The Correlation: Sustainability & Stock Returns

Evidence From Korea

5th Annual ESG Research Review

About This Report

About this Report

Findings form the 5th annual ESG review of Korean Companies
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About SolAbility

SolAbility provides sustainable management consulting to corporations and ESG research to institutional investors. Founded in 2005, SolAbility has served leading and internationally known Korean companies to develop and implement sustainability policies, management systems and strategies. The sustainability performance level of several SolAbility clients has been recognized through inclusion in the DJSI World Index. **In 2011, two companies for which SolAbility has designed sustainability systems and implementation roadmaps have achieved DJSI "Super-sector" leader status - a recognition that only 19 out of 2'500 companies in the global DJSI universe receive.**

The main success factor for SolAbility's consulting work is the development of workable solutions that do have a direct impact in the internal efficiency in the managerial and operational context.

The focus on operational implementation and the hands-on exchange with sustainability practitioners in companies has allowed SolAbility to develop a unique sustainability assessment methodology (ESG analysis tool) that is based on practical realities (both managerial and operational) rather than on academic indicators or policy requirements as generally applied by ESG rating agencies. The added value of this approach is highlighted by the outperformance of both SRI and conventional benchmarks of an SRI/ESG fund based on SolAbility's ESG research on Korean equities.

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Foreword

"5 years of ESG research in Korea proof what common sense has been telling us all along – that more intelligent companies are more successful in the long run."

Andy Gebhardt
CEO

Mi Hyang Lee
Managing Director

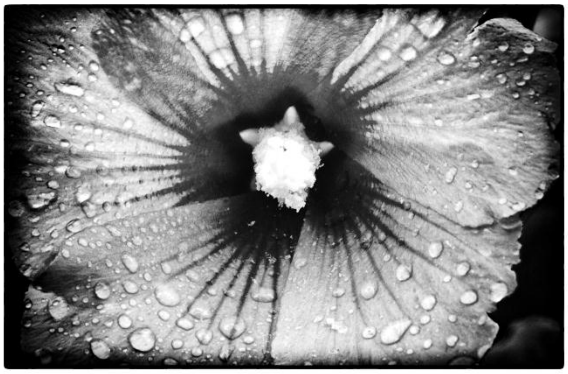
Dear Reader,

It is encouraging to observe that sustainability has and rapidly is gaining recognition and importance in Korea's corporate world over the past years since SolAbility's first ESG review in 2007. Sustainability – in one form or another – has become an issue that a large percentage of Korean companies have been paying considerable attention to, particularly in the aftermath of the global financial crisis in late 2008 that lead to a reorientation of economic policies. The integration of sustainability has now been limited to implementation of policies and review of management systems, but also into review of strategic sustainable business opportunities, such as renewable energy, energy efficiency, new smart medical devices, and intelligent environmental solutions.

However, one has to keep in mind that most Korean companies started to integrate sustainability considerations beyond citizenship activities and legal requirements into management thinking comparably late. While the leading companies have now reached global best practice levels – underlined by the fact that 4 out of 19 DJSI "Super-sector" leaders are now Korean companies – the "average" Korean company still has some way to go to fully incorporate sustainability in the management brains. While the recent signs are encouraging, there is still huge potential in terms of realising cost savings through increased resource efficiency, as well as business opportunities related to sustainable and green growth – both of which have not yet been recognized to the full extend by many companies.

Analysing the financial implications of five years of ESG research also very clearly demonstrates that investment based on sustainability criteria yields significant profits for the investor. Not really surprising from a common sense point of view – companies that have a wider & longer horizon are simply more intelligent and therefore more successful in the wilderness of the market. The SolA Sustainable 50 – a portfolio of Korea's most sustainable companies (according to the SolAbility's sustainable value identification model) consistently outperforms the market by considerable margins. The outperformance is consistent over 5 years and in a range that excludes statistical coincidence – proof that long-term sustainable investment achieves superior financial returns.

We hop you will find the findings presented in this report informative.



5th annual Sustainability assessment Korea

Highlights

More Sustainable = Higher Return

Sustainable companies in Korea have consistently outperformed the market since the first ESG review in 2007 by margins far beyond statistical coincidence

Remarkably Increasing Recognition

In the aftermath of the global financial crisis 2008, corporate sustainability has gained tremendous recognition as a viable management approach in Korea

Clients Selected to The DJSI

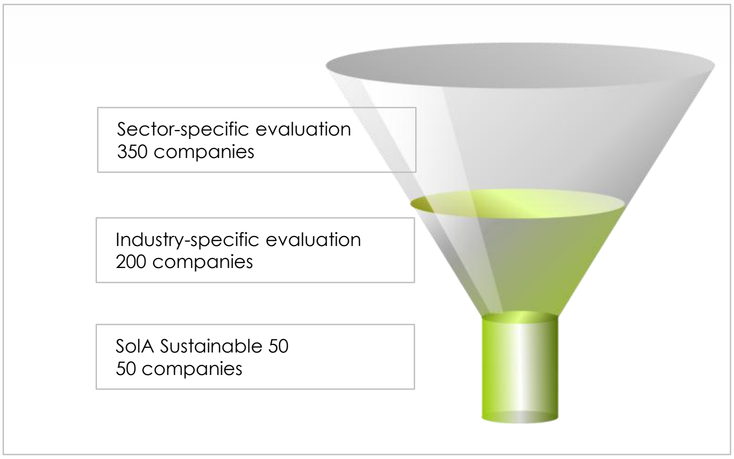
3 corporate clients have been selected to the DJSI. 2 companies for which SolAbility has designed the sustainability strategy have achieved super sector leader status

Methodology

Performance Orientation

Starting Universe & Selection Process

The research universe is based on the 350 largest Korean equities (KOSPI and KOSDAQ). The research process is based on a two-step model. In a first step, 350 companies are screened against the most important sustainability criteria (sector-specific) to separate leaders from laggards. In a second step, the 200 most sustainable companies are evaluated against a more detailed, industry-specific sustainable value identification framework.



ESG 2.0

SolAbility's sustainable value evaluation methodology has evolved over 5 years based on continuous analysis of real-life implications of sustainable management and strategy development inside the companies (rather than applying an external model academic model based on generic indicators) and constant correlation analysis of bottom-line impacts of various sustainability activities, rather than applying an external model academic model based on generic indicators that lack meaningfulness due to limited impact in the actual operations and strategic development of a company.

