

SynTao presents

Navigating Sustainability Solutions

Revealing China's ESG Issues

- 2011 -

**A study of Chinese news on corporations linked to
environmental, social and governance (ESG) issues**

Authors

Aur ia Britsch, Anna-Sterre Nette

Data collection

Zhang Jieya, Yang Yanqiu

ABOUT SYNTAO ESG RESEARCH

The bullet train crash in Wenzhou in the summer of 2011 and the Foxconn employee suicide spate in 2010 are just a few of the socio-economic examples that have impacted investment streams in China and show that management of environmental, social and governance (ESG) factors may add financial value and mitigates risk across an investment portfolio.

SynTao services

Since our company's founding in 2005, SynTao's multilingual and highly qualified analysts and consultants have offered clients tailored ESG research, sustainability consulting and advisory services relevant to the China region. One of our highly appreciated services is the *SynTao local news monitoring system*, a tool selecting and analyzing online articles released by national and regional Chinese media discussing the performance of almost 2,000 corporations in connection to sustainability issues. If required, SynTao also provides pro-active engagement services with companies and other stakeholders (e.g. government, NGOs, scholars).

Identify ESG risks in portfolio

The SynTao local news monitoring service is designed to help investors comply with international norms, based on the UN Global Compact 10 principles that underpin the Principle for Responsible Investment (PRI) and by identifying risks in their portfolio. SynTao became a signatory to the PRI in 2011.

More information

A number of clients such as asset managers and institutional shareholders interested in the performance of companies in the China region already make use of our monitoring tool. If you would like to receive more information about our services, please feel free to contact us.

SynTao ESG Research Manager:
Anna-Sterre Nette (e-mail: esg@syntao.com)

This report presents a discussion of China's most pressing corporate ESG issues for 2010-2011, based on the findings of the SynTao local news monitoring system.

ABSTRACT

This report presents a discussion of China's major corporate environment, social and governance (ESG) risks for 2010-2011, based on the findings of the SynTao local news monitoring system. For investors, the ESG performance of companies has become a proxy of management competence with implications for future cash flows. In order to form a judgment about management competence of companies operating in China, we carried out a study to identify the country's most urgent ESG issues, assessed on an industry and individual company level.

The SynTao local news monitoring system selects articles released by Chinese media (national and regional) that specifically discuss the performance of corporations in connection to ESG issues. After monitoring almost 2,000 listed companies operating in China mainland, Hong Kong and Taiwan for a period of one-and-a-half years (November 2009 – July 2011), we found 503 different companies to have generated a total of 676 alerts.

Based on the monitoring findings, this study presents an overview of 1) China's most urgent ESG issues, 2) China's industries most affected by ESG issues, and the 3) companies operating in China most affected by ESG issues. Through an additional four case-studies, we have provided an in-depth account and explanation of some of the most significant ESG challenges for the mining, manufacturing, oil and gas extraction and transportation industries. From SynTao's research it can be concluded that:

1. China's most pressing corporate ESG risks were found within the social issues category. The largest share of alerts was generated for occupational health and safety incidents (over 40 percent of the total alerts). The top five ESG issues were occupational health and safety, corruption and fraud, environment and industrial hazard, business ethics and product safety.
2. China's industries most exposed to ESG risks were found within the secondary economic sector. The largest share of alerts was generated for the manufacturing industry (over 55 percent of the total alerts). Industries within the primary and tertiary sectors received significantly less alerts. The top five industries most exposed to ESG issues were manufacturing, mining, transportation, financial services and construction.
3. The top three companies most exposed to ESG risks were PetroChina, Sinopec and Foxconn. The large majority of companies generated during the research period one alert for one ESG issue (87 percent). A much smaller share of companies, received at least two or more alerts (13 percent). PetroChina was the company most exposed to ESG issues, i.e. this company received a total number of 22 alerts.

Integrating ESG factors into investment strategy considers the economic implications of quickly changing socio-economic circumstances, leading to comprehensive insights that otherwise perhaps easily would be overlooked. Following the announcement of the 12th five-year economic plan (2011-2015) by the Chinese government in March 2011, which includes explicit references to environmental and social objectives, many anticipate the Chinese government to put greater emphasis on corporate management of ESG performance, and responsible investing more generally. As one third of the targets in the five-year plan are now related to the environment, we expect companies in the near future to become more strictly bound by environmental regulations and investors to benefit from corporate monitoring and assessment of extra-financial factors.

CONTENT

Abstract	3
Introduction	5
Chapter 1: China's ESG issues	7
1.1 ESG issues	7
1.2 Most urgent ESG issue	7
1.3 Occupational health and safety	8
1.4 Labor conditions	8
1.5 Corruption and fraud	9
1.6 Environment and industrial hazard	9
1.7 Peaks in alerts	10
CASE STUDY 1 – Occupational health and safety	
China's severe fatality rate in the mining industry	11
Chapter 2: China's industries affected by ESG issues	13
2.1 Sectors affected by ESG issues	13
2.2 Industry most affected by ESG issues	13
2.3 Primary sector	14
2.4 Secondary sector	14
2.5 Tertiary sector	15
CASE STUDY 2 – Transportation industry	
Railway safety concerns lead to drop in investments	16
Chapter 3: Companies in China affected by ESG issues	18
3.1 Companies and ESG issues	18
3.2 Companies receiving most alerts	18
3.3 Companies most affected by ESG issues	19
3.4 Distribution of company alerts	20
3.5 Company operations in Guangdong Province	21
CASE STUDY 3 – Environmental and industrial hazard	
Stricter environmental standards for China's offshore oil fields	23
CASE STUDY 4 – Manufacturing industry	
Reviewing the business model for the manufacturing industry	25
Conclusion	27
Appendix	29
Bibliography	32

INTRODUCTION

Revealing China's ESG Issues

This report presents a discussion of China's most pressing corporate environmental, social and governance (ESG) issues for 2010-2011, based on the findings of the SynTao local news monitoring system.

Local news monitoring system

For over two years, SynTao's local news monitoring system has provided a comprehensive overview of China's most corporate ESG issues. The tool selects and analyzes online articles released by (national and regional) Chinese media discussing the performance of corporations in connection to sustainability topics. The potential risk and value impact of ESG factors, when integrated into investment analysis and decision making, may offer investors potential long-term performance advantages, therefore SynTao decided to present a general overview of the results of the monitoring service in this report.

Managing ESG risk

Some of the ESG issues discussed in this report have brought about abrupt changes in investment climate, depending either on the response of the company, the public or the Chinese government. For instance, Zijin Mining Group, China's largest gold producer, was fined USD 4.5 million in February 2011, as it was held accountable for a major pollution accident that occurred earlier in July 2010¹. As company operations impact its surroundings, it might be highly beneficial for investors to closely monitor the entities' ESG performance.

Study results

The findings of our local news monitoring system are described in three chapters and four case-studies. Chapter 1 highlights China's most urgent corporate ESG issues (#1: occupational health and safety). Chapter 2

discusses China's industry sectors most affected by ESG issues (#1: manufacturing). Chapter 3 highlights the companies in China most exposed to ESG issues (#1: PetroChina).

Case-studies

Also included in this report are four case-studies that offer a more in-depth account of some of the ESG challenges within a certain company or industry sector in China. The first case-study points out the poor occupational health and safety record in the mining industry. The second case-study explores how the concern for product safety is undermining investments in the transportation industry (railway). The third case-study illustrates how recent oil spills have brought about stricter environmental standards for the industry. The fourth case-study exemplifies how initial social improvements may create new problems such as falling employment in the manufacturing industry.

The case-studies provide the reader with more background information about the ESG issues that investors might want to take into account when taking portfolio management decisions.

Managing ESG performance

According to the latest annual report by the United Nations Principles for Responsible Investment (PRI), based on information from over 900 signatories from 48 countries (representing a total of USD 30 trillion in assets under management), 94 percent of asset owners and 93 percent of investment managers have a formal responsible investment (RI) policy in place². Consequently, investors looking into China may benefit from environmental, social and governance (ESG) assessments that offer insights into the quality of company management, culture and risk profile.

SYNTAO ESG RESEARCH METHODOLOGY

Local news monitoring system

This research focuses on China's corporate environmental, social and governance (ESG) challenges over the last year. The SynTao local news monitoring system identifies articles released by Chinese media that discuss the performance of corporations in connection to ESG issues. Every relevant article selected by the system is carefully scrutinized by our analysts and may lead to an alert about a company. For this research, hundreds of articles were monitored on a daily basis.

Number of companies

SynTao monitors about 2000 companies and numerous funds and indexes, either listed on the Shanghai, Shenzhen or Hong Kong stock exchanges, or with significant operations in China mainland, Hong Kong and Taiwan. For this study, a total of 1818 companies were continuously tracked by the local news monitoring system. The companies named in the study are either privately or state-owned. The monitoring system also includes foreign companies with operations in China.

Alerts

During the time of this study, we collected a total of 676 alerts that were generated for 503 different companies. Alerts are collected based on the results of a negative screening exercise. The articles selected through our news monitoring system highlight an ESG issue and produce one alert per ESG issue. We continue to monitor any developments concerning the topic of that alert, a second alert for a company is only issued in case of a different and newly emerging issue. All the examples discussed in this report were selected by the SynTao local news monitoring system

Research period

The alerts discussed in this report were collected over a period of one-and-a-half-years (between November 2009 – July 2011).

ESG issues

ESG issues refer to a wide spectrum of sustainability related topics and can have material impact on the long-term risks and return profile of investment portfolios. *Environmental issues* may include sub-issues such as industrial hazard and depletion of natural resources, *social issues* will cover topics such as occupational health and safety, product safety and labor conditions, and *governance issues* may contain subjects such as corruption and fraud as well as corporate governance arrangements (see Appendix 1 for overview of all ESG sub-issues).

Media

The SynTao local news monitoring system selects articles from hundreds of Chinese online national and regional media sources. All selected articles included in this study report were released in Mandarin.

It should be noted that although independent media in China exist, potentially sensitive issues are sometimes limitedly reported on, which may have impacted the outcome of this study. In recent years, there has been more freedom to discuss negative impacts of (state-owned) corporate operations on environment and society, but the discussion of these issues tends to be mostly in line with (newly released) country policies. For instance, when the government initiates a crackdown on fraud or food safety, one often finds more media reports covering these types of incidents.

Chinese social media, such as Sina Weibo, were excluded from the study for this year, but may be included in the research scope once more established and reliable bloggers are identified.

Data use

All data discussed in this report and presented in the charts was gathered by SynTao and collected through its local news monitoring system, unless otherwise specified.

Chapter 1

CHINA'S ESG ISSUES

- ❖ China's most pressing corporate ESG issues were found within the social issues category.
- ❖ Occupational health and safety was China's most urgent corporate ESG risk for 2010-2011.

1.1 ESG issues

This chapter presents a discussion of China's major corporate environmental, social and governance (ESG) risks. Alerts generated by the SynTao local news monitoring system were assessed within the context of these three ESG issues.

Based on the findings of the SynTao local news monitoring system, we conclude that China's most pressing corporate ESG risks were found within the social issues category.

Of all alerts collected over the research period, a compelling majority, 65 percent, was generated for corporate incidents associated with social issues (see Chart 1). Considering the current attention of China's leadership for tackling corruption³, the share of alerts for governance issues were perhaps less significant than expected as the category received just 22 percent of the total alerts. Environment issues also generated relatively low coverage as the category received 13 percent of the alerts.

Chart 1 Distribution of alerts per ESG issue (in percentages)

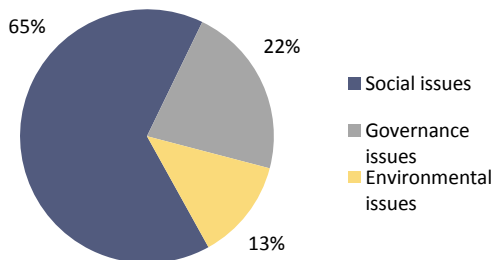
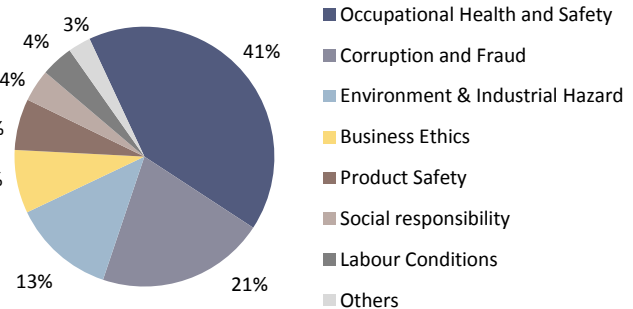


Chart 2 Breakdown of ESG alerts per sub-issue (in percentages)



1.2 Most urgent ESG issue

A closer look at the social issues category shows that the sub-issue occupational health and safety was China's most urgent corporate ESG issue for 2010-2011.

