



Materia Do Brazil (MATEBRAZ)-B Alberto's Proposal for ARAMZK-6

Alberto Da Silva, prepared an investment proposal for presentation to the Board on June 18, 2006.

He started by looking at the market potential in Brazil as compared with other global markets. According to his calculation the market in Brazil was supposed to grow at 43% a year and at 31% in the Mercosur¹ countries (see Exhibit 1). The quality of aramid ARAMZK-6 and the preliminary tests that he conducted with EMBRAER were such that he estimated that it could take as much as 40% of the Brazilian market plus a minimum of 30 % of the other Mercosur markets. He then proposed to build a factory with a production capacity of 300 Tons.

Even with a higher inflation in Brazil, the production costs at 3100 BRL/KG (around 1500\$) would be lower than the prevailing 1610 £/Kg exports landed costs given transport and custom duties (Exhibit 2 and 3). On the basis of an investment cost of 200 Million Brazilian Real (around 90 million US\$) and a need for working capital of 30 days of sales he presented an estimated cash flow as reproduced in Exhibit 4.

The Net Present Value (NPV) of the projects calculated with the hurdle rate of 12% imposed by the headquarters was significantly positive and the Internal Rate of Return (IRR) higher than the hurdle rate.

In addition to the financial analysis Da Silva developed some more strategic arguments:

- a) A global firm such as BMG cannot continue to export to countries such as Brazil. Defence and aircraft are strategic industries for countries like Brazil. The government is likely to impose measures that will force suppliers to produce locally. Matebraz can gain a significant first mover advantage by investing right now.
- b) The global market is exploding so the Texas factory will need all its capacity to meet the growth of the US market.
- c) Brazil can be the centre of Composites for Mercosur.
- d) The experience gained with ARAMZK-6 in Brazil can be extended to other products or countries like China or India

The Board was quite impressed by Da Silva presentation and particularly the non-executive Brazilian board members. Richard EVANS seemed satisfied. The board unanimously voted in favour of the investment.

¹ Mercosur is a Regional Trade Agreement among Brazil, Argentina, Uruguay and Paraguay. Chile, Columbia, Equator and Peru are associate members and Venezuela and Bolivia are becoming full member. Its purpose is to promote a free trade zone similar to the European Economic Community.



Exhibit 1
Market Analysis and Forecast for Aramid ARAMZK-6

| | 7 Years Market Potential(Tons) | Actual Market (Tons 2006) | BMG Sales | BMG Market Share | Yearly Growth Rate |
|-----------------------------------|---|--|----------------------|---------------------------------|-----------------------------------|
| USA/CAN | 5000 | 1000 | 500 | 50% | 26% |
| EU | 6000 | 1400 | 800 | 57% | 23% |
| JAPAN | 2000 | 400 | 100 | 25% | 26% |
| CHINA | 2000 | 150 | 20 | 13% | 45% |
| BRAZIL | 600 | 50 | 5 | 10% | 43% |
| Rest of ASIA | 300 | 40 | 0 | 0% | 33% |
| Rest of MERCOSUR | 200 | 30 | 2 | 7% | 31% |
| Africa & Middleast | 100 | 10 | 0 | 0% | 39% |
| | 16200 | 3080 | 1427 | 46% | 27% |

Sources: Internal Market Research (BMG, 2006)

Exhibit 2
Exchange rates and Inflation in Brazil and the USA

| | EXCHANGE RATES | | | INDICES | |
|-----------|--------------------------------|-----------------------------|-------|----------------|---------------|
| | Brazilian Real BRL/US\$ | | | | |
| | Inflation US | Inflation BRAZIL | | USA | BRAZIL |
| 2000 | 1.95 | 3.40% | 7.0% | 100 | 100 |
| 2001 | 2.33 | 2.80% | 6.8% | 102.83 | 106.84 |
| 2002 | 3.55 | 1.6% | 8.4% | 104.44 | 115.84 |
| 2003 | 2.9 | 2.3% | 14.7% | 106.83 | 132.96 |
| 2004 | 2.65 | 2.7% | 6.6% | 109.7 | 141.73 |
| 2005 | 2.36 | 2.7% | 6.5% | 112.71 | 150.92 |
| 2006(est) | 2.13 | 2.4% | 4.6% | 115.4 | 157.9 |



Exhibit 3
Manufacturing variable costs for production in Brazil compared
with landed costs of imports from Houston

| | BRAZIL (BRL/Kg) | HOUSTON (\$/Kg) |
|---|--------------------|--------------------|
| FEEDSTOCK | 1500 | 500 |
| LABOR | 1300 | 400 |
| OTHERS | 300 | 300 |
| SHIPPING | | 120 |
| IMPORT DUTIES | | 290.4 |
| Total Variable Costs (BRL/Kg) | 3100 | 1610.4 |
| Average Cost increase due to labor costs inflation | 2% | |
| Working Capital Requirement/Sales | 30 days (8.8%) | 60 Days (16.6%) |
| Exchange Rate (April 2006) for 1\$ | 2.13 BRL | |

Nota: The cost difference for feedstock comes from 2 sources: (a) purchasing power due to size in the USA and (b) custom duties since feedstock is imported.

Labour costs are lower in Houston because of productivity due to economies of scale.



Exhibit 4
Estimated Cash Flow for Investing and Producing ARAMZK-6
in Brazil (000 BRL)

| | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014</u> |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SALES tons | | 150 | 200 | 200 | 250 | 250 | 300 | 300 | |
| SALES price BRL/Kg | | 5400 | 5400 | 5400 | 5300 | 5300 | 5200 | 5200 | |
| Variable cost BRL per kg | | 3100 | 3162 | 3225 | 3290 | 3356 | 3423 | 3491 | |
| SALES (000 BRL) | | 810000 | 1080000 | 1080000 | 1325000 | 1325000 | 1560000 | 1560000 | |
| Variables costs (000 BRL) | | 465000 | 632400 | 645048 | 822436 | 838885 | 1026795 | 1047331 | |
| Contribution margin | | 345000 | 447600 | 434952 | 502564 | 486115 | 533205 | 512669 | |
| Markt & admin | | 325000 | 350000 | 350000 | 375000 | 375000 | 400000 | 400000 | |
| EBEIDA | | 20000 | 97600 | 84952 | 127564 | 111115 | 133205 | 112669 | |
| Deprec | | 28000 | 28000 | 28000 | 28000 | 28000 | 28000 | 28000 | |
| EBT | | -8000 | 69600 | 56952 | 99564 | 83115 | 105205 | 84669 | |
| Taxes 50% | | 4000 | -34800 | -28476 | -49782 | -41558 | -52602 | -42334 | |
| Working Capital Requirement | | -64800 | -21600 | 0 | -19600 | 0 | -18800 | 0 | |
| Net Cash Flow from operations | | -40800 | 41200 | 56476 | 53182 | 69558 | 61802 | 70334 | |
| Capital Investment | -200000 | | | | | | | | |
| Terminal value | | | | | | | | | 324800 |
| FREE CASH FLOW (000 BRL) | -200000 | -40800 | 41200 | 56476 | 53182 | 69558 | 61802 | 70334 | 324800 |
| Cumulative Free Cash Flow | -200000 | -240800 | -199600 | -143124 | -84942 | -15385 | 46418 | 116752 | 441552 |