

John Tumazos Very Independent Research, LLC  
11 Yellow Brook Road, Holmdel, NJ 07733  
732 444 1083 or 732 740 3574 (cellular)  
[john@veryindependentresearch.com](mailto:john@veryindependentresearch.com) or  
[johntumazos@comcast.net](mailto:johntumazos@comcast.net) or [tumazos@monmouth.com](mailto:tumazos@monmouth.com)

October 26, 2007 9 am

***Our registration is effective August 27, 2007 and we are operational.***

## METALS DEMAND: IMPRESSIONS OF SIXTEEN DAY CHINA TRIP

*Rosa Torres Tumazos, who holds a Harvard MBA and civil engineering degrees from Stanford and Columbia, returned October 23<sup>rd</sup> from a Harvard Business School alumni tour of six Chinese locations. We posed ten questions for her observations, and she was so kind to promptly share her findings.*

*Her sort of "unofficial business tour" with direct contacts with other Harvard Business School alumni native to China might have been a superior "research trip" than a conventional investor relations tour or program administered with investor purpose. Her resume and contact information are posted on our [www.veryindependentresearch.com](http://www.veryindependentresearch.com) web site under the tab "consultants."*

- *Except for power plants near Xian, she noticed few visible signs of pollution. Rosa has sensitive respiratory allergies that often make her uncomfortable up to half of the year in New Jersey. Her lack of respiratory discomfort would suggest air quality concerns in Beijing for the Olympics or Shanghai have been addressed or perhaps overstated.*
- *Transportation, electricity, sanitary standards and water supply infrastructure were commendable and not bottlenecks.*
- *She noticed evidence of unoccupied apartments, office towers or warehouses. "Second-home-buying" sorts of speculation in urban high rise apartments is a sort of "savings vehicle" for the upper middle class.*
- *Shoddy recent construction and consumer product safety concerns were evident. Chinese natives worry that "export quality reject goods" get resold domestically within China.*
- *In general, Rosa's findings were supportive of Chinese economic growth and she observed few pollution or infrastructure problems. Our current estimates of 6% long-term copper, 6%-8% aluminum and 8%-10% steel post-2008 long-term growth rates may be too conservative.*

## ROSA TORRES TUMAZOS' REPORT

I had the privilege to travel with an alumni group from the Harvard Business School on a tour to explore China: Asia's Economic Engine from October 6-23, 2007. As a civil engineer and observer in commodities related industries, I used the opportunity to get a first hand impression of what is going on in China. The tour included conventional tourist activities, combined with a smattering of meetings with local alumni business people and other experts who shared their experiences with us.

We visited Hong Kong, Shanghai, Hangzhou, Anhui (Huangshan Yellow Mountain), Beijing and Xian.

John Tumazos, of John Tumazos Very Independent Research, LLC, asked me to address some questions he posed based on my observations during the trip. My comments below may help to confirm or add a new perspective on what is going on in China today.

Rosa Torres Tumazos

October 26, 2007

## POLLUTION

*First, does urban pollution appear to be a constraint to the current rate of growth?*

***Our impression was that in the near-term, urban pollution does not appear to be a constraint to the current rate of growth.*** We spent 10 of the 16 trip days in Beijing and Shanghai and there was no noticeable air quality issues during our stay in either city. The streets are washed down nightly to reduce dust levels emanating from coal fired plants as well as the high level of excavation and construction activities. The large number of new buildings under construction are sealed off with netting materials to reduce dust levels. There was the occasional person wearing a facemask, but it was a rear site, and mainly among the street cleaners who are sweeping the streets throughout the day. Our tour guides were optimistic with the government's promise to alleviate further damage in Beijing by moving coal plants away from the cities, and that the air quality was improving. One guide told us that her husband's hometown 400 kilometers away was being "sacrificed" to produce power there and transmission lines were being built to deliver it to Beijing.

We also visited Anhui, a more traditional province an hour flight southwest from Shanghai, where the air quality was acceptable. This is an agrarian area, but the city is also expanding rapidly and building light manufacturing facilities that will not place a stress on the environment.

***The one exception where we noticed intolerable air quality was in Xian***, about one hour flight west of Beijing. The entire three days we spent there the air was overcast and laden with dust that irritated our eyes and throats, and even smelled and tasted like sulfur. The locals kept trying to tell us that it was fog, but we did not believe it. It is not known as a heavily industrial area, but there are many nearby coal-fired power plants.