Of all alerts generated over the last year, the largest share, 41 percent, was connected to occupational health and safety (see Chart 2). The ESG sub-issue corruption and fraud generated half this percentage, 21 percent of the alerts. Alerts associated to the ESG sub-

issue environment and industrial hazard accounted for 13 percent of the alerts. The ESG sub-issues business ethics and product safety received respectively 8 and 6 percent of the alerts. The focus on companies in connection to product safety was perhaps much less than expected, especially considering the general attention for the issue following the tainted-milk scandal in 2008⁴.

Top five ESG issues for 2010-2011:

- 1) Occupational health and safety
- 2) Corruption and fraud
- 3) Environment and industrial hazard
- 4) Business ethics
- 5) Product safety

1.3 Occupational health and safety

In view of the secondary economic sector (manufacturing and construction) being of crucial value to China's economy (responsible for 47 percent of GDP in 2010⁵) but also most prone to workplace accidents, it is not surprising that the highest number of alerts in this study were generated for the social sub-issue occupational health and safety. Most occupational health and safety incidents took place within the manufacturing and mining industries, respectively generating 57 and 25 percent of these alerts (see Appendix 3), sectors that are generally characterized by an unsafe and labor-intensive working environment.

Work-related incidents

Analysts estimate that around 200 million people in China, employed by about 16 million companies, work in hazardous circumstances and are under constant threats of occupational diseases due to unsafe working conditions and poor prevention (such as employee health check-ups, sanitation, etc.) and workplace inspections by public authorities⁶. Furthermore, it should be taken into account that migrant workers are not eligible for health care services outside their own hometown, and only about 10 percent of workers in China have access to regular occupational health services⁷.

Although the work-related death toll has decreased significantly over the last few years, the numbers are still very high: in 2010, over 79,552 people died in workplace accidents, a percentage already down by 62 percent when compared to statistics in 2005⁸. In comparison, for 2010 the level of workplace fatality in China was almost 3.5 times higher than in the United States⁹. In reality, the difference between China and other countries is probably

much larger, as most experts believe Chinese official data are under-reported¹⁰.

According to SynTao's monitoring records, the most common workplace accidents regard fires, building collapses, explosions, sometimes caused by spills or leaks of flammable materials, and chemical accidents such as poisoning.

*See the case-study on occupational health and safety in the **mining industry** for more information (page 11).*

1.4 Labor conditions

Although labor conditions have unquestionably proven to be another serious occupational problem in China¹¹, its presence in Chinese media records appeared to be relatively limited. In our study, the sub-issue labor conditions accounted for only 4 percent of the total alerts (see Chart 2). The most common incidents mentioned for this sub-issue were related to salary disputes, such as demand for outstanding pay or increases in wage. We suspect that the relatively low number of media reports about labor conditions does not regard a fair reflection of reality: workplace disputes are bound to be under-reported as they are less visible in the public domain and harder to verify than events that have a direct impact on communities such as deadly explosions. Unfair pay only receives wider consideration when workers attract wide attention by for instance going on strike. In May 2010, Honda and Hyundai both agreed to salary increases of around 25 percent after wildcat strikes had broken out and production was halted in factories in China¹².

1.5 Corruption and fraud

The second most urgent corporate ESG issue was the governance sub-issue corruption and fraud, accounting for 21 percent of all alerts (see Chart 2). Most corruption and fraud incidents took place within the manufacturing and financial services industries, respectively receiving 38 and 22 of the alerts (see Appendix 3). Acts of bribery can have far-reaching effects that for instance lead to problems of product safety in the manufacturing industry.

Crackdown on corruption

Despite claims by the Chinese government to have strongly intensified the crackdown on corruption in recent years and the implementation of hundreds of anti-corruption laws, the issue remains “a very serious problem”¹³ according to the authorities. It is estimated that corruption and fraud cost China at least 3 percent of GDP per year¹⁴. Although prosecutors investigated more than 240,000 cases of corruption between 2003 and 2009, the chance of a corrupt official going to jail is less than 3 percent¹⁵.

Alibaba, the “golden suppliers” scandal

In February 2011, the leading e-commerce platform Alibaba announced employees had granted the honorary “golden supplier” status to 2,236 fraudulent online dealers, a true scandal in an industry completely based on trust. The company compensated 2,250 victims for a total of USD 1.7 million and dismissed 100 of its sales staff that were found responsible of intentionally or negligently allowing dealers to evade various controls¹⁶. The incident brought Alibaba significant reputational difficulties, and a decrease of USD 1 billion in market value was noted just one week after the public announcement of the scandal.

Disclosure on corruption may slightly improve due to the increasing use of modern technologies. Micro blogging websites, such as Sina Weibo (currently counting more than 200 million users¹⁷) already encourage a more

timely revelation of scandals. News about high-profile corruption and fraud cases involving large companies or top managers is increasingly brought into the public domain.

1.6 Environment and industrial hazard

The third most urgent corporate ESG issue was the environment sub-issue environment and industrial hazard, accounting for 13 percent of the alerts (see Chart 2). Most environment and industrial hazard incidents took place within the manufacturing industry (see Appendix 3), the sector most generally associated with ESG issues.

Remarkably, although China's environmental crisis is widely discussed by both domestic and foreign media, environmental scandals received a relatively low degree of attention from Chinese media compared to other issues. Many of the articles related to soil and water pollution and exceeding legal emission standards or hazardous waste and sewage.

Polluting industries

The increase of environmental damages and accidents rose hand-in-hand with China's staggering economic growth. The country is still at a level of economic development that largely depends on the polluting and accident-prone sectors and as long as penalties remain too small to drive changes in business operations, environmental regulations will, in all likelihood, continuously be violated¹⁸. However, improvements in the disclosure of accidents seem to be underway, according to official statistics and the number of reported major environmental incidents increased by 49 percent between 2005 and 2010¹⁹.

China's authorities acknowledge the country's looming environmental crisis, as the supervision, control and execution of environmental regulation is being intensified and one third of the targets defined in the 12th five-year economic plan (2011-2015) are related to environmental objectives. Already, by the end of 2010, China had closed down 2000 of its most energy-intensive factories, by some

analysts seen as a significant step forward in realizing the country's energy-efficiency goals²⁰. Also, listed companies operating in precarious sectors, such as the manufacturing and mining industry, were recently brought under higher surveillance of the Ministry of Environmental Protection and might experience more difficulties in acquiring funds or licenses for expansion²¹. Therefore, pollution related accidents might increasingly result in more severe financial or legal consequences in the future.

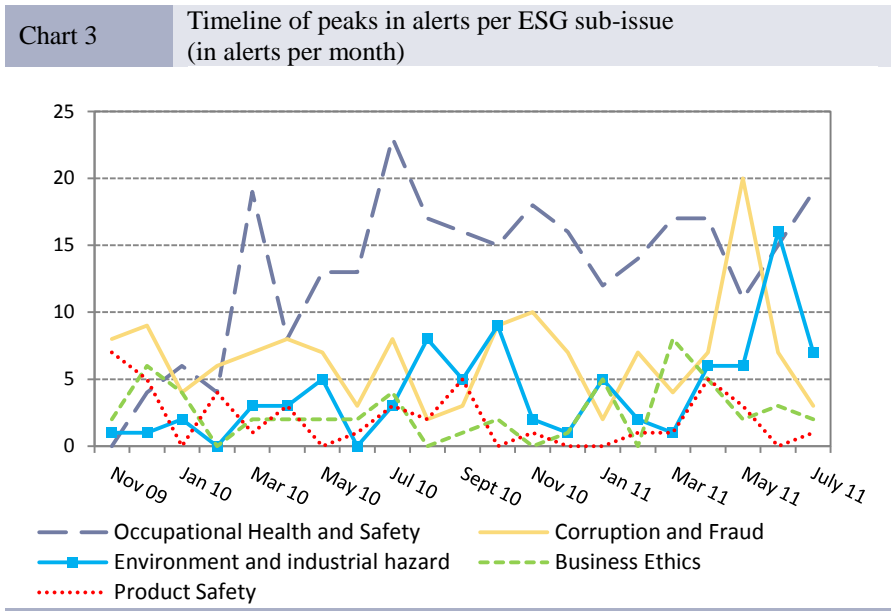
1.7 Peaks in alerts

In this study, several of the ESG issues have occasionally experienced a sudden peak in alerts (See Chart 3). In May 2011, the ESG sub-issue corruption and fraud received a significant 20 alerts, compared to an average number of 7 alerts per month. Likewise, the ESG sub-issue product safety experienced two peaks of attention in September 2010 and April 2011, when it counted 5 stories, compared to an average of 2 stories per month.

A peak in media attention for one specific ESG issue can simply reflect the sudden occurrence of several incidents around the same period of time. However, we suspect a peak in alerts concerning a particular ESG issue may often coincide with the implementation of new government measures to tackle exactly such types of incidents.

Zijin Mining Group, financial impacts of a major pollution scandal

Zijin Mining Group, China's largest gold producer, was fined USD 4.5 million in February 2011, for the responsibility of a major pollution accident that occurred in July 2010²². The company was held accountable for toxic waste leaking into the Tianjing River in Guangdong Province, causing fishing losses of USD 3.4 million and polluting drinking water for tens of thousands of people. Because of the cost of the judicial proceedings and the clean-up operations, Zijin Mining had to abandon its plans for two large overseas acquisitions²³.



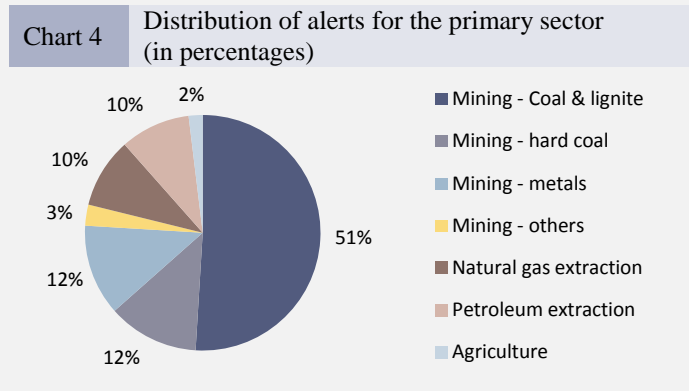
CASE STUDY 1 – Occupational health and safety China's severe fatality rate in the mining industry

Severe ESG risk in the mining industry

Notably, China gained its leading status in coal production at a very high cost: the country produces 40 percent of global coal output but accounts for 80 percent of global mining death²⁴. The results of the SynTao local monitoring system show that of all alerts for the mining industry, an overwhelming majority of 83 percent was generated for occupational health and safety incidents, leaving other risks such as environment and industrial hazards, 9 percent, and corruption and fraud, 1 percent, far behind (see Appendix 4). China's mining industry was the second most exposed industry to ESG risks, accounting for 13 percent of all alerts (the manufacturing industry received with 55 percent most of the alerts).

A constant string of accidents

Coalmines were the focus of more than 75 percent of the alerts about mining (equally, most of China's mines are coalmines). Flooding, blasts and collapses were commonplace, especially in small and illegally operating mines. The recent gas explosion in the Guomin Coal Mine, on July 17, 2011 in Heilongjiang Province killing 6 miners²⁵, is just the latest event in an almost constant string of health and safety accidents in the industry.



High fatality rate

It must be mentioned that the record for occupational health and safety in China's coalmines has recently significantly been improving due to recent activism of authorities, which undertook various nationwide crackdowns on safety violations in mines. Also, stricter safety standards have been adopted, aiming at enhancing reporting and emergency procedures.

