emerging markets



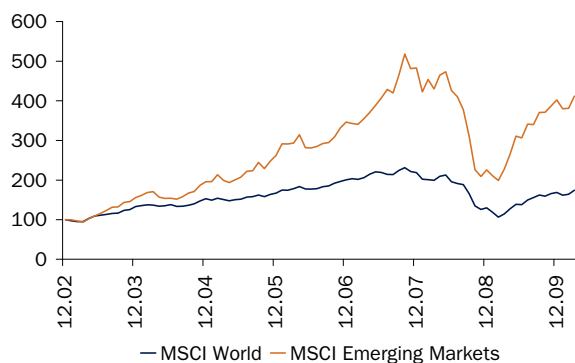
Source: UNCTAD

The gulf between rich and poor countries is a substantial source of conflict, so the economic growth of emerging market nations promotes global sustainable development.

...and provides opportunities for returns

In this sense, investment in emerging market economies can contribute to sustainable development. Investors also benefit from potentially superior returns: the MSCI Emerging Markets index, for example, has significantly outperformed the MSCI World.

Fig. 3: MSCI Emerging Markets Index vs. MSCI World Index



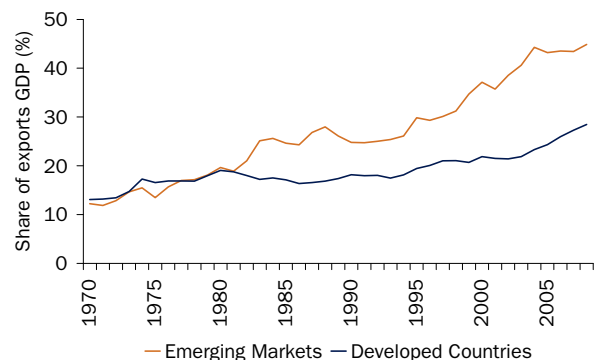
Source: Datastream

Emerging economies are volatile

The performance of the share indices was, however, much more volatile in the emerging markets than in the developed markets. The risks for investors are

correspondingly higher. An important cause of this is probably the economic structure of emerging market countries. Their rise is closely tied to globalisation, i.e. to the intensification of the international division of labour through the relocation of predominantly labour-intensive production to developing and emerging market countries. This trend has in the past been driven in particular by labour cost advantages, following the opening up of markets to foreign trade which has occurred in many countries over recent decades. Thus the developing countries and transition economies are expanding their traditional role as exporters of agricultural products and commodities through the export of consumer goods and manufactured products. The economy of the emerging market nations is therefore characterised by the comparative importance of their exports. Thus disruptions in the global economic situation have a comparatively strong impact on the overall economies of these countries. This generally applies to fluctuations in commodity prices and, increasingly, to the general economic trend in the demand for capital and consumer goods on the global market.

Fig. 4: Importance of exports for the emerging market economies



Source: UNCTAD

The relative high importance of the industrial sector is typical of the economic structure of emerging market countries, and is symptomatic of the high level of investment in the expansion of production capacities and infrastructure determined by economic growth. Thus the industrial sectors and heavy industry in particular (metal production, energy, and construction materials) often have a relatively high level of importance. This again, leads to a comparatively high level of cyclicality in many emerging market economies. The economic development

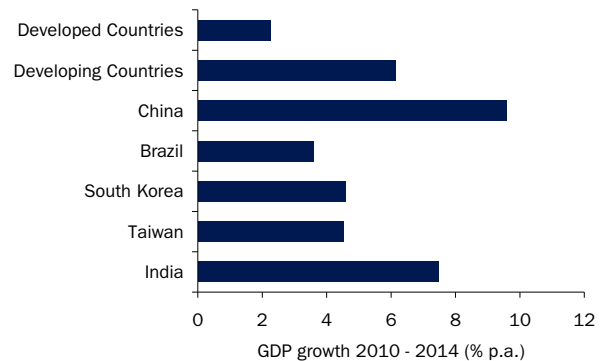
of emerging market nations has been affected again and again by economic crises, such as the Asian crisis of 1997. The emerging markets were also strongly affected by the recent financial crisis.

Development of domestic markets brings more robust growth

With rising standards of living, a trend towards consumer goods and domestic markets is apparent in the economic development of the emerging markets. This goes hand in hand with the formation of a more prosperous middle class with a relatively high level of education, corresponding employment opportunities and purchasing power, which in turn drives the development of consumer goods markets. This trend towards the propagation of growth into further sectors of the economy and additional sections of the population will reduce the susceptibility of the economic development of emerging markets to fluctuations while at the same time supporting the economic growth process.

In general, a continuation of the above-average growth of the emerging market economies is therefore expected. The World Bank, the IMF and the Kiel Institute for the World Economy all predict strong overall growth in trade and production. The IMF is forecasting GDP growth rates for the developing and emerging market countries of around 6% per year, including 9.6% for China, 7.5% for India, around 4.5% for Taiwan and Korea and 3.6% for Brazil. The economic growth rate forecast for the developed countries is, by contrast, only around 2.3%. Even after the financial crisis of 2008 the emerging market economies staged a far more rapid recovery than the industrialised nations.

Fig. 5: IMF forecast for GDP growth, 2010-2014



Source: International Monetary Fund

Because of the anticipated stable growth prospects, emerging market nations will remain attractive to investors in the future.

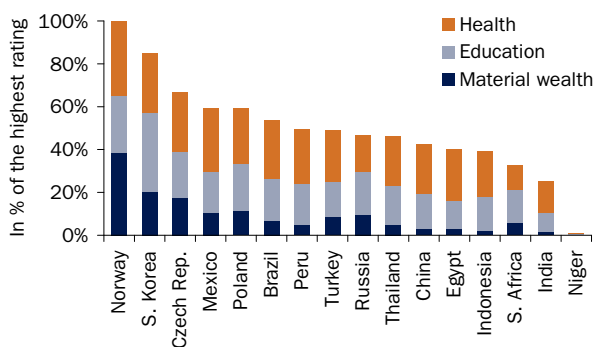
The downsides of growth: environmental and social risks

The global burden on resources has already reached a high level. Further growth must therefore take place in a manner which conserves resources. China has a key role to play in this on account of its size and political structure.

Economic growth improves living conditions...

As has already been shown, the majority of global economic growth over the coming decades will occur in the emerging markets. From the point of view of social sustainability this is fundamentally positive, for this growth is key to the improvement of the economic and social situation of large, economically weak sections of the population. The social situation is also dependent on political factors. Results of the sustainability assessment of countries³ published in March of this year by Bank Sarasin show that emerging economies such as Brazil, Russia, China and South Africa still have some catching up to do in areas such as health (e.g. life expectancy), education (e.g. school enrolment ratios) and material living standards (gross domestic product per capita).

Fig. 6: Aspects of quality of life (2006)



Source: Bank Sarasin

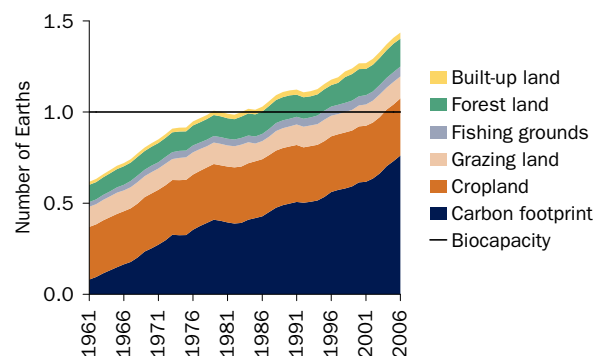
...but this is already using up more than one planet

Growth is associated with increasing resource consumption, however, availability of resources is subject

³ The world in a dilemma between prosperity and resource protection – Sustainability rating of sovereign bonds 2010

to global limits. According to the Ecological Footprint concept⁴, consumption in 2006 was already around 40 percent above the Earth's biocapacity. Thus for sustainable development to happen we must at least ensure that economic growth (which takes place primarily in emerging markets) does not involve a proportional increase in resource consumption.

