

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

***Complimentary Report Not Intended for Compensation***

ALUMINUM INDUSTRY - - LONG-TERM PRICE ESTIMATES RAISED OWING TO (1) HIGHER COSTS AND (2) 9.4% UP FROM 7.8% 2007 DEMAND GROWTH

Aluminum demand appears to be growing near 9.4% or a record 3.9 mmt in 2007, driven principally by very strong Chinese construction. The six year cumulative growth since 2001 now totals 14 mmt or 45%.

Supply growth appears largely the same large amount as expected three months ago, but inventory buildups are minor given the epic demand gains.

Cost increase drivers are large, including \$70+ per barrel crude oil especially impacting transportation costs. Dramatic appreciation of production cost currencies further drives up costs as the C\$, A\$, Brazilian real, euro and other currencies rose against the US\$. Canadian and Australian costs have risen nearly 10% each in the past quarter, which drove up the costs of cheap Australian raw materials and Canadian hydro-based smelters to flatten the cost curve.

We lowered earnings estimates as costs appear to rise faster than prices, or unanticipated cost increases are much more and pricing gains are small. The best news is that prices at least have not fallen.

We raised our aluminum price estimates primarily because costs will be much higher given exchange rate shifts, firm energy costs and good demand supports prices as well. We had previously been expecting significant price erosion and oversupply, despite no recession expectation, owing to epic production increases mostly in China, the Mideast, Russia and a few other spots. We revised our outlook to a more gradual price erosion, with \$1.23 up from \$1.20 per pound in 2007, \$1.12 rather than \$1.05 in 2008, \$0.97 up from \$0.90 in 2009, \$0.95 up from \$0.87 in 2010 and \$0.95 thereafter.

We estimate the “intrinsic” or net present values of Alcoa or Alcan are 5% or more LESS than when Alcoa launched its May 6, 2007 bid for Alcan because their production cost outlooks are much higher given the currency and energy shifts. We would have written over 10% less, except that aluminum prices rose \$0.04 last week.

**Table 1**  
**WORLD TOTAL ALUMINUM SUPPLY/DEMAND BALANCE**  
*(Thous. Metric Tonnes)*

|       | IAI                             |                              | Average<br>Operating<br>Rate (%) | Scrap<br>Recovery | China Output                        |       | Producers'<br>Inventory<br>Change | Apparent<br>Consumption | Annual<br>Demand<br>Growth | Days<br>Supply<br>Inventory | Avg.<br>LME<br>Ingot |
|-------|---------------------------------|------------------------------|----------------------------------|-------------------|-------------------------------------|-------|-----------------------------------|-------------------------|----------------------------|-----------------------------|----------------------|
|       | Year-end<br>Primary<br>Capacity | IAI<br>Primary<br>Production |                                  |                   | After 1995<br>(Imports<br>from CIS) | Total |                                   |                         |                            |                             |                      |
| 1973  | 11,349                          | 10,050                       | 88.6%                            | 2,698             | 134                                 | 3,005 | -411                              | 13,293                  | 13.4%                      | 80                          | \$0.31               |
| 1974  | 11,848                          | 10,932                       | 92.3%                            | 2,759             | 174                                 | 3,691 | 687                               | 13,178                  | -0.9%                      | 99                          | \$0.43               |
| 1975  | 12,057                          | 9,716                        | 80.6%                            | 2,430             | -134                                | 4,792 | 1,100                             | 10,912                  | -17.2%                     | 160                         | \$0.33               |
| 1976  | 12,410                          | 10,034                       | 80.9%                            | 2,903             | 87                                  | 4,082 | -709                              | 13,733                  | 25.9%                      | 109                         | \$0.40               |
| 1977  | 12,810                          | 11,122                       | 86.8%                            | 3,151             | 145                                 | 4,376 | 294                               | 14,124                  | 2.8%                       | 113                         | \$0.46               |
| 1978  | 13,060                          | 11,440                       | 87.6%                            | 3,326             | 123                                 | 3,950 | -426                              | 15,315                  | 8.4%                       | 94                          | \$0.48               |
| 1979  | 13,372                          | 11,794                       | 88.2%                            | 3,571             | 128                                 | 3,419 | -531                              | 16,024                  | 4.6%                       | 78                          | \$0.73               |
| 1980  | 13,708                          | 12,610                       | 92.0%                            | 3,638             | 113                                 | 4,134 | 650                               | 15,711                  | -2.0%                      | 97                          | \$0.81               |
| 1981  | 13,980                          | 12,293                       | 87.9%                            | 3,778             | 164                                 | 5,370 | 1,149                             | 15,086                  | -4.0%                      | 129                         | \$0.57               |
| 1982  | 13,971                          | 10,523                       | 75.3%                            | 3,749             | 103                                 | 5,013 | -450                              | 14,825                  | -1.7%                      | 128                         | \$0.45               |
| 1983  | 14,268                          | 10,805                       | 75.7%                            | 3,973             | -68                                 | 3,853 | -1,135                            | 15,845                  | 6.9%                       | 97                          | \$0.66               |
| 1984  | 14,179                          | 12,464                       | 87.9%                            | 3,961             | 36                                  | 4,570 | 759                               | 15,702                  | -0.9%                      | 77                          | \$0.57               |
| 1985  | 13,644                          | 11,990                       | 87.9%                            | 4,013             | -64                                 | 4,222 | -425                              | 16,364                  | 4.2%                       | 99                          | \$0.47               |
| 1986  | 13,390                          | 11,990                       | 89.5%                            | 4,199             | 155                                 | 3,717 | -368                              | 16,712                  | 2.1%                       | 85                          | \$0.52               |
| 1987  | 13,595                          | 12,608                       | 92.7%                            | 4,495             | 279                                 | 3,138 | -548                              | 17,930                  | 7.3%                       | 68                          | \$0.71               |
| 1988  | 13,819                          | 13,501                       | 97.7%                            | 5,156             | 419                                 | 3,223 | 35                                | 19,041                  | 6.2%                       | 62                          | \$1.16               |
| 1989  | 14,277                          | 14,062                       | 98.5%                            | 4,943             | 299                                 | 3,265 | 42                                | 19,262                  | 1.2%                       | 62                          | \$0.89               |
| 1990  | 14,731                          | 14,186                       | 96.3%                            | 5,062             | 403                                 | 3,470 | 205                               | 19,446                  | 1.0%                       | 65                          | \$0.75               |
| 1991  | 14,929                          | 14,778                       | 99.0%                            | 5,392             | 1,150                               | 4,337 | 867                               | 20,453                  | 5.2%                       | 77                          | \$0.59               |
| 1992  | 15,767                          | 14,763                       | 93.6%                            | 5,470             | 1,180                               | 4,794 | 457                               | 20,957                  | 2.5%                       | 83                          | \$0.57               |
| 1993  | 16,005                          | 14,984                       | 93.6%                            | 6,051             | 1,750                               | 6,072 | 1,279                             | 21,507                  | 2.6%                       | 103                         | \$0.52               |
| 1994  | 16,015                          | 14,368                       | 89.7%                            | 6,439             | 1,900                               | 5,285 | -787                              | 23,494                  | 9.2%                       | 82                          | \$0.67               |
| 1995  | 19,496                          | 17,342                       | 89.0%                            | 6,868             | 1,676                               | 4,214 | -1,071                            | 26,957                  | 7.6%                       | 57                          | \$0.82               |
| 1996  | 20,254                          | 18,639                       | 92.0%                            | 6,914             | 1,771                               | 4,164 | -50                               | 27,374                  | 1.5%                       | 56                          | \$0.68               |
| 1997  | 20,862                          | 19,479                       | 93.4%                            | 7,594             | 2,035                               | 3,831 | -333                              | 29,441                  | 7.6%                       | 47                          | \$0.72               |
| 1998  | 21,390                          | 19,949                       | 93.3%                            | 7,572             | 2,336                               | 3,893 | 62                                | 29,795                  | 1.2%                       | 48                          | \$0.62               |
| 1999  | 21,822                          | 20,646                       | 94.6%                            | 8,132             | 2,599                               | 4,070 | 177                               | 31,400                  | 5.4%                       | 47                          | \$0.62               |
| 2000  | 22,299                          | 21,191                       | 95.0%                            | 8,197             | 2,794                               | 3,627 | -443                              | 32,625                  | 3.9%                       | 41                          | \$0.70               |
| 2001  | 22,993                          | 20,551                       | 89.4%                            | 7,624             | 3,371                               | 4,011 | 384                               | 31,162                  | -4.5%                      | 47                          | \$0.66               |
| 2002  | 23,429                          | 21,199                       | 90.5%                            | 7,649             | 4,321                               | 4,361 | 350                               | 32,819                  | 5.3%                       | 49                          | \$0.61               |
| 2003  | 23,819                          | 21,937                       | 92.1%                            | 7,656             | 5,547                               | 4,713 | 352                               | 34,787                  | 6.0%                       | 49                          | \$0.65               |
| 2004  | 24,644                          | 22,591                       | 91.7%                            | 7,560             | 6,689                               | 4,122 | -591                              | 37,432                  | 7.6%                       | 40                          | \$0.78               |
| 1Q05  |                                 | 5,628                        | 89.2%                            | 1,924             | 1,741                               | 4,080 | -42                               | 9,335                   | 1.8%                       | 40                          | \$0.87               |
| 2Q05  |                                 | 5,844                        | 91.6%                            | 1,940             | 1,912                               | 3,954 | -125                              | 9,821                   | 4.2%                       | 37                          | \$0.82               |
| 3Q05  |                                 | 5,972                        | 92.6%                            | 1,885             | 2,043                               | 4,268 | 314                               | 9,586                   | 1.9%                       | 41                          | \$0.84               |
| 4Q05  |                                 | 6,019                        | 93.4%                            | 1,943             | 2,047                               | 4,115 | -153                              | 10,162                  | 8.4%                       | 37                          | \$0.93               |
| 2005  | 25,578                          | 23,463                       | 91.7%                            | 7,692             | 7,806                               | 4,115 | -7                                | 38,968                  | 4.1%                       | 39                          | \$0.86               |
| 1Q06  |                                 | 5,860                        | 91.5%                            | 1,955             | 2,060                               | 4,172 | 57                                | 9,818                   | 5.2%                       | 39                          | \$1.09               |
| 2Q06  |                                 | 5,941                        | 92.8%                            | 1,950             | 2,250                               | 4,097 | -76                               | 10,216                  | 4.0%                       | 37                          | \$1.21               |
| 3Q06  |                                 | 5,990                        | 93.6%                            | 1,986             | 2,420                               | 3,834 | -263                              | 10,659                  | 11.2%                      | 33                          | \$1.13               |
| 4Q06  |                                 | 6,075                        | 94.9%                            | 1,951             | 2,619                               | 3,917 | 84                                | 10,561                  | 3.9%                       | 34                          | \$1.24               |
| 2006  | 25,961                          | 23,866                       | 91.9%                            | 7,841             | 9,349                               | 3,917 | -198                              | 41,254                  | 5.9%                       | 35                          | \$1.17               |
| 1Q07  |                                 | 6,027                        | 90.8%                            | 1,985             | 2,859                               | 4,031 | 114                               | 10,757                  | 9.6%                       | 34                          | \$1.27               |
| 2Q07  |                                 | 6,200                        | 93.4%                            | 2,025             | 2,985                               | 4,003 | -28                               | 11,238                  | 10.0%                      | 33                          | \$1.25               |
| 3Q07  |                                 | 6,275                        | 94.6%                            | 2,010             | 3,200                               | 4,075 | 72                                | 11,413                  | 7.1%                       | 33                          | \$1.21               |
| 4Q07  |                                 | 6,400                        | 96.4%                            | 2,000             | 3,400                               | 4,150 | 75                                | 11,725                  | 11.0%                      | 32                          | \$1.20               |
| 2007E | 26,913                          | 24,902                       | 92.5%                            | 8,020             | 12,444                              | 4,150 | 233                               | 45,133                  | 9.4%                       | 34                          | \$1.23               |
| 2008E | 27,706                          | 25,700                       | 92.8%                            | 8,220             | 13,444                              | 4,400 | 250                               | 47,114                  | 4.4%                       | 34                          | \$1.12               |
| 2009E | 28,045                          | 26,500                       | 94.5%                            | 8,420             | 14,444                              | 4,600 | 200                               | 49,164                  | 4.4%                       | 34                          | \$0.95               |
| 2010E | 29,485                          | 27,500                       | 93.3%                            | 8,620             | 15,444                              | 4,750 | 150                               | 51,414                  | 4.6%                       | 34                          | \$0.93               |
| 2011E | 31,035                          | 28,750                       | 92.6%                            | 8,820             | 16,444                              | 5,000 | 250                               | 53,764                  | 4.6%                       | 34                          | \$0.95               |
| 2012E | 32,374                          | 30,000                       | 92.7%                            | 9,020             | 17,444                              | 5,250 | 250                               | 56,214                  | 4.6%                       | 34                          | \$0.95               |
| 2013E | 34,359                          | 31,500                       | 91.7%                            | 9,220             | 18,444                              | 5,600 | 350                               | 58,814                  | 4.6%                       | 35                          | \$0.95               |

