Emerging markets and ESG (Environmental, Social, and Governance) investing have been two of the fastest growing investment specialty areas over the past decade but for very different reasons. Emerging market growth rates were driven by a rising middle class, need for more advanced infrastructure and regulation, and an increased international flow of goods and capital. ESG investing, on the other hand, has benefited from the idea that long-term alpha opportunities are driven by an assessment of the sustainability and true risk of companies judged by ESG principles.

Until recently, applying an ESG focused-approach to emerging market investing did not appear feasible. The challenges were myriad: in emerging markets, ESG information was difficult if not impossible to obtain, and management and corporate governance structures were often unreliable and manipulated. Emerging market companies were younger, smaller, and more focused on rapid growth than management quality and corporate responsibility. However, as these companies are increasingly challenged by resource constraints, social unrest, global standards, and demands for corporate accountability, those that understand the challenges and evolve can differentiate themselves from those that do not. This differentiation is potentially an important factor in evaluating earnings growth potential over the short and long term. In particular, companies providing distinct solutions to environmental and social challenges may present particularly attractive investment opportunities.

Today, ESG investing, with its focus on identifying strong corporate performance on issues such as the environment, social equity, and corporate governance, provides a unique and important set of tools for emerging markets investors. We see the combination of the two—emerging markets and ESG investing—as a new and powerful concept for investors, but requiring an innovative and different approach from traditional methods used in developed markets. ESG research on developed market companies has historically focused on evaluating long-term corporate performance in areas such as pollution prevention, waste management, workplace diversity and benefits, labor relations, and product safety. There has been at least as much emphasis on avoiding companies with problematic records as there has been on investing in companies with superior ESG records. We see the opportunities and challenges of emerging markets calling for an approach that:

- Focuses more on identifying solutions to ESG challenges, and less on avoiding objectionable business activities
- Emphasizes the importance of good corporate governance
- Values corporate efforts in transparency and adoption of global standards
- Focuses more on the present and future, and less on historical records of corporate performance
- Integrates knowledge and expertise in two highly specialized disciplines: emerging markets and ESG investing

**A Focus on Solutions**

In emerging markets, population growth and economic development are creating both challenges and large-scale opportunities related to the environment and social equity. Threats to the ecosystem, social advancement, and a trustworthy business environment now also threaten to limit the potential for future economic growth. The same companies facing the challenges also have the potential to lead the world in developing lower-cost, innovative solutions to the biggest social and environmental problems. There is arguably more opportunity to invest in ESG solutions in emerging markets than anywhere else in the world.

For investors, identifying the ESG solutions likely to proliferate means identifying opportunities for growth. We have identified five ESG solutions-related investment themes.
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**Social Equity** Emerging markets face great challenges in building equitable access to social services across society. Solutions to improve people’s daily lives will come through education, telecommunications, banking, and healthcare services. The global middle class is expected to grow from 430 million in 2000 to 1.15 billion people in 2030—93 percent of the people will live in emerging markets. The middle class will come from the 3.7 billion people across emerging markets who comprise the economic “base of the pyramid”—or “BOP”—for which the average income is $8 per day. These people are largely excluded from formal markets but their purchases of goods and services amount to $2.3 trillion annually and are increasing at a rate of 8 percent per year.¹

Access to credit is an important component of increasing social equity within a population. In 2004, India introduced legislation to improve financial inclusion for low-income rural farmers and since then agricultural credit has grown by 28 percent annually. However, there are still opportunities to extend penetration of credit, as only 50 percent of farmers have access to credit of which 58 percent is from the formal sector.²

Movement into the middle class also brings greater access to formal services such as education, healthcare, and data services (Internet, TV, and telephones). In Africa, cell phone technology transformed how business and daily life are conducted. Instead of walking half day to the next village to check on crop prices, small farmers can now check crop reports through cell phones. The declining cost of handsets, liberalization of mobile markets, as well as prepaid cards and ability to make payments through cell phones saves poor people time, money, and enables them to grow their small businesses faster.

These are just a few of the trends that present the greatest challenges and opportunities for social equity as emerging markets expand the size of the global middle class over the next 10 to 20 years.

