

# Hogs And Chestnuts: Who Profits When the Chinese Eat?<sup>4</sup>

## INTRODUCTION

Selling food to the growing Chinese middle class would seem like a no-brainer. This case focuses on two mid-sized Chinese companies, Zhongpin Inc. (ticker HOGS), who sells pork products, and American Lorain Inc. (ticker ALN), who sells chestnuts. Both companies looked like very attractive investments based on their valuation ratios at the end of 2009. This case proceeds in three steps. In part I we will develop detailed forecasts and a valuation for Zhongpin. In part II we will evaluate the forecasts and valuation models from an analyst report on American Lorain, and in part III we will consider the particular risks of investing in a Chinese company that came to be traded in the United States through an unusual transaction known as a 'reverse merger.'

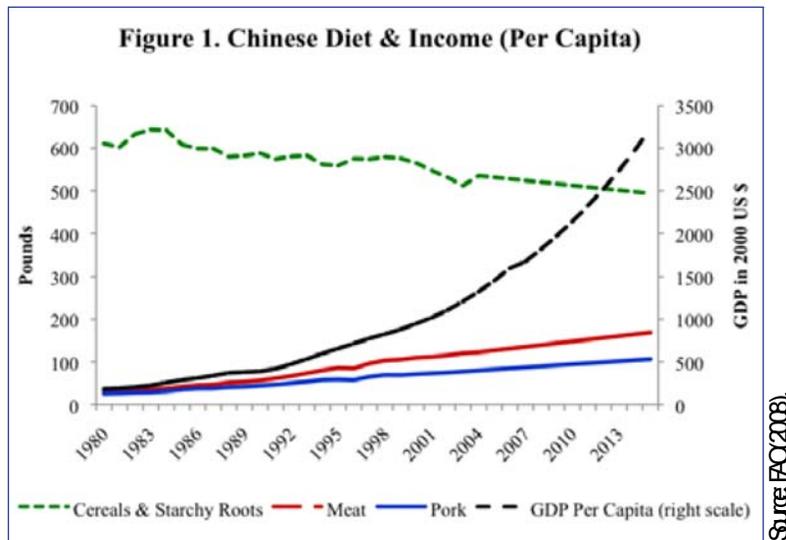
Case Materials found at [www.lundholmandsloan.com](http://www.lundholmandsloan.com) include Zhongpin 10-K excerpts, an *eVal* file for Zhongpin, American Lorain 10-K excerpts American Lorain and an excerpt from analyst report. Note: do NOT print out the 10-K excerpts as they are each quite long. Learn to read electronically!

## PART I: ALL THE PORK IN CHINA

An agricultural rule-of-thumb known as Bennett's Law states that as income increases consumers shift their calorie source towards animal proteins and away from carbohydrates. As figure 1 illustrates, between 1980 and 2006 China's per capita income increased 759%, and during this period the per capita consumption of cereals and grains fell 16% while the per capita consumption of meat increased 274%. As of 2006, China consumed 30% of the world's meat and 50% of the world's pork. And with forecasted GDP growth of 7-8%, the number of consumers who can afford to consume pork is reliably increasing.

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<sup>4</sup> This case was prepared by Professor Russell Lundholm as the basis for class discussion, rather than to illustrate either effective or ineffective handling of a business situation. Copyright ©2010 by Russell Lundholm.



Note 2007-2015 GDP per capita data and 2004-2015 food consumption data are predicted.

Figure 1: Chinese Diet and Income (per capita)

Source: Food and Agricultural Organization of the United Nations. Rome 2008

Zhongpin Inc. would appear to be optimally situated to capitalize on these trends. In 2009 they were the fourth largest pork producer in China. They were also a leader in using western-style pork production methods, an initiative that the Chinese government was promoting heavily. But demand for pork does not necessarily mean profit for Zhongpin. We will have to investigate their profitability. But their valuation ratios are undeniably attractive for a firm with such growth potential. The price-to-earnings ratio at the end of 2009 was 11.4, compared to the S&P 500 ratio of 18.6. And the price-to-book ratio was 1.8, compared to the S&P 500 ratio of 2.2. These facts, plus a detailed set of forecasts, caused the investment bank Morgan Joseph to set a target price of \$21 per share at a time when the stock was trading at \$15.