Sources: JF Very Independent Research, LLC Est.; Int'l Alum. Institute; World Bureau of Metal Statistics; Alum. Asso.; China & CIS from

## SUPPLY INCREASES UNABATED

May 2007 global smelter output rose 11.4% from one year ago, continuing its frenetic increase trend. Chinese output grew one-third to 1.002 mmt from 0.751 mmt last year. The remainder of the world grew more gradually to a record 2.090 mmt from 2.024 mmt last year, or a 67,400 tonne daily rate. World output grew on every continent except Africa compared to May 2006. Asia at 19,000 tonnes and Russia/East Europe at 19,000 tonnes accounted for the larger amounts of the 66,000 tonne gain outside China as Rusal, Dubal, Aluminum Bahrain and Indian producers expand.

The large rates of growth of supply continue on essentially the same trend evident in prior quarters. It is remarkable that aluminum output trends surpass those of steel to be the highest rate of growth supply in any basic material we can identify.

## REPORTED INVENTORIES DECLINE IN SECOND-QUARTER

While June producer inventories will not be reported for another three weeks or so, we estimate global producer and exchange inventories fell 28,000 tonnes in the June quarter reversing a 114,000 tonne buildup trend in the first-quarter.

Inventory increases probably will resume in the seasonally slower second-half, but at much lower rates than we had estimated previously. We now estimate a 4.15 mmt year-end combined producer and commodity exchange inventory down from 4.80 mmt that we estimated in April. We have estimated first-half 2007 growth rates do not abort in subsequent months.

## GLOBAL GROWTH RATE IN 2007 AMONG HIGHEST ON RECORD EVER

We increased our estimate of 2007 global consumption to 9.4% from 7.8% growth in view of the second-quarter inventory decline.

This represents the third highest growth rate since the International Aluminum Institute began keeping records in 1973. However, it is by far the highest growth rate following a period of prosperity in view of the five consecutive prior years with more than 4.1% and up to 7.6% demand growth worldwide.

In 1976 global demand grew 25.9% following a 17.2% drop in 1975 and in 1973 apparent consumption grew 13.4% in the first of a two year inventory accumulation bubble. In 1994 demand grew 9.2% and in 1978 8.4%, which were periods of growth after recessions three years earlier in each case.

## OUR 2008 TO 2013 OUTLOOK DOES NOT EXPLICITLY PREDICT A RECESSION

We did not attempt to guess when a recessionary slowdown impacts world aluminum use. Nor did we explicitly estimate a “destocking” period in 2008 after the current above-average growth period. However, both are plausible.

We estimated a 4.4% 2008-09 and 4.6% 2010-13 global demand growth rate, which estimates a 59 mmt 2013 global aluminum market almost double the 2001 31 mmt market size.

This is probably an arbitrary sort of goldilocks scenario. Recent \$72 crude oil and trends towards carbon emissions regulation and taxes suggest smaller light vehicles or perhaps a slower growth rate, although aluminum’s proportion of the vehicle could rise. For example, the U.S. average content of 325 pounds per light vehicle might drop a few pounds or 1%-2% if the light vehicles become smaller in a shift to cars or crossover vehicles in a climate in which the total vehicle weight falls 10%-30% on average.

#### MYSTERY OF HOW CHINA USES 3.1 MMT MORE ALUMINUM OUTPUT IN ONE YEAR

The rate of increase in Chinese output is large enough to supply 22 million light vehicles with a typical U.S. mix of 325 pounds of aluminum each. Given that vehicles, cans, Boeing airplanes, aluminum armored Humvees or other patently U.S. uses are not present in China, it is reasonable to guess where the Chinese use the aluminum.

Construction, transmission cable or 9 or 12 volt very light wiring are proportionately larger uses in China. It is unclear whether these have grown enough to double the 2006 or triple the 2004-05 growth rates.

Four families of “one time” factors could be present. First, exports of semi-fabricated or aluminum-intensive goods may have grown. Last month the American Metal Market estimated Chinese fabricated aluminum exports might reach 1.7 mmt in 2007. Recent tax changes encourage exports of value-added items as export rebates for ingot fell. A U.S. aluminum extruder recently filed an anti-dumping suit against China, and Alcoa just merged its extrusion unit with Orkla to cut costs. Air conditioner exports appear to contain more aluminum and less copper tubing too. If Chinese high value aluminum exports rose sharply, it is possible that competitors abroad have not yet reduced output.