**Health & Well-Being** Healthcare spending in emerging markets significantly lags that of the developed world but is growing rapidly in some countries. Nutrition also presents challenges as healthy food and clean water are not widely available. According to the World Health Organization, access to clean water has improved globally but in poorer regions such as Africa, only 61 percent of people, as of 2008, have access to clean water. In low income countries, 69 percent of people died prematurely due to communicable disease, maternal, and nutritional deficiencies versus only 8 percent in high income countries representative of the developed world. Infant mortality under the age of 5 persists at a level higher than the global level in Africa, Southeast Asia, and parts of the Mediterranean.³

As incomes rise and the middle class expands, emerging markets see strong demand for products and services related to improving health and well-being. In large countries, such as China and India, pharmaceutical usage is low but is expected to rise over time with the expansion of the middle class as well as greater concern for personal healthcare issues and growing access to healthcare services. In 2000, Chinese households paid nearly 60 percent of healthcare costs. However, with new healthcare policies, this has declined to 45 percent out-of-pocket expense. The trend toward greater government subsidies and insurance reimbursements should improve affordability and increase demand for healthcare in China.⁴

¹Source: World Economic Forum, 2009
²Source: Credit Suisse, 2009
Sustainable Infrastructure & Development The availability of adequate infrastructure for transportation, communication, housing, sanitation, and energy is essential for continued growth in emerging economies. Yet in many communities across emerging markets these systems are entirely lacking and the need for new infrastructure development is dramatic. Globally, 1.5 billion people—most of them in the developing world—do not have access to electricity and another one billion have only sporadic electricity service. Of the 1.5 billion, 85 percent live in rural areas. It will take $35 to $40 billion annually of investment to improve access, and even then 16 percent of the world population will still have no electricity. Across emerging markets, roads and other transportation systems are non-existent or poorly maintained, resulting in the fact that 85 percent of global traffic casualties happen in developing countries. The World Health Organization has declared road crashes the number one cause of death globally for people aged 10 to 24, with the majority occurring in lower-income countries and the highest rates found in Africa and the Middle East. Rapid urbanization across the developing world, particularly in Asia and Africa, paints the backdrop for the challenges around building sustainable infrastructure. For the first time in history, more than half the world’s population now lives in cities and towns, with an estimated one billion people living in impoverished conditions in urban slums. It is estimated that by 2030, 81 percent of urban humanity will be living in cities and towns in the developing world.

Developing infrastructure is one of the greatest challenges for emerging economies, yet the obstacles may, in some ways, be less daunting than in the developed world, where existing infrastructure is often outdated and inefficient and improvements are expensive. In the U.S., aging power grids lose significant amounts of energy in the transmission and distribution process, water and sanitation systems similarly suffer leakage problems, and the transportation network is largely based on supporting gasoline-powered cars. But developed economies like the U.S. often lack the political will to allocate investment for expensive retrofitting or replacement of existing infrastructure. In the U.S., infrastructure spending accounts for just 2 percent of GDP, versus the approximately 9 percent of GDP dedicated to infrastructure spending in China.

Large infrastructure projects have historically exacted a heavy toll on the environment, and often on communities. However, emerging markets now have the opportunity to develop new infrastructure in a way that is more sustainable—that is, more efficient in using resources, more socially inclusive, less damaging in construction, less polluting in operation, and ultimately, we believe, more economically promising for investors. Emerging economies are realizing these opportunities by investing heavily in high-speed railways, eco-efficient buildings, affordable housing, low-cost telecommunications, water and sanitation systems, and clean energy projects. As examples, Brazil is a leader in developing high-speed railways and other mass transit systems, Korea has regulations requiring installation of rainwater harvesting systems in all new buildings to conserve water and mitigate flooding, China is mandating the implementation of a more efficient “smart grid” to transmit electricity, and sustainable affordable urban housing developments are underway in cities across Mexico, India, and South Africa. Emerging markets companies involved in the build out of sustainable infrastructure present high-growth opportunities for investors.

Environmental Protection The environmental effects of rapid development and urbanization—unhealthy air, scarcity of clean water, untreated waste, and other forms of pollution—present a potential limit to growth across emerging markets. Water is a particularly pressing challenge. Water scarcity affects one in three people globally, with industry, agriculture, and human health all dependent on and competing for clean water. The world’s most water-stressed regions are in Africa and Asia, while other emerging economies are highly vulnerable to water scarcity from a combination of arid conditions, lack of water infrastructure, population growth, and changing climate. Air pollution is heavily impacting health and quality of life in developing countries—and again, emerging economies are

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5Source: UN and IEA
8Source: UNFPA, State of the World Population 2007
9Source: WHO
10Source: World Resources Institute
more heavily impacted than the developed world.\textsuperscript{11} Solid waste management, too, is a growing challenge for emerging economies as both the quantity and hazardous nature of waste generated is increasing.

