

Taking Stock

Adding Sustainability Variables to Asian Sectoral Analysis

February 2006

Auto
Banking
Metals & Mining
Oil, Gas & Petrochemicals
Power
Pulp, Paper & Timber
Supply Chain
Technology

ESG

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Editor: Melissa Brown

Association for Sustainable & Responsible Investment in Asia



FOREWORD



As the private sector arm of the World Bank Group, sustainable and responsible investment in developing country firms lies at the heart of IFC's poverty alleviation mission. IFC places considerable emphasis on the environmental, social and governance (ESG) performance of its clients and investee companies. Our experience shows that, beyond doubt, successful management of these issues influences the bottom line. The social and environmental policies and performance standards that IFC applies to its own investment operations have, since 2003, been adopted by over 40 leading financial institutions through the Equator Principles, representing approximately 80 percent of global project lending.

In addition, IFC is committed to encouraging the development of new analytical work that will bring these issues into clearer focus in emerging markets equities sectors. While the impact of ESG variables on the investment process in Asia is growing rapidly, the investment community has lacked the tools necessary to assess sector-level ESG risks and opportunities. In North America and in Europe, equity investors now have the benefit of a diverse range of research providers who assess ESG variables as well as an increasingly well developed corporate and regulatory dialogue about ESG strategies. **Taking Stock** represents a crucial first step in developing a framework for analyzing ESG issues in Asian equity markets.

Through a focus on both the largest and highest impact sectors in Asia, ASRIA's **Taking Stock** offers investors an introduction to the ESG profile of Asia's most broadly held companies across a range of Asia's sectors and markets.

The reports provide important reference points for Asian investors about new ESG policy strategies and market-based initiatives which are emerging both globally and in Asia. Just as important, they identify the critical questions which alert investors should be asking Asian companies in order to evaluate ESG disclosure and performance.

Global financial markets are engaged in a dynamic process of addressing ESG trends. As the first work of its kind, it is our hope that the **Taking Stock** reports will highlight gaps in data and bring together Asian investors, companies, and policymakers to begin challenging old assumptions about the impact of ESG developments on Asian markets.

Clive Mason

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Introduction

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Government regulation of environmental and social impacts and corporate governance is the starting point for addressing fundamental long-term investment trends in many sectors. Therefore, sustainability issues have the potential to provide a new basis for comparison between countries competing for emerging market capital.

There are very few absolute certainties in investment. Even the most basic methods for valuing stocks have been the focus of intense debate for years. And yet, one thing that many investors in Asia's growth markets have historically accepted is the proposition that Asian investors do not focus on environmental, social, and governance (ESG) issues in the same way that developed market investors do. This presents an immense challenge for investors, policymakers and companies who look to Asian capital markets for a tangible assessment of the risk and return associated with ESG impacts on new business and policy directions.

This report, therefore, represents a first step toward filling a very large gap in the Asian investment literature. In contrast with Asia, investors in developed markets have a number of independent research providers to turn to for sector and stock-specific evaluation of ESG variables. In Asia-Pacific, however, Australia and Japan are the only markets which receive systematic coverage and have a base of sustainable and responsible investment (SRI) funds actively evaluating the ESG profile of listed equities. A limited number of Asian companies have won inclusion in major global sustainability indexes such as the FTSE4Good and the Dow Jones Sustainability Index, but there is little local market recognition of the performance criteria highlighted by the indices.

This analytical gap is striking in view of the fact that Asia is the fastest growing source of sustainability risks globally due to the rapid growth of economic activity in Asia and of associated ESG impacts. Indeed, developed market companies increasingly frame their discussion of ESG risks in terms of their activity in Asia. Nonetheless, it must be acknowledged that the process for crystallizing risks in terms that Asian capital markets can address is relatively subdued. In general, this reflects lower disclosure, legal, regulatory, and legislative standards and enforcement, as well as the more limited impact of minority shareholders.

The Scope of the Reports

The purpose of ***Taking Stock*** is to begin the process of mapping the growing list of sustainability investment risks and opportunities to the Asian listed equity universe. To ensure that our analysis addresses the most broadly held

companies which are the focus of most sector-level investment research, we have focused our analysis on the leading large and mid-capitalization equities in each sector. For purposes of these reports, we are using a straightforward approach to the definition of sustainability for investment purposes:

Sustainability is a systemic concept, relating to the continuity of economic, social, institutional and environmental aspects of human society. In the terms of the 1987 Brundtland Report of the UN's World Commission on Environment and Development, sustainability is: "Meeting the needs of the present generation without compromising the ability of future generations to meet their needs." The key concept for investors is the need to address a range of environmental, social, and governance factors which will inevitably shape long-term returns as markets respond to changing resource requirements and public priorities.