Second, some construction may be of a one-time nature owing to the August 2008 Olympics. Some aluminum-intensive goods, like extrusions, may be closely correlated with stadium or viewing stand construction. For example, perhaps the final miles of the ten kilometer run, marathon or triathlon are being prepared with aluminum “bleachers” much like a U.S. little league field would have. Swimming nadatoriums or other exhibitions could have similar seating. Wood is scarce in China, although plastics would be an alternative. The advantage of aluminum is that

upwards of 60% of the value could be recovered after such temporary seating is “melted” to be recycled in 2009. A 0.25 to 1.0 mmt such use is conceivable.

Third, the government may require mandatory inventory stocking in preparation for reduced coal-fired power generation in the 90 days prior to the August 2008 Olympics to improve air quality. Fourth, private businesses may be voluntarily hoarding aluminum in fear of “emergency” air quality stipulations cutting industrial output. For example, the recent each third day restriction on Beijing auto use had no discernible benefit.

For all of these reasons it is doubtful Chinese aluminum output or use will grow anywhere near 40% annual rates next year.

#### LME SPOT PRICE ESTIMATES RAISED

First-half 2007 actual price averages of \$1.26 exceeded our \$1.20 estimate. Demand growth appeared more, and inventories grew less.

Looking forward, recent exchange rate and oil price trends support a higher future cost structure. However, it is noteworthy that the appreciation of the C\$ increases the cost of relatively low-cost smelters in no danger of shutdown, and the appreciation of the A\$ increases the costs of the world’s lowest cost alumina refineries. Thus, these currency shifts tend to “flatten” out world average costs a bit.

We raised our aluminum price estimates primarily because costs will be much higher given exchange rate shifts, firm energy costs and good demand supports prices as well. We had previously been expecting significant price erosion and oversupply, despite no recession expectation, owing to epic production increases mostly in China, the Mideast, Russia and a few other spots. We revised our outlook to a more gradual price erosion, with \$1.23 up from \$1.20 per pound in 2007, \$1.12 rather than \$1.05 in 2008, \$0.97 up from \$0.90 in 2009, \$0.95 up from \$0.87 in 2010 and \$0.95 thereafter.

#### CHANGES IN COMPARATIVE ADVANTAGE AS “SHAPE” OF COST CURVE FLATTENS

Of particular note were the July 6<sup>th</sup> closing values of the C\$ at \$0.9532, A\$ at \$0.8578, Brazilian real at \$0.5255 and euro at \$1.3625. In particular, Canadian or Australian costs appear 10% higher than one quarter ago simply due to exchange rate swings.

Such changes benefit producers like Rusal, that have no exposure to the strengthening currencies, and reduce the competitive positions of Alcoa or Alcan that have large portions of their asset bases in those nations.

**ALCOA (AA \$41.66, rated Neutral) EARNINGS ESTIMATES REDUCED  
OWING TO HIGHER THAN EXPECTED COST PROSPECTS AND  
DESPITE BETTER THAN EXPECTED SPOT INGOT PRICES**

|             | 2007E  | 2008E  | 2009E  | 2010E  |
|-------------|--------|--------|--------|--------|
| Revised EPS | \$3.16 | \$2.54 | \$1.91 | \$1.94 |
| Prior EPS   | \$3.38 | \$2.73 | \$1.91 | \$1.86 |

We cut our earnings estimates owing to the adverse impacts of recent \$72 crude oil, C\$ at 0.95, A\$ at \$0.85, Brazil's real at \$0.52 and euro at \$1.36. Other than the U.S., these are the primary nations or currencies in which Alcoa operates. These shifts tend to increase raw materials, smelting and fabricating costs by 5%-10%. Further, we had anticipated a moderation in the C\$ or A\$ as each strengthened over 60% and 80%, respectively, from lows made in 2001-02.

These cost trends do NOT support Alcoa's ability to strengthen a bid for Alcan, whose prospective costs have risen even more than Alcoa's as Alcan has less exposure to the weaker US \$, nor Alcoa's ability to outbid any rival that appears.

Alcoa's June 2007 quarter to be reported July 9<sup>th</sup> after the close may once again be its best quarter of the year, like 2006, though for different reasons. The second-quarter LME price of \$1.25 fell from \$1.27 in the March quarter, and the June month averaged just \$1.21 per pound. Thus, revenues may fall 2%-4% as costs rise 5%-10% sequentially.

We have estimated the Iceland smelter turns a profit in the September quarter, alumina expansions contribute to earnings, streamlinings continue throughout Alcoa and sale of selected units such as the Packaging division.

We cut our second-quarter estimate to \$0.85 from \$0.92 versus \$0.86 last year, the third-quarter to \$0.80 from \$0.86 versus \$0.61 last year and the fourth-quarter to \$0.74 from \$0.85 versus \$0.41 per share last year. Thus, our 2007 revised estimate is \$3.16 down from \$3.38 and 2008 \$2.54 down from \$2.73. In later years the benefit of assumed share repurchases after the Packaging division sale, higher LME ingot prices and assumed declines in production cost currencies moderates to create estimated stable 2009 at \$1.91, 2010 up to \$1.94 from \$1.86 per share and we introduced 2011 at \$1.99, 2012 at \$2.15 and 2013 at \$2.38 per share at \$0.95 per pound estimated long-run LME spot prices.

Of course, our earnings estimates are somewhat "conjectural" depending on the company's future business composition. We have given effect to a Packaging division sale, no Alcan acquisition and no further Alcoa restructuring. Recent currency shifts to increase production costs might compel further strategic changes.