Conventional ESG/SRI	Corporate Reality	EGS 2.0
• Strong reliance on voluntary public disclosure (sustainability reports) • Focus on commitments ("policies") • Focus on "scientific" measurements: certification of management systems • Limited focus on strategic development and direction	• Reporting depends on the size and main market of the company, and ability of the PR department • A policy does not hurt, and does not necessarily have an impact on daily operations • Certification is a for-profit-business -> limited validity • Strategic foresight is the basis for future success	• Evaluation in relation to company size • Focus on measurable indicators: positive & negative screening • Focus on performance over policies and certifications • Focus on strategic positioning & sustainability management
• Strong correlation between disclosure and ESG results ⇒ **Extensive Sustainability Report = high ESG Score**	• Policy formulation and managements systems often compliance driven • **Value drivers: strategic sustainability and internal efficiency management**	• Limited correlation between disclosure and ESG results ⇒ **ESG result = future success potential**

Methodology

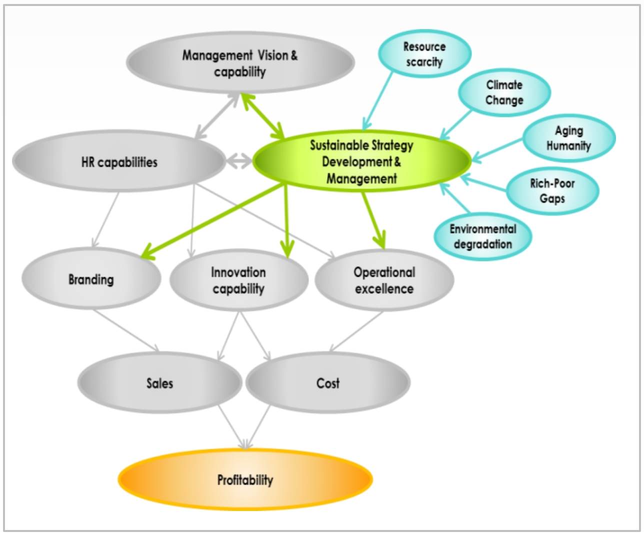
Sustainability & Business Success

Sustainability & Returns

Sustainable management is not a revolution. It is an evolution of management, whose main feature of success is to stay abreast of developments affecting the business-as-usual. Sustainability is essentially about broadening the horizon, both in terms of length (time) and width (issues).

Given the challenges this planet is facing, integration of sustainability issues in management decisions is a question of intelligence and not of believe. Companies that are early adaptors in a business environment strained by resource scarcity will be able to operate less cost intensive and anticipate future needs for products and services better than less progressive peers.

In other words: it is nothing but common sense that sustainable companies will be more successful in the long term.

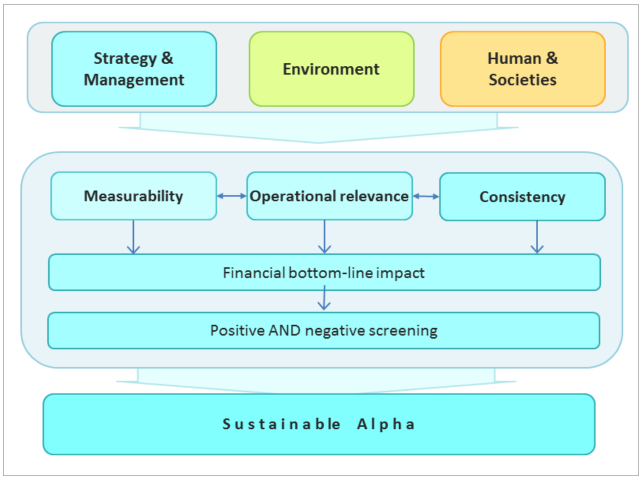


Sustainable Value Identification

SolAbility methodologies is based on a series of common understandings within the ESG industry, such as best in class assessment and Industry-specific assessment.

Distinctions to convectional ESG frameworks include (but are not limited to…)

- Underweight of reporting, commitments and external verification
- Higher weight on actual performance
- Sustainable product &service development evaluation
- Adjustment for size of a company



"Conflict of interest"

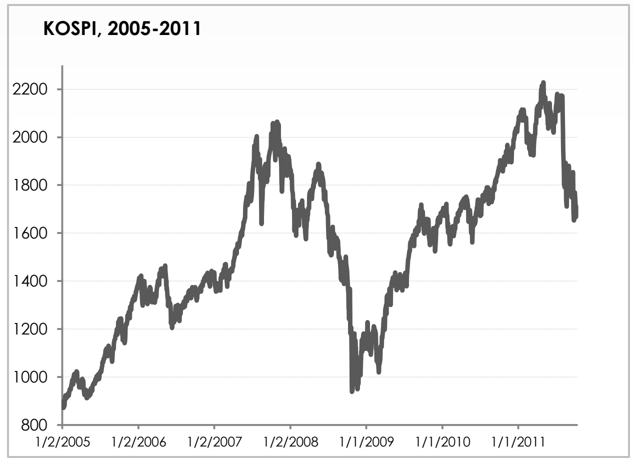
Whether or not ESG rating agencies should/shall provide consulting to companies, and if this would cause a conflict of interest. From 5 years of experience of undertaking both ESG evaluation for SRI and sustainable investment and sustainable management consulting for corporations, we strongly would advocate for more of that "conflict of interest". Working hands-on with companies allows for understanding the meaning of evaluation indicators for a company in their day-to-day operations. Sadly, many of the main indicators used in conventional ESG ratings have only limited (or any) implications in day-to-day operations or strategic management, i.e. do not have any impact on the bottom-line of a company. Which probably explains the weak performance (if not underperformance) of many ESG indexes.

Korea

Market & Economy

The Markets

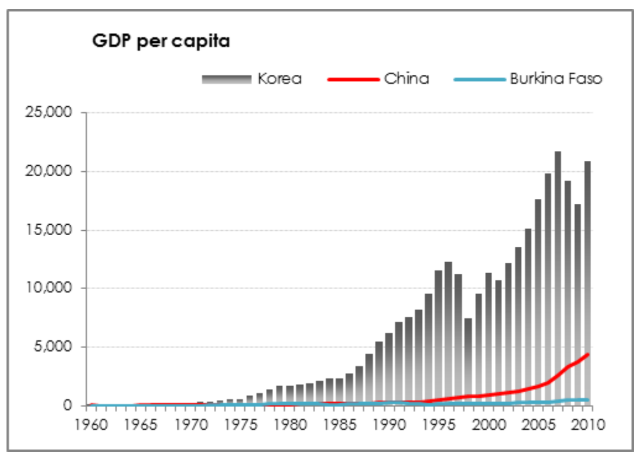
The Korean stock market's main characteristic is high volatility. Annual fluctuations of up to 50% are not that uncommon. While a certain correlation to real economic events (global bank crisis 2008, euro crisis 2011) can be observed, the fluctuations are much larger in the stock markets than in the real economy – a very clear indication that stock markets are driven to a significantly larger extend by expectations and short-term trading & betting rather than by the economy and financial results of corporations. For investment in securities, there are therefore two possibilities to achieve a profitable return – high-risk short-term trading (an approach the majority of Korean investors seem to follow) – or: long-term investment.