## OVER-BUILDING

*Second, is there visible evidence of "over-building," such as obvious vacant buildings just finished, etc. For example, there have been aluminum smelters completed but not "energized" and blast furnaces for which iron ore supplies to operate are not available.*

Our trip did not provide a direct observation of aluminum smelters or steel making capacity, but ***we did notice a great deal of unoccupied completed residential buildings and industrial warehouses, in addition to the many under construction.*** We were told that high rise apartments are in high demand as speculative investments among individual Chinese who have savings to invest. There is anticipated continued high demand from the trend for the government to relocate people from the inner city slum-like housing to apartments circling the perimeter of the city, as well as immigration from other provinces to the major cities. Should this trend reverse, there would be a tremendous glut of housing capacity.

We visited a Woodard patio-furniture export manufacturing facility in Hangzhou, a 2-hour drive south of Shanghai where aluminum and all weather wicker furniture was manually assembled. The drive took us past a continuous drive of light manufacturing facilities with corresponding residential high-rise neighborhoods. The furniture factory was operating only at about 70% of capacity and there was concern because the US economic slowdown had already reduced orders from Costco and Walmart by 25% for 2009 delivery. The furniture factory wages were \$4/day plus a meal for a 10 hour day, or maybe \$0.50-\$0.60 per hour.

Only 40% of the hotel capacity is in place for the Beijing Olympics. The remaining the 60% additional is under construction and expected to be completed on-time.

During the past 20 years, 2500 skyscrapers were constructed just in Shanghai. Construction in around the clock 24/7 and workers are housed on-site at construction sites.

## ELECTRICITY SUPPLY

*Third, is the electricity supply adequate? Do people ever make note of past brownout or blackouts?*

We did not notice or hear mention of inadequate electricity supply in any of the cities that we visited.

Nor did we notice any water supply problems in the cities we visited. We were very much advised not to drink the water. Interestingly, not one of the 38 participants on the 16 day tour became ill with intestinal problems.

## TRANSPORTATION INFRASTRUCTURE

*Fourth, is transportation infrastructure seemingly adequate? Do you note traffic jams or do people in the largest cities Shanghai or Beijing have commutes longer than in Tokyo or Manhattan?*

We observed adequate transportation infrastructure in all cities. There were new roads everywhere, recently constructed and under construction. We flew 4 different domestic flights and all were on-time and with good service. The airports were all new and recently built in Hong Kong, Shanghai, Beijing, Anhui, and Xian. The roads from the airport into the cities were all new. There was a new road in Anhui that reduced the time of travel by ½ between 2 cities. That road had just opened and there were hardly any vehicles. The tolls on many of these new roads are very expensive and beyond the means of the locals. There is much anticipation of tourism related to the Olympics, so roads are geared at transporting them to the tourist destinations.

The city traffic is very congested at rush hour and it takes about 2 hours to get across Beijing or Shanghai. On the local streets, cars are competing with buses, bicycles, motorcycles, and bicycle carts, as well as pedestrians. Taxis are quite affordable at about 40-60 yuan per ride to/from hotels to tourist spots in Beijing and Shanghai.

While we were there, Beijing just opened a 5<sup>th</sup> concentric beltway around the city, as well as a new subway line. Many of the empty residential buildings are built along the expanding subway lines and command a premium once the subway line is extended. The subway is very

inexpensive at 2 yuan/ride (27 US cents) with unlimited transfers to buses so as to reduce traffic congestion.

Buses are plentiful and very new and modern. Most are double-length and during rush hour they appear as a continuous solid line of buses tightly spaced.

Bicycles are still quite common and residents often have a bicycle at either end of their subway or bus commute to get to their final destination. There is a new bicycle rental service at most subway stations where one can rent a bicycle as needed for 60 yuan/month (US\$8/month)

Automobile prices are quite low and affordable. Mostly new small to mid-sized Japanese, American and European autos are on the roads. On an airplane, we conversed with a recent aeronautical engineering graduate on the first year of work for AVICI, the military plane manufacturer. He earns the equivalent of \$24,000/year and bought his first car for \$4000, a Buick. He commutes mostly by bus, but occasionally drives. His girlfriend is studying for her MBA at Chicago University Business School.

Gas prices are about 6 yuan/liter, or about US\$3.10/gallon, not too much more expensive than here. Tolls, insurance and tax are also quite high, so it is a luxury to have a vehicle.

#### EXCESS CAPACITIES

*Fifth, are there products or industries for which expansion is forbidden? In Spring of 2004 the central government tightened credit and "officially discouraged" expansions in steel, aluminum and cement. Aluminum and steel outputs each have almost doubled in three years despite that.*

The party line is to encourage domestic production and discourage increased exports through taxes. This is true mainly in the southern provinces, and many of these industries are attempting to reposition themselves to serve the domestic market.