Fig. 7: Global Ecological Footprint and biocapacity



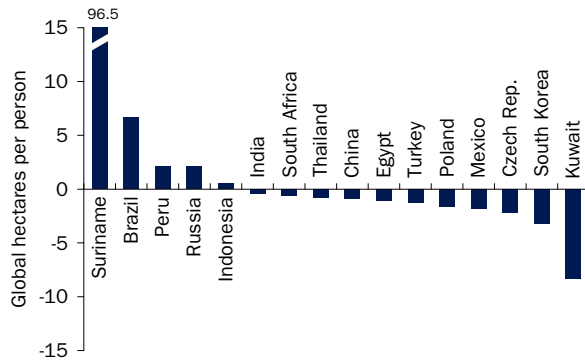
Source: Global Footprint Network

The over-utilisation of natural resources is not only well entrenched in the industrialised countries. A number of emerging market economies are already living “beyond their means”. As the “stragglers” of global economic development, the emerging markets are reaching these limits at an earlier stage of economic development than did the industrialised nations, because the burden of global population growth and resource consumption is far

⁴ The Ecological Footprint measures the land and water surface area required to produce the environmental resources and to capture the carbon dioxide emissions from energy generation taking into account present technologies, in order to sustain current production and/or current consumption by a specific population.

greater today than it was 100 years ago. This is reflected in an ecological deficit (Fig. 8). This deficit (or reserve) is calculated by plotting the national Ecological Footprint against national biocapacity.

Fig. 8: Ecological reserve/deficit (2005)



Source: Global Footprint Network

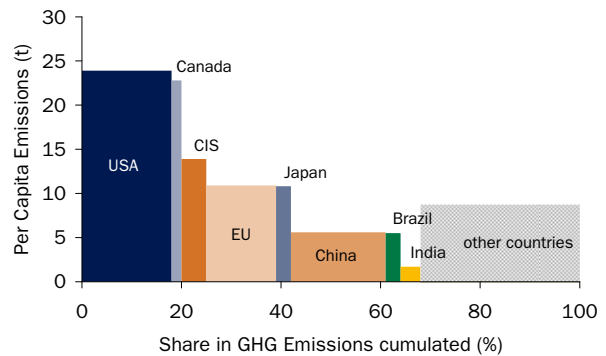
Environmental problems due to industrialisation

As previously mentioned, the economic structure of the emerging market economies is often characterised by a higher proportion of industry. This increases the relevance of environmental considerations. An aggravating factor is the fact that the state of environmental legislation and its implementation often leave room for improvement. In addition, prices that do not reflect scarcity result in promoting the over-use of environmental goods (such as water, clean air, land). The costs of environmental damage caused by economic activity are still hardly borne by those who cause it. The cost of pollution is too low.⁵ According to a 2007 report by the World Bank, the health costs and crop loss caused by environmental pollution in China amount to 5.8% of gross domestic product.

Rising energy consumption is problematic due to increasing emissions, primarily of CO₂, the limited availability of fossil fuels and health impacts caused by high emissions. The emerging market nations have up to now had lower energy consumption and CO₂ emission levels per capita than industrialised nations.

⁵ The concept of the internalisation of external sustainability costs renders environmental and social costs previously borne by the general population a part of the balance sheet of an individual business.

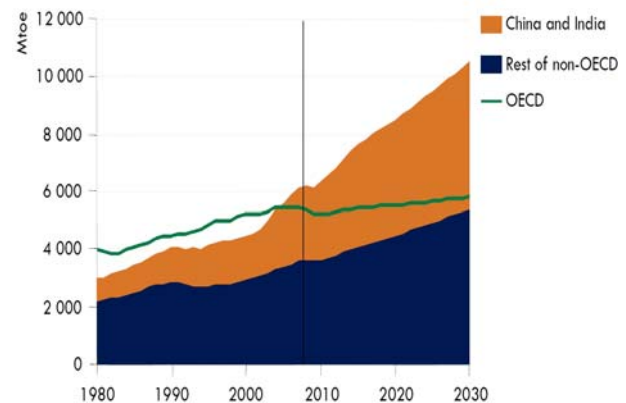
Fig. 9: Greenhouse gas emissions of selected countries (2005)



Source: World Resources Institute

However, economic growth will make the emerging market nations major emitters if substantial changes to energy policy are not made. The International Energy Agency expects that global primary energy consumption will grow by 40% by 2030 compared with 2007 if energy policy does not change. Taken as a whole, non-OECD countries are responsible for around 90% of this increase, with China and India the main contributors.

Fig. 10: Trend in global primary energy consumption (scenario)



Source: IEA

In this scenario, fossil fuels remain the dominant energy source, covering 77% of projected growth in consumption. An alternative scenario proposed by the International Energy Agency for reducing greenhouse gas emissions entails substantial investment in energy efficiency and alternative energies. Another factor closely tied to the use of fossil fuels is air pollution. In a number of urban

The downsides of growth: environmental and social risks

and industrial centres, predominantly in Asia, air pollution has reached a level that poses a serious risk to health. Reducing greenhouse gases is in the interest of the emerging and developing countries themselves long term. According to various forecasts, the impact of the greenhouse effect on these countries will be disproportionately high. HSBC, for example, has calculated the vulnerability level (exposure to climate risks, adjusted for the sensitivity to these risks, and the adaptive capacity) for the G20 countries as follows:

Fig. 11: G-20 countries with the highest climate vulnerability (higher value = higher risk)

	Value	Rank
India	0.74	1
Indonesia	0.70	2
Brazil	0.69	3
South Africa	0.62	4
China	0.62	4
Saudi Arabia	0.55	6
USA	0.54	7
France	0.53	8
Australia	0.53	8
Japan	0.45	10

Source: HSBC

Thus India, Brazil and China are among the countries potentially most at risk. Corresponding changes in climatic conditions (temperatures, precipitation, cloud formation etc.) would have severe implications, especially for agricultural production.

Water is becoming scarce

The mix of high economic growth, more rapid urbanisation, the high importance of water-intensive industries (particularly agriculture) and a lack of water infrastructure is leading in many emerging market nations to an over-utilisation of water resources. For 2030 global demand for water is forecast to exceed available resources by 40%. Agriculture accounts for around 70% of the world's water requirement. A third of the world's population, predominantly in developing and emerging market nations, lives in regions with a forecast deficit of above 50%. Yet it is in regions such as India, sub-Saharan Africa and China that the greatest demand for food production exists. China has around 20% of the world's population but only 7% of its fresh water resources. Even today, two thirds of Chinese cities suffer

from a shortage of water. In many emerging market countries, price increases would be necessary to promote more prudent usage; social considerations and political interests, however, have so far largely prevented this from happening.

In parallel with a lack of water, water pollution has reached extremely high levels in China. For example, the government-sponsored survey on the state of environmental pollution, carried out over two years and published for the first time in 2010, showed that water pollution levels are around twice as high as the government previously estimated⁶.

- 50% of cities have polluted drinking water
- 90% of ground water in northern cities is highly polluted
- 70% of rivers and lakes are substantially polluted
- 80% of household sewage is not treated
- 30% of rivers cannot even be used for agricultural or industrial purposes
- 190 million cases of illness each year caused by polluted water

Room for improvement in the social domain

Major challenges also exist in the emerging markets in the fields of democracy and political stability, effective governance, regulatory quality, health, education and social security systems. A characteristic trait of the emerging economies is a democratic culture that is still in its infancy and, in some places, non-democratic structures. This has negative implications for freedom of speech and the development of enterprise. In some cases the state exerts influence on corporate policy, in such a way that for example, the allocation of mining rights fails to follow a transparent process. Each year, the American non-profit organisation Freedom House produces an evaluation of the state of democracy and freedom in various countries.