Combating these challenges will be difficult and costly, but necessary to enable continued economic growth. In China, for example, the government expects to increase spending on environmental cleanup by 14.5 percent annually through 2020 in order to sustain 8 percent growth in GDP.\textsuperscript{12} Companies in China and other emerging markets are becoming global leaders in developing new businesses to address environmental protection, clean water, and waste management.

**Clean & Efficient Energy** Energy production and development presents especially large-scale and urgent challenges for rapidly developing economies like China’s, India’s, and Brazil’s. Emerging markets constitute the largest share of future global demand for energy, with non-OECD countries expected to account for 93 percent of the increase in global demand between 2007 and 2030.\textsuperscript{13} Yet, if people across the world were to consume energy at the same rate as the average U.S. citizen, the world’s oil reserves would last less than 10 years.\textsuperscript{14} To sustain growth, emerging economies face urgent pressure to develop fossil fuel alternatives to traditional fossil fuels. Exacerbating the pressures around energy consumption are concerns about climate change, which again have large impact on emerging economies. In 1990, China and India combined accounted for 13 percent of total global carbon dioxide emissions. By 2005, their share had risen to 25 percent. By 2030, they are estimated to represent 34 percent of total emissions with China alone at 29 percent.\textsuperscript{15}

Constraints on the supply of oil along with growing greenhouse gas emissions across developing nations are creating strong demand for effective solutions. Emerging markets companies are uniquely positioned to lead the world in this area, as the fast pace of growth in emerging markets provides scale opportunities necessary to justify large capital investments and drive down costs. In countries such as China, India, and Brazil, governments and industries are highly focused on increasing energy capacity and lowering the cost of hydropower, biomass, solar, and wind energy as fossil fuel alternatives. Companies in these countries are poised to become global leaders in innovative and low-cost production of clean energy technologies, such as wind turbines, solar cells, and smart meters. We believe these five solutions-focused investment themes present some of the greatest opportunities for emerging markets investors over the coming years. Innovation from the developed world that is adapted for use in emerging markets as well as new low-cost developing world alternatives in the areas of financial services, health, infrastructure, telecommunications, environmental protection, water treatment, and energy generation and distribution present high-growth business opportunities within each emerging market.

**The Importance of Corporate Governance**

In emerging markets, it is generally assumed that regulations are weak, corruption is high, and corporate accountability is unreliable—these concerns may threaten to limit potential growth of emerging market countries. Consequently, as these economies develop, regulatory structures will take shape and corporate governance practices become increasingly important. High standards of integrity, fairness, disclosure, and accountability are tools for strengthening corporate governance. For these reasons, we place corporate governance as an overarching sixth theme.

Corporate governance refers to the rules and practices that govern the full value chain of relationships and oversight between board of directors, managers, and stakeholders (shareholders, employees, customers, and communities). Good corporate governance is linked to:

* Higher company valuation
* Reduced risk of corporate scandals and corruption
* Greater amount of external investments
* Lower cost of capital
* Greater competitiveness and performance
* Stronger stakeholder relationships

\textsuperscript{11}Source: WHO, 2009
\textsuperscript{12}Source: Bloomberg News, September 2010
\textsuperscript{13}Source: OECD, 2009
\textsuperscript{14}Source: The Energy Report, Ecofys, 2011
\textsuperscript{15}Source: OECD, 2009
Country-level studies have provided evidence of the positive effect of corporate governance practices in emerging markets. In Korea, well-governed companies traded at 160 percent premium to poorly governed firms.\(^\text{16}\). Brazil-based companies with the best corporate governance ratings had 2004 P/E ratios that were 20 percent higher than those with the worst governance ratings and companies with above-average governance had return on equities (“ROEs”) that were 45 percent higher and net margins that were 76 percent higher than those with below-average governance practices.\(^\text{17}\). In addition, firms included in the Brazilian Sustainability Index have been shown to trade at a premium relative to other publicly traded firms.\(^\text{18}\). In India, there is a positive relationship between firm market value and its governance strength.\(^\text{19}\). Russian companies that demonstrated worst-to-best improvement in corporate governance predicted a 700-fold increase in firm value, suggesting a strong correlation between governance and firm value.\(^\text{20}\). For Chinese listed companies from both Hong Kong and China, market valuation and overall corporate governance practices are positively related.\(^\text{21}\) The importance of corporate governance cannot be ignored. Recently, UBS found that the perception of good governance matters as much as governance itself—perception of corruption has a strong relationship to country P/Es. We believe that companies that have high standards of fairness, responsibility, accountability, and transparency will lead the way in the development of emerging markets.