#### CENTRAL VERSUS LOCAL CONTROL

*Sixth, please tell me if you get the impression that the central government has no control over economics, and that the 31 provincial governments pursue largely identical "copy cat" economic policies destined to create massive excess output in the "cookie cutter" factories they copy from one another?*

We did not have much of an opportunity to observe this issue. We did have a meeting with a Harvard Business School alumni who has owned manufacturing businesses in the southern Guangdong region and Hong Kong for the past 15 years. He told us that the Beijing central government is very much intent on redirecting manufacturing from export to domestic consumption through its policies. These include granting incentives to domestic producers, such as encouraging them to move inland and away from the southern provinces, and disadvantaging exporter with export taxes. As he put it, Beijing's policy toward the traditional OEM western exporters is "your historic mission is over".

#### CONSUMER PRODUCT SAFETY

*Seventh, is there any particular "consumer product safety" fallout that might reduce exports or industrial output or construction growth?*

The fast speed of many of the construction projects to finish in time for the Olympics puts in doubt the quality of the construction. **We noticed many buildings that are only a few years old, such**

*as the headquarters building of the factory in Hangzhou, that looked poorly built and in disrepair.*

Quality is problem for many products consumed in China. In addition to consumer product safety issue, there is also *a problem that the products that are diverted for domestic consumption are of even poorer quality than exports. Well-off mainlanders are known to go to Hong Kong to buy baby formula and electronics, since they trust the quality there more than in the mainland.* As an example, we were warned not to buy camera memory cards in the mainland, since they are often defective.

## EXPORT DESTINATIONS AND GROWTH RATES

*Eighth, how are Chinese exports continuing to grow almost 25% this year as U.S. consumer demand wanes? What do you think the next five year compound growth rates in Chinese export activity might be?*

There is concern about the slowdown in the US economy.

## GREENHOUSE GASES

*Ninth, do you expect Chinese government and private organizations to become serious about reducing greenhouse gas emissions? Is there any evidence of shifts to nuclear, geothermal or wind power as an alternative to coal use.? China burns about 2 bil t of coal annually or twice as much as the U.S. I presume their hydro opportunities have been well-exploited, and hydro situations are exploited immediately when identified "as base load" factors.*

A prevalent alternative energy source in the city landscape are **residential solar panels to heat water**. Most mid-rise apartment buildings have solar panels for each apartment.

In Xian we were told that motorcycles are required to be electric-powered so as to reduce emissions in the congested city streets.

## FUTURE GROWTH RATES

*Tenth and finally, over the next 5 to 10 years do you expect China to maintain the nearly 8%-10% growth rates in GDP and industrial production that have generated nearly 20%-25% compound growth rates in base metals usages, or how much do you expect it to slow?*

It appears that the government is intent on creating employment and increasing the incomes of the people. The growth rates are more likely to be derailed by external factors, such as a US recession. But regardless of potential for declining exports, there is a growing domestic demand for basic goods and services that will sustain high levels of economic growth.

***We did notice that to create employment, labor-intensive processes are used where technology is readily available.*** Examples are the subway fare sales and ticket collections are manual, rather than automated through NY-style Metrocards and such. To enter the subway we had to transact with 3 individuals. Likewise, road tolls collection is manual. At the airports, at least 5 people looked at our documents prior to boarding. There were street sweepers everywhere, on streets, highways, tourist sites, even in the mountain trails at Huangshan mountain.

At the Huangshan Mountain, men are used to haul supplies up to the hotel, each carrying about 150 pounds of loads up and down the mountain several times a day. Visitors can even chose to be carried up the mountain by a 2-man crew. Whereas they could expand the trams that carry tourists up the mountain to also accommodate supplies, they prefer to keep people employed as mules.

## INFLATION, TAIWAN AND INVESTMENT CLIMATE

There are several other important topics that were relevant on which I would like to elaborate: inflation, Taiwan, and investment climate.

Inflation is a big concern to the Chinese government that is being fueled by commodities imports. As a result, despite low labor costs, high material costs are driving up prices for both local consumption and exports. It was reported while we were there that inflation was running at 6.5% annualized. In addition, Chinese investors have limited investment options, and are driving up the prices of real estate. Many people have become rich very quickly, creating a widening gap in incomes. This can translate into political unrest if the government fails to continue to provide for improved income distributions. We observed that there was a market for counterfeit Yuans among the street vendors selling to tourists, and several members of our group were tricked multiple times into exchanging real for fake 100 yuan notes.

The business people we spoke with expressed that the political conflict between Taiwan and China has the potential for serious investment and economic repercussions in the near term due to the upcoming elections in Taiwan. Neither wants to lose face in losing the battle over Taiwan's independence, and a military conflict could ensue.

A topic that seemed to receive wide local media attention is the risk that the investment bubble in China could suddenly deflate if there is a confluence of various risk factors- among them transparency and a slowdown in western economies. The issue of improved transparency in corporate governance is not being directly addressed by any local regulatory body, but rather has been left to the international markets to let the system create checks and balances. There is a tremendous amount of greed, and many of the young people feel a duty to succeed, in contrast to the hardships that their parents endured before the economy opened up. The slowdown among western economies is downplayed, and the Chinese government is betting that they can stimulate their economy to meet domestic consumption to compensate for lower exports.