**Table 2: Alcoa Segment After-Tax Income Statement Before Allocations**

|                                       | 2006           | 2007E          | 2008E         | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         |
|---------------------------------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Alumina                               | 2,785          | 3,462          | 2,596         | 2,456         | 2,491         | 2,641         | 2,757         | 2,732         |
| Chemicals                             | 0              | 0              | 0             | 0             | 0             | 0             | 0             | 0             |
| Primary Metals                        | 6,171          | 7,629          | 6,016         | 5,438         | 5,445         | 5,657         | 5,771         | 5,886         |
| Flat-Rolled Products                  | 8,297          | 9,151          | 8,769         | 8,341         | 8,559         | 8,901         | 9,257         | 9,628         |
| Engineered Products                   | 5,456          | 5,865          | 5,716         | 5,872         | 6,049         | 6,232         | 6,420         | 6,614         |
| Packaging & Consumer                  | 3,235          | 3,867          | 0             | 0             | 0             | 0             | 0             | 0             |
| Other Products                        | 4,435          | 2,000          | 2,000         | 2,000         | 2,000         | 2,000         | 2,000         | 2,000         |
| Other Revenues                        | 0              | 0              | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Total Reported Sales (net inte</b> | <b>30,379</b>  | <b>31,975</b>  | <b>25,097</b> | <b>24,106</b> | <b>24,544</b> | <b>25,432</b> | <b>26,205</b> | <b>26,859</b> |
| Alumina & Chemicals                   | 1,779          | 1,898          | 1,420         | 1,050         | 1,085         | 1,252         | 1,360         | 1,471         |
| Primary Metals                        | 2,837          | 3,256          | 2,574         | 1,809         | 1,695         | 1,572         | 1,544         | 1,612         |
| Flat-Rolled Products                  | 596            | 501            | 492           | 583           | 597           | 493           | 505           | 517           |
| Engineered Products                   | 626            | 532            | 733           | 884           | 1,042         | 1,195         | 1,360         | 1,531         |
| Packaging & Consumer                  | 346            | 349            | 255           | 242           | 244           | 248           | 252           | 256           |
| Other Products                        | 342            | 347            | 380           | 362           | 367           | 372           | 378           | 383           |
| Unallocated                           |                |                |               |               |               |               |               |               |
| <b>Gross Operating Profit by Seg</b>  | <b>6,527</b>   | <b>6,883</b>   | <b>5,853</b>  | <b>4,931</b>  | <b>5,030</b>  | <b>5,133</b>  | <b>5,399</b>  | <b>5,771</b>  |
| Alumina & Chemicals                   | 1,595          | 1,710          | 1,228         | 854           | 884           | 1,048         | 1,152         | 1,258         |
| Primary Metals                        | 2,466          | 2,838          | 2,107         | 1,294         | 1,129         | 955           | 875           | 889           |
| Flat-Rolled Products                  | 385            | 286            | 272           | 359           | 368           | 260           | 267           | 274           |
| Engineered Products                   | 483            | 385            | 582           | 728           | 882           | 1,030         | 1,190         | 1,356         |
| Packaging & Consumer                  | 177            | 176            | 79            | 62            | 61            | 61            | 61            | 61            |
| Other Products                        | 40             | 43             | 47            | 47            | 47            | 47            | 47            | 47            |
| Unallocated                           |                |                |               |               |               |               |               |               |
| <b>Operating Profit by Segment</b>    | <b>5,146</b>   | <b>5,438</b>   | <b>4,315</b>  | <b>3,344</b>  | <b>3,372</b>  | <b>3,401</b>  | <b>3,592</b>  | <b>3,886</b>  |
| Alumina & Chemicals                   | 388            | 496            | 356           | 248           | 256           | 304           | 334           | 365           |
| Primary Metals                        | 600            | 823            | 611           | 375           | 327           | 277           | 254           | 258           |
| Flat-Rolled Products                  | 94             | 83             | 79            | 104           | 107           | 75            | 77            | 80            |
| Engineered Products                   | 117            | 112            | 169           | 211           | 256           | 299           | 345           | 393           |
| Packaging & Consumer                  | 43             | 51             | 23            | 18            | 18            | 18            | 18            | 18            |
| Other Products                        | 21             | 25             | 33            | 26            | 26            | 26            | 26            | 26            |
| Unallocated                           | (428)          | (187)          | (173)         | (178)         | (174)         | (161)         | (151)         | (141)         |
| <b>Income Tax by Segment</b>          | <b>835</b>     | <b>1,403</b>   | <b>1,098</b>  | <b>805</b>    | <b>817</b>    | <b>838</b>    | <b>903</b>    | <b>999</b>    |
| Alumina & Chemicals                   | 1,207          | 1,214          | 872           | 606           | 628           | 744           | 818           | 893           |
| Primary Metals                        | 1,891          | 2,040          | 1,521         | 943           | 826           | 703           | 646           | 657           |
| Flat-Rolled Products                  | 301            | 213            | 203           | 265           | 272           | 194           | 199           | 205           |
| Engineered Products                   | 365            | 273            | 413           | 517           | 626           | 731           | 845           | 962           |
| Packaging & Consumer                  | 134            | 125            | 56            | 44            | 44            | 44            | 44            | 44            |
| Other Products                        | 76             | 71             | 91            | 75            | 74            | 74            | 74            | 74            |
| <b>After-Tax Operating Profit</b>     | <b>3,974</b>   | <b>3,937</b>   | <b>3,156</b>  | <b>2,451</b>  | <b>2,469</b>  | <b>2,490</b>  | <b>2,626</b>  | <b>2,835</b>  |
| Elimination of intersegment (pro      | 0              | 0              | 0             | 0             | 0             | 0             | 0             | 0             |
| Interest Income, net of tax           | 29             | 86             | 97            | 51            | 52            | 55            | 50            | 53            |
| Interest Expense, net of tax          | (288)          | (214)          | (178)         | (191)         | (179)         | (147)         | (122)         | (95)          |
| Minority Interest                     | (436)          | (653)          | (511)         | (374)         | (380)         | (390)         | (420)         | (464)         |
| Corporate Expense, net of tax         | (325)          | (300)          | (300)         | (300)         | (300)         | (300)         | (300)         | (300)         |
| Other Income                          |                |                |               |               |               |               |               |               |
| Other                                 | (704)          | (88)           | (102)         | (54)          | (56)          | (61)          | (58)          | (62)          |
| <b>Unallocated Items, net of tax</b>  | <b>(1,724)</b> | <b>(1,169)</b> | <b>(993)</b>  | <b>(869)</b>  | <b>(864)</b>  | <b>(843)</b>  | <b>(850)</b>  | <b>(869)</b>  |
| <b>Reported Net Income</b>            | <b>2,250</b>   | <b>2,768</b>   | <b>2,163</b>  | <b>1,581</b>  | <b>1,606</b>  | <b>1,647</b>  | <b>1,776</b>  | <b>1,966</b>  |
| <b>EPS</b>                            | <b>\$2.57</b>  | <b>\$3.16</b>  | <b>\$2.54</b> | <b>\$1.91</b> | <b>\$1.94</b> | <b>\$1.99</b> | <b>\$2.15</b> | <b>\$2.38</b> |

Note: Corporate expense is included in our ATOI segment forecasts; Other income is included in Alcoa's reported ATOI numbers.

We have adjusted ATOI to include other income allocated to segments while removing corporate expense.

Source: Company reports, JT Very Independent Research, LLC estimates.

**Table 3: Alcoa Earnings Model on traditional SEC form 10Q basis (\$ Mil.)**

|                                | 2006            | 2007E           | 2008E           | 2009E           | 2010E           | 2011E           | 2012E           | 2013E           |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Alumina                        | 2,785.0         | 3,461.6         | 2,595.7         | 2,456.1         | 2,491.1         | 2,641.1         | 2,757.3         | 2,731.7         |
| Chemicals                      | 0.0             | 0.0             | 0.0             | 0.0             | 0.0             | 0.0             | 0.0             | 0.0             |
| Primary Metals                 | 6,171.0         | 7,629.5         | 6,015.9         | 5,437.8         | 5,444.7         | 5,657.4         | 5,770.6         | 5,886.0         |
| Flat-Rolled Products           | 8,297.0         | 9,151.2         | 8,768.7         | 8,341.0         | 8,558.9         | 8,901.3         | 9,257.4         | 9,627.6         |
| Engineered Products            | 5,456.0         | 5,865.2         | 5,716.4         | 5,871.7         | 6,049.0         | 6,231.7         | 6,419.9         | 6,613.8         |
| Packaging and Consumer         | 3,235           | 3,867           | 0               | 0               | 0               | 0               | 0               | 0               |
| Other                          | 4,435           | 2,000           | 2,000           | 2,000           | 2,000           | 2,000           | 2,000           | 2,000           |
| Equity, Interest and other     |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>Total Sales</b>             | <b>30,379.0</b> | <b>31,974.8</b> | <b>25,096.6</b> | <b>24,106.5</b> | <b>24,543.8</b> | <b>25,431.5</b> | <b>26,205.1</b> | <b>26,859.1</b> |
| Alumina & Chemicals            | 1,524           | 1,641           | 1,141           | 785             | 816             | 980             | 1,084           | 1,190           |
| Primary Metals                 | 2,324           | 2,703           | 1,931           | 1,158           | 995             | 821             | 741             | 756             |
| Flat-Rolled Products           | 301             | 206             | 160             | 278             | 289             | 180             | 188             | 195             |
| Engineered Products            | 328             | 235             | 394             | 576             | 733             | 881             | 1,041           | 1,207           |
| Unallocated                    | 0               | 0               | 0               | 0               | 0               | 0               | 0               | 0               |
| Packaging and Consumer         | 113             | 114             | 0               | 0               | 0               | 0               | 0               | 0               |
| Extruded and End Products      | 40              | 43              | 47              | 47              | 47              | 47              | 47              | 47              |
| <b>Operating Profit (EBIT)</b> | <b>4,630</b>    | <b>4,942</b>    | <b>3,673</b>    | <b>2,844</b>    | <b>2,880</b>    | <b>2,910</b>    | <b>3,101</b>    | <b>3,395</b>    |
| Cost of Goods Sold             | 21,020          | 21,554          | 16,571          | 16,328          | 16,636          | 17,231          | 17,576          | 18,002          |
| Est. Cost of Purchased Alum.   | 2,298           | 2,524           | 1,820           | 1,817           | 1,823           | 2,001           | 2,149           | 1,993           |
| SG & A                         | 1,402           | 1,480           | 1,495           | 1,510           | 1,525           | 1,540           | 1,555           | 1,571           |
| R & D                          | 213             | 195             | 190             | 191             | 192             | 192             | 192             | 192             |
| Depreciation                   | 1,280           | 1,280           | 1,348           | 1,417           | 1,487           | 1,559           | 1,632           | 1,706           |
| Interest Expense               | 384             | 285             | 237             | 255             | 239             | 196             | 163             | 127             |
| Special Items                  | 543             |                 |                 |                 |                 |                 |                 |                 |
| Other (income)                 | (193)           | (180)           | (350)           | (185)           | (175)           | (175)           | (175)           | (175)           |
| Pretax Income                  | 3,432.0         | 4,837.1         | 3,785.4         | 2,774.3         | 2,816.1         | 2,888.6         | 3,112.7         | 3,443.2         |
| Income Taxes                   | 835.0           | 1,402.8         | 1,097.8         | 804.5           | 816.7           | 837.7           | 902.7           | 998.5           |
| Tax Rate                       | 24.3%           | 29.0%           | 29.0%           | 29.0%           | 29.0%           | 29.0%           | 29.0%           | 29.0%           |
| <b>Net Income</b>              | <b>2,597.0</b>  | <b>3,434.3</b>  | <b>2,687.7</b>  | <b>1,969.7</b>  | <b>1,999.4</b>  | <b>2,050.9</b>  | <b>2,210.0</b>  | <b>2,444.7</b>  |
| Minority Interest              | (436.0)         | (652.5)         | (510.7)         | (374.2)         | (379.9)         | (389.7)         | (419.9)         | (464.5)         |
| Extraordinary Items            | 89.1            | (14.0)          | (14.0)          | (14.0)          | (14.0)          | (14.0)          | (14.0)          | (14.0)          |
| Preferred Dividend             | (2.1)           | (2.1)           | (2.1)           | (2.1)           | (2.1)           | (2.1)           | (2.1)           | (2.1)           |
| Net Income to Common           | 2,248.0         | 2,765.7         | 2,160.9         | 1,579.4         | 1,603.4         | 1,645.1         | 1,774.0         | 1,964.1         |
| Avg. Shares Outstanding        | 875.0           | 875.0           | 850.0           | 825.0           | 825.0           | 825.0           | 825.0           | 825.0           |
| <b>Earnings Per Share</b>      | <b>\$2.57</b>   | <b>\$3.16</b>   | <b>\$2.54</b>   | <b>\$1.91</b>   | <b>\$1.94</b>   | <b>\$1.99</b>   | <b>\$2.15</b>   | <b>\$2.38</b>   |
| Dividends Per Share            | \$0.60          | \$0.68          | \$0.68          | \$0.68          | \$0.68          | \$0.68          | \$0.68          | \$0.68          |
| Cash Flow Per Share            | \$3.74          | \$4.76          | \$4.24          | \$3.71          | \$3.83          | \$3.97          | \$4.22          | \$4.55          |
| Book Value Per Share           | \$16.72         | \$18.93         | \$18.75         | \$20.44         | \$21.59         | \$22.79         | \$24.12         | \$25.65         |

Source: Company reports, JT Very Independent Research, LLC estimates.