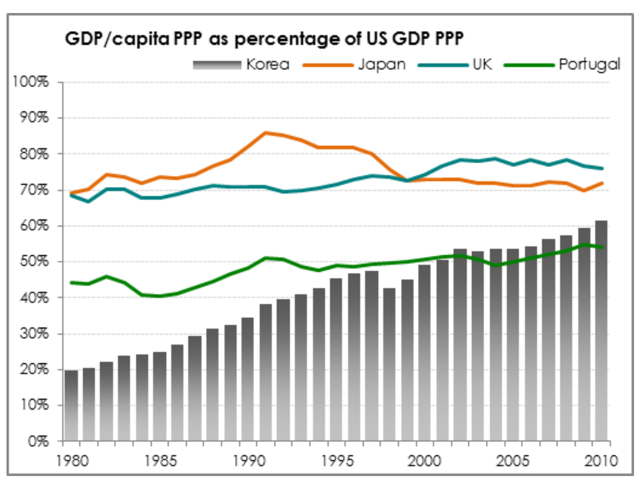


The Economy

In 1960, Korea's GDP was on the same level as Burkina Faso. Since then, the Korean economy has developed remarkably successful, lifting millions out of poverty, and is about to overtake most European economies (except Northern Europe, for the time being), driven by government-led trade and investment policies as well as a high level of education and work dedication – the Japanese development model with a twist. While the focus of the exporting industry (both in terms of product development and marketing efforts) in the past was on OECD countries (mainly North America & Europe), many Korean companies have adjusted their efforts over the past 10 years and have secured strong positions in emerging markets, notably (but not limited to) in the BRIC and MENA countries. The strong position in the new markets is expected to absorb some of the shock waves of the coming economic depression brought about by brainless inaction of the political leadership in the "old World" in face of systemic challenges.

However, the economic development model that made Korea so successful is also adapted in other countries (China), and it remains to be seen whether the Korea can manage the transformation form a "quality copier" economy to a true innovation leader by the time Chinese value-added exports will compete Korean brands at much lower prices.





Financial performance and sustainability scores

Sustainability Correlations

Correlation of selected sustainability criteria and the financial performance of companies

Corporate Governance

Other than in the former state-owned corporations , Corporate Governance systems are formalities to please regulatory requirements without and meaning. It is therefore not really surprising that there is no visible correlation between formal corporate governance systems and financial performance.

Sustainability Strategy

A better sustainability roadmap and product development strategy of a company seem to reveal a fairly strong correlation with the financial performance of the company – and due to the forward-looking nature of this aspect, is expected to correlate closer with business success with a long-term outlook.

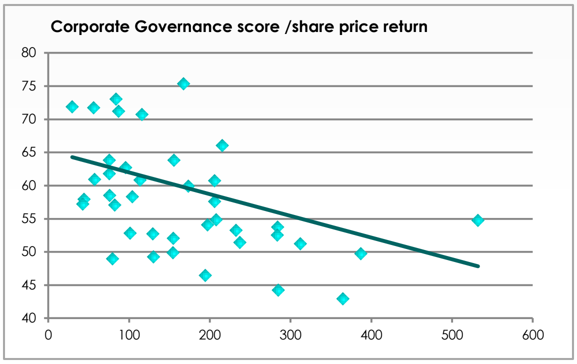
Eco-efficiency

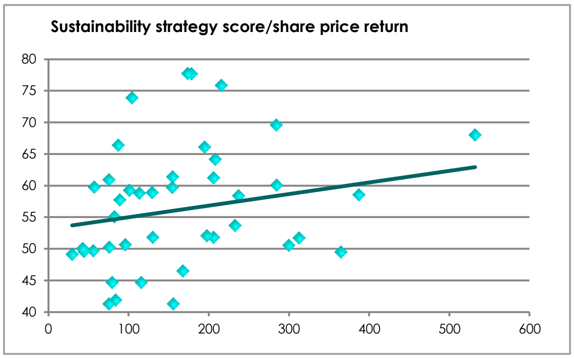
The eco-efficiency score shows a fairly strong correlation with the financial performance – for which there are two possible explanations: due to both lower operational costs of companies with lower resource intensity, or a sign that companies which do invest in improving eco-efficiency are better managed (in which case the indicator serves as a proxy for overall management intelligence). In either case, the correlation is expected to tighten in the future with rising cost of natural resources.

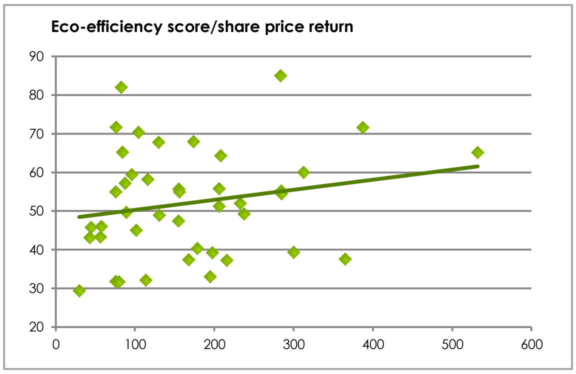
Job Creation

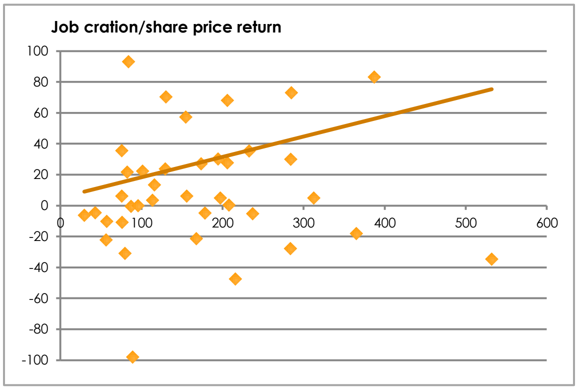
A clear correlation between job creation (average of the past three years, relative to revenues) can be observed. However, it seem logical that companies that are successful business wise are hiring more employees to cater for the internal growth. Unfortunately, this criteria is back-ward evaluation and therefore does not really allow for making future predictions.