⁶ Source: Responsible Research Pte Ltd

Fig. 12: Freedom House 2010 ranking (1=full rights), countries in the MSCI Emerging Markets index

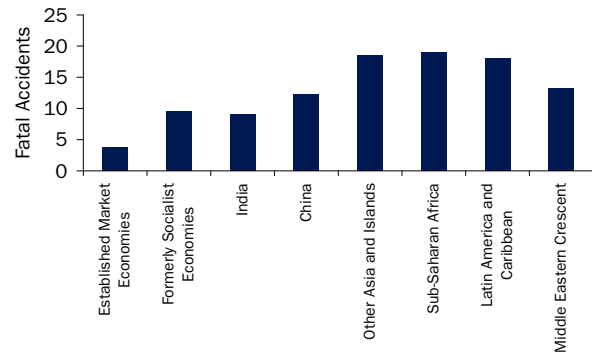
	Political Rights	Civil Liberties	Status
Chile	1	1	Free
Poland	1	1	Free
Czech Rep.	1	1	Free
Hungary	1	1	Free
Israel	1	2	Free
South Korea	1	2	Free
Taiwan	1	2	Free
Brazil	2	2	Free
South Africa	2	2	Free
India	2	3	Free
Indonesia	2	3	Free
Mexico	2	3	Free
Peru	2	3	Free
Turkey	3	3	Partly Free
Colombia	3	4	Partly Free
Philippines	4	3	Partly Free
Malaysia	4	4	Partly Free
Morocco	5	4	Partly Free
Thailand	5	4	Partly Free
Egypt	6	5	Not Free
Russia	6	5	Not Free
China	7	6	Not Free

Source: Freedom House

Precarious working conditions

Among the most important aspects of working conditions in emerging economies are health and safety at work, remuneration, freedom of organisation and child labour. A few years ago there were many high-profile, negative news stories in this regard in relation to labour conditions in the textile industry. Protection of health in the workplace is also particularly relevant for industries such as mining and agriculture, which have a high profile in emerging markets.

Fig. 13: Estimated number of fatal accidents per 100,000 workers (2005)



Source: ILO

In recent years there has been a string of reports about serious accidents in mines owned by smaller companies, particularly in China. But fatal accidents also occur regularly in the operations of larger, established mining corporations. In South Africa, around 200 mine workers die every year in accidents.

There are huge variations in labour rights across the emerging economies. Whereas in a few countries the freedom to organise in trade unions is not guaranteed, in others unions have a major influence, for example in the mining sector in South Africa or Mexico. In such cases the relationship between corporations and trade unions becomes a key factor in the success of the business. For example, in 2009 Mexico's mining industry had to absorb production losses valued at more than USD 3.2 billion as a result of strike action. Strong economic growth has also led to a sharp rise in the number of migrant workers, for example in China. Such workers have hitherto had very limited access to social provision such as education, pensions and healthcare and only very limited labour rights, due to a lack of government recognition. This state of affairs is to be improved in the future, according to the Chinese premier (March 2010).

The downsides of growth: environmental and social risks

Corruption stifles growth

One topic that strongly affects economic development is corruption. An assessment by Transparency International⁷ shows that the emerging market nations generally perform worse in this regard than the industrialised nations.

Fig. 14: Transparency International corruption ranking 2009, countries of the MSCI Emerging Markets Index plus selected industrialised nations. Higher value = less corruption

Corruption Index		Corruption Index	
New Zealand	9.4	Turkey	4.4
Hong Kong	8.2	Brazil	3.7
Germany	8.0	Colombia	3.7
USA	7.5	Peru	3.7
Chile	6.7	China	3.6
Israel	6.1	India	3.4
Taiwan	5.6	Thailand	3.4
South Korea	5.5	Mexico	3.3
Hungary	5.1	Morocco	3.3
Poland	5.0	Indonesia	2.8
Czech Rep.	4.9	Egypt	2.8
South Africa	4.7	Philippines	2.4
Malaysia	4.5	Russia	2.2

Source: Transparency International

A further inhibiting factor for development is crime. Countries such as South Africa, Mexico and Brazil are battling high levels of criminality. In the latter two there have also been massive, violent confrontations between the security forces and organised crime in recent years.

Further growth requires sustainability

The strong growth of developing countries in the last twenty years has served to accentuate environmental problems. On the social side, an improvement in income levels has been achieved for certain sections of the population. In this initial major growth phase, social and ecological problems have not had a noticeable inhibiting impact on economic growth. Sufficient natural resources and social buffers still existed. However, many indicators are currently suggesting that this period is over. Beyond a certain level, environmental pollution impairs

development and reduces the quality of life. The quintessential example of this is China. Environmental scarcity and social concerns (quality of life and the avoidance of conflicts) are becoming determinants of growth. Two decades of unfettered growth will give way to a phase of more “controlled” growth in the emerging economies. Against this backdrop, investors too must reconsider their strategy.

⁷ Transparency International is a globally active non-governmental organisation committed to combating corruption in business and the economy.

Sustainability now a success factor for companies

As a reaction to the various environmental and social challenges, a shift towards sustainable development is evident on various levels within the emerging economies. On the legislative plane, governments are implementing measures to improve environmental and social conditions, set targets and invest in environmental programmes. At the same time, consumers and the financial markets are also beginning to take the subject seriously. In this environment, new opportunities and risks are emerging which are financially relevant.

Tougher environmental laws

Governments have responded to the increasing burden on the environment by tightening the legislation and regulatory framework accordingly. China is key to improving the environmental situation in Asia. Above all, implementation of the environmental legislation is still poor in that country. The Chinese Ministry of the Environment has few opportunities to take action against polluters in the provinces, in comparison with the US EPA, for example. The government has recognised the need for action and, due to the political situation, the opportunity to put it into practice relatively quickly.

Progress is being made on a number of levels. In the field of legislation there is the new tort law, submitted in draft form in November 2009, which provides better regulation of environmental offences. Also of central importance is the announcement that Chinese government agencies are to consider a new, extended environmental tax, as well as the announcement that prices for gas, water, electricity, etc. will be raised to promote more prudent usage. India, too, will substantially improve its environmental legislation through the planned introduction of a government environment agency (Environment Protection Authority) and an environmental court (the National Green Tribunal). Insurance companies in India have already begun to expand the coverage and benefits of pollution liability policies for corporations.

Another interesting development is the strengthening of the role of non-government organisations (NGOs) in China. In July 2009, two environmental tribunals upheld complaints by a Chinese environmental NGO for the first time. This right of action was previously reserved to

individuals, who in fact hardly ever took it up themselves for reasons of cost or fear of reprisals. This development opens up new opportunities for the NGOs to take action against companies, although it is as yet unclear to what extent this right will be exercised. Environmental tribunals were established by the government in four provinces in 2008, with the principal aim of curbing water pollution in those areas. An extension of these tribunals to other areas is being considered. The government also has an interest in taking action against large-scale pollution, as the affected population has already made its feelings known on several occasions through public protest. In July 2009, for example, around 1,000 people protested against illegal waste dumping in Hunan province.

The tightening up of environmental standards increases the risk to companies which fail to systematically reduce their environmental impacts that they will be confronted with financial penalties, the withholding of environmental permits, and citizens' protests.

