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Chazen International Study Tour Report

# Major Infrastructure Projects in China: A Key to Continued Growth

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## Chazen International Study Tours

Designed to enhance the classroom curriculum, Chazen International Study Tours offer students and their faculty adviser an intense, firsthand experience of the business culture of their chosen country or region. Study tours are initiated by students and organized with the help of the Jerome A. Chazen Institute of International Business. During study tours students meet with leading executives and government officials while visiting businesses, factories and cultural sites. Recent destinations include China, France, India, Japan, Russia and Scandinavia.

## Summary

When the Columbia Business School Real Estate Association took its spring 2006 trip to Shanghai and Hong Kong, the students were in awe of the development that is taking place. Cranes were everywhere; it was clear that China is changing rapidly.

In Shanghai, more square footage of high-rise towers for living and working was constructed in 2005 than there is in all the office buildings in New York City.[1] Shanghai already has nearly 4,000 high-rise buildings—almost double the number of those in New York. Further, there are designs to build an additional 1,000 by the end of the decade. In most major Chinese cities, it is not uncommon to see 20–30 identical high-rise apartments clustered around green spaces and artificial waterways. The country is developing at the fastest pace seen in the world in the past 50 to 100 years.[2]

While the Columbia students visited the major urban hubs of Shanghai and Hong Kong and met with real estate firms in each city, it was clear that this building boom is not exclusive to large cities. When the group was meeting with Shui On Group and Shimao Group in Shanghai, the students were impressed to hear of massive developments in such second-tier cities as Chongqing, Fuzhou and Hangzhou.

China is a country with more than 1.3 billion people, and there are more than 170 cities with a population greater than one million alone. In addition, China is in the midst of one of the greatest mass migrations in history. Rural farmers are rapidly moving into urban areas. It is estimated that over the next 25 years more than 300 million people—a number that equals the current U.S. population—will be moving to China's urban areas.[3] To accommodate this growth, China will need to continue building housing, office, retail and entertainment space.

As the students met with investors, developers and government officials, one recurring theme was the infrastructure improvements that would link China's great cities—a vital component for accommodating growth of this scale. Cities in China will not thrive unless they are connected by modern roads, railways, ports, bridges, subways and airports.

China's plans for infrastructure improvement are every bit as ambitious as their plans for buildings and cities. When meeting with officials from Sinore Group, Holly Group and the Shanghai Real Estate Association, the students learned that China is expected to spend U.S.$800 billion by 2010 on infrastructure projects that will help determine the success of future development.[4] What is important to note is that the new transportation infrastructure will benefit all Chinese cities, not just the large coastal ones. Land and labor costs in

[1] David Barboza, "China Builds Its Dreams, and Some Fear a Bubble," *New York Times,* October 18, 2005, http://www.nytimes.com/2005/10/18/business/worldbusiness/18bubble.html?ei=5070&en=0ab070481cea8b87&ex=1146974400&adxnnl=1&adxnnlx=1146845941-wJmVh6u1gyFE8mZU79reNg.
[2] Ibid.
[3] UN/DESA Population Division, *World Population Prospects: The 2004 Revision and World Urbanization Prospects*.
[4] Urban Land Institute, http://www.uli.org/.

interior cities are at small fractions of the cost in major cities. In an effort to exploit this opportunity and develop the interior, the government's infrastructure plan is countrywide, creating a vast, integrated network of transportation and distribution.

A few of the major projects the students learned about on the trip are described below, by region.

## The Pan Pearl River Delta Region

The Pan Pearl River Delta is the major hub of economic activity within China. The area, which includes nine provinces plus Hong Kong and Macau, contains 21 percent of China's population and produces 36 percent of the country's GDP. Because this area is of such significance to the Chinese economy, the government has categorized it as a special economic zone.[5] A large amount of infrastructure is being developed in this region in the coming years:

- Major highway system totaling 85,000 kilometers:
  - 7 major highways will radiate from Beijing
  - 9 north-south highways
  - 19 east-west highways

  Currently, 34 percent of this network is completed, 19 percent is under construction and 47 percent is slated to be started shortly.
- Railway and road infrastructure are being improved to increase capacity in the Pearl River Delta and Macao. A two-hour journey will be reduced to 40 minutes.

The end result will be a vast network of small and large cities that allows firms to establish manufacturing operations in more affordable locations while maintaining easy links to the major urban centers. In addition, the job creation that results will create new economic opportunities for China's emerging interior.

The students first heard of these plans when meeting with Citigroup's real estate securitization team in Hong Kong. The team was discussing the growth of the nascent securitization industry in China and referred to the increase in demand for capital in this region. Much of the demand in this area comes from developers based in Hong Kong, mainland China or Singapore.

## Shanghai-Beijing High-Speed Rail

The students were fortunate to meet with many members of Cushman & Wakefield's Shanghai office. During this meeting, the presenters again impressed upon the students the massive amount of infrastructure planned for China. One of the major topics was a new high-speed railway that will link Beijing and Shanghai on an existing rail route, a distance of

[5] Chinese Coatings Industry, "Introduction," *Chinacoat2006 Guangzhou,* http://www.chinacoat.net/2006/exh_en.htm.