EM + ESG = A Powerful Combination

Within the last 10 to 20 years, emerging markets have evolved from purely commodities-driven markets to more domestically-driven economies that are now entering a new stage in their development. The growth and upward mobility of the middle class are driving towards being more open, environmentally-conscious, and socially diverse. It is estimated that developing countries will account for 93 percent of the middle class consumers in 2030 compared to 56 percent in 2000.\(^\text{22}\). It is the middle class that will demand cleaner air and water, better education, and healthcare. This evolution from commodities exporters to large domestic market producers has created the next set of opportunities for local companies in emerging markets to participate in new value-added industries.

The Novo Mercado – An example of corporate governance in Emerging Markets

The Novo Mercado in Brazil, a special listing segment of the Sao Paulo Stock Exchange (Bovespa) launched in 2000 for companies voluntarily committed to higher corporate governance practices than required by the Brazilian law, demonstrates the impact of good governance on investors’ desire to invest and the potential benefits towards stock performance. The listing segment was created to provide for a receptive environment for public offerings and protection for minority shareholders, and is now run by self-regulation. Greater trust in the quality of information provided by the companies and the security in shareholder rights has benefitted the stock performance of Novo Mercado relative to the overall Brazilian index.


\(^{18}\) Jose Luiz Rossi Jr at the 2009 Second International Research Conference on Corporate Governance in Emerging Markets.


\(^{22}\) Emerging Markets Consumerism; Global Opportunities, September 15, 2009.
Although new lines of business are sometimes characterized as being higher risk, ESG solutions in emerging markets often involve large-scale implementation of existing technologies, rather than development of new technologies. In emerging markets, ESG solutions regularly entail a simple transfer of older generation technology. For example, there are European companies that pioneered wind power over 100 years ago. However, Chinese companies now are implementing wind power as a major source of energy on a scale not seen before. They are also some of the leading producers of wind turbines and other parts for the global industry. The Chinese are interested in wind because they have a pressing need for sources of energy in the immediate future. The recently released 12th Five-Year Plan outlines a goal of 11.7 percent of energy production from non-fossil fuels and specifically a five-year target of 70 gigawatts of additional wind power. This is one example of how emerging market companies take existing technology to larger scale and integrate them into a national energy plan.

By looking at developed market companies, we have a roadmap for growth of emerging markets not over the next 100 years but over the next 20 years.

From a fundamental perspective, emerging market ESG companies should benefit from strong demand and improving profitability in 2011 and beyond as the scale of businesses grow, innovation advances, and government and private funding to environmental issues increases. We would expect earnings growth to exceed that of overall emerging markets at a similar valuation. Just as emerging markets have become a key driver of global growth, they are quickly becoming the focal point for global sustainable economic development, providing new and exciting opportunities for investors. In short, ESG investing in emerging markets could benefit investors in two primary ways: investing in fast-growing solutions to environmental and social challenges can add alpha, while monitoring performance on ESG metrics can help control risk.

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**Our Partnership with Nelson Capital Management**

Wells Capital Management implements the ESG approach to emerging markets through its Emerging Markets ESG strategy. This investment strategy is a partnership between the Wells Capital Management Emerging Markets team and Nelson Capital Management. Nelson Capital provides its ESG scoring expertise to maintain a universe of companies with significant earnings from sustainable solutions, strong environmental performance, strong social performance and good governance practices. WellsCap Emerging Markets team is responsible for portfolio management and combining the ESG input from Nelson with its fundamental research on emerging market companies to provide our clients with opportunities in EM ESG investments.

**Nelson Capital Management**

A wholly-owned non-bank investment affiliate of Wells Fargo & Company, Nelson Capital Management is a leading investment manager with unique expertise in strategies incorporating ESG considerations into a consistent, disciplined investment process. Nelson Capital maintains autonomy and local responsibility for the investment process while benefitting from the ability to leverage certain centralized resources (i.e. infrastructure) of a major financial institution.

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20 How Does China’s 12th Five-Year Plan Address Energy and the Environment?, World Resources Institute, March 7, 2011

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