There is not a single determining sustainability factor that influences the business success of a company. Each criteria serves as a proxy for the management capability to manage new challenges while keeping operational cost low and capitalize on the innovation capital of its employees to generate sustainable profitability.









Performance Analysis

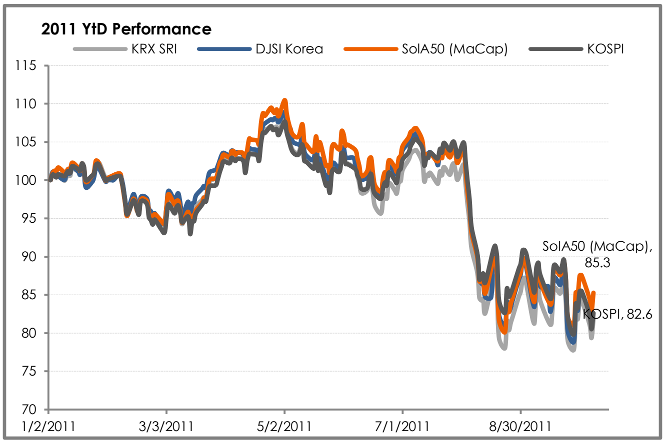
Distinctive Outperformance

Portfolio weighting

The SolA 50 portfolio consist of the 50 most sustainable Korean companies according to SolAbility sustainable value identification model. For the purpose of comparability with external benchmarks, the equities are weighted according to the market capitalization of the company, with a maximum cap of 10% for a single stock (the so-called Samsung clause).

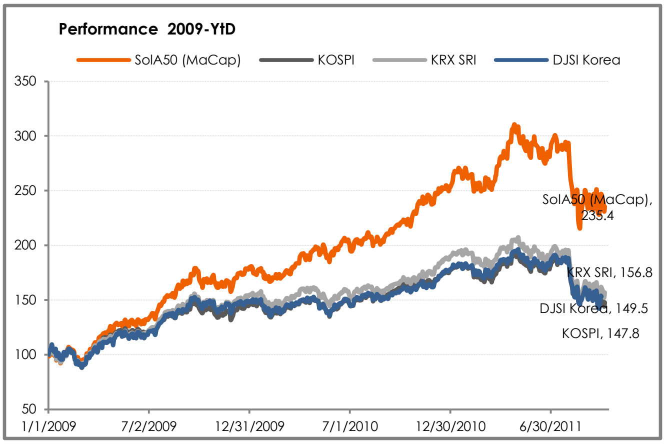
2011 return

The invisible hand guiding the markets has brought some turbulences on the stock development in 2011, Korea not excluded. To date (October 2011), the SolA 50 portfolio has outperformed the market (KOSPI) as well as ESG benchmarks (KRX SRI, an ESG index based on the former Innovest methodology) and the DJSI Korea) by small margin (2.7-4%). However, considering the current fluctuations and further expected market corrections, this margin has to be regarded as statistically insignificant.



3 year return

Looking from a longer-term perspective, the picture becomes clearer and brighter. The SolA 50 portfolio shows a significantly better performance than the markets and the ESG benchmarks. While both DJSI Korea (+2%) and the KRX SRI (+9%) have achieved slightly higher returns than the KOSPI, the SolA 50 index is 88% above the market – a margin that is beyond doubt and statistically significant. And clear sign that sustainable companies fare better financially. In other words: sustainable investment returns higher profits.

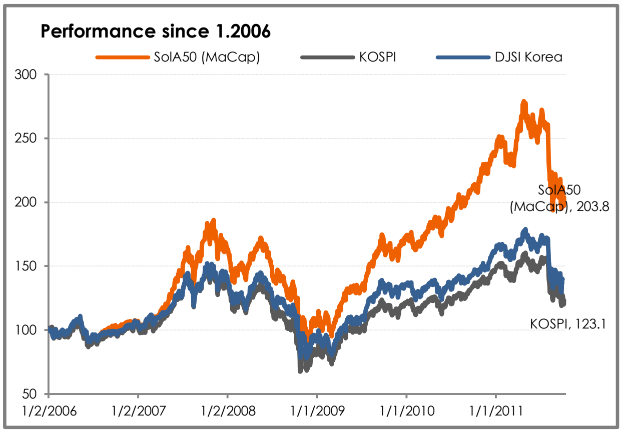


Long-Term Returns

Profitable Long-Term Investment

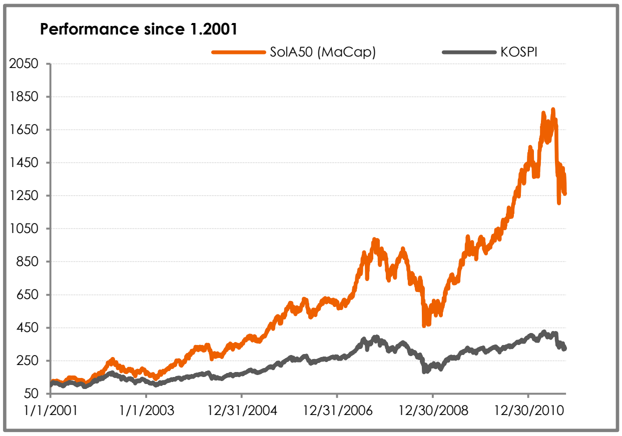
5-year return

Taking into account the market turmoil following the 2008 global financial crisis, the SolA Sustainable 50 portfolio has returned 203%, outperforming the market by 80%. In the same timeframe, the DJSI Korea gained 16% over the KOSPI, indicating that sustainable investment as such outperforms the market in a longer-term perspective. However, ESG is not ESG, and different methodologies to identify sustainable value yield different results: the SolA Sustainable 50 has outperformed the DJSI Korea by 64% in this time period, indicating a higher accuracy in identifying sustainable value in the SolAbility ESG model against the DJSI methodology.



10-year return

Stock performance prior to the first annual ESG assessment in 200 is backdated, and contains some stocks that grew from small companies into sizeable corporations in the period from 2001-2007 . (increasing their market value by up to 2500%), and therefore would most likely not have fallen in the ESG starting universe of the largest 350 companies in 2001. The performance as shown in this graph – outperforming the market by 600% - therefore has to be taken with a grain of salt. Sustainable equities that would have fallen in the starting universe by their market capitalisation in 2001 increased their value by 500% on average, or 200% over the market.



Clear correlation

What is clear from the performance comparisons: long-term investment in companies that are leading their peers in terms of sustainable management and strategy implementation yields profitable returns.

