The LATAM valuation narrative and numbers

Last year, LAN, a Chile-based airline with operations originating in Latin America with destinations in Europe and North America acquired TAM, a Brazil-based airline with a similar focus. The merger created Latin America's largest airline, by far, and one of the largest airlines in the world, in terms of market capitalization.

As you will see in my valuation, I take an optimistic view of the merged company at least in the near term. I do think that the airline is well positioned to take advantage of growth in Latin America and expanded trade with and travel to the rest of the world. While the operating income for the combined company dropped in the immediate aftermath of the acquisition from $507 million in 2011 to $276 million in 2012, I will assume that the company will be able to grow its revenues 15% a year for the next five years and improve its operating margins to 8.98% which LAN generated, on average, between 2008-2012. Completing the optimistic story, I will also assume that the revenue growth will come from relatively little investment (a sales to capital ratio of 10, well above the US airline industry average of 2.74) for the five-year period as the combined company uses excess capacity created by the merger to good effect.

In computing the cost of capital, I made three judgment calls:

1. Risk free rate: The cost of capital was computed in US dollars, even though the company is Chile based, simply because of convenience. The company reports all of its financials in US dollars and rather than convert them all into Chilean pesos, I chose to do the analysis in US dollars. (The growth rates and cash flows are also in US dollars). The risk free rate I used was the US 10-year treasury bond rate of 2.90% on September 16, 2013.
2. Beta: Rather than use a regression beta against a narrow Chilean equity index, which would be both noisy and not particularly meaningful, I started with the average unlevered beta for US airlines (0.82) and levered up using the debt to equity ratio of 114.45% for LATAM. That yields a beta of 1.57.
3. Equity Risk Premium: Rather than treat LATAM as a Chilean company and give it the equity risk premium for Chile, I used the breakdown of revenues provided by LATAM in their 2012 annual report (Page 160) to derive an equity risk premium of 8.92%for the company:

Country	*Revenues*	*ERP*	*Weight*	*Weighted ERP*
Brazil	3334249	8.75%	34.30%	3.00%
Chile	1525009	6.95%	15.69%	1.09%
United States of America	1268573	5.75%	13.05%	0.75%
Peru	620263	8.75%	6.38%	0.56%
Colombia	366664	9.13%	3.77%	0.34%
Ecuador	266271	17.75%	2.74%	0.49%
Argentina	890167	15.88%	9.16%	1.45%
Western Europe	738802	6.97%	7.60%	0.53%

Central and South America	712190	9.69%	7.33%	0.71%
Total	9722188		100.00%	8.92%

The resulting US dollar cost of equity for LATAM is 16.92%:

Cost of equity = 2.90% + 1.57 (8.92%) = 16.92%

I estimated a cost of debt of 7.65%, estimated based on the rating of BB- assigned to the company by Fitch (which I have assumed is equivalent to the same rating by S&P, deserving of a default spread of 4.75% higher than the US treasury bond rate). I am also assuming that Fitch has taken into account the country risk in Chile in assigning this rating. With overall debt of $9,560 million (See page 210 of the 2012 annual report) and a market capitalization of $8,352 million, I get a debt to capital ratio of 53.37% and a cost of capital of 11.15%:

Cost of capital = 16.92% (8352/(8352+9560)) + 7.65%(1-.20)(9560/(8352+9560))

= 11.15%

The tax rate of 20% that I have used in the cost of debt computation is the expected corporate tax rate in Chile next year.

In the midst of all this optimism, I also recognize that the airline business does not have a history of value creation and that most airlines have trouble generating excess returns (returns on capital that exceed their cost of capital). Thus, once the company gets past the first five-year period, I put it on a glide path to a steady state after year 10, where it generates just zero excess returns. Thus, while I do lower the cost of capital to 8.50% by year 10 to reflect the maturity of the company, the return on capital is also set to 8.50%.

The bottom line on the valuation is that even with optimistic assumptions about the merger working and the company returning to historic margins, the value per share that I get is $9.28. At the exchange rate of 506.84 CLP/share that prevailed at the time of the analysis, that generates a value per share of 4,705 CLP/share. At the prevailing price of 8910 CLP/share, that makes the company overvalued by 89.36%.