Environmental protection targets and programmes

Alongside the tightening up of environmental legislation, China is also emphasising the promotion of environmental technologies. In March 2010, the National People's Congress affirmed the promotion of research into and the application of environmental technologies. The aim of this, among other things, is to save large quantities of coal and substantially expand wastewater and refuse treatment capacities in 2010. Prices for resources, environmental taxes and the remuneration of renewable energies are to be adjusted. China had already previously announced that it would reduce carbon dioxide emissions relative to economic output by 40-45%

Sustainability now a success factor for companies

compared with 2005 levels by 2020, and raise the proportion of clean energies to 15% of total energy consumption. The proportion was 9.9% in 2009, including hydroelectric power (along with its ecologically problematic large-scale plants) and nuclear power. One aim of the plans is also to reduce dependence on oil imports. Within the context of its economic stimulus programmes, China also approved payments relating to environmental protection worth USD 218 billion in 2009. These have a strong focus on infrastructure spending in the field of railways, power and water, as well as energy efficiency, and primarily domestic companies are to be considered.

In 2009, India set itself the target of reducing greenhouse gas emissions relative to economic output by between 20% and 25% by 2020 compared with 2005 levels. Like China, India is thereby setting an ambitious target but not an absolute one, in order not to obstruct economic growth. In the 2010-11 budget, India provided for a number of measures to promote clean technologies, though the level of investment of USD 1 billion for 2010 is smaller than that of China. A National Clean Energy Fund is also being established to finance projects and research. This fund will be supported through a tax on coal imported or produced (USD 1.1 per tonne), and should therefore amount to USD 500 million per year.

According to a very progressive law that is to come into force in April 2010, South Korea will invest 2% of its gross national product in environmental protection. Greenhouse gas emissions are to be reduced to 4% below 2005 levels by 2020. Similarly quantitative greenhouse gas targets (of varying levels) have been set by South Africa, Russia, Mexico, Indonesia and Brazil. Brazil is seeking to achieve the targets primarily through a reduction of deforestation. The deforestation rate in the Amazon is to be reduced by 80% by 2020 based on 2005 levels.

Environmental technology will benefit

Enhanced environmental protection activities are opening up opportunities in various technological fields. One success story is China's flourishing production of solar cells and modules, 95% of which are still exported. Because of the steep fall in production costs in recent years, solar energy is freeing itself from a dependence on state subsidy and is heading rapidly towards grid parity.

In the future we will see a range of different solar technologies such as solarthermal power stations in the Sahara, distributed photovoltaic (PV) rooftop plants in the USA and central Europe, together with off-grid PV systems in the countries of the south. In addition to the aforementioned markets there are also future PV markets such as Australia, Brazil, China, India and Turkey, all of which show huge potential.

One source of power that is already further advanced in terms of global importance is wind energy. 37.5 gigawatts of new capacity was created worldwide in 2009, 42% of which was in the countries of the MSCI Emerging Markets index. China dominates at 13 gigawatts.

Fig. 15: Installed wind energy capacity, 2009⁸

MW		MW	
China	13 000	Israel	0
India	1 271	Colombia	0
Turkey	343	Peru	0
Brazil	264	Philippines	0
Poland	181	South Africa	0
Chile	148	Indonesia	-
Morocco	119	Malaysia	-
Mexico	117	Russia	-
South Korea	112	Thailand	-
Taiwan	78	Czech Rep.	-
Egypt	65	Hungary	-

Source: Global Wind Energy Council

From the point of view of the emerging markets, increasing energy efficiency, which is highly beneficial from a cost/benefit angle, is particularly attractive. Its potential is enormous. In the energy chain more than 70% of deployed energy resources are lost by the time they reach the end user – in the field of electricity production and consumption the value is as high as 80%. By using available technologies, energy savings of more than 20% can be achieved by 2020.

The problems surrounding water provision described in the previous chapter are necessitating investments in water infrastructure not just in China. Particularly attractive for investments in water resource management are countries in the Middle East which are prosperous,

⁸ «-» means no data or small installed capacity

located in very dry regions and which are relatively stable politically. Key areas are irrigation technologies, seawater desalination and sewage treatment plants, technical equipment (e.g. pumps, compressors, armatures), filtration plants and disinfection processes.

Nike and Co. demand better labour conditions

There are also major challenges on the social side of the equation. A major component of economic development in the emerging economies up till now has been based on the increasing international division of labour – in other words the relocation of industrial production to low-wage regions of the world. Whereas in the beginning poor social standards such as long working hours, damage to health, child labour, etc. were tolerated by clients (e.g. in textile manufacture), increasing public pressure in the industrialised countries has led to an improvement in the environmental and social requirements placed on suppliers in emerging market countries. There are still problematic areas such as remuneration and the freedom to organise in trade unions, but for a number of years now an improvement in working conditions has been noticeable. According to the Business Social Compliance Initiative⁹, an improvement in adherence to its code in China was detected during its 2008 social audits. The percentage of suppliers breaching its standards has apparently fallen from 78% to 47%. Suppliers with good labour conditions minimise the risk of losing orders from western clients.

Safety at work is not only an important element of social audits carried out by clients. Governments and trade unions in the emerging market nations have also begun to devote more attention to this topic. In South Africa, for example, mines are closed by order of the authorities for a number of days or weeks following serious accidents in order to check and improve safety measures. The National Union of Mineworkers has a policy that its members down tools for one day following every fatal accident. The consequent loss of earnings for the companies concerned is quite substantial. Thus the pressure on companies to achieve major improvements increases. Reducing the number of accidents at work – which is of course imperative from an ethical point of

view in any case – reduces such loss of earnings, as well as illness and compensation costs and absentee rates.

Labour is becoming scarce for the first time

The export-oriented economic model that has traditionally dominated emerging markets is based to a large extent on a bountiful supply of cheap labour. In a number of economically very important regions of China, this situation is now changing. At the start of this year, a labour shortage began to manifest itself in China's coastal regions. It was estimated in February that industry in Guangdong province was facing a labour shortage of around two million workers. It is highly probable that this is no temporary phenomenon. The increasing industrialisation in central China is absorbing labour. The economy and particularly agriculture is being supported by the government in rural regions. The expansion of social security systems which has been set in train also serves to reduce the incentive to search for work in the coastal regions.

The labour shortage is a risk for companies. Those that offer good working conditions will have an advantage in the labour market. In Guangdong it was evident that wages were increased and qualification requirements reduced in response to the labour shortage. The latter will tend to have a negative impact on corporate development. Successful companies should not react only in a short-term manner, but develop good working conditions systematically. Employee satisfaction and turnover¹⁰ are also improved in the process.

Consumers want product safety

Because average incomes are still lower in the emerging economies, one might assume that environmental and social considerations hardly play a role in purchasing decisions. However, the results of a survey undertaken over several years by the advertising and communications company WPP in the USA, UK, Germany, France, China, Brazil and India give a different picture – for the larger cities at least. In 2009, at least 77% of those questioned in all countries stated that a company's environmental friendliness was somewhat or very important when making a purchasing decision. In 2010, 73% of Chinese consumers plan to spend more money on environmentally

⁹ Formed on the initiative of the German foreign trade association AVE. The membership comprises more than 400 retail, import and brand companies. These members have committed themselves to implementing the social code of conduct.

¹⁰ In textile factories in China's coastal regions, employee turnover rates of between 7 and 8% per month were not unusual in recent years (according to Social Accountability International).

Sustainability now a success factor for companies

friendly products. In India the figure is 78%, while in Brazil it is 73%.¹¹ Consumers from all of these countries were agreed that for them the avoidance of problematic substances in products and production processes was the most important imperative on companies in relation to environmental and social considerations. The product groups most affected by these criteria are food and drink. In March 2008 a survey by the Chinese Ministry of Trade showed that food safety was the main concern for 97% of urban inhabitants when shopping, while it was one of the most important considerations for 86% of rural inhabitants. There have been several food scandals in China in recent years, such as the contaminated milk scandal of 2008.