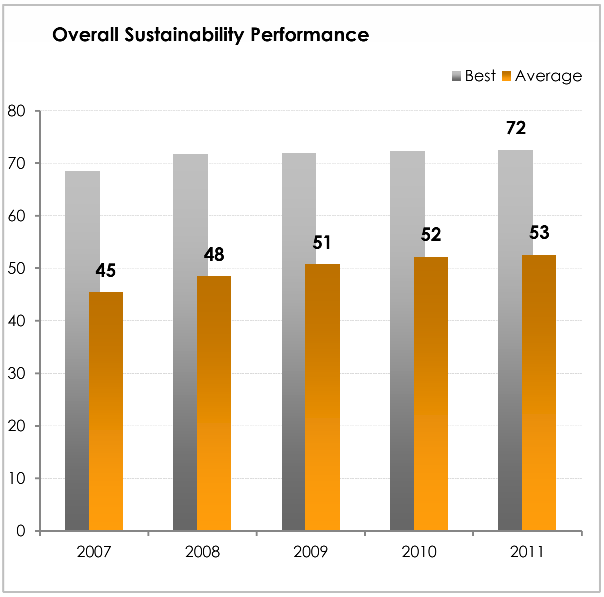
Interestingly, the comparison with actively managed the real-life fund based on SolAbility's ESG research also suggests that a long-term "buy & hold" approach would have yield higher returns than active fund management.

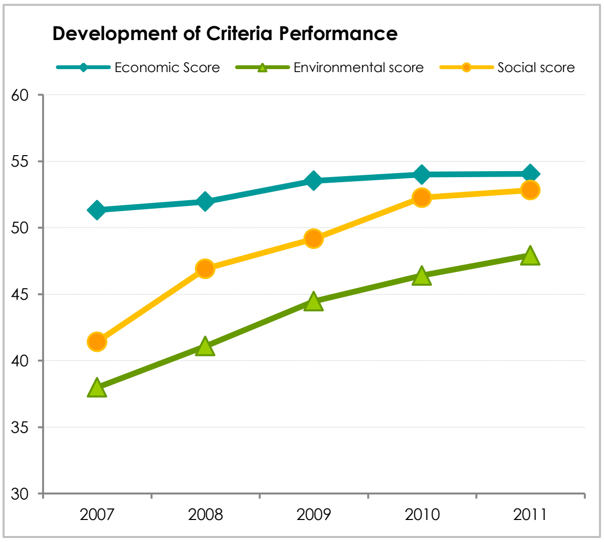
Corporate Sustainability Performance

Developments

The overall sustainability level of Korean companies is improving every year. Recent years have seen a dramatic increase in the number of published sustainability reports from Korean companies, indicating increased awareness for sustainability overall. However, top-performing companies advance faster than the average, implying that high-performing companies have further strengthened their sustainability level while a considerable number of companies are still reluctant to fully integrate sustainability management beyond compliance as a strategic management framework.

Visible improvements in terms of sustainability performance are seen in the environmental and social sectors. On the other hand, the economic performance has improved only marginally (driven by increased strategic sustainability) but remains the highest average performance, with ethical management, formal governance systems, customer relations and brand management at previously high levels.





Corporate Sustainability Performance

Sector trends

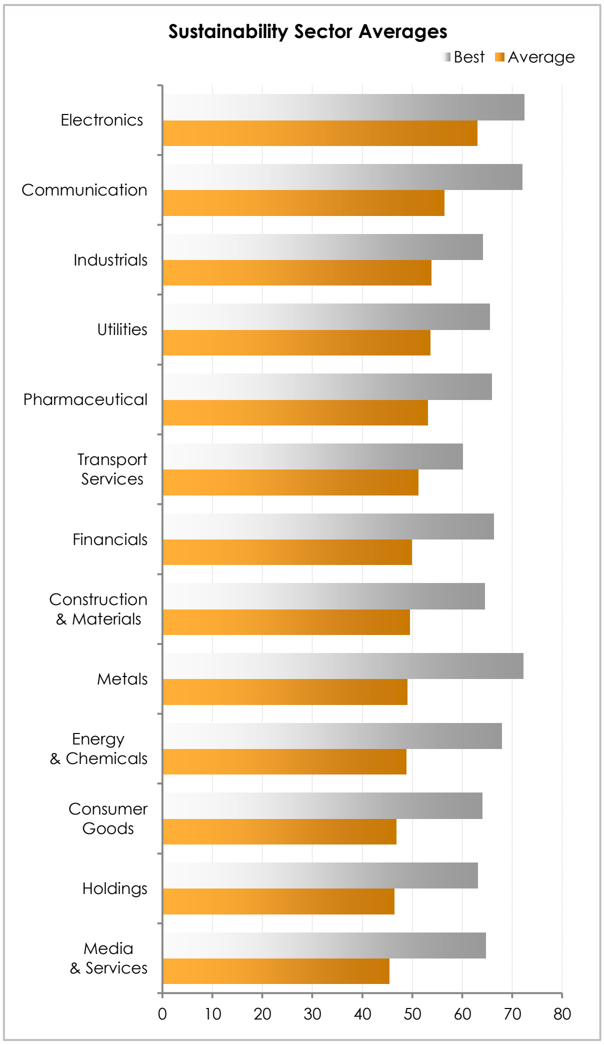
SolAbility categorizes companies by 13 sectors (composed of 29 industries, according the main business line of a company) to allow for sector comparisons.

The industry scores of Electronic companies are outstanding compared to other industries. The score gap between Industry best and industry average has also narrowed.

The most year-on-year improved industry is the Metal sector.

Industries such as Holdings & Trading, Consumer Goods, Media, Leisure & Services are characterized by low sustainability levels in relation to other industries, showing very little improvement compared to 2010 performance.

For Steel/Metal industries, there is a large score gap between Industry Best and Industry Average, reflecting the phenomena that leading companies have been consistently improving their performances while the companies not or less exposed to global markets are not actively involved in sustainability management.



Management & Governance
Developments

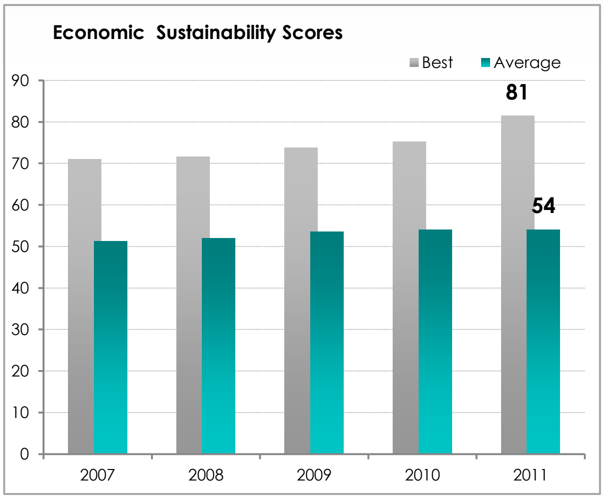
While the leading companies have further improved sustainability performance in economic criteria, the average sustainability level has not shown significant changes, with a minor improvement compared to 2010 performance.