## CHANGE IN THIS RESEARCH OPERATION

This report reflects research coverage by JTVIR, LLC. In no way shape or form should it be misconstrued as involving Prudential Equities Group (PEG), which shut down on June 6, 2007 as noted. The continuation of that same quarterly or full year earnings estimate for 2007 as JTVIR, LLC should not be construed or mistaken to involve PEG, which shut down on June 6, 2007. Certain data, such as the logic of the earnings model, are similar owing to the same primary author, but this coverage initiation herein involves a different entity and no employment or affiliation with the former Prudential Equity Group, LLC.

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Our investment rating system for securities recommendations is Overweight, Neutral Weight or Underweight. Overweight or Underweight recommendations are estimated to vary from the relative performance of the S&P 500 by more than 10% annually, and the intended time horizon is up to 24 months. Our securities research is intended for institutional investors that might buy up to 10% of a given company, and as such focuses more towards longer-term dynamics impacting the net present value of future cash flows rather than “day trading” sorts of near-term issues.

Except for Polymet Mining and Canyon Resources, neither JTVIR, its members or its employees own or have a financial interest in any securities discussed in this report. Our policy is full disclosure. Our only financial interest in a stock we regularly cover is Polymet Mining shares bought in April 2007.

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Our policy is full disclosure of any advisory relationship or conflict going back three years. None currently exist.

Numerous prior investment banking relationships existed prior to three years history to the pre-1997 time frame under the employment of Donaldson, Lufkin and Jenrette or Oppenheimer & Co., Inc. Some of these we can recollect included 14 different gold mine valuations or sales for Barrick Gold, LAC Minerals (later acquired by Barrick), Addington Resources (gold assets in Montana acquired by Canyon Resources), Westworld Industries (Bolivian assets acquired by Battle Mountain Gold later acquired by Newmont Mining), Coeur d'Alene Mines, Crown Resources (acquired by Kinross Gold), Freeport-McMoRan Gold (acquired by Minorco later AngloGold later Queenstake Resources), FMC Gold (later renamed Meridian Gold) and others. Sole managed initial public offerings included Reliance Steel & Aluminum and Huntco. Lead-managed initial public offerings included American Steel & Wire (later acquired by Birmingham Steel) and lead-managed underwritings included Quanex. Co-managed underwritings included the IPO of Century Aluminum and offerings for AK Steel, Kaiser Aluminum, Agnico-Eagle Mines, Cameco and others. Asset sales or purchase advisories, fairness opinion or trusteeships were done for Thypin Steel (sold to Ryerson Tull), Cyclops Corp. (sold to Armco later sold to AK Steel), Allegheny Corp., Bethlehem Steel, the U.S. Dept. of Justice pursuant to the June 1984 merger of LTV and Republic Steel to sell the Gadsden, AL integrated flat-rolled mill, Cobre Copper, and others. Typically more than five investment banking assignments were evaluated, partly executed or "due diligenced" for any completed transaction. Some examples we can recall for which a prospectus was either drafted or partly drafted indicating much work included stock underwritings not completed for Wheeling-Pittsburgh Steel, Steel Dynamics, Atlas Corp., Webco, Sharon Steel, IPSCO, Co-Steel Inc., and others.

#### **ANALYST UNIVERSE COVERAGE:**

John C. Tumazos, CFA: Rio Tinto, Louisiana-Pacific, Nucor Corp., Newmont Mining, U.S. Steel, International Paper, BHP Billiton, MeadWestvaco Corp., Antofagasta PLC, Allegheny Technologies, Alcoa Inc., Inco Limited, Bowater, Inc., Temple-Inland, Barrick Gold, Abitibi-Consolidated, Weyerhaeuser Co., Alcan Inc., Smurfit-Stone Container, Plum Creek Timber, Worthington Industries, Goldcorp Inc., AngloGold Ashanti, Freeport McMoRan Copper & Gold, Novelis Inc., FNX Mining.

Dynatec is a company not continued in the research coverage of JTVIR, LLC that was previously included in the prior June 6, 2007 Prudential Equities Group universe owing to a pending takeover by Sherritt International. Alcan, which Rio Tinto soon will acquire, also will be discontinued from coverage. Bowater, which will merge with Abitibi-Consolidated, also will be dropped after the merger completion.

Subsequently, since September 2007 JTVIR, LLC has initiated coverage of new companies not previously covered in the former universe. These new companies include General Moly, Inc., Duluth Metals, Polymet Mining, Franconia Minerals, CVRD and Century Aluminum.

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Additional risk factors as they pertain to the analyst's specific investment thesis can be found within the report.

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