Organic foods are also viewed by consumers as a means of avoiding products with high traces of pesticide. According to the experience of the industrialised countries, the market acceptance of (often expensive) organic foods increases along with rising incomes. If we extrapolate this to rapidly growing emerging markets, organic foods still have great potential for growth in these regions. McKinsey forecasts that China's middle class will grow from today's level of 43% to over 75% by 2025. Food manufacturers and trading companies that place great importance on environmental sustainability and the quality of their products will benefit from increased demand for high-quality products. This is also against the backdrop of increasing awareness of the connection between nutrition and health. Food scandals and other products exposed to contaminants show that good quality assurance also avoids having to pay out compensation.

Healthcare is being expanded

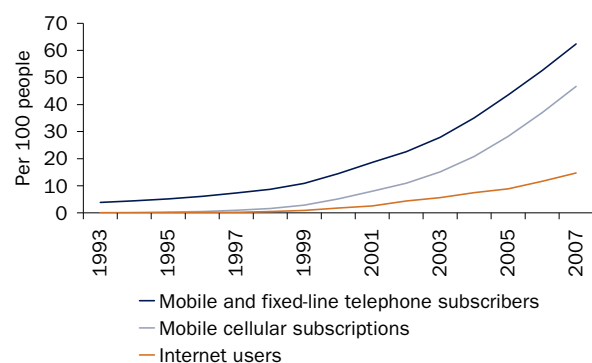
There is also great potential in the healthcare sector. Generic manufacturers in emerging economies (e.g. India and South Africa) play an important role in supplying low-cost medication. For example, the average market capitalisation of the 6 Indian generic manufacturers that floated on the stock exchange 15 years ago has grown from USD 225 million to 1.3 billion. In 2009 China extended basic health insurance coverage to 90% of the population. In parallel with this, medicine cover was also

increased, which is good news for pharmaceutical companies.

Telecommunications brings social benefits

The spread of telecommunications has increased sharply in the emerging market countries over recent years, particular the use of mobile telephones.

Fig. 16: Trend in telecoms use in countries with medium incomes



Source: World Bank

The use of telecom services also has positive effects on social sustainability, as various studies show. In 2005 the London Business School calculated that 10 additional mobile telephones per 100 inhabitants in a typical developing nation lead to an increase in the per-capita GDP growth rate of 0.6 percentage points. In 2007 Harvard University investigated the trend in fish prices during the expansion of mobile signal coverage on the coast of Kerala in southern India. The study showed that the markets became substantially more efficient. Fishermen can determine the market situation in various ports by mobile telephone while they are still at sea. This enables them to avoid a situation where they find no purchasers in their home port and have to discard their catch. In this particular case, consumer prices fell by 4% and the fishermen's profits rose by 8%. Socially valuable supplemental services are weather information for farmers, health advice and simple banking services through mobile phone credit.

Poorer sections of the population are becoming customers

In general terms, companies have discovered poorer sections of the population as a customer group. According to the "base (or bottom) of the pyramid" (BoP)

¹¹ Even taking into account the generally lower actual implementation of such insights, the results are interesting and provide evidence of the increasing concern for environmental and health protection on the part of consumers in emerging economies.

concept, they are to be integrated into the commercial value creation chain as clients, suppliers and distributors. Thus poorer sections of the population gain access to good products which can improve living conditions (e.g. in the field of hygiene, building materials and nutrition). This is mainly positive, though in a few cases it can be problematic as “western” adapted products can drive out tried and tested local products.

Sustainability becomes socially acceptable on the stock exchange

Another key factor is the behaviour of investors. Investors who systematically take sustainability aspects into account send strong signals to corporations. Sustainable investments in emerging market stocks were around USD 50 billion in 2008¹², with most of this coming from investors from industrialised nations. This volume is likely to rise substantially over the coming years, following the pattern in industrialised countries. Various stock markets in emerging market nations have taken this theme on board, by promoting an awareness of sustainable business practices among companies, introducing appropriate standards or providing sustainable investment products and services. The first stock exchanges became active in this regard in 2004; pure corporate governance guidelines existed prior to that date in some cases.

Fig. 17: Stock market activities in emerging markets

Bursa Malaysia	Introduction of guidelines for voluntary sustainability reporting in 2006 / evaluation and awards for reporting / started transition to mandatory reporting
Stock Exchange of Thailand	Founding of the Corporate Responsibility Institute in 2007 / awards for reporting / improvement of corporate governance standards
Shenzhen Stock Exchange	Introduction of guidelines for voluntary sustainability reporting in 2006
Shanghai Stock Exchange	Introduction of guidelines for voluntary sustainability reporting in 2008 / SSE Social Responsibility Index
Taiwan Stock Exchange	Expansion of corporate governance best practice by the inclusion of environmental aspects in 2006 / mandatory reporting from 2008

¹² Source: Mercer

Indonesia Stock Exchange	SRI-KEHATI Index
BM&FBOVESPA	Corporate Sustainability Index 2005 / Carbon Market
Johannesburg Stock Exchange	JSE Socially Responsible Investment (SRI) Index 2004
National Stock Exchange of India	S&P ESG India Index / Information events for investors and companies
The Egyptian Exchange	ESG index in development with S&P
Tel-Aviv Stock Exchange	Maala SRI Index
Buenos Aires Stock Exchange	Carbon Market

Source: World Federation of Exchanges

The theme is also getting a lift in China from government quarters. The Green Securities directive introduced in 2008 requires listed companies to publish certain environmental information. This has been supplemented by the Green IPO directive. Stock market flotations by companies in particularly environmentally critical industries must be scrutinised beforehand by government environmental agencies. Up to September 2008 this process had led to 20 IPOs out of a total of 38 being subjected to further screening or being rejected outright.

An important contribution to the spread of sustainable investments in emerging markets is also provided by a corresponding project from the PRI (Principles for Responsible Investment¹³) initiative. Within the context of this project, investor networks have been founded in Brazil, South Korea and South Africa. In many further emerging economies, information events have been run. We regard the influence of the stock exchanges and financial market regulators to be high, particularly in relation to the level and quality of sustainability reporting. The improved transparency in turn makes it easier for investors to assess sustainability-related opportunities and threats. Progressive companies are thus included in appropriate indices, funds, etc., thereby improving their valuation and shareholder structure.

¹³ PRI is an investor initiative in partnership with the UNEP Finance Initiative and the UN Global Compact. The initiative has around 550 signatories representing assets of over USD 18 trillion. Bank Sarasin is a signatory.

Sustainability now a success factor for companies

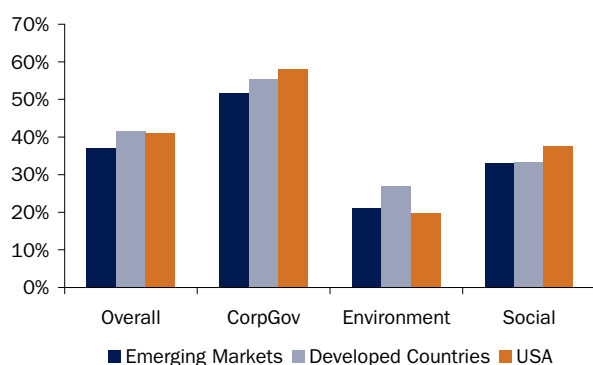
Corporate governance shows room for improvement

Another important theme for investors is the state of corporate governance, which is affected by government regulations and stock exchange rules. Since the financial crisis at the end of the nineties in Asia and Russia, more attention has been paid to this issue in emerging markets. In general, however, it is still at a less advanced level than in industrialised countries. In Asia, Hong Kong, Singapore and India have achieved a comparatively high level, whereas China, Indonesia and Korea still have room for improvement. Key themes in a governance analysis include ownership structure/controlling shareholders, voting rights, independence of the board of directors, government influence, takeover rules, accounting standards, etc.