Still in comparison, the safety record is much worse than that of any other country: between 2000 and 2009 China produced 1.8 times more coal than the United States, but featured an 88 times higher fatality rate per million tons²⁶. The country's fatality rate per million tons produced sharply reduced from 5.07 to 0.89 between 2002 and 2009, which is a major achievement. However in comparison, the United States featured a fatality rate of 0.015 per million tons produced for 2009. Official data gauge that over the last decade more than 50,000 miners died in over 30,000 accidents in China. The occupational injury rate is also extremely high: around 300,000 miners suffer from pneumoconiosis, a serious lung disease, and 2,500 workers die from this condition every year²⁷.

Illegal mines

The Chinese coal industry counts between 25,000 and 30,000 legally registered mines²⁸. Besides the giant, state-run mining companies, a massive number of small and privately-owned shafts thrive on China's coal rush. Between 2006 and 2010, consumption and production of coal rose by around 30 percent²⁹ and whenever the demand for coal increases, small mines prosper. Estimates about the number of illegal mines range from anything between 5,000 to nearly 30,000 additional facilities. One of the reasons of the difficulty to obtain accurate figures on Chinese coal plants is that many illegal plants are built and covered for by local and provincial governments in an effort to maintain the energy supply necessary to sustain economic growth³⁰. The small and often illegally operating mines are known to harbor most of the accidents and, therefore, are largely hold responsible for the country's poor occupational health and safety record in the mining sector.

Safety deficit

Small and privately owned mines, whose operating costs are much lower than the state-owned ones notably because of non-existent safety investments, thrive due to the soaring profits in the mining industry. The risk of fatal accidents in illegal coal mines is estimated to be at least 10 times higher than in the large state-owned mines. Safety enhancements contain a number of marked obstacles, such as poor working conditions (absent health and safety measures), lack of workers' training and low level of equipment technology³¹.

In its endeavor to promote mine safety, the authorities have closed down 13,000 illegal coalmines since 2005. However, close relationship between local civil servants and mine owners can limit the impact of new policies. Many local government officials tolerate illegal mines and cooperate to cover up safety violations in order to boost the economic performances of their regional area, sometimes even illegally holding a financial interest in these coalmines themselves³².

Insatiable power demand

As coal accounts for about 70 percent of China's energy mix³³, and power demand is quickly rising (electricity consumption grew by 14 percent in 2010 and is predicted to rise by 10 to 12 percent in 2011³⁴), the country has been relying increasingly on output from private and smaller mines. Closing down thousands of small privately-owned mines, still responsible for 35 percent of national production in 2009³⁵, may quickly improve mine safety but will undoubtedly increase pressure on power supply.

Consolidating the mining industry

The 12th Five-Year Plan aims at solving the quest for power and safety by consolidating the domestic mining industry. Analysts predict around 950 billion yuan (USD 151 billion) will be invested in the sector by 2020, partly to cover improvements for coalmine safety³⁶. Acquisition of small mines by larger mining groups is expected to address the demand for power supply via intensive explorations and increased productivity. The consolidation is also supposed to enhance safety through the modernization of management and equipment.

Chapter 2

CHINA'S INDUSTRIES AFFECTED BY ESG ISSUES

- ❖ China's most pressing ESG issues were found within the secondary economic sector.
- ❖ The manufacturing industry was most affected by ESG issues in 2010-2011.

2.1 Sectors affected by ESG issues

This chapter presents a discussion of China's industries most exposed to environmental, social and governance (ESG) risks. Alerts generated by the SynTao local news monitoring system were assessed within the context of its economic sector: the primary sector (agriculture, fishing, and extraction industries such as mining), secondary sector (manufacturing and construction industries) or tertiary sector (services industries).

Based on the findings from the SynTao local news monitoring system, we conclude that China's most pressing ESG risks were found within the secondary economic sector.

Of all alerts collected over the research period, a compelling majority, 62 percent, was generated for corporate incidents in the secondary sector (Chart 5). The primary and tertiary sectors accounted for a much smaller share of the alerts, respectively 15 and 23 percent.

Chart 5 Distribution of alerts per sector (in percentages)

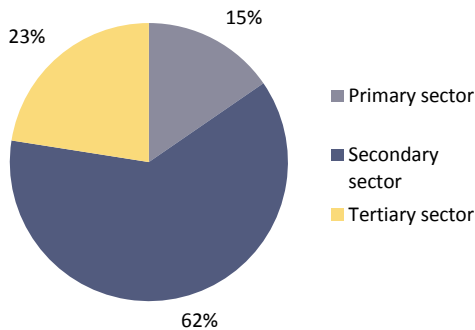
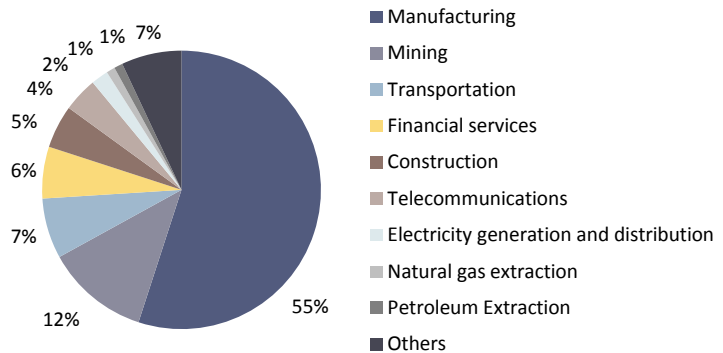


Chart 6 Breakdown of ESG alerts per industry (in percentages)



2.2 Industry most affected by ESG issues

A closer look at the secondary economic sector shows that manufacturing was China's industry most affected by ESG issues for 2010-2011.

Of all alerts generated over the last year, the largest share, 55 percent, was connected to the manufacturing industry (see Chart 6). Other industries were much less associated with ESG issues. The mining industry received 12 percent of the alerts. The transportation industry accounted for 7 percent of the alerts. The

financial and construction industries generated respectively 6 and 5 percent of the alerts.

The top five industries most affected by ESG issues for 2010-2011:

- 1) Manufacturing
- 2) Mining
- 3) Transportation
- 4) Financial services
- 5) Construction

2.3 Primary sector

The primary economic sector comprises the agriculture, fishing and extraction industries and received the smallest share of all alerts, 15 percent. The extraction industries generated 14 percent of these alerts, of which a share of 12 percent was connected to mining activities, 1 percent to petroleum extraction and 1 percent to natural gas extraction (see Chart 6). The agriculture and fishing industries received each less than 1 percent of the alerts.

*See the case-study on occupational health and safety in the **mining industry** for more information (page 11).*

2.4 Secondary sector

The secondary economic sector comprises the manufacturing and construction industries, which received respectively 55 percent and 5 percent of the total alerts (see Chart 6). The remaining 2 percent can be found under other industries, such as civil engineering, casting of metals etc.

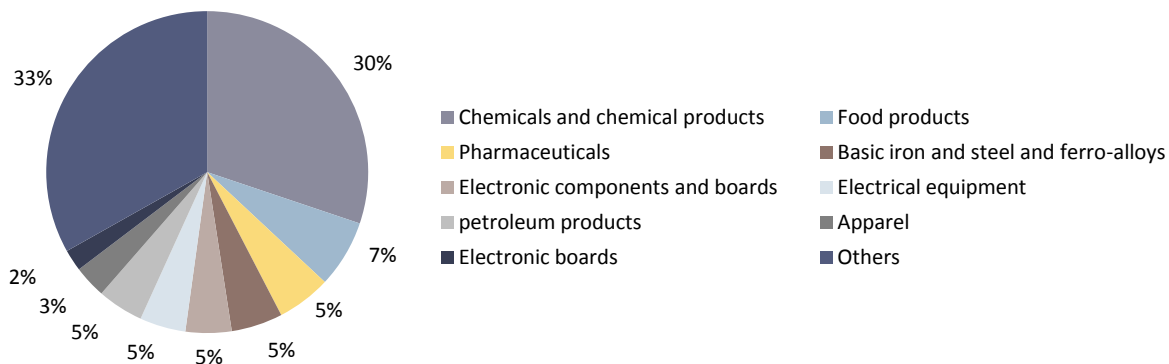
In accordance with our findings from Chapter 1, it is not surprising to find the highest number of alerts for the secondary economic sector because its industries are generally also considered to be most prone to workplace incidents.

Manufacturing industry

Manufacturing was China's industry most affected by ESG issues (see Chart 6). Although a significant share of the manufacturing alerts, 43 percent (see Appendix 4), was related to occupational health and safety issues, it should be noted that the industry deals with a much wider range of challenges. The ESG sub-issue environment and industrial hazard received 18 percent, the ESG sub-issue corruption and fraud generated 14 percent and the ESG sub-issue product safety counted 7 percent.

The manufacturing industry includes a large number of precarious business operations. For instance, the sub-industry manufacturing of chemicals and chemical products accounted for 30 percent, almost one third, of the alerts for manufacturing (see Chart 7), with 60 percent of these alerts related to occupational health and safety issues and 21 percent to industrial hazards (see Appendix 5). The sub-industry manufacturing of food products accounted for 7 percent of the alerts (see Chart 7), with 12 percent of these alerts being related to product safety (see Appendix 5). The sub-industries manufacturing of pharmaceuticals, basic iron and steel and ferro-alloys and electrical components and boards turned out to be also highly ESG sensitive business operations, all receiving respectively 5 percent of the alerts (see Chart 7).

Chart 7 Distribution of alerts for the manufacturing industry per sub-industry (in percentages)



Top five sub-industries for manufacturing most affected by ESG issues for 2010-2011:

- 1) Chemicals and chemical products
- 2) Food products
- 3) Pharmaceuticals
- 4) Basic iron and steel and ferro-alloys
- 5) Electronic components and boards

Labor-intensive and export-oriented

The high exposure of the manufacturing industry to ESG issues can be explained by the nature of the country's economic activities and the size of the sector. Over the years, the economic achievements of the country have been driven by labor-intensive and export-oriented manufacturing activities. In 2010, China became the world largest manufacturer accounting for almost 20 percent of the world's global output³⁷.

ESG issues affecting one company often automatically impact a complete industry; a scandal easily spreads out and operations of other companies are quickly questioned. Also, foreign companies linked to China through their supply chain are highly exposed to domestic ESG challenges.

Greenpeace, polluting manufacturers in China
Recently Nike, Adidas and Abercrombie & Fitch were accused of unsustainable practices in their supply chain in China, as highlighted in a report by Greenpeace in July 2011³⁸. The NGO denounced the companies' links to several Chinese manufacturers that discharged hazardous chemicals into the already heavily polluted Yangtze and Pearl River Deltas.

*See the case-study on **manufacturing** and Foxconn for more information (page 25).*

2.5 Tertiary sector

The tertiary economic sector comprises the services industries and accounted for 23 percent of total alerts, a relatively low result when compared to its share in Chinese economy. The tertiary sector accounts for 43 percent of GDP in 2010, almost as much as the

47 percent of value generated by the secondary sector³⁹.

A reason for the low number of generated alerts could have to do with the visibility of the type of accidents. Incidents in the manufacturing industry, such as spills, explosions or issues with food safety, are more difficult to keep under wraps than issues in the service industries. Most of the alerts for the tertiary sector were related to corruption and fraud cases, practices that, if detected at all, are not often publicly announced. From the results of our study, it appeared that the transportation, financial services and telecommunications industries were an important source for China's corruption and fraud cases, as 40 percent of the alerts were connected to the governance issues category (see Appendix 3).

*See the case-study on the **transportation** industry focused on railway safety for more information (page 16).*

Of all alerts, 6 percent of ESG issues were dedicated to the financial services industry. The industry is especially at risk of governance issues, as 84 percent of these alerts were related to corruption and fraud scandals, characteristic for one of the most corrupt industries in China⁴⁰.

ICBC Asia, corruption in the financial sector
The story of Derick Chan, former Head of Corporate Banking at Industrial & Commercial Bank of China (ICBC Asia), is a typical example of the large number of top executives in banks that have recently been jailed for corruption. He was sentenced on July 20, 2011 to two years of prison for accepting bribes worth HKD 3.3 million in 2006 and 2007⁴¹. The increasing number of corruption related incidents described in the media is explained by the ongoing modernization of the banking industry, which is characterized by stricter standards, improved internal audits and a less permissive attitude regarding bribery. The changes in management will undoubtedly uncover more frauds⁴².