In practical terms, we have worked with three broad categories of sustainability issues focused on environmental, social, and governance (ESG) factors. There is obvious and sometimes complex interaction between these three categories which can make the task of identifying discrete financial impacts challenging. For example, banks which are facing basic governance problems with borrowers, touching on issues such as land ownership and toxic waste disposal, are certain to have difficulty in assessing the environmental impact of their loan portfolios. In a similar fashion, environmental issues can also have material social and financial impacts for workers, the public, and for consumers.

The reports have been tailored to the needs of mainstream investors in Asian markets ex-Japan. While Japan, Australia, and New Zealand are of course prominent Asia-Pacific markets, it is most common for emerging market investors to focus on Asia ex-Japan. To ensure that they address an investment-oriented audience, with varying degrees of familiarity with sustainability issues, we have framed the issues in terms of investment themes which reflect competitive and financial trends typically monitored by investors. The goal was not to provide a comprehensive discussion of Asian sustainability issues because there is a vibrant and growing body of literature covering many of these issues globally. Instead, our goal is to provide a robust introduction to these issues in an investment context appropriate to Asian markets.

Taking Stock covers eight of Asia's largest and highest impact sectors. The crucial large market capitalization building blocks which dominate many Asian portfolios are banks, energy, and technology. We have added to this list, five sectors which are recognized as having the highest ESG impacts — power, pulp, paper and timber, metals and mining, autos, and supply chain companies. The issues have been addressed in a broad-based and practical context, highlighting risks, opportunities, technology developments, and emerging marketplace standards.

Where possible, we have sought to provide a clear sense of how the issues will develop in Asian markets and the factors which will help define Asian best practice. Given the paucity of investment research on sustainability issues for Asian markets, the immediate challenge addressed by these reports is to identify which issues are most material for Asian companies and investors and what impact they may have in coming years. As a result, for each sector we have

defined four broad investment themes. Three of the themes cover a medium-term timeframe spanning a two- to five-year period. This acknowledges the fact that ESG issues in Asia are still emerging. To address longer term issues, especially those which promise to offer new marketplace opportunities for Asian corporates, we have also examined the issues in a five- to ten-year timeframe which acknowledges more potential for regulatory change and innovation.

The Asian Equity Landscape

Our reference point for *Taking Stock* is the universe of listed Asian equities, stretching from India and Indonesia in the South to China and South Korea in the North. Given the structure and rapid growth of North Asian economies and equity markets over the past five years, Asian equity portfolios tend to be dominated by holdings in these markets. Indeed, the Hong Kong, China, Korea, and Taiwan stock markets are globally oriented markets with a rich cross-section of industrial and service sectors. They also reflect the broad-based influence of China's development as a global manufacturing hub and the corresponding growth of the Chinese listed equity universe. Hong Kong's leading listed companies include a large contingent of Chinese companies, many of which are jointly listed in both Shanghai and Hong Kong. Similarly, the outlook for Taiwan's heavily capitalized technology sector is intimately linked to China's fortunes as many of the cost competitive players in Taiwan's technology sector have sizeable manufacturing operations in China. South Korea's stock market performance, although less linked to China, reflects the country's dynamic performance in the wake of the Asian Financial Crisis and the global competitiveness of both the technology and manufacturing sectors.

Figure 1 Configuration of Asian Market Capitalizations

Regional Markets *	Market Cap ** (US\$bn)	%
Hong Kong (HKSE)	1,154	28.9
Korea (Kospi + Kosdaq)	704	17.7
India (BSE)	507	12.7
Taiwan (TSE)	472	11.8
China (SHA+SZA)	402	10.1
Singapore (MB)	305	7.6
Malaysia (MB)	126	3.2
Thailand (SET)	124	3.1
Philippines (PSE) ***	112	2.8
Indonesia (JKSE)	82	2.1
Total	3,988	100.0

Market Cap Source: Bloomberg, December 2005

* Items in capitals refer to reference market indices

** As at 30 December 2005, or last official day of trading

*** Source: PSE, December 2005

A second factor contributing to North Asia's dominant position in Asian investment portfolios is the large size of many of Korea, China, and Taiwan's privatized government companies. Indeed, government privatizations have contributed significantly to the growth in "corporate" Asia as previously government-owned entities have been transferred to the private sector in banking, telecoms, energy, and power. This phenomenon has not been limited to North Asia, but the large scale of privatizations in China, in particular, has tended to reinforce regional market capitalization in favor of North Asia.