Reporting on the up

A sound basis for the improvement of sustainability performance is a high level of transparency. Sustainability reporting in emerging economies has expanded significantly over the last three years to reach a relatively good level. The research company Asset4 investigated its corporate universe in relation to the publication of data on environmental, social and governance aspects. Admittedly, most emerging market nations still lag behind the developed countries, but the difference is not all that great.

Fig. 18: Percentage of companies with published data



Source: Asset4

A study by the US-based Social Investment Forum¹⁴ produced similar results. Of the hundred major companies in emerging economies under consideration,

on average 73% reported on relevant governance aspects, 31% on environmental aspects and 47% on social aspects. The figures tend to be consistently above the Asset4 figures, which is explained by the exclusive consideration of very large cap companies. These companies are generally leaders in terms of reporting in industrialised countries too (primarily in the early phase). Among the emerging market nations, South African, Korean and Brazilian companies are slightly ahead of the field.

Investor summary

All in all, it is clear that the trend in the general conditions for sustainable growth in the emerging economies is at a turning point. After two decades of strong, relatively unregulated growth, a transition to more responsible growth is currently taking place in the emerging economies. There are clear indications of this in the relevant areas of legislation, consumer behaviour and the financial markets. This is becoming particularly noticeable in China. Without this transition, growth will be impaired. These countries are aided by good availability of high-grade (environmental) technologies.

This altered growth paradigm has implications for the companies concerned. Environmental and social demands have increased, and companies have the opportunity to consolidate their market presence through sustainable products and services. This trend, and the sustainability risks which are still higher for companies in emerging economies, make the incorporation of environmental, social and governance (ESG) aspects very beneficial in making investment decisions. A similarly positive factor for the investor in this field is the generally very limited reference to ESG information for emerging market investments. This increases the likelihood that this kind of information has not yet – or only partially – been priced into company valuations.

¹⁴ Corporate Sustainability Disclosure in Emerging Markets, December 2009

Corporate sustainability assessment

The results of our analysis show that, on average, companies in emerging markets still give less consideration to sustainability than those in industrialised countries. But even if more stringent criteria are applied, companies can still be found that achieve a good rating. These companies are better equipped for the coming challenges, and this will be reflected in lower risks and superior return opportunities.

Sustainability analysis identifies risks

Companies face a broad range of sustainability risks. Within the context of Bank Sarasin's corporate sustainability analysis, a comprehensive set of criteria are examined in order to minimise risks in the selection of investments.

Fig. 19: Environmental criteria and sample indicators

Criterion	Key indicators
Strategy and management	Integration into business strategy and organisational structure, planning and monitoring processes, quality of reporting
Pre-production	Environmental requirements on suppliers and contract manufacturers
Production	Reduction of energy consumption (production, transport, business travel) and emissions into air and water, avoidance of hazardous substances and prevention of accidents
Products and services	Integration of environmental aspects into product development, environmental benefit

Source: Bank Sarasin

Fig. 20: Social criteria and sample indicators

Criterion	Key indicators
Strategy and management	Integration into business strategy and organisational structure, planning and monitoring processes, quality of reporting
Government and general public	Consultation with residents, NGOs etc, products for poorer sections of the population, accidents, controversial business activities, lobbying, philanthropic activities

Investors	Independence of the board of directors, voting rights, quality of financial reporting
Suppliers	Requirements in relation to working conditions, monitoring
Employees	Health and safety, work-life balance, lay-offs, training and professional development, employee surveys and turnover
Customers	Quality and safety of products, marketing behaviour, price fixing
Competitors	Patent disputes, corruption, hostile takeovers

Source: Bank Sarasin

The state of sustainable development in the emerging markets on the macro level described in the previous chapter is reflected at the company level. On average, business activities in emerging markets have a higher exposure to environmental and social risks due to the climate in which they occur. Against this backdrop, the application of a sustainability filter seems to make even more sense. However, we also detect a sea change in the corporate environment (governments, consumers, capital market, etc.) towards more sustainable development. As with other developments in the emerging economies, this change is also progressing rapidly.

Companies that systematically consider sustainability aspects in their business activities are prepared for these changes and can minimise risks while maximising opportunities:

- Efficient use of resources reduces costs.
- Production with the least possible environmental impact allows access to environmental permits and avoids financial penalties.

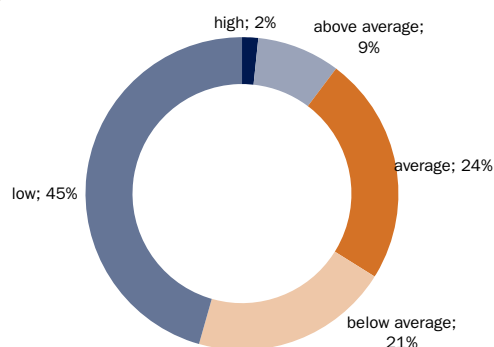
Corporate sustainability assessment

- The capturing of new markets through the development and marketing of technologies and products that protect the environment.
- High product quality improves customer satisfaction and reduces liability risks.
- Good working conditions motivate employees and increase attractiveness in the labour market.
- Ethically correct business behaviour (avoidance of corruption, price fixing, good supplier relationships, etc.) prevents penalties and damage to reputation.
- A positive reputation also promotes acceptance by communities, authorities, etc.

Sustainability still weaker in the emerging markets

Around 360 emerging market companies were analysed using the sustainability rating system developed by Bank Sarasin. During this process, essentially the same criteria were applied as for companies in industrialised nations. Companies are compared with the global competition within their industry (using industry-specific criteria). Our research shows that around a third of emerging market companies are achieving an average to high rating.

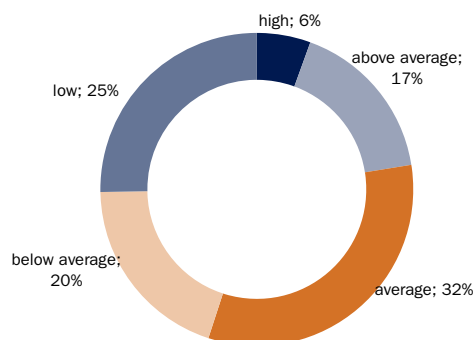
Fig. 21: Distribution of emerging market sustainability ratings¹⁵



Source: Bank Sarasin

Hardly surprisingly, this percentage is higher among companies from developed countries, at a little over 50%. On average these companies already have more experience of systematically managing sustainability criteria.

Fig. 22: Distribution of sustainability ratings in developed countries



Source: Bank Sarasin

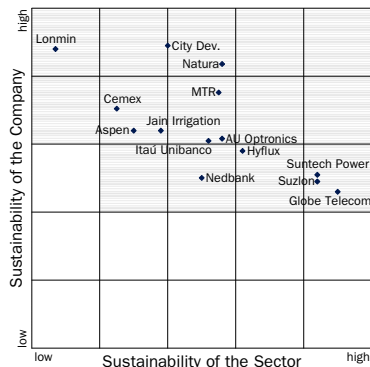
Despite the lower rate of average to very good ratings, even in emerging economies a sufficient number of companies can be found that are eligible for sustainable investment. As already described, however, we see clear signs of an improved understanding of sustainable development in the emerging economies and forecast a corresponding increase in the level of company ratings over the coming years.

The trailblazers have achieved a high level

Within the context of Bank Sarasin's sustainability analysis, companies have been identified that have already integrated sustainability aspects into their business activities in a convincing manner. Bank Sarasin's sustainable investment universe for the emerging markets is constructed on the basis of the sustainability ratings and the Sarasin Sustainability Matrix. In the latter case a two-dimensional approach is used. Alongside the comparison of companies within an industry, the extent to which the industry as a whole has sustainability risks associated with it is also examined. Emerging market companies in the area shaded in grey are part of the sustainable investment universe. Among these we find an above-average number of companies in the internationally oriented industries such as telecoms, technology and software. In some industries with high environmental and social impacts such as chemicals, construction, oil and gas, and energy utilities, the proportion of sustainable companies tends to be below average. In others, such as paper and pharmaceuticals, it tends to be above average.