CASE STUDY 2 – Transportation industry

Railway safety concerns lead to drop in investments

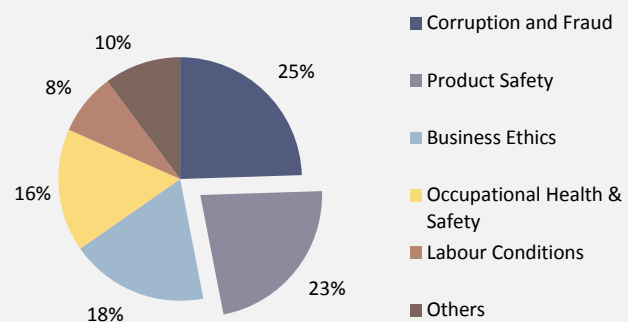
Severe ESG risks in the transportation industry

The high-speed train crash near Wenzhou in Zhejiang Province on July 23, 2011 killed 40 people and left 191 other passengers injured⁴³. In response to the incident, premier Wen Jiabao announced in August that China would suspend new railway project approvals and launch safety checks on existing equipment. The results of the SynTao local monitoring system show that China's transportation industry is the third most exposed industry to ESG risks, accounting for 7 percent of all alerts (most of the alerts were counted for the manufacturing and mining industries, receiving respectively 55 and 12 percent). Of the alerts within the transportation industry, 25 percent was generated for corruption and fraud, 23 percent for product safety and 18 percent for business ethics (see Chart 8).

Sacrificing public safety

The train crash sparked huge public criticism in China over the Ministry of Railways' management of bullet trains and security arrangements, highlighting the country's fear that public safety is being sacrificed for economic prosperity. The results of the SynTao local news monitoring system show that the ESG issue product safety received 6 percent of total alerts (see Appendix 4). Within the transportation sector, 23 percent of the incidents related to product safety. Concerns regarding bullet trains threaten the further development of the complete railway industry.

Chart 8 Distribution of alerts per ESG sub-issues for the transportation industry (in percentages)



Anticipated export

China began construction of its high-speed rail network in 2005 and saw a steep investment in the railway sector ever since. By 2010, the sector hit a record high investment of 749.5 billion yuan⁴⁴ (USD 117.3 billion), it had more than 8,000 km of high-speed track and declared plans to double this by 2015⁴⁵. Also, China's bullet trains were much cheaper than anything available from the competition in Germany or Japan and had become the country's latest hype in export products. Allegedly, part of a broader plan to gain access to valuable natural resources, China was aiming to provide infrastructure capacity to countries in return for a share of energy and mineral resources⁴⁶, a formula already key to current Chinese overseas investment projects.

Suspension of railway projects

The train crash in July 2011 severely impacted stock prices of railway-related companies⁴⁷, as nine stocks in the sector saw a decrease of 9 percent that same week. By the end of that month, China's rail construction investments dropped by 26 percent and investment over the second half of 2011 is expected to plunge by at least 40 percent⁴⁸. The train collision near Wenzhou influenced the prospects of all railway projects in the country, as it became more complicated to receive regulatory approvals or carry out restructuring ahead of IPOs⁴⁹. Although in October 2011, Chinese Railway Ministry bonds were gaining for the first time in nine months as the government responded to the high-speed train crash by slowing spending and cutting taxes on new debt issues⁵⁰, the suspension of new railway projects approvals effectively slowed down further development of China's railway industry.

Difficulties raising funds

For instance, China CNR Corp Ltd., the state-controlled operator of the Beijing-Shanghai bullet train, further delayed a 35 billion yuan (USD 5.5 billion) listing plan⁵¹, announced it suspended production of one bullet train model⁵² to address technical glitches and recalled 54 bullet trains used on the Beijing-Shanghai line (cutting services by 25 percent)⁵³. More companies have difficulties in raising new funds. China South Locomotive & Rolling Stock Corp., the country's largest railway equipment maker, postponed an 11 billion yuan (USD 1.7 billion) financing deal as its share price fell well below the planned share issuance price⁵⁴. China Railway Group, the country's largest railroad builder, said it had dropped a plan to raise about 6.2 billion yuan (USD 1 billion) via a share placement due to uncertainty over regulatory approval⁵⁵. By October 2011, it was clear that China had postponed the building of about 80 percent of new railway projects pending clarification of government policies for the sector. Also the completion of many projects had been pushed back by a year⁵⁶.

Urgent need for safety improvements

The findings of a government panel investigating the train crash in Wenzhou that were scheduled to be released in mid-September 2011, had still not been made public by mid-October, as it was stated that “many more technical and managerial problems need to be investigated and analyzed” (no new release date was announced).⁵⁷ However, the opinion of the Chinese public is clear: the Railways Ministry sacrificed safety on trains for economic profit. But can China change? How quickly can it for instance enhance its safety standards on its railway network? Engineers in China raised concerns about a lack of qualified personnel on the railway network to initiate the necessary safety procedures during signal failures, the cause of the accident in July 2011⁵⁸. Although the rail companies provide training, there is no confidence the shortage of skilled staff can be quickly addressed.

Railway debt

Moreover, with fewer sources of funding, many wonder whether the debt-burdened Railways Ministry's operations generate enough cash to both carry out the necessary safety improvements to its high-speed network and cover interest payments on its loans. China's "high-speed rail leap forward" has arrived at great expense, and even the successful high-speed railway between Beijing and Tianjin is deeply in debt⁵⁹. At the end of the first quarter in 2011, the Railways Ministry's debts obligations totaled 1.98 trillion yuan (USD307 billion), about 5 percent of China's gross domestic product, up from about 2 percent in 2007⁶⁰. Even though the ministry issues bonds, it is expected to be shortly in need of a government capital injection⁶¹, a burden that could suck funds away from other fiscal priorities and could saddle China's state-run banks with bad loans⁶².

Ministry reform

Even before the recent train crash, the Railways Ministry had been under scrutiny for functioning as an all-in-one investor, developer and operator of an entire rail industry⁶³. In February 2011, the Minister of Railways, Liu Zhijun, was dismissed over corruption charges (not tried in court yet)⁶⁴. Now, many are waiting for the Ministry's reform, which may separate the rail authority from its rail businesses, bringing a clear divide between supervision and management tasks⁶⁵. Many feel the Ministry's main tasks should focus on enabling fair competition and monitoring safety standards. A shift that would tackle widespread concerns about safety on trains being sacrificed to achieve higher speed limits, encouraging stock market investors to return to China's railway projects.

Chapter 3

COMPANIES IN CHINA AFFECTED BY ESG ISSUES

- ❖ PetroChina, Sinopec and Foxconn were the companies in China most exposed to ESG issues.
- ❖ The vast majority of companies received one alert for one ESG issue for 2010-2011.

3.1 Companies and ESG issues

This chapter presents a discussion of companies most prone to environmental, social and governance (ESG) risks in China. Alerts generated by the SynTao local news monitoring system were assessed per company entity.

Based on the findings from the SynTao local news monitoring system, we conclude that China's most pressing ESG risks were found for companies operating within the primary and secondary economic sectors, specifically the oil and gas extraction and manufacturing industries.

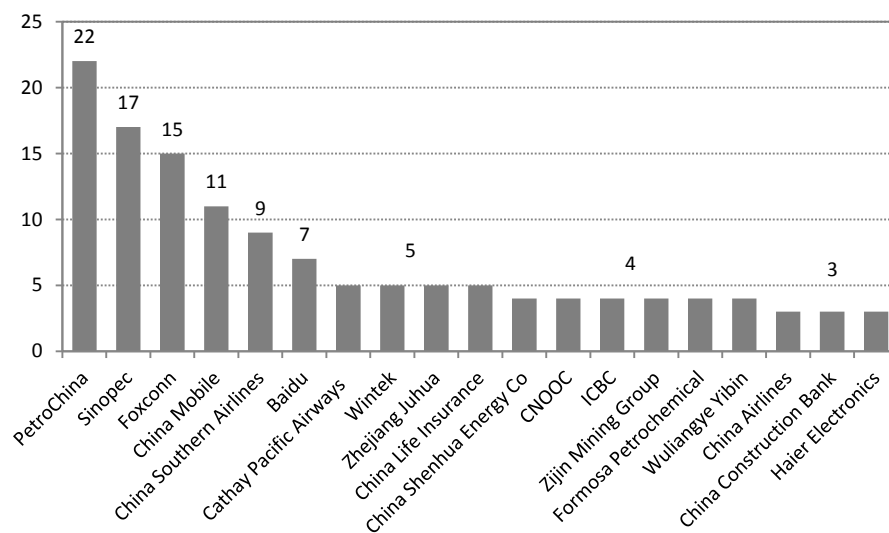
The companies that received the majority of the alerts during the research period of this study were all very well-known Chinese business entities (see Chart 9).

3.2 Companies receiving most alerts

A closer look at the companies that received most alerts shows that of all companies, the oil company PetroChina was most affected by ESG issues in 2010-2011.

Of all alerts generated over the last year, most shares were generated for PetroChina, China's biggest oil producer and the world's third-most valuable company by market value⁶⁶. PetroChina received in total 22 alerts (see Chart 9). Another oil company, Sinopec, generated 17 alerts. Furthermore, Foxconn received 15 alerts, China Mobile 11 alerts and China Southern Airlines 9 alerts.

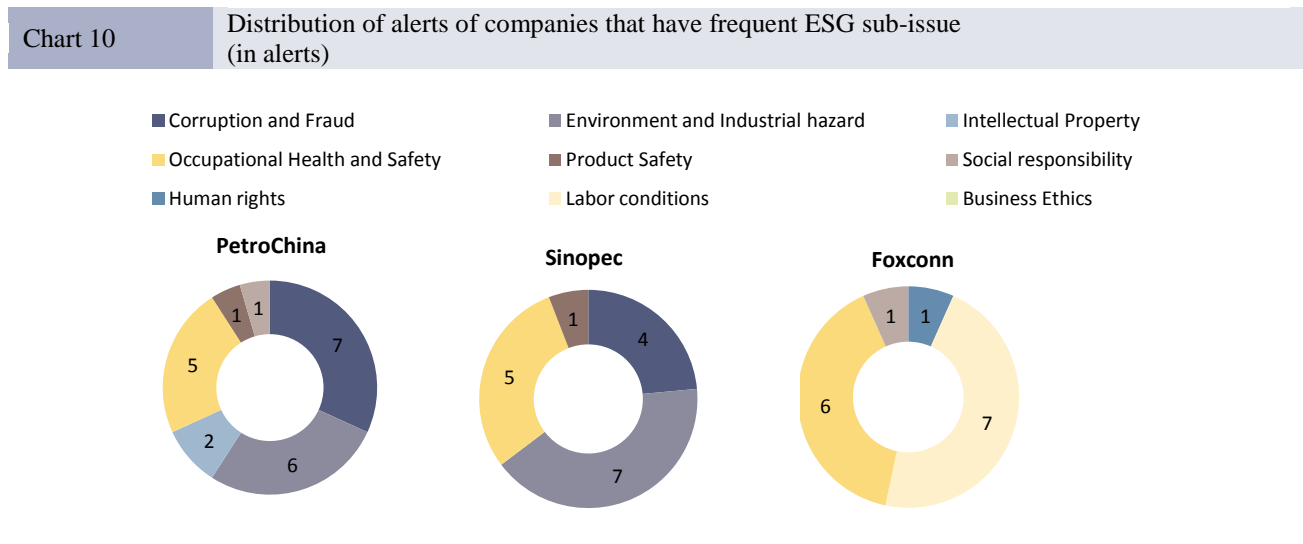
Chart 9 Distribution of alerts per company (in alerts)



Among the 10 companies that generated most of the alerts in our study, 4 were part of the Fortune Global 500 (by revenues), 2011⁶⁷, namely Sinopec, PetroChina, China Mobile and China Life Insurance. More generally, 8 of the 10 biggest Chinese companies listed in this ranking came up in our research at least once, besides the 4 companies already cited above, Industrial and Commercial Bank of China (ICBC), China Railway Group, China Construction Bank and Agricultural Bank of China.

3.3 Companies most affected by ESG issues

The top three companies in this study found to be most affected by ESG issues, PetroChina, Sinopec and Foxconn, all (partly) operate within the secondary sector (petroleum products and electronic components), which is well-known for its unsafe and labor-intensive working environment. The three companies generated a significant part of their alerts in relation to the social issues category. More specifically, their alerts were significantly connected to the sub-issue occupational health and safety, as for PetroChina 5 out of 22 alerts were generated for this topic, for Sinopec 5 out of 17 alerts and for Foxconn 6 out of 15 alerts. (see Chart 10).