819 miles. It is expected that trains will start running by 2010. New track will be built for passenger trains, while the existing track will be used for cargo transport. The train will travel at speeds of up to 217 miles per hour, which will cut travel time between the two cities from 12 hours to 5. Along the route, the trains will pass through 11 cities with populations of more than one million, one-fourth of the entire Chinese population.[6]

The high-speed line is expected to significantly alleviate pressure along this route and will carry at least 160 million passengers annually. Cushman & Wakefield said that this would have huge implications for development not only in Shanghai and Beijing but also in the cities along the route.

The project is expected to cost U.S.$16–$24 billion, and the Railways Ministry predicts that the investment can be recouped within 15 years.[7] However, the ultimate source of funding has not yet been determined. Given the magnitude of the project, the government is exploring new channels to raise funds. It has suggested that construction financing will come from private capital inside China, low-interest loans from the World Bank and loans from foreign commercial banks.

## Hong Kong–Macao Bridge

Macau is the only area within China where is it legal to gamble. The area is home to 18 casinos and has been experiencing phenomenal growth. When Macao was returned by Portugal to China in 1999, there were 7.4 million visitors annually. By 2005, 18.71 million people had visited Macao. In 2010, 38 million annual visitors are expected. As a result, 25 new casinos are being planned for completion by 2009. The tremendous growth in visitors will require investment in infrastructure, including a new ferry terminal, an airport and a bridge.[8]

The Hong Kong–Macao Bridge will connect the Hong Kong airport to Macao. The drive will take 20 minutes and will be able to accommodate 2,600 vehicles per hour. Construction is scheduled to commence in 2007 and finish by 2015.[9]

The students learned a great deal about this project firsthand. After traveling close to an hour on a ferry from Hong Kong to Macao (the preferred method of transport at this time), they were given a presentation by Eric Chiu of Las Vegas Sands Corp. Las Vegas Sands has already built the Sands Macao, which the students had the pleasure of touring, and is also making massive plans for additional development in an area called the Cotai Strip. Therefore, the success of the bridge is of great importance to Las Vegas Sands.

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[6] Beijing Foreign Affairs Information Center and the Operation Management Center of Beijing, “Beijing-Shanghai High-Speed Rail to Be Built,” *Beijing Today,* http://www.ebeijing.gov.cn/BjToday/t341779.htm.
[7] Ibid.
[8] Sands Corporation presentation, Macao, March 2006.
[9] Ibid.

The project is expected to cost U.S.$7 billion.[10] It will be financed by private developers and utilize a BOT (build, operate, transfer) model, whereby the developers will build and operate the bridge until an appropriate return on investment is received. At that point, they will transfer the bridge to the government.[11]

## Implications for Developers and Investors

The massive infrastructure development described above will have enormous effects on the Chinese economy and its real estate market. Developers, entrepreneurs and investors are quickly assessing these changes so that they are in strong position to take advantage of the rapidly growing market. For foreign developers, more of whom have begun to arrive in China, it is essential that local partnerships be established to navigate the politics and lack of transparency in Chinese development. Without a local partner, failure seems imminent.

Nonetheless, there is opportunity here for international developers. China is looking for large-scale development expertise and is finding this in international and U.S. firms. The redevelopment of the Bund—one of the last and most important historical sites in Shanghai—by the Rockefeller Group is a good example of this. The students spent an entire afternoon with William Tung, managing director of Rockefeller's Asian operations. With a history of international success, the Rockefeller Group's award for such a site is a clear sign that the Chinese government is willing to involve foreign firms. However, Mr. Tung reiterated the importance of local expertise, as there were many challenging and complex aspects to the project, including what buildings should remain in the project area, which ones should be torn down and replaced and the appropriate way to move existing occupants.

With the rate at which buildings are being erected in China, there seems to be a lack of quality in construction (particularly in the finishes) as well as diversity of building structures. Large multinationals looking to open offices in China desire higher-quality space. Here again is a place where large international developers such as Hines, the Rockefeller Group and Tishman-Speyer can participate in Chinese growth. The students were able to see this expertise when touring the Shanghai Racquet Club, built by international powerhouse ING. The development was much more reminiscent of an Orange County neighborhood than an area of Shanghai.

## Conclusion

China is experiencing unparalleled growth. Given its single-party political structure, the government is able to accommodate this growth with massive investment in infrastructure in a short period of time. This investment is both a reactive and proactive response to

[10] Ibid.
[11] Ibid.

changing demographics, increased foreign interest and GDP growth. Up to this point, China's major coastal cities have developed disproportionately to the rest of the country. These are the cities in which large foreign investors have focused their Chinese operations.

However, planned infrastructure investment will allow the government to capitalize on the wealth gap by creating interior centers, where labor and land costs are cheaper. This will drive investment in these regions, create value for the country and offer opportunity to global investors and developers who are willing to take the associated risks.