¹⁵ As at 1 March 2010

Fig. 23: Sustainability ratings of selected emerging market companies



Source: Bank Sarasin

One example of China's successful solar industry is **Suntech Power**. It is the world's largest producer of mono and polycrystalline cells and modules, and has an excellent position in a global comparison in terms of size, technical know-how, customer base and growth. Quality control is very well developed, including through the application of ISO9001; a 25-year guarantee is issued for its products. The Indian company **Suzlon** is one of the world's top-three players in wind turbine production. The company has a 12% share of the global market and 50% of the Indian market for wind turbines. Founded in 1995, the company acquired a majority stake in the German manufacturer REPower AG in 2007.

As mentioned above, the water industry also offers major opportunities in the emerging economies. The **Hyflux** company based in Singapore specialises in membrane technology in water treatment and also operates wastewater treatment plants on behalf of clients. It is active primarily in emerging markets. **Jain Irrigation** is India's largest manufacturer of irrigation plants. Here the emphasis is on efficient sprinklers and drip irrigation systems.

Environmentally friendly transport is a key theme in the rapidly growing metropolitan areas in the emerging economies. **MTR** (Mass Transit Railway) operates the rail public transport system in the Hong Kong conurbation as well as in other major Chinese cities, and is also present in London and Stockholm. The company carries 3.5 million passengers on an average working day and MTR generally performs very well in punctuality and in other safety-related areas. MTR is an important and

progressive employer and has also defined minimum social standards for subcontracted services such as cleaning.

City Developments is a large property and hotel company from Singapore. The above-average rating is justified by a very highly developed integration of award-winning green building features. The company also has a good reputation in the field of labour conditions.

A large amount of cement is needed to satisfy the high demand for construction in emerging markets. The cement industry has a below-average sector rating, due in particular to its high environmental impact through CO₂ emissions. **Cemex** (Mexico), the world's third largest cement manufacturer, owns more than half of its production capacity in emerging markets. In recent years the company has succeeded in substantially reducing its CO₂ emissions per tonne of cement produced, almost catching up with the leading companies Holcim and Lafarge in this regard. Significant progress has been made in the use of alternative fuels. The company's business model is very well complemented by its social commitment. Thus, for example, the microfinancing programme "Patrimonio hoy", which enables poor families to purchase cement, has been awarded the UN HABITAT prize. There are shortcomings in regard to safety at work, which is also an important topic for the next company we will consider.

The extraction of raw materials is a key branch of industry in the emerging economies, with major challenges in the field of sustainability. The South African mining company **Lonmin** appears to us to be on the right track in this respect. It is one of the world's largest producers of platinum and is active almost exclusively in South Africa. Platinum has an environmental benefit; over half of global platinum output is used for catalytic converters in the automotive industry. The company has a very highly developed environmental management system and did not record any relevant environmental accidents or receive any environmental fines in 2009. The performance-based portion of executive pay is partly determined by the attainment of targets in relation to work accidents, energy and water use. The most important sustainability topic in the industry is and remains accident rates. Despite all the progress that has been made, in 2009 there were still three fatalities and several interruptions to operations on grounds of safety.

Corporate sustainability assessment

A characteristic Taiwanese company is the electronics firm **AU Optronics**. It is one of the world's biggest manufacturers of LCD flat screens. In 2008, AUO launched a comprehensive environmental programme that systematically integrates environmental protection into all areas from procurement through to product development and logistics. An important aspect here is the energy efficiency of the company's products. Certain international minimum standards have been laid down for labour conditions at the main Chinese locations.

The theme of healthcare provision, which is highly relevant in emerging economies, is reflected in the business operations of the South African pharmaceutical company **Aspen Pharmacare**. It is one of the largest manufacturers of generic antiretroviral medicines for HIV/Aids.

Globe Telecom is the second largest telecoms company in the Philippines. The spread of mobile telephony and the available Internet bandwidths have admittedly already improved here, although their usage and the people's knowledge of them remain low. The company has introduced an electronic payment system via mobile phone credits, which gives the rural population access to banking services and allows low-cost remittances from Filipinos abroad to their family members.

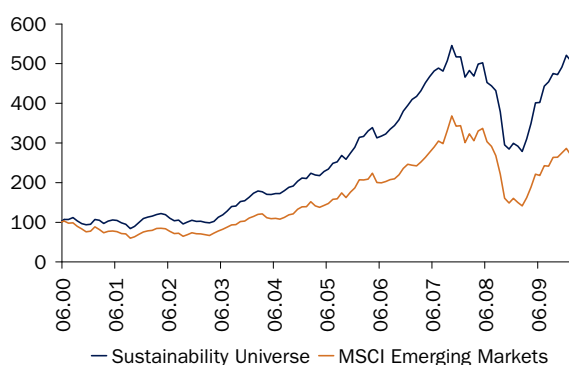
Financial services play an important role in sustainable development. South Africa's **Nedbank** offers services for private and corporate clients. It was the first bank in Africa to adopt the Equator Principles¹⁶. The bank has already been singled out several times in the Financial Times FT Sustainable Banking awards. The South American counterpart is Brazil's **Itaú Unibanco**, which boasts an equally good track record.

Natura Cosméticos (Natura) also hails from Brazil. Brazil's largest cosmetics company consistently uses plant-based raw materials and takes environmental and social considerations into account in procurement. The company is benefiting from the trend towards natural cosmetics.

Good performance by the sustainable investment universe

The more progressive companies identified by our sustainability analysis form the sustainable investment universe for the emerging markets. The backtesting¹⁷ of that universe shows a significant outperformance compared with the MSCI Emerging Markets Index.

Fig. 24: Performance of the Sarasin emerging markets sustainable investment universe vs. MSCI Emerging Markets



Source: Bank Sarasin

In the period from June 2000 to the end of February 2010, the universe of equally weighted sustainable shares recorded an increase in value of 409% while the index of emerging market companies (MSCI Emerging Markets) advanced 171% (based on USD). Viewed retrospectively, the inclusion of sustainability criteria had a very positive impact. Against the background of the increasing significance of environmental and social risks described in this study, together with opportunities associated with sustainable development, it can be assumed that the positive impact of incorporating sustainability aspects in investment decisions will continue in the future.

¹⁶ Voluntary banking code on adherence to environmental and social standards in the field of project financing.

¹⁷ Backtesting of the sustainability universe is based on the share price trend of the individual stocks rated as sustainable, each of which are equally weighted each month. For this calculation we estimated 30 basis points of transaction costs (both ways), but no management fees were considered.