PetroChina and Sinopec were also highly exposed to environmental issues, they received respectively 6 out of 22 alerts and 7 out of 17 alerts for this category. According to SynTao's monitoring records, the alerts generated discussed topics such as fires and explosions, sometimes caused by leaking flammable materials, and violation of environmental regulations or poor environmental performance.

Oil and gas extraction risks

Over the last decade, China's oil and natural gas production steadily increased in order to meet the robust growth in demand: oil production increased by 20 percent between 1999 and 2009, and gas production was multiplied by almost 3.5 over the same period of time⁶⁸. Also, China's oil refining capacity thrived, having nearly doubled over the past 10 years⁶⁹. In order to address the voracious

appetite of the country's economy for energy, the production of oil and gas constantly rose at the expense of environmental protection. Therefore, it is no surprise that the monitoring records show numerous examples of alerts mentioning pipeline leaks or sea and river spills.

China's most recent and serious oil spill occurred in July 2010, when one of PetroChina's pipelines in Dalian, the biggest shipping center in China, exploded and oil poured into the sea, spreading over at least 165 square miles (430 square kilometers).

Also, Sinopec generated several alerts for its poor environmental performance. A number of provinces, among others Guangdong and Shanghai, announced in June 2011 that Sinopec, along with other 300 companies, faced production suspension and relocation, following the violation of environmental regulations⁷⁰. In May 2011, Sinopace received from Guangdong provincial environment authorities a low environmental evaluation grade for the 4th consecutive year.

*See the case-study on **Foxconn** within the manufacturing industry for more information (page 25).*

Service providers

China Mobile, the world's largest mobile phone operator, is generally much less associated with environmental issues or labor conditions than PetroChina, Sinopec and Foxconn. Although PetroChina and SinoPec also generated a considerable number of alerts for governance issues, China Mobile received most of its alerts for this category. In total, 8 out of 11 alerts for China Mobile were connected to the sub-issue corruption and fraud (see Chart 10). For example, a former senior executive was sentenced to death in May 2011, for taking USD 5 million in bribes

from the German industrial group Siemens⁷¹.

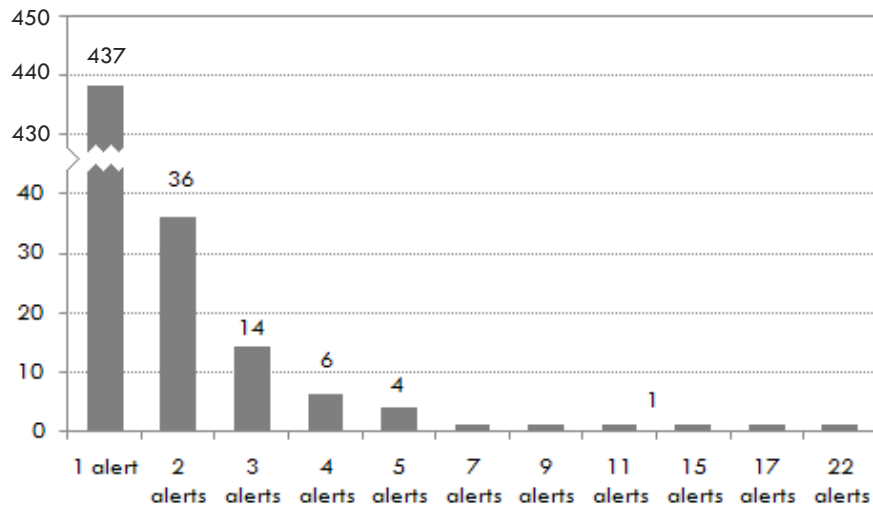
China Southern Airlines, Asia's largest airline in terms of fleet and passengers carried, received fifth most of the alerts. The company received most alerts within the social issues category, especially for the sub-issue business ethics issues for which it generated 5 out of 9 alerts (see Chart 10). Most of these alerts were related to customer complaints about flights management (overbooking or overweight). Product safety alerts mainly corresponded to mechanical failures.

3.4 Distribution of company alerts

Of the almost 2000 companies monitored for this study, a total number of 676 alerts were generated for 503 different companies. The majority of these alerts, 437 out of 503 (or 87 percent) were each generated for one separate company. In other words, 437 companies received one alerts for an ESG issue during the research period. The remaining companies, 66 out of 503 (or 13 percent), received at least two or more alerts. There were 36 companies that received 2 alerts, 14 companies receiving 3 alerts, 6 companies receiving 4 alerts and 10 single companies receiving between 5 to 22 separate alerts for different ESG issues (see Chart 11).

A company generating more than one alert implies that the entity was discussed by Chinese media in connection to more than one particular ESG issue, for instance two different oil spills in different months of the year. Every individual alert was released for one separate allegation or incident. Please note, the alerts are not a representation of the number of different media sources that have written about one company incident or the number of articles that were released about the issue.

Chart 11 Distribution of alerts per company
(in alerts)



Delayed announcement of the Bohai Bay oil spill

CNOOC, China's state-run oil giant, appeared to be highly reluctant to inform the public about a series of oil spills that occurred in the Bohai Bay in June 2011. CNOOC owns a large stake in the oil field in the Bohai Bay that is operated by ConocoPhillips, the United States group based in Houston. The spills remained a secret for almost a month before information about the incidents started leaking on the internet in July⁷².

According to some analysts, authorities seek the impossible balance to act on violations of environmental regulations without wanting to embarrass the companies' involved and jeopardize foreign investment⁷³. The level of public disclosure carried out in China seems to be highly influenced by the country's need for foreign capital, technology and market know-how: the higher the demand, the lower the push for assessment of social and environmental impacts of corporate operations.

Many large-scale companies in China show poor performance in pro-actively disclosing ESG information about their operations; they release low-quality sustainability reports and lack clear communications in the case of an incident.

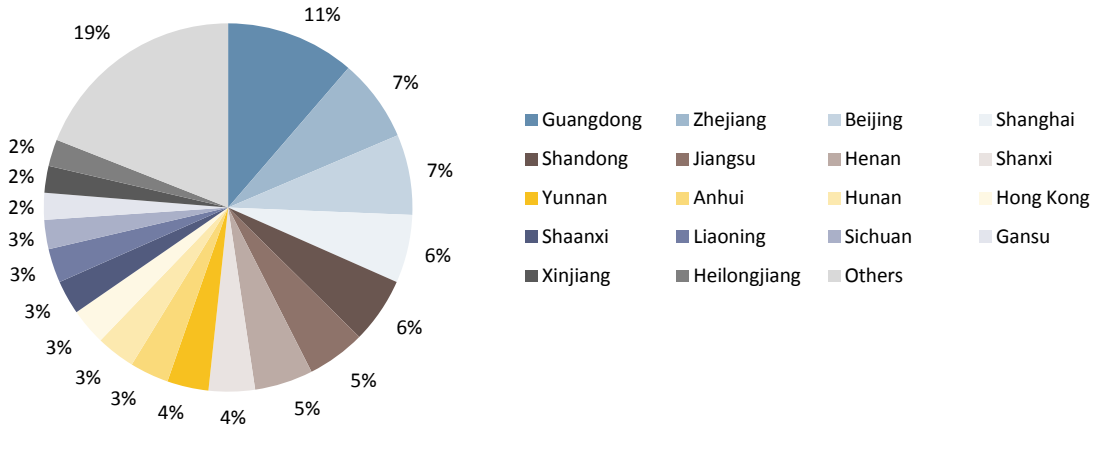
See the case-study on **environmental and industrial hazard** for more information (page 23).

3.5 Company operations in Guangdong Province

Most alerts in this study, were generated for Guangdong province (just north of Hong Kong), meaning that 11 percent of news about corporations was connected to incidents taking place in this southern province (see Chart 12). Considering that most of the alerts were about health and safety issues within the manufacturing sector (55 percent), it is no surprise to see Guangdong province so prominently featured in this research. The region is widely regarded as the country's hub for export manufacturing⁷⁴, the Foxconn's Shenzhen facility being one of its most famous residents.

Other regions often connected to corporate incidents and ESG issues were the Western province Zhejiang, which generated 7 percent of the alerts, and the cities Beijing and Shanghai, which respectively generated 7 percent and 6 percent of the alerts.

Chart 12 Distribution of alerts by province (in percentages)



CASE STUDY 3 – Environmental and Industrial Hazard: Stricter environmental standards for China's offshore oil fields

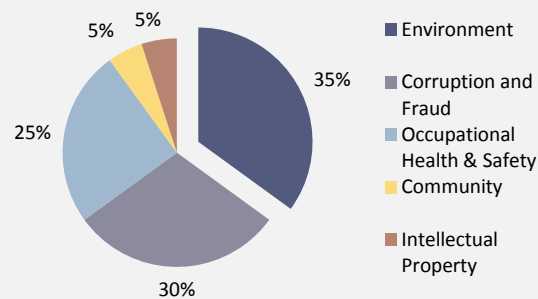
Severe ESG risk in oil industry

The Chinese government slowly seems to be taking a tougher stand against environmental pollution. In September 2011, the authorities suspended all drilling, water injection and production of oil and gas at the 168,000 barrels-per-day Penglai 19-3 oil field in Bohai Bay following continuing oil spills⁷⁵, directly hitting revenue streams of China National Offshore Oil Corporation (CNOOC Ltd). The results of the SynTao local monitoring system show that environmental issues connected to corporate operations possess relatively limited urgency in comparison to other ESG issues. Environmental and industrial hazard accounted for only 13 percent of total alerts while occupational health and safety or corruption and fraud issues received respectively 41 and 21 percent. However, when specifically looking at the natural gas and petroleum extraction industry, a higher number of alerts was counted. In this case, 35 percent of alerts were connected to environment and industrial hazard (see Chart 13).

Penglai 19-3 oil field

CNOOC Ltd is the country's largest offshore energy explorer, the third-largest National Oil Company (NOC) after CNPC (parent of PetroChina) and China Petrochemical Corporation (parent of Sinopec), and holds 51 percent in the northern China's Bohai Seabed offshore oil field, the Penglai 19-3 rig, which is operated by the US oil giant ConocoPhillips (fifth in the world).

Chart 13 Distribution of alerts for the natural gas and petroleum extraction industry (in percentages)



Blog leaks news on oil spill

ConocoPhillips says the equivalent of 3,200 barrels of oil (700 barrels of oil and 2,500 barrels of mineral oil-based drilling mud, which is used for lubrication)⁷⁶ leaked into the Bohai Bay. Chinese authorities estimate about 2,120 square miles (5,500 square kilometers)⁷⁷ of water is contaminated. The news on the spill was revealed on an internet blog on June 21⁷⁸, more than two weeks after reportedly the first oil leak had occurred. The Chinese government confirmed the spill on July 6⁷⁹, announcing that the water quality in the affected area had fallen to the lowest of its four categories.

Suspended production

Current Chinese environmental protection law for maritime pollution calls for maximum fines of RMB 200,000⁸⁰ (about USD 31,000) and state-owned media and environmentalists have strongly been lobbying for harsher penalties⁸¹. In September, the State Oceanic Administration (SOA), China's offshore regulator, ruled that "because ConocoPhillips has not fulfilled its responsibility as a reasonable and prudent operator, the oil spill at the Penglai 19-3 oilfield is designated as an accident caused by negligence"⁸². When the company failed to control the leaks that began in June, the authority ordered to suspend production at the Penglai 19-3 oil field, pending a full cleanup and review to ensure no more oil seeps into the sea⁸³.

Business impact of environmental measures

The ordered shutdown of Penglai 19-3 forced CNOOC Ltd to cut its annual output estimate with 40,000 barrels a day, on top of the 22,000 barrels a day loss⁸⁴ since the leaks had started. As a result, it is estimated the company's overall oil output is cut by 1 percent⁸⁵ and production targets for 2011 are likely to be missed.

Tougher stand on polluters

Furthermore in September, China's State Council declared a tougher stand on offshore oil drillers, announcing immediate safety inspections of all exploration and production facilities to assess the risk of oil leaks⁸⁶. Also, the North China Sea Branch of the SOA is preparing to file lawsuits for compensation on behalf of those who suffered losses due to pollution⁸⁷. Court verdicts requiring ConocoPhillips and CNOOC Ltd to pay would set new standards for future pollution cases.