**Table 4: Alcoa Underlying Dynamics**

|   | 2006          | 2007E         | 2008E         | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Ingot Shipments (000 metric tonnes)       | 2,087         | 2,175         | 2,219         | 2,263         | 2,308         | 2,354         | 2,401         | 2,449         |
| Flat Rolled Ship. (000 mt)                | 2,273         | 2,332         | 2,425         | 2,522         | 2,623         | 2,728         | 2,837         | 2,951         |
| Engineered Ship. (000 mt)                 | 139           | 146           | 147           | 149           | 150           | 152           | 153           | 155           |
| Extruded and End Products (000 mt)        | 877.0         | 900.0         | 900.0         | 900.0         | 900.0         | 900.0         | 900.0         | 900.0         |
| Packaging Shipments (000 mt)              | 169           | 175           | 0             | 0             | 0             | 0             | 0             | 0             |
| Total Shipments (000 metric tonnes)       | 5,545         | 5,728         | 5,691         | 5,834         | 5,982         | 6,134         | 6,292         | 6,455         |
| Primary Alum. Capacity                    | 4,040         | 4,060         | 4,480         | 4,480         | 4,503         | 4,525         | 4,548         | 4,871         |
| Primary Alum. Production                  | 3,676         | 3,816         | 4,211         | 4,167         | 4,278         | 4,299         | 4,320         | 4,627         |
| Est. Purchased Aluminum                   | 1,869         | 1,912         | 1,480         | 1,667         | 1,704         | 1,835         | 1,972         | 1,828         |
| Ingot Realizations (\$/lb)                | 1.23          | 1.32          | 1.23          | 1.09          | 1.07          | 1.09          | 1.09          | 1.09          |
| LME Spot Ingot Price (\$/lb)              | 1.13          | 1.23          | 1.12          | 0.95          | 0.93          | 0.95          | 0.95          | 0.95          |
| Flat-Rolled Price Real. (\$/lb)           | 1.68          | 1.78          | 1.64          | 1.50          | 1.48          | 1.48          | 1.48          | 1.48          |
| Engineered Price Real (\$/lb)             | 16.80         | 17.29         | 17.58         | 17.88         | 18.24         | 18.61         | 18.98         | 19.36         |
| Est. EBIT Cost to Produce Ingot (\$/lb)   | 0.90          | 0.96          | 0.97          | 0.90          | 0.90          | 0.94          | 0.95          | 0.95          |
| Est. Addtl Fab Cost - Flat Rolled (\$/lt) | 0.49          | 0.51          | 0.49          | 0.50          | 0.50          | 0.50          | 0.50          | 0.50          |
| Est. Addtl Fab Cost - Engr (\$/lb)        | 14.60         | 15.33         | 15.25         | 15.18         | 15.10         | 15.03         | 14.95         | 14.88         |
| Corp. Total Sales per pound               | 2.39          | 2.53          | 2.00          | 1.87          | 1.86          | 1.88          | 1.89          | 1.89          |
| CGS/Sales                                 | 76.8%         | 75.3%         | 73.3%         | 75.3%         | 75.2%         | 75.6%         | 75.3%         | 74.4%         |
| Sales Growth                              | 16.1%         | 5.3%          | -21.5%        | -3.9%         | 1.8%          | 3.6%          | 3.0%          | 2.5%          |
| <b>Corp. EBITDA/ Lb Shipped</b>           | <b>\$0.42</b> | <b>\$0.51</b> | <b>\$0.43</b> | <b>\$0.35</b> | <b>\$0.34</b> | <b>\$0.34</b> | <b>\$0.35</b> | <b>\$0.37</b> |
| Alumina&Chem. EBIT/ tonne product         | \$86          | \$88          | \$54          | \$32          | \$33          | \$40          | \$44          | \$48          |
| Ingot EBIT/ lb own production             | \$0.29        | \$0.32        | \$0.21        | \$0.13        | \$0.11        | \$0.09        | \$0.08        | \$0.07        |
| Flat Rolled EBIT/ lb shipped              | \$0.06        | \$0.04        | \$0.03        | \$0.05        | \$0.05        | \$0.03        | \$0.03        | \$0.03        |
| Engr Prod EBIT/ lb shipped                | \$1.07        | \$0.73        | \$1.21        | \$1.76        | \$2.21        | \$2.63        | \$3.08        | \$3.53        |
| Ext. Alumina Shipments ('000 mt)          | 8,420         | 8,857         | 9,081         | 9,669         | 9,952         | 10,410        | 10,868        | 10,767        |
| Implied Internal Alumina Use              | 7,206         | 7,479         | 8,255         | 8,167         | 8,384         | 8,426         | 8,468         | 9,069         |
| Est. Total Alumina Production             | 15,626        | 16,336        | 17,336        | 17,836        | 18,336        | 18,836        | 19,336        | 19,836        |
| Est. Alumina Price Realized (tonne)       | \$304         | \$317         | \$286         | \$254         | \$250         | \$254         | \$254         | \$254         |
| Cost (EBITDA basis)/tonne Alumina         | \$206         | \$217         | \$220         | \$210         | \$206         | \$202         | \$198         | \$194         |

Source: Company reports, JT Very Independent Research, LLC estimates.

**Table 5: Alcoa Cash Flows**

|                                     | 2006           | 2007E          | 2008E          | 2009E          | 2010E          | 2011E          | 2012E          | 2013E          |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Sources:</b>                     |                |                |                |                |                |                |                |                |
| Net Income                          | 2,248.0        | 2,765.7        | 2,160.9        | 1,579.4        | 1,603.4        | 1,645.1        | 1,774.0        | 1,964.1        |
| Depreciation, depletion & amort.    | 1,280.0        | 1,280.0        | 1,347.6        | 1,416.6        | 1,486.9        | 1,558.6        | 1,631.8        | 1,706.4        |
| Deferred Taxes                      | (168.0)        | 147.4          | 116.9          | 87.6           | 88.8           | 90.9           | 97.4           | 107.0          |
| Equity Income net dividends         | (89.0)         | (25.0)         | (25.0)         | (24.0)         | (23.0)         | (23.0)         | (23.0)         | (23.0)         |
| Minority Interest                   | 436.0          | 456.8          | 357.5          | 262.0          | 265.9          | 272.8          | 293.9          | 325.1          |
| Common Stock                        | 155.0          | 50.0           | (2,000.0)      | 50.0           | 50.0           | 50.0           | 50.0           | 50.0           |
| Debt                                | 715.0          |                |                | 600.0          |                |                |                |                |
| Asset Sales                         | 407.0          | 4,050.0        | 50.0           | 50.0           | 50.0           | 50.0           | 50.0           | 50.0           |
| Other Items                         | (742.0)        |                |                |                |                |                |                |                |
| <b>Total Sources</b>                | <b>4,242.0</b> | <b>8,724.9</b> | <b>2,007.8</b> | <b>4,021.5</b> | <b>3,522.0</b> | <b>3,644.4</b> | <b>3,874.1</b> | <b>4,179.6</b> |
| <b>Uses:</b>                        |                |                |                |                |                |                |                |                |
| Capital Expenditures                | 3,201.0        | 3,200.0        | 2,500.0        | 2,500.0        | 1,200.0        | 2,000.0        | 2,000.0        | 2,000.0        |
| Acquisitions, investments           | (7.0)          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          |
| Stock Repurchased                   | 290.0          | 150.0          | 150.0          | 150.0          | 150.0          | 150.0          | 150.0          | 150.0          |
| Reductions in Minority Interest     | (342.0)        | 195.8          | 153.2          | 112.3          | 114.0          | 116.9          | 126.0          | 139.3          |
| Dividends (include to Min. Int.)    | 923.0          | 937.6          | 846.1          | 757.5          | 760.4          | 765.6          | 781.4          | 804.8          |
| Debt Repayment                      | 36.0           | 1,000.0        | 600.0          | 700.0          | 700.0          | 700.0          | 700.0          | 700.0          |
| Post-Retirement Liability           | 397.0          | 60.0           | 60.0           | 60.0           | 60.0           | 60.0           | 60.0           | 60.0           |
| Increase (decrease) in working cap. | (256.0)        | 3,081.6        | (2,401.4)      | (358.3)        | 437.6          | (248.1)        | (43.3)         | 225.4          |
| <b>Total Uses</b>                   | <b>4,242.0</b> | <b>8,724.9</b> | <b>2,007.8</b> | <b>4,021.5</b> | <b>3,522.0</b> | <b>3,644.4</b> | <b>3,874.1</b> | <b>4,179.6</b> |

Source: Company reports, JT Very Independent Research, LLC estimates.