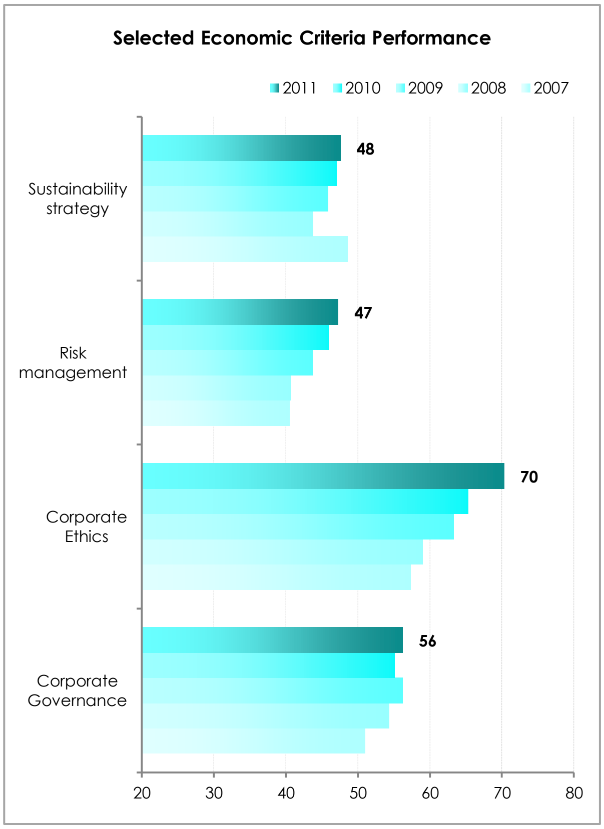
Korean companies have steadily improved in the areas of R&D and strategic sustainability. However, there is still room for improvement in the areas of integrating sustainable strategy in management thinking.

Risk management performance has improved, reflecting efforts to better predict future risks and turn them into business opportunities. Nevertheless, domestic company's risk management is still below global level.

The majority of companies have established ethical management system and reinforced monitoring, but the number of non-compliances reported such as price fixing practice remains high.

The corporate governance score has slightly improved across the Korean companies. However, the known weaknesses of Chaebol governance in terms of board structure, professionalism, independence board effectiveness are still witnessed today. Transparency has weakened due to the deregulation of corporate disclosure requirements.





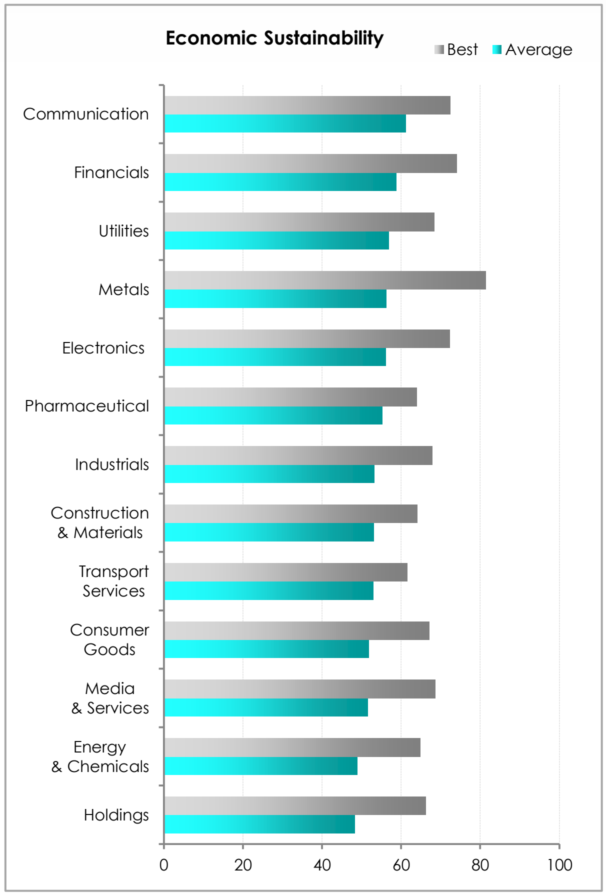
Management & Governance

Sector trends

Communication, financial, utilities, and electronic industries are associated with high economic sustainability levels compared to other industry sectors.

The industries with the greatest year-on-year improvements are Communication as well as Energy & Chemicals. The last sector has seen a lot of companies starting to allocate R&D capacities to new business fields related to sustainable growth.

Even though the industry averages Energy & Chemicals as well as Holdings& Trading have improved, their sustainability level is still low compared to other industries.



Environmental Sustainability Developments

The environment sustainability performance showed the largest average year-on-year increase, indicating that Korean companies have woken up to the challenge of global climate change and the prospect of high energy costs.

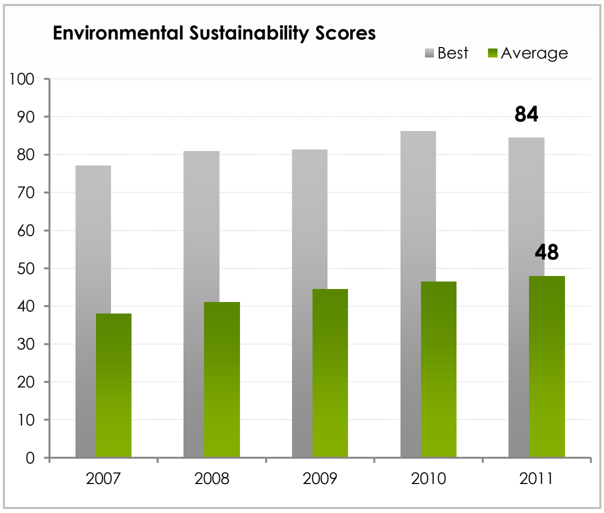
Waste management improved by significantly, driven by regulation, adapting LCA design processes, waste minimization in the production stage and increase efforts in recycling to reduce waste disposal cost.