Higher operational risk and cost

Changing environmental protection measures result in higher operational risk and cost and will affect other international companies active in offshore China, including BG Group, Anadarko, Roc Oil, Newfield Exploration and Husky Energy⁸⁸. Reportedly, authorities are slowing drilling near the Penglai field, putting on hold Environmental Impact Assessment (EIA) approvals for new wells⁸⁹. So far, CNOOC Ltd shares have dropped already by 24 percent this year⁹⁰, outpacing the 14 percent decline in the benchmark Hang Seng Index.

Pro-active approach

ConocoPhillips, in the meantime, is not awaiting any new rulings by the Chinese government and adopted a pro-active approach to retrieve shareholder trust by establishing the following two funds: one to pay for environmental cleanup costs and another to pay for economic damages resulting from the spill⁹¹.

Limit risk

If ConocoPhillips and CNOOC Ltd truly want to recover investor confidence, they need to put checks and balances in place that will prevent oil spills from occurring and annual output targets from being decreased. The Chinese government appears to have taken a firm stand on maritime pollution, companies active in pollution prone industries should do the same and limit risk by adopting the appropriate operational strategies.

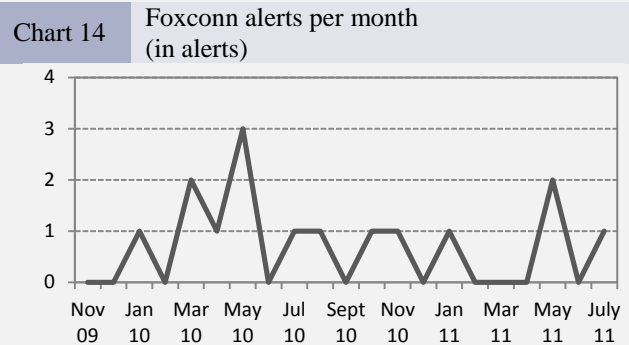
CASE STUDY 4 – Manufacturing industry: Reviewing the business model for the manufacturing industry

Severe ESG risk in manufacturing industry

In 2010, 18 Foxconn employees attempted suicide on company premises, 14 of them ending dead, spurring real media frenzy. Media worldwide questioned the company's operations, Chinese media being no exception. Of the total alerts about Foxconn, 73 percent was related to suicide incidents at the company's Shenzhen plant, and 85 percent was connected to labor conditions and/or occupational health and safety issues in general.

SynTao local news monitoring

The results of the SynTao local monitoring system show that China's manufacturing industry is the most exposed industry to ESG risks, accounting for 55 percent of all alerts. The contract manufacturer Foxconn, a large and secretive company from Taiwan with operations in China, was in 2010 the center of a public debate about China's labor conditions in the manufacturing industry.



Review business model

The media scrutiny had a huge organizational and financial impact on Foxconn's operations and provides an example of the current challenges faced by manufacturers in China, such as changing expectations about salary and working conditions. Many have argued it is time for Foxconn and its peers to review the old-fashioned business model that created manufacturing empires but that isolated workers from society.

The world's factory floor and the bloom of factory-towns

The enormous pool of migrant workers and the relatively low cost of labor earned China once the nickname "the world's factory floor." In the 1980s, when China's quickly growing cities lacked public investment in infrastructure, health services and entertainment⁹², company facilities started offering social functions to workers in a structured and organized manner aimed at optimizing manufacturing efficiency and precision⁹³. Factory-towns, i.e. city-sized campuses where people work, live and play at the same location, were born. Also most workers of Foxconn reside in these factory towns, allowing the company to adequately respond to clients' continuing needs for lower rates (Apple spends only USD 9 on labor for the USD 499 iPad, partly made in the Foxconn's plants⁹⁴). The company's most exemplary campus can be found in Longhua, Shenzhen, which employs around 40 percent of Foxconn's over one million workers based in China⁹⁵.

Foxconn under media scrutiny because of its high-profile clients?

In 2010, the factory-town model became the focus of an international debate about labor conditions, following the string of suicides at the Foxconn facilities. The company's military-style drills, verbal abuse by superiors and "self-criticisms"⁹⁶, in addition to the mind-numbing repetitive movements behind an assembly line, were held responsible for creating psychological problems among its young migrant workers: a factory-town model encourages social isolation and restricts workers from integrating in urban life⁹⁷.

Yet, others have argued that Foxconn has only become the focus of a media scrutiny and global outcry due to its financial success and high-profile clients, which include Apple, Dell and Sony. It is claimed that the company treats its employees better than many of its peers, exactly because it provides free access to lodging, food and recreational facilities⁹⁸.

Changing expectations

Some analysts argue that Foxconn's spate of suicides should be seen in a context of changing expectations about labor conditions. In 2010, several wildcat strikes took place at plants operated by Flextronics, Honda and Toyota⁹⁹, reflecting an evolution in collective bargaining. Also, the number of labor-related official arbitration cases has exploded over the last few years, labor disputes tripled from 407,000 in 2005 to 1.287 million in 2010¹⁰⁰. Unlike their parents, the new generation of workers is better educated and seems less willing to endure sweatshop-like working conditions¹⁰¹.

Significant financial implications of changing labor relations for Foxconn

Following Honda's example, who granted some of its employees a 24 percent wage rise following the strike¹⁰², Foxconn decided to increase salaries in a bid to protect shareholder value and end public criticism about working conditions. In July 2010, the company initiated a 30 percent wage increase for all workers and a further 66 percent pay rise in October 2010 for employees hitting set performance standards¹⁰³. Also, in order to face growing operating costs, Foxconn decided to scrap the traditional factory-town business model. The company announced in the summer of 2010 that the factories' social functions would be returned to local governments (e.g. sell dormitories and rent them back)¹⁰⁴. The company's shares initially dived by 41 percent from April to July 2010, i.e. the period when most of the suicides occurred, but the measures taken by Foxconn did not reverse the downward trend as stocks only further continued to tumble ever since¹⁰⁵.

Deep changes in the factory town model era

Eventually in August 2011, the trade off of Foxconn's measures in 2010 came to light: the company declared it will gradually increase automation at its factories, replacing some of its workers with one million robots in three years to cut rising labor expenses and improve efficiency¹⁰⁶. Therefore, rising wages may initially improve workers living conditions, but if salaries go up quickly, companies may be inclined to replace workers by robots, leaving workers with no salary at all.

China's labor developments find themselves at a tipping point. Although automation is still at its infancy in China, this new business model is likely to drive further developments in the manufacturing industry, as it is regarded as an attractive alternative to perhaps fair but growing labor costs, especially when international brands demand suppliers to endlessly squeeze cost. Hence, maybe it is time for the big brands to change their expectations about reasonable margins on consumption goods.

CONCLUSION

SynTao took a closer look at China's corporate environmental, social and governance (ESG) issues to help responsible investors form a more comprehensive judgment of management competence in China.

In this study, we have identified China's major corporate ESG issues for 2010-2011, based on the findings of the SynTao local news monitoring system. The report offers an insightful overview of China's most pressing ESG issues, China's industries most affected by ESG issues, and specifically, the companies in China most affected by ESG issues.

China's corporate ESG performance

The most pressing corporate ESG risks were found within the social issues category, specifically for the issue of occupational health and safety. Also, industries within the secondary economic sector were found to be most often exposed to ESG risks, especially for the manufacturing industry. Not surprisingly, most occupational health and safety incidents also take place within the manufacturing industry, a trade that is generally characterized by an unsafe and labor-intensive working environment. Manufacturing of chemicals and chemical products, pharmaceuticals and electronic components and boards turned out to be most susceptible to incidents such as explosions, spills, gas leaks etc.

The companies PetroChina, SinoPec and Foxconn were most exposed to ESG risks in 2010-2011, most often in connection to topics such as corruption and fraud, environment and industrial hazard and occupational health and safety.

ESG risk conclusions for China

Corporate management of social issues within the manufacturing industry seems to prove challenging in China. Especially issues concerning occupational health and safety, when not adequately dealt with by companies,

may quickly escalate beyond corporate level, becoming subject to (central) government ruling, potentially leading to great financial burden or operational restrictions, possibly instigated by newly installed policy measures.

Investor strategy

Integrating ESG factors into investment strategy considers the economic implications of quickly changing socio-economic circumstances, leading to comprehensive strategic insights that otherwise perhaps easily would be overlooked. Companies implementing sustainability objectives in corporate strategy make strong ESG performance a proxy of management competence with implications for future cash flows¹⁰⁷.

Steps for investors taking ESG issues in China into account:

- 1) Identify company strategies for occupational health and safety management.
- 2) Carry out an assessment whether strategies are sufficient in what reasonably can be expected of a company to prevent workplace incidents from occurring and how it will care for its employees in the disconcerting case an accident does happen.
- 3) Take into account how stakeholders could potentially respond to the occurrence of such an incident (employees, government, suppliers etc).
- 4) The complete assessment should provide investors with an idea of the likeliness of an incident to occur, the best possible response of the company and the potential economic implications of such an event.

For instance, in the specific situation of PetroChina, Sinopec and Foxconn, it would be sensible to carry out ESG risk management in

the areas of corruption and fraud, environment and industrial hazard and occupational health and safety.

Future outlook

Following the announcement of the 12th five-year economic plan (2011-2015) by the Chinese government in March 2011, which includes explicit references to environmental and social objectives, many anticipate the Chinese government to put greater emphasis on corporate management of ESG performance, and responsible investing more generally.

The new plan aims for average annual GDP growth of 7% (much smaller than the previous

10%) and speaks of “inclusive growth”, wanting to rebalance economy to spread the benefits of economic development more equally by alleviating social inequality and protecting the environment.

As one third of the targets in the five-year plan are now related to the environment¹⁰⁸, we expect companies in the near future to become more strictly bound by environmental regulations and investors to benefit from corporate monitoring and assessment of extra-financial factors.

APPENDIX

Appendix 1 ESG sub-issues classification

Environment issues	Social issues	Governance issues
Environmental issues <i>Violation of regulations, level of emissions, etc.</i>	Occupational Health and Safety <i>Exposure to toxic substances, workplace accidents, etc.</i>	Corruption and Fraud <i>Bribery, embezzlement, etc.</i>
Industrial hazards <i>Pollution accidents (spill, explosion, etc.)</i>	Labor Conditions <i>Wages, physical working conditions, etc.</i>	Corporate Management <i>Transparency, compensations, etc.</i>
Natural Resources <i>Resource depletion, etc.</i>	Human Rights <i>Discrimination, etc.</i>	
	Product Safety <i>Impacts on health or safety of use or disposal of products</i>	
	Product Recall	
	Community <i>Impact on local communities</i>	
	Intellectual Property <i>Violation of property rights</i>	
	Business Ethics and Social responsibility <i>Unfair practices regarding clients and competitors, etc.</i>	

Appendix 2 Economic sectors classification

Primary sector	Secondary sector	Tertiary sector
Mining extraction	Construction and civil engineering	Financial Services
Oil and gas extraction	Manufacturing	Transportation
Agriculture		Water collection, treatment and supply
		Telecommunications
		Real estate
		Retail

Appendix 3 The distribution of alerts per ESG sub-issue and economic sub-sector
(in number of alerts otherwise stated)

	Business ethics	Corruption and fraud	Environment & Industrial hazards	Product safety	Labor conditions	Occupational health and safety	Others	Total
Manufacturing	17	53	66	26	16	159	31	368
% ESG sub-issue	32	38	76	60	59	57	65	55
Mining	2	1	7	0	0	68	4	82
% ESG sub-issue	4	1	8	0	0	25	8	12
Transportation	9	12	0	11	4	8	5	49
% ESG sub-issue	17	9	0	26	15	3	10	7
Financial services	3	31	1	0	1	0	1	37
% ESG sub-issue	6	22	1	0	4	0	2	6
Construction	1	9	1	1	2	16	1	31
% ESG sub-issue	2	6	1	2	7	6	2	5
Telecommunications	7	12	0	2	1	3	1	26
% ESG sub-issue	13	9	0	5	4	1	2	4
Others	14	23	12	3	3	23	5	83
% ESG sub-issue	26	16	14	7	11	8	10	12
Total	53	141	87	43	27	277	48	676

Appendix 4 The distribution of alerts per ESG sub-issue and economic sub-sector
(in number of alerts otherwise stated)