Contacts

Andreas Knörzer Tel. +41 61 277 74 77
Head Sustainable Investment andreas.knoerzer@sarasin.ch

Yvonne Emmerich-Weissflog Tel. +41 61 277 70 24
Management Support yvonne.emmerich-weissflog@sarasin.ch

Bianca Maier Tel. +41 61 277 79 08
Business Development bianca.maier@sarasin.ch

Gabriela Pace Tel. +41 61 277 73 31
Assistant gabriela.pace@sarasin.ch

Sustainability Research

Dr. Eckhard Plinke Tel. +41 61 277 75 74
Head Sustainability Research eckhard.plinke@sarasin.ch
Machinery, Electronics,
Electrical Engineering

Makiko Ashida Tel. +41 61 277 74 70
Insurance, Consumer Goods, makiko.ashida@sarasin.ch
Trade, Software

Thomas Dietzi Tel. +41 61 277 42 49
Business Services, Real Estate, thomas.dietzi@sarasin.ch
Construction and Building Materials,
Telecommunication

Dr. Matthias Fawer Tel. +41 61 277 73 03
Energy matthias.fawer@sarasin.ch

Andreas Holzer Tel. +41 61 277 70 38
Chemicals, Paper, Mining, Media, andreas.holzer@sarasin.ch
Medical & Healthcare, Water Utilities

Klaus Kämpf Tel. +41 61 277 77 80
Banks, Real Estate, Water, klaus.kaempf@sarasin.ch
Recycling & Waste Management
Transport Infrastructure

Balazs Magyar Tel. +41 61 277 73 66
Countries, Institutions, Energy balazs.magyar@sarasin.ch

Dr. Gabriella Ries Hafner Tel. +41 61 277 71 66
Food, Automobiles, Transport gabriella.rieshafner@sarasin.ch

Dr. Mirjam Würth Tel. +41 61 277 73 42
Tourism, Support mirjam.wuerth@sarasin.ch

Bank Sarasin & Co. Ltd sustainability@sarasin.ch
Sustainable Investment www.sarasin.ch/sustainability
CH-4002 Basel

Author

Andreas Holzer
+41 61 277 70 38
andreas.holzer@sarasin.ch

Client Services

Erol Bilecen Tel. +41 61 277 75 62
Head Client Services erol.bilecen@sarasin.ch
Institutional Clients

Dr. Michaela Collins Tel. +41 61 277 77 68
Private Clients, Churches michaela.collins@sarasin.ch

Susanne Gessler Tel. +41 61 277 42 59
Administration, Private Clients susanne.gessler@sarasin.ch

Alexander Mülhaupt Tel. +41 61 277 73 07
Institutional Clients alexander.muelhaupt@sarasin.ch

Sonia Wagner Tel. +41 61 277 73 64
Private Clients sonia.wagner@sarasin.ch

Publications

Sovereign Bonds	The world in a dilemma between prosperity and resource protection – Sustainability rating of sovereign bonds. Balazs Magyar, March 2010
Solar Energy 2009	Solar industry – The first green shoots of recovery. Matthias Fawer, November 2009
Automotive	Automotive: An industry powers ahead – Sustainability research report: Key themes and company ratings. Gabriella Ries Hafner, September 2009
Real Estate	Sustainable Real Estate – Investing in bricks and mortar. Sustainability as a criterion for investing in the real estate sector. Klaus Kämpf, Thomas Dietzi, September 2009
Renewable Energy	Renewable energies: sunnier times ahead, once storms have cleared the air. Matthias Fawer, June 2009
Solar Energy 2008	Solar Energy 2008 – Stormy weather will give way to sunnier periods. Matthias Fawer, November 2008
Energy Efficiency	Energy efficiency – hidden capital. How investors can benefit from the “cheapest source of energy”. Eckhard Plinke, June 2008
Commodities	Commodities – still a responsible investment? Eckhard Plinke, Dominique Ehrbar, Andreas Holzer. Gabriella Ries, June 2008
Solar Energy 2007	Solar Energy 2007 – The industry continues to boom. Matthias Fawer, November 2007
Medicinal Technology	A healthy future? An analysis of the sustainability of the medical technology industry. Andreas Holzer, October 2007
Company Rating	Assessing corporate sustainability – Methodology of the Sarasin company rating. Eckhard Plinke, July 2007
Railway	A multi-track future – An analysis of the social and environmental aspects of railways and public transport. Gabriella Ries, March 2007
Solar Energy 2006	Solar energy 2006 – Light and shade in a booming industry. Matthias Fawer, December 2006
Banks	Banking on sustainability: An analysis of the social and environmental aspects of international banks. Klaus Kämpf, November 2006
Industry Rating	The Sarasin industry rating – Methodology and results of sector sustainability analysis. Eckhard Plinke, September 2006
Biofuels	Biofuels – transporting us to a fossil-free future? Matthias Fawer, July 2006
Retail Trade	Buying into sustainability – Environmental and social challenges in Trading, Distribution and Retailing. Michaela Collins, June 2006
Textiles, Clothing & Luxury Goods	“Just do it” – but responsibly. An analysis of the environmental and social aspects of the apparel, textile and luxury goods industry. Makiko Ashida, March 2006
Solar Energy 2005	Solar Energy 2005 – Bridging the gap between shrinking natural resources and booming demand. Matthias Fawer, November 2005
Pharmaceuticals	Always read the label. An analysis of the social and environmental impacts of the pharmaceutical industry. Andreas Holzer, October 2005
Mortgage Bonds	The Sustainability of Covered Bonds. Klaus Kämpf, March 2005
Country Sovereign Bonds	Emerging country sovereign bonds: A sustainable investment? Michaela Collins, June 2005
Public Financial Institutions	The sustainability of public financial institutions. Klaus Kämpf, March 2005
Solar Energy 2004	Solar energy – sunny days ahead? Current status and outlook for photovoltaics and solar thermal energy. Matthias Fawer, November 2004
China	“Made in China” - Is this a sustainable label? –Environmental and social aspects of the apparel, textile and luxury goods industry. Makiko Ashida/Eckhard Plinke, September 2004

To order copies of reports, please see contact address on previous page.

Trademark information

Sarasin (Logo), Sarasin Sustainable Investment and Sarasin Sustainability-Matrix are trademarks of the Sarasin Group and are registered in a number of jurisdictions.

Important notice

This publication has been prepared by Bank Sarasin & Co. Ltd, Switzerland, (hereafter “BSC”) for information purposes only. It contains selected information and does not purport to be complete. This document is based on publicly available information and data (“the Information”) believed to be correct, accurate and complete. BSC has not verified and is unable to guarantee the accuracy and completeness of the Information contained herein. Possible errors or in-completeness of the Information do not constitute legal grounds (contractual or tacit) for liability, either with regard to direct, indirect or consequential damages. In particular, neither BSC nor its shareholders and employees shall be liable for the opinions, estimations and strategies contained in this document. The opinions expressed in this document, along with the quoted figures, data and forecasts, are subject to change without notice. A positive historical performance or simulation does not constitute any guarantee for a positive performance in the future. Discrepancies may emerge in respect of our own financial research or other publications of the Sarasin Group relating to the same financial instruments or issuers. It is impossible to rule out the possibility that a business connection may exist between a company which is the subject of research and a company within the Sarasin Group, from which a potential conflict of interest could result.

This document does not constitute either a request or offer, solicitation or recommendation to buy or sell investments or other specific financial instruments, products or services. It should not be considered as a substitute for individual advice and risk disclosure by a qualified financial, legal or tax advisor.

This document is intended for persons working in countries where the Sarasin Group has a business presence. BSC does not accept any liability whatsoever for losses arising from the use of the Information (or parts thereof) contained in this document.

© Copyright Bank Sarasin & Co. Ltd. All rights reserved.

Bank Sarasin & Co. Ltd

Elisabethenstrasse 62
P.O.Box
CH - 4002 Basel
Switzerland
Tel + 41 (0)61 277 77 77
Fax + 41 (0)61 272 02 05
www.sarasin.ch

Printed on 100% recycled paper



SARASIN

Long-term

doesn't always mean

sustainable.

But sustainable **is** always
long-term.



Best Private Bank
for Portfolio Management



Best Private Bank
for Innovation

Not every long-term investment automatically promotes sustainability.

On the other hand, the type of sustainable investment offered by Bank Sarasin over the past 20 years has always represented long-standing term commitment to a better future. That goes without saying for Sarasin, a bank that places great store by processes that are socially responsible, environmentally friendly and cost effective. If only more companies followed our example.

www.sarasin.com

Sustainable Swiss Private Banking since 1841.