The case materials include excerpts from Zhongpin's 2009 10-K filing (found online). To keep this case from becoming an exercise in forecasting sales growth, we will take the sales growth forecasts from the analyst report as given. This will allow us to focus our attention on forecasting Zhongpin's profitability and investment. Also, for this part of the case ignore all the various predecessor company names and the reverse merger transaction; we will return to in in Part III.

To save some time, the *eVal* file included with the case has input the financial statements so they roughly match the "as reported" financial statements. In addition, based on the analyst report at the time, the sales forecasts are already given: 29% sales growth in 2010 and 24% sales growth in 2011, and then trending down to 3% over 10 years. Assume these forecasts are correct (with hindsight we know that they are slightly conservative).

Other relevant facts from the analyst report are as follows:

"...processing capacity should increase 41% from now to the end of 2012. Besides capacity expansion efforts, Zhongpin should be able to increase capacity utilization over time. Over the last three years, capacity utilization has been 74%, 57%, and 65%, respectively. While we would expect utilization to fall in 2010 given the high level of capacity expansion, these plants should be able to reach utilization rates of 90% or better, similar to Western processors, as the business matures."

## Part I Case Questions

1) Based on your reading of the 10-K (particularly item 1 and item 7) what are the most relevant factors to consider when forecasting Zhongpin's net operating margin? Where on the income statement will these

factors materialize?

- 2) Based on your investigation in question 1, complete the income statement assumptions in *eVal* for the next three years, remembering to leave the Sales Growth line at 29%, 24% and then trending to 3%.
- 3) What are the most relevant factors to consider when forecasting Zhongpin's net operating assets? Where on the balance sheet will these factors materialize?
- 4) Based on your investigation in question 3, complete the balance sheet assumptions in *eVal* for the next three years. Bear in mind the capacity utilization estimates from the analyst report shown earlier.
- 5) If you do nothing else, *eVal* will extrapolate your third year forecasts into the future. If you find any of these extrapolations unreasonable, input more reasonable values in the terminal year. What would be evidence of an "unreasonable" terminal value forecast?
- 6) Using a 10% cost of equity capital and setting the valuation date to March 31, 2010, what is your estimated value of Zhongpin?

## PART II: THE CHINESE LOVE CHESTNUTS!

China currently produces and consumes over half the world's chestnuts, as shown in figure 2. Roasted, peeled and then mixed with honey, salt and sugar, chestnuts are a fragrant treat traditionally served warm in the winter months. And of the 600 thousand tons of chestnuts consumed in China in 2009, American Lorain produced roughly 10% of them. The next closest competitor in terms of production capacity is only a tenth as big. Besides the traditional honey-roasted chestnut, the company produces a variety of more heavily processed chestnuts that sell for higher margins.

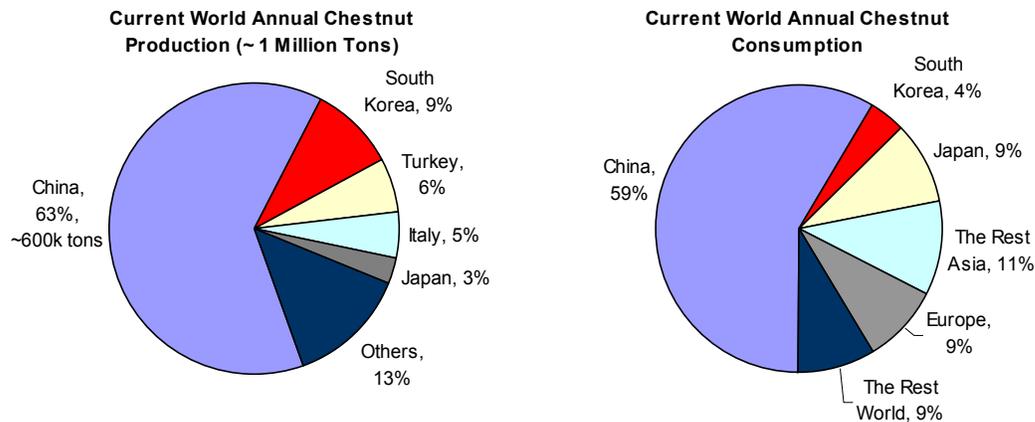


Figure 2: World Chestnut Production and Consumption in 2009  
Source: Food and Agriculture Organization of the United Nations