**Table 6: Alcoa Balance Sheet (\$ Mil.)**

|                                      | 2,006         | 2007E         | 2008E         | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Cash and Equivalents                 | 506           | 2,817         | 1,016         | 747           | 1,076         | 890           | 857           | 1,026         |
| Receivables, net                     | 3,435         | 4,077         | 3,200         | 3,074         | 3,129         | 3,243         | 3,341         | 3,425         |
| Total Inventories & Supplies         | 3,805         | 3,677         | 2,886         | 2,772         | 2,823         | 2,925         | 3,014         | 3,089         |
| Other Current Assets                 | 1,497         | 1,507         | 1,517         | 1,527         | 1,537         | 1,547         | 1,557         | 1,567         |
| <b>Total Current Assets</b>          | <b>9,243</b>  | <b>12,078</b> | <b>8,619</b>  | <b>8,120</b>  | <b>8,564</b>  | <b>8,604</b>  | <b>8,769</b>  | <b>9,106</b>  |
| Gross Property, Plant and Equipment  | 29,348        | 31,328        | 32,888        | 34,448        | 35,228        | 36,488        | 37,748        | 39,008        |
| Less Accumulated Depreciation        | 14,535        | 15,803        | 17,139        | 18,543        | 20,018        | 21,565        | 23,184        | 24,879        |
| Net Property, Plant and Equip.       | 14,813        | 15,525        | 15,749        | 15,905        | 15,210        | 14,923        | 14,564        | 14,129        |
| Net Intangible Assets                | 6,166         | 4,166         | 4,266         | 4,366         | 4,466         | 4,566         | 4,666         | 4,766         |
| Investments and Other Assets         | 7,052         | 8,372         | 9,412         | 10,452        | 10,972        | 11,812        | 12,652        | 13,492        |
| <b>Total Assets</b>                  | <b>37,274</b> | <b>40,141</b> | <b>38,046</b> | <b>38,843</b> | <b>39,212</b> | <b>39,905</b> | <b>40,650</b> | <b>41,494</b> |
| Short-Term Debt                      | 1,947         | 1,447         | 1,447         | 1,447         | 1,447         | 1,447         | 1,447         | 1,447         |
| Accounts Payable and Other Current L | 7,090         | 8,189         | 7,076         | 6,880         | 6,832         | 7,063         | 7,214         | 7,269         |
| <b>Total Current Liabilities</b>     | <b>9,037</b>  | <b>9,636</b>  | <b>8,523</b>  | <b>8,327</b>  | <b>8,279</b>  | <b>8,510</b>  | <b>8,661</b>  | <b>8,716</b>  |
| Long-Term Debt                       | 4,445         | 4,445         | 3,845         | 3,745         | 3,045         | 2,345         | 1,645         | 945           |
| Deferred Credits & Other Liab.       | 3,652         | 3,637         | 3,621         | 3,606         | 3,590         | 3,574         | 3,557         | 3,541         |
| Accrued Post-Retirement Benefits     | 2,956         | 2,897         | 2,839         | 2,782         | 2,727         | 2,672         | 2,619         | 2,566         |
| Deferred Taxes                       | 753           | 900           | 1,017         | 1,105         | 1,194         | 1,284         | 1,382         | 1,489         |
| Minority Interest                    | 1,800         | 2,061         | 2,265         | 2,415         | 2,567         | 2,723         | 2,891         | 3,077         |
| Common and Preferred Equity          | 14,631        | 16,565        | 15,936        | 16,863        | 17,812        | 18,798        | 19,896        | 21,161        |
| <b>Total Liabilities and Equity</b>  | <b>37,274</b> | <b>40,141</b> | <b>38,046</b> | <b>38,843</b> | <b>39,212</b> | <b>39,905</b> | <b>40,650</b> | <b>41,494</b> |
| Accts Rec / Sales                    | 13.00%        | 12.75%        | 12.75%        | 12.75%        | 12.75%        | 12.75%        | 12.75%        | 12.75%        |
| Inventory / Sales                    | 12.50%        | 11.50%        | 11.50%        | 11.50%        | 11.50%        | 11.50%        | 11.50%        | 11.50%        |
| AP & Other CL / Sales                | 23.34%        | 25.61%        | 28.20%        | 28.54%        | 27.83%        | 27.77%        | 27.53%        | 27.06%        |

Notes: Intangible assets include Intangibles (net of accumulated amortization) and net deferred tax assets.

Source: Company reports, JT Very Independent Research, LLC estimates.

## ALCOA PROFIT OUTLOOK BY LINE OF BUSINESS

We expect the alumina and ingot segments to have substantially improved earnings in the second-quarter from the first-quarter. Alumina shipments, which fell 7% to 1.9 mmt in the March 2007 quarter from one year ago, should be much larger nearer to 2.1-2.2 mmt benefiting from expansions underway. The primary smelting segment suffered from Iceland startup expense, the Tennessee smelter potline freeze and various exchange rate/energy cost pressures.

Both segments should enjoy lagged pricing coinciding with peaks seen in March 2007 quarter spot prices and not yet suffering from the June 2007 \$1.21 monthly average. We estimate alumina after tax net income near \$295-\$315 mm and ingot near \$520-\$540 mm, both of which should be the best of the year.

We estimate the four other manufacturing segments will collectively be near the \$208 mm after tax net income reported in the March 2007 quarter. Soft auto, housing or other markets in the U.S. could penalize certain product lines like forged truck wheels. Beverage can shipments were down almost 4% in the U.S., which could penalize the can sheet portion of the Flat-Rolled segment. The turnaround to Russian rolling mills losing near \$6 mm per month also is key to the Flat-Rolled segment, where management predicted such losses would end by year-end 2007.

It is possible that Alcoa records some one-time expenses related to the Alcan bid or Packaging division sale, though such costs most likely will be capitalized against those efforts if consummated or charged off against earnings if no completion occurs. It is also possible that minor operating inefficiencies develop owing to such “distractions.”

We expect most of the product lines to earn less in the third- and fourth-quarter for the reasons described earlier.

We estimate that 20%-30% of Alcoa’s assets are not making money, or \$7 to \$10 billion. These include (a) \$1 billion in assets held for sale, (b) the \$1 billion Iceland smelter, (c) another \$1 billion from new units half of which are the Russian and Chinese rolling ventures, (d) a portion of the \$6.2 billion in goodwill, (e) \$0.3 billion in derivative contracts, (f) up to 64 auto locations mostly in the Engineered Solutions segment, (g) portions of the Packaging segment, (h) research and (i) isolated sales contracts among many finished products.

We believe that all of the managers at Alcoa are highly intelligent. We believe they would be patient up to a point, but that the Alcan takeover effort will hasten initiatives to meet and divest units that do not meet return criteria. Alcoa would earn at least 50% more if those portions of the asset base earned their costs of capital, by our estimates. For these reasons we want to continue to estimate earnings “optimistically.”

#### ALCOA BID FOR ALCAN LIKELY TO BE EXTENDED

We expect Alcoa simply to extend its May 7<sup>th</sup> bid on identical terms this week as the first 60 day period has expired. While Alcan at \$86.48 now trades at a large more than \$10 premium to \$58.60 in cash and 0.4108 share of Alcoa, no competing bid as of yet has been made.

#### ANTITRUST REVIEW

The U.S. Department of Justice made a second request for information last week, which is reasonable in view of the size and scope of the proposed transaction. More such agencies in other nations may make reviews, such as Canada, the EU, or Australia. It is a good break for Alcoa that individual Canadian jurisdictions or European nations have no jurisdiction here.

We expect antitrust review to take six to nine months from May 7, 2007. It is possible that some potential bidders for either Alcan or Alcoa may wait and do nothing until the regulatory process plays out.

#### POTENTIAL ANTITRUST POLICY

First, Alcoa holds maybe 55% and Alcan 35% of world aerospace sheet and plate share. Kaiser Aluminum and Aleris have no captive source of metal to make special alloys nor much research to advance. We expect the EU and Airbus to make Alcoa “recreate” a miniature “Pechiney” consisting of the Issoire and Ravenswood fabrication units, a French research hub similar to

Pechiney's prior to 2004 and a smelter or two, maybe Dunkirk or Vlissingen in Holland, to permit the Pechiney-like entity to make, perfect, and advance its new alloys in perfect confidentiality.