	Business ethics	Corruption and fraud	Environment & Industrial hazards	Product safety	Labor conditions	Occupational health and safety	Others	Total
Manufacturing	17	53	66	26	16	159	31	368
% Manuf. sector	5	14	18	7	4	43	8	100
Mining	2	1	7	0	0	68	4	82
% Mining sector	2	1	9	0	0	83	5	100
Transportation	9	12	0	11	4	8	5	49
% Transpor. sector	18	25	0	23	8	16	10	100
Financial services	3	31	1	0	1	0	1	37
% Financial services	8	84	3	0	3	0	3	100
Construction	1	9	1	1	2	16	1	31
% Construc. sector	3	29	3	3	6	52	3	100
Telecommunications	7	12	0	2	1	3	1	26
% Telecom. sector	27	46	0	8	4	12	4	100
Others	14	23	12	3	3	23	5	83
% Other sectors	17	28	14	4	4	28	6	100
Total	53	141	87	43	27	277	48	676
% Total	8	21	13	6	4	41	7	100

Appendix 5

The distribution of ESG sub-issue for the manufacturing sector
(in number of alerts otherwise stated)

	Business ethics	Corruption and fraud	Environment & Industrial hazards	Product safety	Labor conditions	Occupational health and safety	Others	Total
Chemicals & chem. products	2	13	23	3	0	66	4	111
% Chem. & chem. products	2	12	21	3	0	59	4	100
Food products	2	5	4	3	0	9	2	25
% Food products	8	20	16	12	0	36	8	100
Pharmaceuticals	2	3	3	1	0	11	0	20
% Pharmaceuticals	10	15	15	5	0	55	0	100
Basic iron, steel & ferro-alloys	0	3	3	0	0	8	5	19
% Basic iron, steel, ferro-all.	0	16	16	0	0	42	26	100
Electronic components & boards	1	0	2	0	4	8	1	17
% Electronic comp. & boards	6	0	12	0	24	47	6	100
Electrical equipment	1	4	6	1	0	5	0	17
% Electrical equipment	6	24	35	6	0	29	0	100
Petroleum products	0	4	5	1	0	5	2	17
% Petroleum products	0	24	29	6	0	29	12	100
Apparel	2	1	4	1	0	4	0	12
% Apparel	17	8	33	8	0	33	0	100
Manufacturing, others	7	20	16	16	12	43	16	130
% Other sectors	5	15	12	12	9	33	14	100
Total	17	53	66	26	16	159	31	368
% Total	5	14	18	7	4	43	9	100

BIBLIOGRAPHY

- ¹ 'Chinese gold miner Zijin fined US\$4.6 mil. For toxic spill'. *The China Post*. February 2, 2011. <http://www.chinapost.com.tw/business/asia-china/2011/02/02/289878/Chinese-gold.htm>
- ² United Nations Principles for Responsible Investment, 2011, *Annual Report of the PRI Initiative 2011*, http://www.unpri.org/publications/annual_report2011.pdf
- ³ 'Chinese communist chief vows to fight corruption', *CNN World*, 1 July 2011. http://articles.cnn.com/2011-07-01/world/china.hu.jintao.1_cpc-discipline-inspection-central-commission?_s=PM:WORLD
- ⁴ Ramzy, A. 'China's Tainted Milk Scandal of 2008', *Time*, 26 September, 2011. <http://www.time.com/time/world/article/0,8599,1844750,00.html>
- ⁵ 'Key Figures about China's social and economic development in 2010', *Xinhua*, March 2, 2011. http://news.xinhuanet.com/english2010/china/2011-03/02/c_13757310.htm
- ⁶ 'Government vows to remove health hazards in the workplace', *China Daily*, November 11, 2011. http://www.chinadaily.com.cn/usa/2010-11/11/content_11534058.htm
- ⁷ '200 m in danger of workplace disease', *China Daily*, April 12, 2011. http://www.chinadaily.com.cn/china/2011-04/12/content_12307339.htm
- ⁸ 'Government's work safety campaign to go high-tech', *China.org.cn*, January 14, 2011. http://www.china.org.cn/china/2011-01/14/content_21737733_2.htm
- ⁹ This comparison was made in function of death per worker, because China does not disclose the U.S measure tool (fatality toll per 100,000 full-time equivalent (FTE) workers). 4,547 workers died in 2010 in the United States, for a workforce of around 153 million workers. China's workforce is estimated at 815 million workers. Bureau of Labor Statistics (U.S.A.), 2011, *Census of Fatal Occupational Injuries, 2010*. <http://www.bls.gov/news.release/cfoi.nr0.htm> and Central Intelligence Agency (U.S.A.), 2011, *The World Factbook, China, Economy*. <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>
- ¹⁰ 'How China cooks its books', *Foreign Policy*, September 3, 2009. http://www.foreignpolicy.com/articles/2009/09/03/how_china_cooks_its_books
- ¹¹ Global Labor Strategies, 2008, *Why China Matters: Labor rights in the Era of Globalization*. http://www.globallaborstrategies.org/wp-content/uploads/2011/01/why_china_matters_gls_report.pdf
- ¹² Kitamura, Makiko, 'Honda's China Plants Remain Closed as Talks Continue', *Bloomberg*, June 1, 2010. <http://www.bloomberg.com/news/2010-05-31/honda-says-chinese-parts-plant-closed-by-strike-may-not-reopen-tomorrow.html>
- ¹³ Information Office of the State Council, 2010, *China's efforts to combat corruption and build a clean government*, http://news.xinhuanet.com/english2010/china/2010-12/29/c_13669383.htm
- ¹⁴ Minxin, Pei, 2007, *Corruption threatens China's Future*, Carnegie Endowment for International Peace. http://carnegieendowment.org/files/pb55_pei_china_corruption_final.pdf
- ¹⁵ *Ibidem*
- ¹⁶ Balfour, F, 'Alibaba fraud scandal may help Google', *Businessweek*. February 28, 2011. <http://www.businessweek.com/news/2011-02-28/alibaba-fraud-scandal-may-help-google-global-sources.html>
- ¹⁷ 'Sina reports 200 million Weibo Users', *China Internet Watch*, August 18, 2011. <http://www.chinainternetwatch.com/1237/sina-weibo-200m-users/>
- ¹⁸ 'China's Environment Accidents Double as Growth Takes Toll', *Bloomberg*, July 28, 2010. <http://www.bloomberg.com/news/2010-07-28/china-s-environment-accidents-double-as-growth-spurs-demand-for-metal-oil.html>
- ¹⁹ Ministry of Environmental Protection of the People's Republic of China, Department of Environmental Monitoring. *Environment in China*. Viewed September 23, 2011. <http://jcs.mep.gov.cn/hjzl/zkgb/>
- ²⁰ 'In Crackdown on Energy Use, China to shut 2,000 Factories', *The New York Times*, August 9, 2010. <http://www.nytimes.com/2010/08/10/business/energy-environment/10yuan.html>
- ²¹ Bloomberg, op. cit.
- ²² 'Chinese gold miner Zijin fined US\$4.6 mil. For toxic spill'. *The China Post*. February 2, 2011. <http://www.chinapost.com.tw/business/asia-china/2011/02/02/289878/Chinese-gold.htm>
- ²³ 'Zijin Mining of China Abandons its Planned Acquisition of Platmin Congo', *Bloomberg*, September 6, 2010. <http://www.bloomberg.com/news/2010-09-06/zijin-mining-abandons-acquisition-of-copper-mine-developer-platmin-congo.html>
- ²⁴ Gregory, M, 'Why are China's mines so dangerous?'. *BBC*, October 7, 2010. <http://www.bbc.co.uk/news/business-11497070>
- ²⁵ '6 dead in covered-up coal mine accident in NE China', *China Daily*, July 30, 2011. http://www.chinadaily.com.cn/usa/china/2011-07/30/content_13017902.htm
- ²⁶ WEI, G 2011, 'Statistical Analysis of Sino-U.S. Coal Mining Industry Accidents', *International Journal of Business Administration*, vol.2, no. 2, pp. 82-86. <http://www.sciedu.ca/journal/index.php/ijba/article/view/233/123>
- ²⁷ Greenpeace, 2008, *The True Cost of Coal in China*
- ²⁸ Asian Bank of Development, 2006, *China: Coal Mine Safety Study*, <http://www.adb.org/projects/project.asp?id=39657>
- ²⁹ U.S. Energy Information Administration, 2011, *International energy statistics, China statistics, Coal*. Viewed October 13, 2011. <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=1&pid=1&aid=2>
- ³⁰ Saiget, R.J. 'Coal addiction causing environmental disaster'. *Terra Daily*, November 6, 2006. http://www.terradaily.com/reports/China_Coal_Addiction_Causing_Environmental_Disaster_999.html
- ³¹ Asian Development Bank, op.cit.
- ³² Jia,R, and Nie, H, 2011, *Decentralization, Collusion and Coalmine Deaths in China*. <http://www.lisbonmeeting.org/pt/wp-content/uploads/2011/08/coalmine0824.pdf>
- ³³ 'Non-fossil fuels to take up 11.4% of China's energy use'. *China Daily*, March 4, 2011. http://www.chinadaily.com.cn/bizchina/2011-03/04/content_12117490.htm
- ³⁴ 'China to post 10-12% in power consumption', *China Daily*, April 23, 2011. http://www.chinadaily.com.cn/business/2011-04/23/content_12381307.htm
- ³⁵ 'China reports fewer coal mine deaths in 2009', *Reuters*, February 14, 2010. <http://uk.reuters.com/article/2010/02/14/china-coal-deaths-idUKTOE61D00V20100214>
- ³⁶ United States Commercial Service, 2011, *Coal Mining Equipment, Technologies and Services Trade Mission to China and Mongolia*
- ³⁷ Marsh, P, 'China noses ahead as top goods producer', *Financial Times*, March 13, 2011. <http://www.ft.com/intl/cms/s/0/002fd8f0-4d96-11e0-85e4-00144feab49a.html#axzz1h9xfakDN>
- ³⁸ Greenpeace, 2011, *Dirty Laundry 1: Unraveling the corporate connections to toxic water pollution in China and Dirty Laundry 2: Unraveling the*

toxic trail from pipes to products. <http://www.greenpeace.org/international/Global/international/publications/toxics/Water%202011/dirty-laundry-report.pdf> and <http://www.greenpeace.org/seasia/ph/Global/international/publications/toxics/Water%202011/dirty-laundry-report-2.pdf>

³⁹ Xinhua, op.cit.

⁴⁰ Pei, M, 'The Dark Side of China's Rise'. *Foreign Policy*, March/April 2006.

<http://www.carnegieendowment.org/2006/03/01/dark-side-of-china-s-rise/34q>

⁴¹ 'Former ICBC Bankers Sent to Prison for Accepting Bribes'. *The Wall Street Journal*, August 24, 2011.

<http://online.wsj.com/article/SB10001424053111904787404576527951694276290.html>

⁴² Podpier, R, 2006, *Progress in China's Banking Sector Reform: Has Bank Behavior Changed?*, IMF Working Paper

<http://www.imf.org/external/pubs/ft/wp/2006/wp0671.pdf>

⁴³ 'China suspends new railway projects after crash', *AFP*, August 11, 2011.

<http://www.dawn.com/2011/08/11/china-suspends-new-railway-projects-after-crash.html>

⁴⁴ 'IPO of bullet train operator delayed', *China Daily*, August 18, 2011. http://www.chinadaily.com.cn/cndy/2011-08/17/content_13127822.htm

⁴⁵ 'Trains on a dubious fast track', *IPS News*, June 20, 2011. <http://ipsnews.net/news.asp?idnews=56101>

⁴⁶ *IPS News*, op. cit.

⁴⁷ Zhu, T, 'China's Stocks Slump after High-Speed Trains Crash', *Business China*, July 25, 2011.

<http://en.21cbh.com/HTML/2011-7-25/xMMjQxXzIxMDYxMg.html>

⁴⁸ Wang, J, 'China Rail Investment Drops 26% on Crash', *Bloomberg*, August 17, 2011.

<http://www.bloomberg.com/news/2011-08-17/china-rail-investment-drops-26-on-crash.html>

⁴⁹ 'IPO of bullet train operator delayed', *China Daily*, August 18, 2011. http://www.chinadaily.com.cn/cndy/2011-08/17/content_13127822.htm

⁵⁰ 'Rail Bonds Rally as Deadly Crash Forces Austerity: China Credit'. *Bloomberg*, 18 October, 2011.