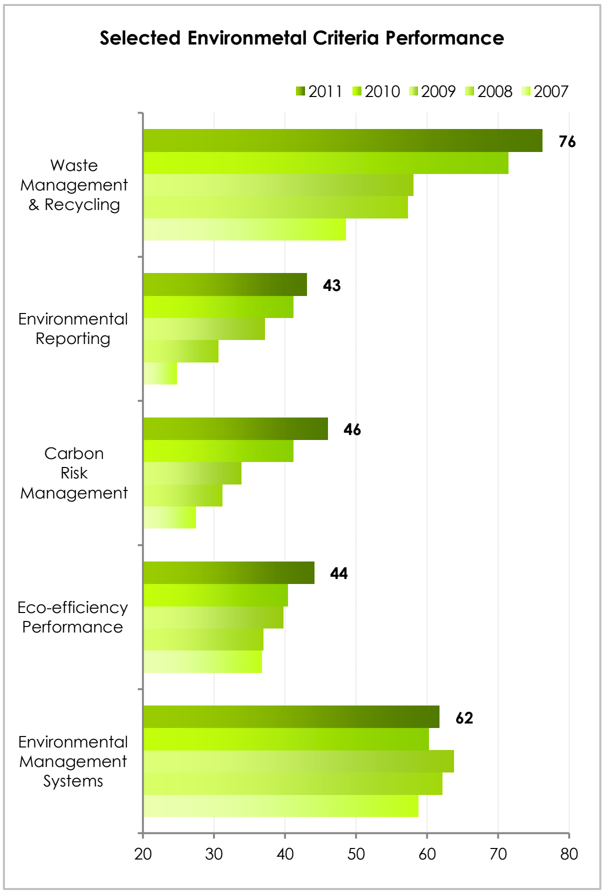
Environment reporting has increased steadily, with more and more companies publishing sustainability reports.

Carbon Risk Management increased strongly due to efforts to improve energy efficiency and establishing GHG inventories as required by future legislation.

While eco-efficiency is also improving, the efforts to date are insufficient to secure future competitiveness considering Koreas 97% reliance on energy imports and the high energy intensity of the economy (considerable above OECD average).

Sustainable business development has also improved, reflecting the fact that companies are starting to develop new business lines (products & services) related to clean-tech and green growth.





Environmental Sustainability

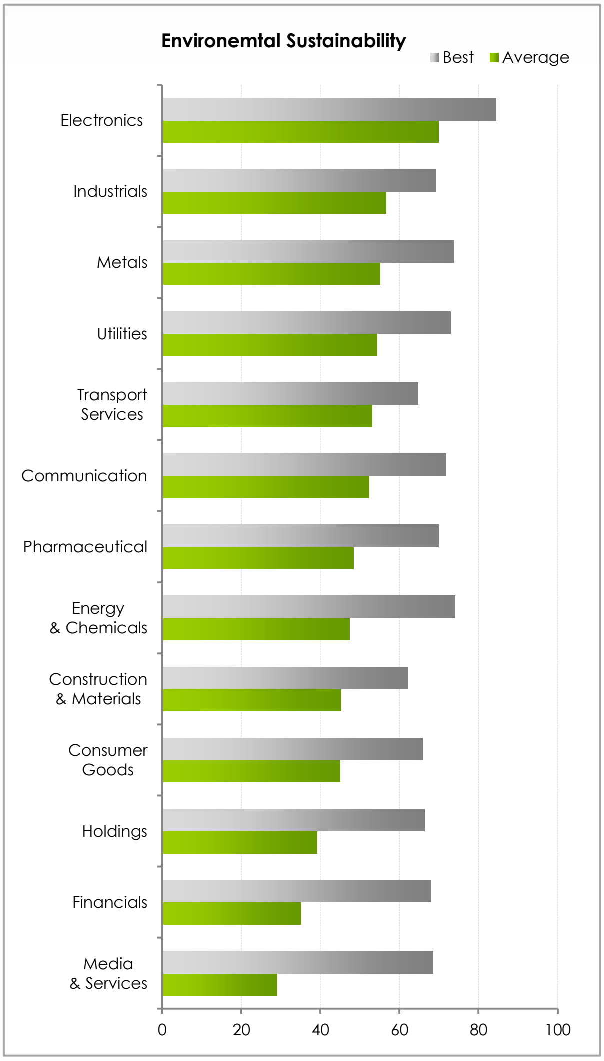
Sector trends

The assessment reveals Significant differences between the different industry sectors in environmental sustainability performance. While some sectors improved drastically over the past years, other sectors remain at the same level of previous years.

High ranking sectors include Electronics, Industrials, Utilities (manufacturing industries and other industries are subject to environmental regulation). The majority of electronic and Industrial companies are pursuing environment management, and invest to reduce energy usage, green house gases, water usage and waste.

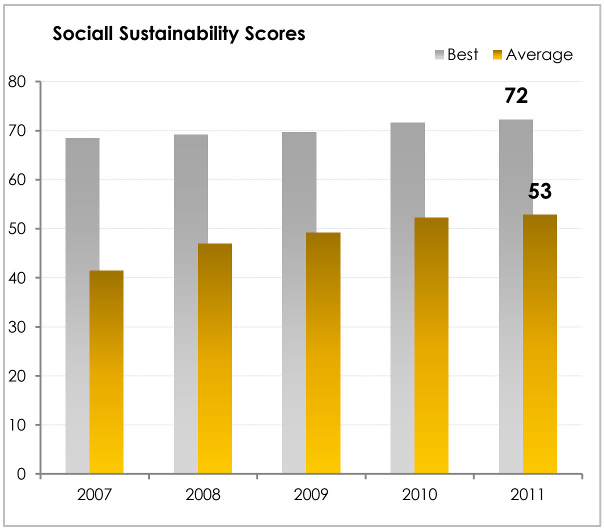
The communication and metal sectors showed the highest progress rate year-on-year.

Service providers, financials and consumer goods improved only marginally. Within these sectors, only few companies implement environment management systems without regulatory requirements.