The smaller, ASEAN markets all include meaningful listed companies which are held in global portfolios and are analyzed in the sector reports. Indeed, regional variations in ESG performance necessitate a careful evaluation of a range of country level trends, especially for the high impact but smaller capitalization sectors. Some of Asia's smaller but more mature markets such as Singapore, Thailand and Malaysia show encouraging signs of moving toward higher standards of ESG performance which can provide a model for other markets.

Figure 2 Asian Markets —Diverse Sector Mix

	Commercial Banks	Real Estate	Metals & Mining	Industrials	Semiconductors	Electric Utilities	Autos	Electronic Equipment
Hong Kong	11.6%	32.0%	0.1%	11.1%	1.0%	8.2%	0.0%	1.2%
Singapore	30.4%	8.4%	0.1%	7.6%	2.0%	0.0%	0.0%	8.5%
South Korea	13.4%	0.0%	5.6%	0.7%	24.3%	2.2%	6.6%	3.0%

Source: data services

Finally, it should also be noted that the Indian equity market, which accounted for 12.7% of Asian market capitalizations at yearend 2005, has performed extremely well in recent years and includes an attractive mix of new technology companies specializing in software and IT. Given India's potential for economic and market development, we see strong support for more leadership from Indian corporates, especially over a longer term time frame.

Another variable which is reflected in our analysis is the wide variation in market structures and the resultant mix of listed sectors across Asia. While the banking sector looms large in virtually all Asian markets, the degree of industrialization varies greatly along with the focus of industrial activities. Indeed Asian markets also reflect considerable variation in natural resources across the region — both in terms of forests and mineral reserves and patterns of domestic consumption whether for local or export re-processing. For example, South Korea's metals & mining sector reflects its globally competitive steel and auto industries.

Sustainable Returns — Key Conclusions

Each sector report was designed to ask and answer the following question: what are the key investment themes which investors should be evaluating in order to analyze ESG issues in Asia? The focus is on identifying a specifically Asian investment dynamic, based on both risks and opportunities. These themes are then assessed with a view toward the probability of catalysts emerging for materialization of these issues, such as earnings or strategic impacts. Although it can be tempting to present a prescriptive argument about how we might hope markets would address ESG impacts, we have instead based our analysis on the reference points and materials which Asian investors use most commonly to assess stocks —key policy trends, company financial reports, and competitive market developments. Where appropriate we have referenced global ESG trends, especially for those sectors where global competitive dynamics are more likely to have impact in Asia. In addition, we have extended the boundaries of our analysis in considering longer term sectoral themes to reflect more potential for innovation both in the corporate and policy sphere.

Figure 3 Report Conclusions — The Structural Issues

Sectors	Cross-cutting Risks		Long-term Sector Trends	
	Poor Disclosure	Government Ownership/Regulation	Larger Role for China and India	More Global Footprint
Auto	✓	✓	✓	✓
Banking	✓	✓	✓	
Metals & Mining	✓	✓	✓	✓
Oil, Gas & Petrochemicals	✓	✓	✓	✓
Power	✓	✓	✓	
Pulp, Paper & Timber	✓		✓	
Supply Chain	✓		✓	✓
Technology	✓		✓	✓

To highlight the structural aspects of each sector — and how they shape the impact of ESG issues —the reports each include an introductory section which highlights sector composition, cross-cutting risks which affect the investment outlook generally, and longer term trends. In some instances the cross-cutting risks and longer term structural issues are extremely material and underscore themes which dominate our subsequent analysis of investment themes. Indeed, three dominant issues emerge from this aspect of the research:

Limited Disclosure of Material ESG Issues One of the most significant conclusions to emerge from our research is that Asian equity markets will struggle to value ESG issues until both government and corporate disclosure norms are improved. Asia faces a dual disclosure gap relative to more developed markets. Much of the information used in more developed markets to evaluate environmental, health, and safety issues, in particular, is publicly disclosed by governments permitting investors to form a clear view on regulatory norms. In

Asian markets, however, there is a persistent gap between legal norms and common enforcement standards which is reinforced by a lack of transparency. This has inhibited the ability of the investment community to verify regulatory trends and to push for more accurate corporate disclosure.

Government Ownership and Control Many of the largest Asian companies are effectively quasi-privatized entities which operate as an extension of the public sector. As a result, they often benefit from preferential market regulation which limits competition and dilutes the impact of stakeholders. They also suffer from backward-looking policies which can inhibit the development of the market-oriented practices crucial to recognizing ESG impacts. In some markets, government-controlled companies may emerge as sustainability leaders, but progress is often a by-product of regulatory and shareholding reforms.