<http://www.businessweek.com/news/2011-10-18/rail-bonds-rally-as-deadly-crash-forces-austerity-china-credit.html>

⁵¹ 'Chinese firm delays IPO after fatal crash', *Reuters*, August 17, 2011.

<http://www.chinapost.com.tw/business/asia/asia-china/2011/08/17/313694/Chinese-firm.htm>

⁵² 'Chinese bullet train maker halts some production', *Associated Press*, August 11, 2011.

<http://news.yahoo.com/chinese-bullet-train-maker-halts-production-074629333.html>

⁵³ 'China Bullet Trains Are Recalled', *The Wall Street Journal*, August 12, 2011.

<http://online.wsj.com/article/SB10001424053111904006104576501291114086996.html>

⁵⁴ 'CSR Postpones Financing Deal After Train Collision', *Caixin Online*, August 3, 2011. <http://english.caixin.cn/2011-08-03/100287185.html>

⁵⁵ 'High-speed rail operator's listing faces further delay', *Shenzhen Daily*, August 17, 2011. http://www.szdaily.com/content/2011-08/17/content_5954576.htm

⁵⁶ 'China delays 80 pct of railway construction-paper', *Reuters*, October 1, 2011.

<http://uk.mobile.reuters.com/article/rbssFinancialServicesAndRealEstateNews/idUKL3E7L101G20111001>

⁵⁷ 'Anger and Suspicion as Survivors Await Chinese Crash Report', *New York Times*, September 20, 2011.

<http://www.nytimes.com/2011/09/21/world/asia/anger-and-suspicion-as-survivors-await-chinese-crash-report.html?pagewanted=all>

⁵⁸ 'Skills shortages add to China's rail worries', *Engineering and Technology Magazine*, October 19, 2011.

<http://eandt.theiet.org/news/2011/oct/china-rail.cfm>

⁵⁹ *IPS News*, op.cit.

⁶⁰ 'Crash Spotlights China's Train Crisis', *The Wall Street Journal*, August 2, 2011.

<http://online.wsj.com/article/SB10001424053111904292504576481800484601640.html>

⁶¹ 'CICC: Rail Ministry May Receive Gov't Capital Injection', *Caixin Online*, August 12, 2011. <http://english.caixin.cn/2011-08-12/100290387.html>

⁶² 'Crash Spotlights China's Train Crisis', *The Wall Street Journal*, August 2, 2011.

<http://online.wsj.com/article/SB10001424053111904292504576481800484601640.html>

⁶³ 'For Post-Crash Railways, Next Stop Is Reform', *Caixin Online*, August 5, 2011. <http://english.caixin.cn/2011-08-05/100288077.html>

⁶⁴ 'China's railway chief dismissed', *Financial Times*, February 13, 2011.

<http://www.ft.com/intl/cms/s/0/74a2a87a-3734-11e0-b91a-00144feabdc0.html#axzz1bJ2dyXMs>

⁶⁵ 'For Post-Crash Railways, Next Stop Is Reform', *Caixin Online*, August 5, 2011. <http://english.caixin.cn/2011-08-05/100288077.html>

⁶⁶ DeCarlo, S. 'The World's 25 Most Valuable Companies: Apple Is Now On Top', *Forbes*, August 11, 2011.

<http://www.forbes.com/sites/scottdecarlo/2011/08/11/the-worlds-25-most-valuable-companies-apple-is-now-on-top/>

⁶⁷ CNN Money, Fortune, Global 500, China. Viewed on October 28, 2011.

<http://money.cnn.com/magazines/fortune/global500/2011/countries/China.html>

⁶⁸ U.S. Energy Information Administration, 2011, *International energy statistics, China statistics, Oil and natural gas*. Viewed November 7, 2011.

<http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=1&pid=1&aid=2>

⁶⁹ Hook, L, 'Oil spill proves wake-up call for China', *The Financial Times*, July 22, 2010.

<http://www.ft.com/intl/cms/s/0/e548185c-95af-11df-b5ad-00144feab49a.html#axzz1d0hyx6JA>

⁷⁰ '338 companies violate environmental regulations', *Global Times*, June 13, 2011.

<http://www.globaltimes.cn/NEWS/tabid/99/articleType/ArticleView/articleId/661163/338-companies-violate-environmental-regulations.aspx>

⁷¹ 'China Mobile executive gets death in bribery case', *China.org.cn*, June 21, 2011.

http://www.china.org.cn/china/2011-06/21/content_22831176.htm

⁷² 'China Oil Spill Six Times Size of Singapore', *Energy Daily*, July 15, 2011.

http://www.energy-daily.com/reports/China_oil_spill_six_times_size_of_Singapore_govt_999.html

⁷³ Wong, E, and Krauss, C, 'China to Sue ConocoPhillips Over Oil Spills', *The New York Times*, August 25, 2011.

<http://www.nytimes.com/2011/08/26/world/asia/26china.html>

⁷⁴ 'HK, Guangdong sign cooperation agreement to build vibrant city group', *People's Daily Online*, April 7 2011.

<http://english.peopledaily.com.cn/90001/90778/90862/6943480.html>

⁷⁵ 'China eyes controls as ConocoPhillips apologizes for spill', *Reuters*, 7 April 2011.

<http://www.reuters.com/article/2011/09/07/us-conocophillips-idUSTRE7860P020110907>

⁷⁶ 'Conoco Facing Problems in China', *StockMarketWatch*, 5 September 2011.

- <http://thestockmarketwatch.com/stock-market-news/recent-events/business-news/conoco-facing-problems-in-china/12159>
- ⁷⁷ 'China eyes controls as ConocoPhillips apologizes for spill', *Reuters*, 7 April 2011.
<http://www.reuters.com/article/2011/09/07/us-conocophillips-idUSTRE7860P020110907>
- ⁷⁸ 'Chinese oil spills leak online', *All The Tea*, 5 July 2011. <http://asiancorrespondent.com/59296/chinese-oil-spills-leak-out-online/>
- ⁷⁹ 'US Company Spills Oil In Chinese Waters, State Disclosure Scrutinized', *TPM*, 11 August 2011.
http://tpmuckraker.talkingpointsmemo.com/2011/08/us_company_spills_oil_in_chinese_waters_government.php
- ⁸⁰ 'Oil spill firms to face legal action', *China Daily*, 7 August, 2011. http://www.china.org.cn/business/2011-08/17/content_23227170.htm
- ⁸¹ 'ConocoPhillips struggling with China oil spill', *Associated Press*, 5 September 2011.
<http://www.businessweek.com/ap/financialnews/D9PIA62G0.htm>
- ⁸² 'UPDATE 1-China orders ConocoPhillips to halt output at Bohai Bay oilfield', *Reuters*, 2 September, 2011.
<http://uk.reuters.com/article/2011/09/02/conocophillips-china-idUKL4E7K21BY20110902>
- ⁸³ 'ConocoPhillips sets up 2nd China oil spill fund', *Forbes*, 20 September 2011. http://www.forbes.com/feeds/ap/2011/09/20/business-energy-as-china-oil-spill_8689162.html
- ⁸⁴ 'CNOOC shares drop most in a month', *China Daily*, 6 September 2011.
http://www.chinadaily.com.cn/usa/business/2011-09/06/content_13630146.htm
- ⁸⁵ 'CNOOC shares drop most in a month', *China Daily*, 6 September 2011.
http://www.chinadaily.com.cn/usa/business/2011-09/06/content_13630146.htm
- ⁸⁶ 'China authorities to begin safety inspection of offshore oil operations', *Platts*, 12 October 2011.
<http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/8451925>
- ⁸⁷ 'ConocoPhillips struggling with China oil spill', *Associated Press*, 5 September 2011.
<http://www.businessweek.com/ap/financialnews/D9PIA62G0.htm>
- ⁸⁸ 'FACTBOX-Oil, gas facilities offshore China', *UBS*, 19 September 2011.
http://www.ubs.wallst.com/ubs/mkt_story.asp?docKey=1329-L3E7K809K-1&first=5
- ⁸⁹ 'Analysis: Conoco spill heightens scrutiny of offshore China', *Reuters*, 19 September 2011.
<http://www.reuters.com/article/2011/09/19/us-china-conoco-spill-idUSTRE78I18Z20110919>
- ⁹⁰ 'CNOOC shares drop most in a month', *China Daily*, 6 September 2011.
http://www.chinadaily.com.cn/usa/business/2011-09/06/content_13630146.htm
- ⁹¹ 'ConocoPhillips sets up 2nd China oil spill fund', *Forbes*, 20 September 2011.
http://www.forbes.com/feeds/ap/2011/09/20/business-energy-as-china-oil-spill_8689162.html
- ⁹² 'Great wall of factory towns may come crashing down', *iProperty*, June 10, 2010.
<http://www.iproperty.com.sg/news/1907/Great-wall-of-factory-towns-may-come-crashing-down>
- ⁹³ ACRC, Faculty of Business and Economics, The University of Hong Kong, Winter 2010, *China's Changing Labor Market: The Future of Manufacturing in China*. http://www.acrc.org.hk/misc/doc/2010_winter.pdf
- ⁹⁴ 'iPad Bill-of-Materials is \$259 says iSupply' *Electronics Advocate*, April 8, 2010.
<http://www.electronicadvocate.com/2010/04/08/ipad-bom-is-25960-says-isuppli/>
- ⁹⁵ Balfour, F, 'iPad Assembler Foxconn Says it has More than 1 Million Employees in China', *Bloomberg*, December 10, 2010.
<http://www.bloomberg.com/news/2010-12-10/foxconn-says-its-china-workforce-exceeds-1-million-employees.html>
- ⁹⁶ 'China's Labor Tests its Muscles', *The New York Times*, August 16, 2010.
<http://topics.nytimes.com/top/news/international/countriesandterritories/china/labor-issues/index.html>
- ⁹⁷ Peh, H, "It is time to dismantle factory towns", *China Post*, June 11, 2010.
<http://www.chinapost.com.tw/commentary/the-china-post/special-to-the-china-post/2010/06/11/260248/Its-time.htm>
- ⁹⁸ 'Light and Death', *The Economist*, May 27, 2010. <http://www.economist.com/node/16231588>
- ⁹⁹ 'Strikes halt work at Toyota and Honda plants in China', *BBC*, June 23, 2010. <http://www.bbc.co.uk/news/10389762>
- ¹⁰⁰ 'More arbitrators needed as labor disputes soar'. *China Daily*, June 9, 2011.
http://www.chinadaily.com.cn/china/2011-06/09/content_12662445.htm
- ¹⁰¹ Jacobs, Andrew. 'Chinese Factories Now Compete to Woo Laborers', *The New York Times*, July 12, 2010.
<http://www.nytimes.com/2010/07/13/world/asia/13factory.html?pagewanted=all>
- ¹⁰² 'Strike forces Honda to shut Chinese plants', *Financial Times*, May 27, 2010.
<http://www.ft.com/intl/cms/s/0/e27a832c-6944-11df-aa7e-00144feab49a.html#axzz1b6AODdm9>
- ¹⁰³ 'Foxconn raises pay by 30% in China', *Financial Times*, June 2, 2010.
<http://www.ft.com/intl/cms/s/0/46dec9aa-6e03-11df-ab79-00144feabdc0.html#axzz1b6AODdm9>
- ¹⁰⁴ *iProperty. Ibid*
- ¹⁰⁵ 'Foxconn International Holdings, Ltd', *Bloomberg Markets*, October 17, 2011. <http://www.bloomberg.com/apps/quote?ticker=2038:HK>
- ¹⁰⁶ 'Foxconn to rely more on robots; could use 1 mln in 3 yrs', *Reuters*, August 1, 2011.
<http://www.reuters.com/article/2011/08/01/foxconn-idUSL3E7J10JW20110801?feedType=RSS&feedName=cyclicalConsumerGoodsSector&rpc=43>
- ¹⁰⁷ Hassel, L. 'How is ESG integration effective?' *PRI Academic Network*, February 2011.
http://academic.unpri.org/index.php?option=com_content&view=article&id=276:editorial-by-lars-hassel-february-2011&catid=49&Itemid=100033
- ¹⁰⁸ Greenpeace, 2011, *Greenpeace insight and commentary: China's 12th Five-Year Plan*.
<http://www.greenpeace.org/raw/content/eastasia/press/reports/greenpeace-commentary-twelfth-five-year-plan.pdf>