In addition, the chestnut business puts American Lorain in all the major retail chains in China, including Walmart, Carrefour, and 7-eleven. This foothold has allowed them to expand into convenience foods, which accounted for 24% of their revenue in 2009. Featuring ready-to-eat rice dishes and other packaged foods, the company hopes to capitalize on the growing demand for convenience food as China's urbanization continues. And if China follows the path of western countries, this could represent a sizeable growth opportunity, as seen in figure 3.

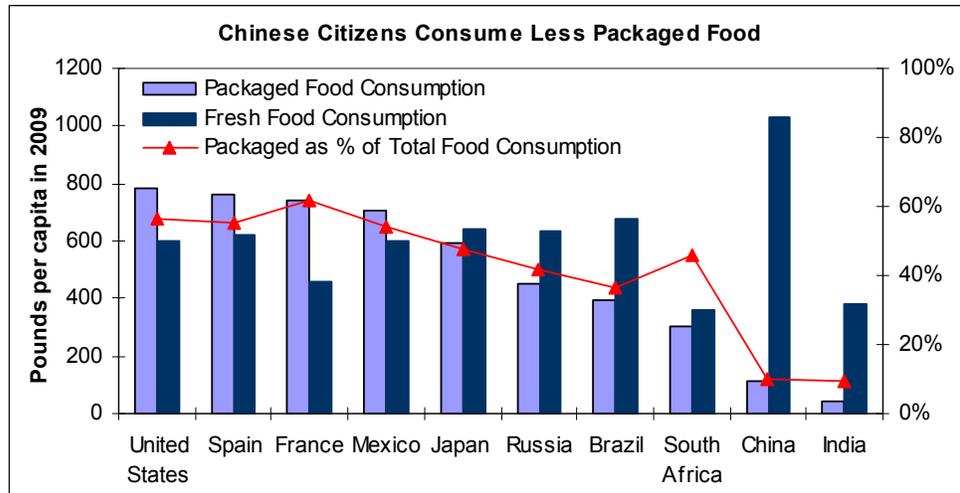


Figure 3: Chinese Consumption of Packaged Food  
Source: Euromonitor International

At the end of 2009 American Lorain was very successfully turning these opportunities into profits. As the case materials show, they earned \$0.55 per share in 2009 and \$0.58 per share in 2008. And yet on June 1, 2010 (approximately the time the analyst report was issued), they only traded for \$3 per share. The stable margins, growth potential, and appealing valuation of American Lorain attracted the attention of a number of analysts in 2010. For example, one analyst set a target price of \$5.50 per share based on 9 times the 2010 EPS estimate of \$0.62 per share, and backed this up with a discounted cash flow model that placed the value at \$9 per share. This part of the case asks you to assess the reasonableness of these valuation methods and estimates. The case materials include excerpts from American Lorain's 2009 10-K filing, the financial statement forecasts from the analyst report, and an *eVal* file with the financial statements entered (but not the analyst forecasts). All materials can be found at [www.lundholmmandsloan.com](http://www.lundholmmandsloan.com). Assume a valuation date of June 1, 2010.

Note: The complete analyst report from the Maxim Group LLC is available through Investext, which you can access through any business school library. However, the only material you will need from the report is in the excerpt provided in this case.