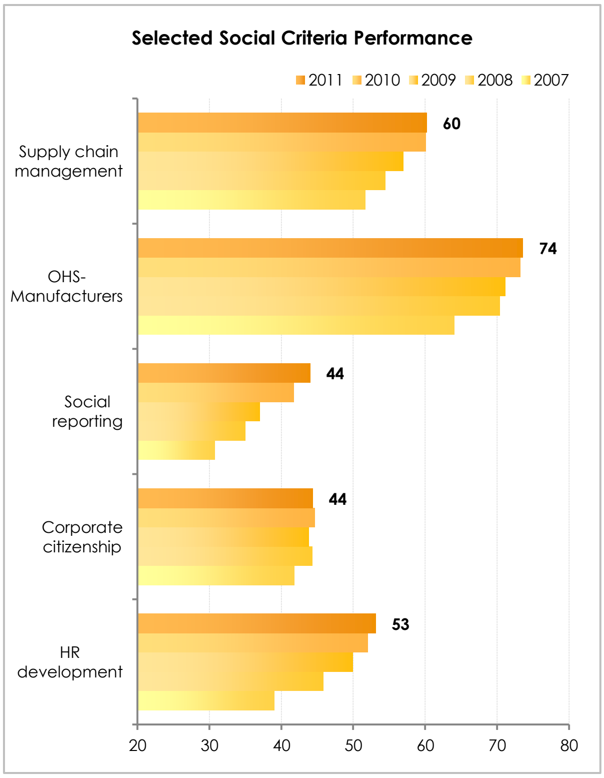
Human & Society Developments

The social sustainability performance showed general improvements across all sectors, exhibiting a tendency of gradual improvement.



HR development systems and policies have ben modrnised across most large corporations in Korea, reflected in increasing performance scores. This indicates the corporate acknowledgement of the importance of HR management to improve global competitiveness by attracting and retaining the best staff and strengthening internal training.

Social activities and contributions remain at a similar state compared to 2009. While social activity rates are generally increasing, companies may not have a formulated strategy for social activities and alignment of strategic corporate citizenship activities with core business capabilities



Supply Chain Management and OHS management exhibit gradual development. In particular, the manufacturing sector has been emphasizing "win-win" and "together growth" as well as "green purchasing". However, supply chain management system at most companies are focused on domestic suppliers at this point in time and fail to recognize supply chain risks in less developed markets

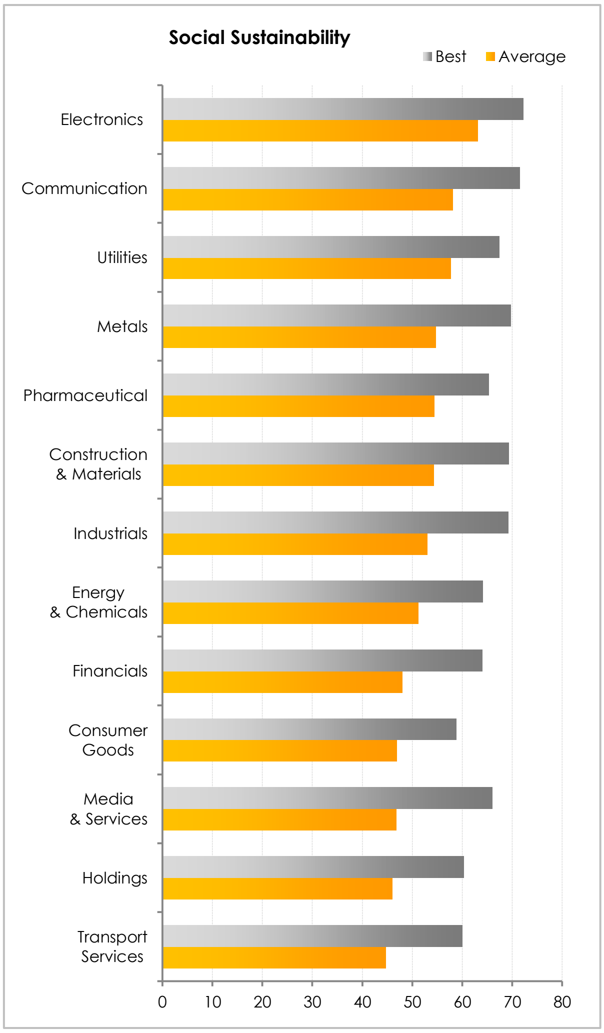
Human & Society
Sector trends

Sustainability performance of Society criteria showed comparably equivalent progress amongst industry sectors due to improved management systems related to HR development and incentive systems.

Again, the field is lead by Koreas most know export sector, the electronics industry.

Compared to 2010, the largest improvement were made in the communication, steel & metals and utility sectors.

Average Consumer Services and Holding & Trading performance remain at comparable low levels.



Conclusions

Sustainable Investment

High sustainability performance is equal to high financial returns

The performance of Koreas most sustainable companies (the SolA Sustainable 50) proofs beyond statistical coincidence that sustainable companies achieve significantly higher returns than the average investment over both short-term and long term periods. It also proofs that long-term investment – as opposed to short-term trading – does yield equal or better results than actively managed funds.

Stability

Despite the sharp fluctuations in the stock markets over the past years, it is worth noting that the market value of sustainable companies was less elastic on the downturn compared to other companies. This observation strongly supports the claim that sustainability brings companies higher returns in times of prosperity and more stability in times of depression.

Global ESG investment benchmarks

Both the DJSI World and the FTSE4Good show a weak performance. While we are naturally proud to outperform the global benchmarks, the "SolAbility" brand carries very limited weight. In the wider context of advancing corporate sustainability and sustainable investment, it is paramount that the global benchmarks (DJSI, FTSE4Good) shall be capable of identifying outstanding sustainable value. The current failure to do so is an indication of an academic rather than practical approach and/or insufficient allocation of resources to adapt research processes and methodology to the developments in the corporate world, and needs to be addressed urgently.

Conclusions

Corporate Sustainability

Increased recognition of sustainable management for business value

The increase In average ESG performance scores reflects the increasing importance given to sustainable management in the Korean corporate world since the financial crisis and the governments new strategic focus on “green growth” announced in 2009. The number of companies that have actively reviewed their management systems in light of sustainability has accelerated remarkably. Along with integration of sustainability considerations in policies and management systems, the number of companies disclosing sustainability performance and information has increased rapidly. However, while the developments have been encouraging, only few companies have formulated long-term strategies that integrate not only operational issues and considerations, but also strategic, long-term business development considerations based on sustainability trends.

Imbalance of sustainability levels between different industry sectors

Export-focused companies, namely in the manufacturing industry sectors such as electronics, automobiles, and ship-builders are leading Korean companies in terms of company-wide efforts to improve corporate sustainability level as a means of securing future competitiveness. In contrast, industry sectors focused on domestic demand such as finance and service sectors have been more reluctant in embracing sustainability management until recently.

Sustainability management as core management principle

Despite all the positive developments, sustainability management is still only partially recognised as a core management principle and strategic business development tool, and is not fully reflected in the corporate culture. Korean companies need to consider sustainability issues from the highest decision-making levels in order to secure future competitiveness.

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