Globalization and Market Development —Benefits for China and India

Two key long-term trends emerge from our structural analysis of Asian sectors. The first trend is the continued likely dominance of two of Asia's largest and fastest growing markets — China and India. We see ESG issues in Asia being framed by developments in both the economics and equity markets of these two countries. The second is that Asian markets and some of the most strategic sectors will increasingly be influenced by global trends, not local market drivers. This will pose an important challenge for local investors unfamiliar with key ESG trends shaping competition and market access elsewhere.

At the outset, we recognized that there would be both similarities to the investment analysis done in other markets as well as some significant and potentially pronounced differences, especially in sectors where Asian regulation and market-based incentives are less well entrenched than in more developed markets. Indeed, Asian investors will need to become more attuned to the importance of changing market and regulatory structures as the debate about ESG issues intensifies.

Environmental Issues Dominate, but Incentives for Change are Subdued

Across the eight sectors covered in these reports, environmental issues dominate the analysis. This reflects the concentration of environmental risks in the extractive, auto, energy, and power sectors. These impacts are of global significance, but our analysis indicates that for many companies, addressing ESG factors over the medium-term will require a willingness to invest in solutions, often without the immediate benefit of meaningful local market incentives. Indeed, other than companies with global customers, or companies operating in more developed markets, awareness of the business case for better ESG performance is low. In addition, some of the most destructive trends affecting high impact sectors are linked to low cost strategies (illegal timber) and race-to-the-bottom trends (low value-added outsourcing) which have been reinforced by cost-conscious global consumer trends.

Better Governance Standards —A Key Facilitator for E & S Performance

Just as government control of large portions of Asian market capitalization shapes the ESG landscape, so poor governance standards inhibit the ability of investors and Asian corporates to address pressing ESG issues. For example, in two of Asia's largest sectors — banking and technology — we found very little

acknowledgement of commonplace ESG factors which are now an established part of developed market investment disclosure and debate. This gap is even more pronounced in the energy, power, supply chain and extractives sectors, with few indications of board-level initiatives or disclosure improvements.

Rising Expectations Will be a Driver for Regulatory Change Traditional social risk factors affecting workplace health, safety, and livelihood issues are concentrated in the extractives and supply chain sector. It is important to stress, however, that we see a strong potential dynamic with rising incomes and expectations across Asia as a catalyst for changes in enforcement of current regulations and the adoption of higher standards affecting the power, auto, extractives, and supply chain sectors. This trend is already apparent in South Korea, Hong Kong, Singapore, and more recently China where government officials are increasingly responding to the politicization of issues such as air pollution and mine safety.

Figure 4 Report Conclusions —The Sectoral Issues

Investment Themes	Key Drivers			Financial Dynamics	Key Impacts		
	E	S	G		Costs	Opportunities	Both
Auto							
Air pollution	✓	✓		Higher costs, reduced revenue opportunities	✓		
Meeting tougher emissions standards	✓			Higher costs	✓		
Building new alliances	✓		✓	Improved margins			✓
Technology and innovations	✓			Improved margins			✓
Banking							
Corporate control & governance			✓	Consolidation provides economies of scale			✓
The technology bet			✓	Higher capex needed			✓
Asset quality & sustainable risk assessment	✓		✓	Improved credit quality			✓
Sustainable financial products	✓	✓		New revenue opportunities		✓	
Metals & Mining							
Rising EHS standards	✓	✓		Higher costs	✓		
Community investment		✓	✓	Higher costs	✓		
The energy appetite	✓			Margin pressure, incentives for energy efficiency			✓
Globalization and transparency			✓	More competitive pressures			✓
Oil, Gas & Petrochemicals							
Deregulation: a prerequisite			✓	More market incentives			✓
EHS: higher standards & costs	✓	✓		Higher costs but more stable margins			✓
Cleaner fuels a key constraint	✓			Premium pricing for clean fuels		✓	
Meeting the supply challenge	✓		✓	Growth but higher costs			✓
Power							
Energy efficiency	✓			More stable returns			✓
Regulatory risk		✓	✓	Higher costs	✓		
Cleaner fuels	✓			Higher costs	✓		
Pricing in the environmental costs	✓			Improved incentives for renewables			✓
Pulp, Paper & Timber							
Rising regulatory risk	✓	✓	✓	Higher costs	✓		
Sustainable supply	✓			Higher costs	✓		
Forest standards	✓	✓		Higher costs but more market access			✓
Technology & carbon sequestration	✓			New revenue opportunities		✓	
Supply Chain							
Rising labour & environmental standards	✓	✓		Higher costs	✓		
Competing on codes and standards			✓	More market incentives			✓
Export market access			✓	More market incentives			✓
Strategic engagement		✓		More market incentives			✓
Technology							
Toxics and takeback	✓	✓		Higher costs to gain market access			✓
Transparency			✓	Higher cost of capital	✓		
Industrial policy			✓	Fewer subsidies	✓		
IPR			✓	Higher cost to develop and protect IPR			✓