## Part II Questions

- 1) Assess the reasonableness of the value estimate for American Lorain based on 9 times next year's forecasted EPS of \$0.62, assuming the EPS forecast is accurate. Under what circumstances is such an approach reasonable?
- 2) Now reverse engineer the analyst forecasts for American Lorain found in the excerpt by inputting the income statement assumptions into *eVal*. Note that you are only interested in the analyst's annual forecasts for 2010, 2011 and 2012. Set the terminal growth rate to 4% and leave all the other balance sheet estimates at *eVal*'s default values. Setting the valuation date to June 1, 2010 and the cost of equity to 10%, what value estimate does this yield?
- 3) The analyst report does not give all the specific computations for the DCF model that yields an estimate of \$9 per share. However, it does state that the model horizon is 10 years, the assumed terminal growth rate is 4%, and the weighted average cost of capital is 14% (with a cost of equity capital of 16%). Estimate the cost of debt and cost of minority interest based on the financial statement ratios estimated in 2012 and then input all these rates into the valuation parameters sheet in *eVal*. What is the value estimate now?

4) If all went well in questions 2 and 3, the DCF estimate should be around \$5/share, far short of the \$9 estimate given in the analyst report. Is it because the *eVal* default balance sheet estimates are far from the balance sheet forecasts given in the analyst report? (Note: do not attempt to reverse engineer the entire balance sheet forecasts, unless you can't resist the temptation. But be warned, this exercise is not for the weak of heart).

5) Without changing your income statement forecasts, give a set of *eVal* balance sheet forecasts that raise the value estimate to \$9 per share. Are these assumptions reasonable? Was it even possible?

## PART III: CHINESE REVERSE MERGERS

Both Zhongpin and American Lorain are publicly traded companies in the United States, yet both have all their operations in China. They both came to have this structure in the same way: a reverse merger. A reverse merger occurs when the primary company – in this case the Chinese company – purchases a shell company that is listed and traded in another country – in this case the United States. For example, the shell company that preceded Zhongpin was Strong Technical, a former personnel outsourcing service, but Strong Technical had ceased all operations in 2005, a year before the reverse merger. And the predecessor to American Lorain was named Millennium Quest, but had no operations or business activity since 1986 other than to seek an acquiree as part of a reverse merger.

Why engage in such a transaction? Proponents say that merging with an existing publicly listed company is quicker and easier than the traditional initial public offering process, and it gives the Chinese company access to western capital markets (new capital is often raised as part of these transactions by issuing new shares to institutional investors when the merger occurs). This is a particularly important source of capital for Chinese companies because going public in China is very difficult. And for their part, western investors get access to investments in fast-growing Chinese markets. Critics maintain that by sidestepping the traditional offering process, reverse mergers avoid the scrutiny of the securities regulators and stock exchanges, and consequently also avoid the heightened legal liability imposed on auditors and underwriters in a public offering.

A few high profile frauds among Chinese reverse merger firms caught the attention of the financial press in 2010. For example, in an article titled “Beware this Chinese Export” (August 26, 2010), Barron's writes that:

“The group has been a minefield of revenue disappointments and earnings restatements. Financial filings the companies make with the Securities and Exchange Commission often diverge from those filed with the Chinese government—by drastic amounts. Investor and analyst visits to corporate facilities in China reveal operations smaller and less impressive than shown in U.S. presentations. The companies too often select auditors who have previously signed off on the financials of companies that turned out to be busts.”

The Chinese reverse merger firms have proven difficult for regulators to monitor. The SEC cannot subpoena documents from China, and the Chinese government will not allow the Public Accounting Company Oversight Board (i.e. the auditors of auditors) to investigate auditors in China. Still, according to Thomas Kloet, the CEO of the Toronto stock exchange, reverse mergers are not inherently bad, stating in the Wall Street Journal that “I don't think it is in any way an indictment of the reverse-merger program.” (June 10, 2011).

So what is an investor to do? The valuations for many of the Chinese reverse merger companies look very compelling. But what if the financial statements are fraudulent?

## Part III Questions

1) If the financial statements are completely fraudulent – if every number is fabricated – then this would represent a complete failure of the audit function and the company could easily be worthless. But stepping back from this extreme view, what numbers in the financial statements are easiest to audit, and hence most

likely to be true? Can you build a valuation around these numbers alone?

2) What other evidence did you see in the case materials about Zhongpin Inc. or American Lorain that might increase your confidence in these investments? What other evidence could you collect? Be sure to see the last few pages of the American Lorain 10-K excerpt.