Second, Alcoa had frictions in Quebec as it laid off 600 at Baie Comeau in 1999 just after buying Reynolds, took a strike at Becancour for one-half year to regain "the right to manage" several years ago and proposed to double the nonunion Deschambault smelter. Alcoa needs for Quebec and British Columbia to transfer the water leases upon which the hydro depends. Further, Quebec could raise Alcoa's power rates for 1.0 mmt in 2014 of existing Alcoa smelters up to its marginal cost of wind power, \$0.08 from the recent \$0.03 per kwh, should it so choose. Alcan paternalistically managed water like the U.S. Army Corps of Engineers flood control, deliberately overmanned and overlooked various strikes or affronts like the \$0.6 billion forfeited in the incomplete Kemano dam 15 years ago. Alcoa's style is to benchmark and expect any operation to meet world standards.

Third, the new company will hold 30% of world metallurgical alumina output, 20% of primary ingot supply and 17% of ingot supply including scrap. Regulatory authorities worldwide must approve the transfer of Alcan's raw materials to Alcoa's 60%-40% venture, which maybe will become a 75%-25% venture afterwards.

Fourth, inadvertent jurisdictional issues could arise. We do not believe the Neuf-Brisach can sheet mill is the object of the bid, but the EU might ask Alcoa to sell it. We do not believe a 20% share in world primary ingot capacity matters, but some antitrust agency somewhere might request an asset sale. The global nature of each aluminum producer introduces many nations into the mix.

#### ESTIMATED VALUES OF ASSET SALES FROM ALCAN TO SATISFY ANTITRUST

We theorize that EU antitrust officials may ask Alcoa to create a viable integrated aluminum producer to support the aerospace rolling mills. After all, how would a standalone aerospace supplier cast proprietary alloys on a low cost basis or maintain confidentiality if they had to specify to Alcoa to mix their alloys?

We valued Alcan's 259,000-tons smelter at Dunkerque at \$4000/ton or \$1.036 billion and the 135,000-tons smelter at Saint-Jean-de-Maurienne at \$3000/ton or \$405 million. We valued Neuf-Brisach rolling facility at 1/9<sup>th</sup> of Novelis's enterprise value or \$634 million.

We estimate the values of Alcan's Issoire and Ravenswood aerospace oriented rolling facilities at near \$5 billion. This is approximate as Alcan's engineered products segment also contains some wire and cable and other minor product lines that might represent up to 25% of the operating profit.

We estimated Alcoa and Alcan's packaging business unit to be worth \$3 billion and \$5 billion, respectively. We compared book value, revenue and EBITDA to estimate the value of packaging business. Year-end 2006 book value of Alcoa's packaging business was at \$2.757 billion and Alcan at \$6.868 billion. 2006 annual revenue of Alcoa's packaging business was at \$3.235 billion and Alcan at \$5.960 billion. We estimated 2006 EBITDA of packaging unit of Alcoa at \$274 million and Alcan at \$480 million.

**Table 7: DETAILED ALCOA ASSET BREAKUP ANALYSIS GENEROUSLY AT \$41 PER SHARE**

| <b>Asset</b>                          | <b>Estimated Value</b> | <b>Remarks</b>   |
|---------------------------------------|------------------------|--|
| Corp. Unallocated at half book value  | 250                    | Treated \$2.6 bil = \$0.762 cash, \$1.3 "to be sold" and \$0.5 "other" |
| Misc. real estate or old plant sites  | 250                    | Lots of "stuff" like 64 auto parts plants, 2 HQ, etc.                  |
| Assets held for sale, net liabilities | 1,005                  | Dec 2006 balance sheet   |
| Alumina                               | 9,992                  | 1.5x Alumina Ltd. Market cap   |
| 20% Western Aust. Gas pipeline        | 17                     |  |
| Power Generation                      | 2,662                  | 15.2 bil kwh @ 2 cents per kwh profit & 12.5 times net earnings        |
| Smelting                              | 12,000                 | 4 mmt @ \$3000/t as much older or 5x net inc.2007E \$2.4 bil.          |
| Beverage Can Sheet Rolling            | 1,911                  | 12x 35% of segment \$455 mm net income excl.\$200 mm cap los           |
| Aerospace Rolling USA/UK              | 4,095                  | 18x half of segment \$455 mm net income excl. \$200 mm Russia          |
| Diverse Distn.& Industrial            | 764                    | 12x 15% of segment \$455 mm net income excl. \$200 mm specific         |
| Russian Rolling                       | 600                    | Qualification with Airbus, heat treating and other improvements        |
| Chinese Rolling                       | 400                    | Segment assets \$5,031 mm at Sept 2006 10Q                             |
| Alcoa Closures                        | 3,000                  | Based on \$2,834 mm segment assets Sept 2006 10Q p.19                  |
| Wine Closures                         |                        | Despite just \$95 mm est. net income and \$124 mm deprn in 2006        |
| Pkging machinery                      |                        | earnings power > \$300 mm due to unrecovered ingot or resin costs      |
| Food and flexible pkging              |                        |  |
| Reynolds Wrap foil                    |                        |  |
| Reynolds alum pkging trays, etc.      |                        |  |
| Reynolds Cut Rite wax paper           |                        |  |
| Reynolds many plastic pkging          |                        |  |
| Presto plastic bags                   |                        |  |
| Baco UK                               |                        |  |
| Ivex Packaging                        |                        |  |
| Howmet Castings                       | 4,500                  | 18x \$250 mm est. 2007 net income                                      |
| Forged Truck Wheels                   | 600                    | 12x \$ 50 mm est. 2007 net income                                      |
| Aerospace fasteners                   | 900                    | 18x \$ 50 mm est. 2007 net income                                      |
| Aerospace forgings                    | 300                    |  |
| AFL auto wire harnesses (29 sites)    | 450                    |  |
| Diverse auto mfg (23 locations)       | 115                    | assume \$5 mm inventory per site after shutdown                        |
| tubing                                | 50                     |  |
| cold-finished bar                     | 50                     |  |
| wire rod                              | 50                     |  |
| Auto wheels (8 sites)                 | 200                    |  |
| auto fasteners                        | 75                     |  |
| auto castings (4 sites)               | 100                    |  |
| Aerospace hard alloy extrusions       | 500                    |  |
| 49% Soft alloy extrusion with Orkla   | 1,000                  | 22 of 40 locations and \$2.1 of \$3.4 bil sales in jt vt               |
| Nonres construction/ Alumax Kawn      | 375                    |  |
| Door, curtain wall, stairs, other res | 375                    |  |
| Total Debt 12/06 net cash             | -5,780                 |  |
| Pensions                              | -1,500                 |  |
| Postretirement medical, life, etc.    | -2,103                 |  |
| Other Long-term Liabilities           | -1,475                 |  |
| Reclamation liabilities booked        | -345                   |  |
| Est. Reclamation liabilities unbooked |                        |  |
| Upper limit Massena, Sherwin,E S      | -305                   | AA estimates \$675 mm upper range of costs to these 3 sites            |
| 36 oper., 34 past or 65 waste sites   | -1,000                 | GAAP acctg does not require recognition until cost well known          |
| Est. Severance for restructuring      | -750                   | Whether AA or a buyer does it, streamlining costs money.               |
| Assets less Liabilities               | 33,328                 |  |
| SharesOutstg=874.6 - 80 repo + ne     | 800                    | 74 mm net share repo adds \$3.59 per share to value                    |
|                                       |                        | We assume share repo done promptly in 2008 at \$2.59 bil cost          |

**Asset Value per share #####**

Source: JT Very Independent Research, LLC estimates

**Table 8: AA FUNCTIONAL VALUATION BREAKDOWN (\$ MIL.)**

|                        |            | Depn   | 2006A<br>Net Inc. | 2006A<br>Sales | Sep-06<br>Assets |
|------------------------|------------|--------|-------------------|----------------|------------------|
| Alumina                | \$ 10,009  | \$ 192 | \$ 1,050          | \$ 2,785       | \$ 4,816         |
| Electricity            | \$ 2,662   |        |                   |                |                  |
| Ingot smelting         | \$ 12,000  | \$ 395 | \$ 1,760          | \$ 6,171       | \$ 8,566         |
| Flat-Rolled            | \$ 7,770   | \$ 219 | \$ 255            | \$ 8,297       | \$ 5,031         |
| Howmet Castings        | \$ 4,500   | \$ 169 | \$ 331            | \$ 5,456       | \$ 6,056         |
| Engineered others      | \$ 2,890   |        |                   |                |                  |
| Packaging              | \$ 3,000   | \$ 125 | \$ 95             | \$ 3,235       | \$ 2,834         |
| Extrusions & End Prod. | \$ 2,250   | \$ 118 | \$ 60             | \$ 4,419       | \$ 2,409         |
| Corporate              | \$ 1,505   |        |                   |                | \$ 2,600         |
| Less Net Debt          | \$ (5,780) |        |                   |                |                  |
| Less Other Liabilities | \$ (7,478) |        |                   |                |                  |
| Net Assets or Equity   | \$ 33,328  |        |                   |                | \$ 13,373        |

Source: JT Very Independent Research, LLC estimates

#### OUR BREAKUP ANALYSIS VALUATION METHODOLOGY IS HIGHLY GENEROUS IN FIVE REGARDS

We make five legitimate criticisms of our valuation technique herein. In other words, we had to stretch the numbers pretty far to arrive at \$41 per share in our Alcoa asset break up analysis.

