

The China Water Story Keeps Getting Bigger

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Last month we said: "It is very clear that the most important economic and investment developments of this new century are resulting from the emergence of China as a world-class economy, competing very aggressively in world trade with their low prices stemming from low labor costs. While world markets have avidly bid most "China plays" to premium price levels, little attention has been paid to the most basic and compelling requirement for the sustained growth of the Chinese economy: Adequate water and sanitation facilities."

As we have intensified our research effort into the China water situation, we continue to be sobered by the immensity of the problem, while increasing our conviction that this situation presents a solid investment opportunity for years to come.

As investors around the world focus more closely on China, most people are coming to the realization that the Chinese government has not been environmentally sensitive and cannot be characterized as humanistic. However, now that the results of ignoring these two issues are starting to hit them in the pocketbook, it looks like the government is being forced to change.

Even according to suspiciously conservative 'official' estimates, the harm to China's GDP from water and related environmental problems is becoming quite serious: To the tune of some US\$50 Billion in 2003, although we suspect that the real number was much larger. The Chinese Government estimates that US\$28 B. was lost in industrial output in 2003 because of water scarcity, another US\$13 B. lost from acid rain and US\$6 B. from desertification. All evidence points to the conclusion that such problems worsened greatly in 2004.

Healthcare costs may well be the most significant, although no official estimates of these costs has been released. For instance, above-average cases of cancer, stunted growth and diminished IQ have been reported in villages surrounding the most polluted rivers. Moreover, worker absentee rates, caused by water borne illnesses and poor sanitation, are rampant in many locales and the negative effect on industrial output is obvious.

The problems in China begin with basic water scarcity, plus the fact that water is unevenly distributed within the country. Southern China receives 9 times as much precipitation as the north, and both the north and south face very serious water pollution. About 60 million people have difficulty obtaining water for even the most critical daily needs, and 700 million drink contaminated water, causing the health problems mentioned earlier. Water demand is expected to triple from 120 billion tons in 1995 to 400 billion tons by 2030, and meeting that demand presents a tremendous challenge.

China has 16 of the world's 20 most polluted cities, and acid rain, mainly from coal burning, affects about 25% of the country's total land and a third of agricultural land. Many of China's environmental problems stem from uncontrolled and widespread reliance on coal – both from coal-fired power plants and from the inefficient boilers used in heavy industry.

Looming on the pollution horizon is now the anticipated surge in automobiles and trucks from 20 million vehicles today to as many as ten times that amount by 2020. Essentially nothing in this report includes the impact of these projected changes, but the prospects cannot be ignored from an environmental as well as an energy demand standpoint.

One-quarter of China is already a desert and this area is rapidly growing. Land degradation is accelerating, as the desert is now advancing by an alarming 1,300 square miles per year. Indeed, new desert areas are even getting close to Beijing, which is also becoming a political concern for the leadership, especially with the Olympics just three short years away. A side effect of encroaching deserts is China's yellow dust storms, which travel to Korea, Japan and even as far as the US. The dust is now contaminated with heavy-metal pollutants, another growing cause of internal health problems.

China faces water shortages of 40 billion cubic meters every year, with severe water pollution posing a threat to the health of millions of people. Drought is now affecting some 49 million acres of farmland, reducing grain production by 28 million tons, forcing the country to become a grain importer. In 2003, China pumped out 68 billion tons of sewage, double the amount in 1980. With the massive human migration to the factory zones continuing, the sewage problem, particularly its effect on scarce potable water supplies, has become critical.

According to government statistics, more than 400 of China's 669 cities lack water, with another 110 in a serious condition. About 160 cities are forced to impose water restrictions. Fresh water scarcity aside, the utilization of water on average is as low as 40% for farm irrigation and 55% for industry. Looking at the water infrastructure, leakage of roughly 22% of urban water systems is causing the loss of 10 billion cubic meters per year, a tragic waste of a very scarce resource.

A telling statistic about water waste and inefficiency is the fact that, for every US\$12 of industrial output, China uses 1 cubic meter of water, which is 15 times the average of developed countries. Moreover, only about 40% of waste water is recycled in China, as opposed to approximately 80% in developed economies.

In 1999, the then Chinese Vice-Premier Wen Jiabao said, "The survival of the Chinese nation is threatened by the country's shortage of water". Just five weeks ago at the end of December, the Minister of Water Resources stated publicly that, "The price of China's economic boom is being paid in water", clearly signaling the seriousness the government has finally ascribed to the water situation.

It is abundantly clear that the Government of China is now in the process of allocating massive amounts of funds and all necessary internal technology and labor resources to solve what has necessarily become their first economic priority: A water infrastructure to support the desired growth of the Chinese economy.

It is equally clear that the solutions to most of these problems will not come from internal resources alone: The capabilities necessary to solve these problems will come mainly from external investor owned companies. China's water problems are accelerating faster than their internal abilities to remedy the situation: They seem to have no choices left, other than to use outside public companies to address their pressing problems: **We want to own these stocks.**

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