Conclusions for Asian Investors

The mix of structural and sectoral conclusions which emerge from the analysis in *Taking Stock* has distinct implications for Asian investors. In addition to highlighting key trends which have the potential to influence country, sector, and stock performance, we believe that ESG factors have the potential to create a new investment valuation dynamic. As investors and global competitors become better versed in ESG analysis, we expect to see companies take a more strategic approach to positioning on ESG issues. This will create important opportunities for investors to evaluate new scenarios reflecting ESG variables. We see interesting opportunities to consider three key scenarios:

Survival of the Fittest: Incumbents vs. Innovators In some sectors, such as banks, it seems clear that over the medium-term the companies which are best positioned to meet rising sustainability standards are those with stronger management systems and cashflow needed to meet higher environmental and social compliance standards. In most of the sectors we have reviewed, it is already possible to identify Asian companies which have a stakeholder orientation and are seeking opportunities to improve performance on sustainability factors. The question for investors is whether ESG variables will favor the performance advantages of large market incumbents, thereby aggravating the tiering effect in many Asian markets. This could create a dynamic in which the laggards run the risk of having an increasingly concentrated sustainability risk profile. In an alternate scenario relevant to the power, metals, and supply chain sectors, it is possible to speculate that a sudden spike in energy costs, for example, could damage the prospects of incumbents with energy intensive legacy assets and favor smaller, more nimble competitors which can lay claim to an industries-of-the-future strategy.

Pricing in ESG Risks —Watch IPOs in High Impact Sectors Thanks to recent efforts to raise disclosure standards for Asian IPOs, investors in newly listed companies will tend to see higher levels of disclosure of material sustainability risks. Depending on market conditions, this will create a broader audience for the discussion of emerging risk factors, especially as regulatory processes become clearer. For private equity investors, better disclosure of sustainability risks on IPO should drive improved due diligence of investments.

The Country Risk Premium As Asia's economies and markets mature and investor understanding of ESG factors improves, sustainability issues have the potential to tilt crucial perceptions of the country level risk-reward profile. For long-term investors, this is already evident in recent discussions of comparative governance standards across the region. Given that government regulation of environmental and social impacts and corporate governance are the starting point for addressing fundamental long-term investment trends, sustainability issues have the potential to provide a new basis for comparison between countries competing for emerging market capital.

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Disclaimer: In light of the diversity of the Asian region, ASrIA does not guarantee that each sector report is a comprehensive survey of all potential sustainability topics. With the resources available, however, the reports make every effort to focus on key areas of relevance and to deliver data that is accurate and opinions that are objective and balanced.

All these reports are also freely available on the ASrIA website at: www.asria.org/publications

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ABOUT ASrIA

The Association for Sustainable & Responsible Investment in Asia

www.asria.org

ASrIA is a not for profit, membership association dedicated to promoting corporate responsibility and sustainable investment practice in the Asia Pacific region. ASrIA's members include investment institutions managing over US\$4 trillion in assets, however membership is open to any organisation which has an interest in sustainable investment.

ASrIA has taken a leadership role in promoting sustainable investment in Asia since our founding in 2001. ASrIA has run conferences, seminars and workshops, and published wide-ranging research on SRI issues. ASrIA has also created a very wide network of organizations and individuals interested in the broad range of policy issues and investment strategies which are essential to the implementation of SRI in Asia. ASrIA's website, www.asria.org, is the primary resource for SRI in Asia, attracting over 4,000 page views per day and over 5,000 subscribers to our regular e-bulletin.

ABOUT IFC

The International Financial Corporation (IFC)

www.ifc.org

The International Financial Corporation (IFC) is the private sector arm of the World Bank Group. Its mission is to promote sustainable private sector investment in developing and transition countries, helping to reduce poverty and improve people's lives. IFC finances private sector investments in the developing world, mobilizes capital in the international financial markets, helps clients improve social and environmental sustainability, and provides technical assistance and advice to governments and businesses. From its founding 50 years ago, IFC has committed more than US\$49 billion of its own funds and arranged US\$24 billion in syndications for over 3,000 companies in 140 developing countries.

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