First, we did not provide any 15% “liquidation discount” in this report as we did in our February 12th Weyerhaeuser research note in which we raised our target to \$102 from \$92 for WY. Second, we did not consider income taxes, which might trigger cash outlays if Alcoa or someone else sold assets for \$20 billion above year-end 2006 carrying values on the balance sheet. Third, we aggressively valued the functional segment net income of each of six reporting segments, and added back the business losses of perhaps \$400 mm of individual manufacturing businesses not doing so well these days to put aggressive P/E valuations on the units generating profits to cover those losses. However, we did not value as a deduction the \$317 mm net “corporate expense” for HQ, research and related overheads that is a \$3-\$4 billion drag on valuation. Fourth, we treated the January 19th 10% share repurchase announcement as though it already has been completed without deducting the \$2.59 billion costs, which might be funded from interim cash flows this year. Fifth, we valued captive electricity generating capacity separate from the smelting system at \$2.66 billion.

Item #1 was a \$6 per share, item #2 an up to \$5 per share, item #3 a \$4 per share, item #4 a \$3 per share and item #5 a \$3 per share valuation benefit. Thus, a stern critic might suggest we overvalued Alcoa by \$21 per share. We are painfully aware that Hindalco agreed to pay \$44.93 on February 11th for Novelis, which we valued at \$13 per share and whose book value excluding goodwill was roughly nil. We do not want to present an overly conservative valuation analysis as the broad stock market sets record valuations and basic industrial companies disappear at increasing frequency at valuations near twice replacement cost, as is the case in the steel industry recently.

#### SEVERAL OF OUR BREAKUP ANALYSIS VALUATION METRICS DEBATABLE

Reasonable observers might argue with our valuation of Alcoa's smelters at \$3,000 per tonne of capacity or five times net income (separately valuing power generation), the valuation of aerospace sheet and plate at 18x estimated net income, the valuation of Howmet Castings at 18x estimated net income or the valuation of the Packaging business segment at \$3 billion or 30x last year's earnings. These constituents were \$12 billion, \$4.1 billion, \$4.5 billion and \$3 billion, respectively, or \$23.6 of the \$33.3 billion estimated \$41 per share asset valuation.

In recent years construction costs for new aluminum smelters has ranged from \$1,500 per tonne of annual capacity in China to \$5,000 per tonne for Alcan's Alma smelter in Quebec in 1999 or \$4,500 for Alcan's recent proposed refurbishment/expansion of its Kitimat smelter in British Columbia. Recently the government-owned CITIC company in China won a contract to build a new smelter for Egyptalum, another state company, for about \$2,700 per tonne illustrating the cost-effectiveness of Chinese techniques in a different region of the world. Generally new smelters have been located in places in which long-term power supplies can be contracted for \$0.01 to \$0.02 per kwh for twenty years.

Over 80 % of Alcoa's smelters are over 25 years old. Its Iceland smelter will operate later this year. Deschambault in Quebec was built about 15 years ago, Becancour in Quebec phase 1 about 20 years ago, Portland in Australia about 24 years ago and Mt. Holly in South Carolina 27 years ago. The remainder of Alcoa's system ranges between 1940 and 1975 probably averaging almost 50 years old. Such older smelters could sell for as little as \$1,000 to \$2,000 per tonne of capacity in an auction.

Alcoa is splendid in its efficient operation of mature smelting assets. Alcoa is superb in the optimization of its core production processes --- power generation, bauxite mining, alumina refineries, smelters, rolling mills, extrusion plants, etc. In this manner it earns similar or superior margins as competitors with newer or larger or lower wage cost smelters.

However, we hesitate to assign a value larger than \$3,000 per tonne for a smelting system whose average plant age nears 40 years old or for which two-thirds nears 50 years old. In this sense the asset base is fully depreciated. It is also noteworthy that we have separately valued the raw materials business at \$10 billion based on the Alumina Ltd publicly traded share price and the power generating assets at \$2.66 billion assuming a two cent per kwh or \$0.03 per pound of aluminum systemwide average profit contribution from power generation. Alternatively, one might say that we valued the smelters integrated with 25% self-generated power at \$3,650 per tonne of combined capacity and separately valued the bauxite-alumina system based on the public comparable.

An aggressive or "liberal" maximum valuation metric would be to value Alcoa's smelting system at \$5,000 per ton or 8.3x estimated \$2.4 billion 2007 smelting net income while continuing to separately value the power generation at \$2.66 billion. This maximum valuation format would permit a \$10 per Alcoa share increase to a valuation analysis. We believe that BHP Billiton would build new smelters in Congo, South Africa, Mozambique, Brazil or the Mideast and Rio Tinto would build new smelters in Abu Dhabi or elsewhere rather than pay such a price, and wind up with lower capital costs, lower power costs, lower wage levels and brand new rather than 40 year old or so assets. Thus, we reject the aggressive, liberal or "maximum" smelter valuation approach.

A more conservative investor might discount the valuation of Alumina Ltd by 10% or more reasoning that Alumina Ltd's shares command a valuation premium in anticipation of Alcoa

taking it over. Further, a tax provision could be provided as well since Alumina Ltd trades near three times book value.

Our valuations of aerospace flat-rolled and Howmet Castings near 18x net income or packaging near 30x net income may seem generous or excessive as well. A 10%-15% "IPO discount" could be applied to these three businesses since some discount may need to be applied to sell them, which collectively might add up to almost \$2 billion or \$2.50 per Alcoa share before considering tax obligations triggered from sale. Alcoa paid a lot to acquire Howmet Castings and its packaging businesses, and may not trigger very much tax obligations from their sales. We estimate the book value of the Davenport, Iowa or Kits Green, UK aerospace aluminum plants may be under \$1 billion or under 25% our estimated valuations suggesting a larger tax issue if those units were sold.

#### MINORITY INTERESTS AND UNALLOCATED CORPORATE COSTS

Alcoa had a \$436 mm minority interest charge in 2006. We estimate that \$420 mm involved the earnings of Alumina Ltd, and the remaining \$16 mm stemmed from Alcoa's other segments. We believe the minority interest related to smelting was larger than \$16 mm, no packaging assets had minority stakes and that certain rolling, extrusion or other fabricating assets in which minority stakes were held had losses providing small minority interest credits to net income. For simplicity we ignored the minority interest item as our valuation metric correctly valued the alumina segment from the valuation of its publicly traded partner.

We also ignored the \$317 mm after tax corporate overhead expense. We believe this stems from the corporate offices on Park Avenue, Pittsburgh's North Side and other administrative hubs, the New Kensington, PA research center, Barberton, Ohio research center, Farmington Hills, MI auto center, corporate insurance, shared services and other centralized items. Small "country offices" exist in key locations like Sao Paulo or other key places abroad as well.

Some investors may place a \$3 to \$4 billion or \$4 per share negative value to the central overhead expense. Much of it could disappear if another company took Alcoa over or if Alcoa made draconian cuts to fend off a hostile raider. We chose to ignore it, but it is one of the five methodology judgment calls for which we expressed our own self-doubts on page seven above.

#### INVESTMENT OVERVIEW AND PRICE OBJECTIVE

We lowered our investment rating to Neutral Weight from Overweight on March 20 because (a) we increased our estimate of Chinese output for 2007 by 1.4 mmt to 12.4 mmt from our prior 11 mmt estimate up from 9.35 mmt in 2006, (b) we increased our estimate of Chinese aluminum use in 2007 by 0.5 mmt since their industrial production recently rose faster than expected, (c) we cut our estimate of U.S. aluminum use in 2007 by 0.25 mmt as most manufacturing activity measures in the U.S. are falling fast, (d) we raised our estimate of year-end 2007 aluminum inventories by 1 mmt and (e) we cut our earnings estimates both for Alcan and Alcoa to reflect a 2% higher than previously estimated cost structure for each owing to euro appreciation and the failure to obtain caustic soda, carbon anode, resin, transportation, and other cost reductions in proportion to the drop from peak \$77 crude oil spot prices.

Our price target of \$38 per share was a P/E ratio of 11.2 times our 2007 earnings estimate of \$3.38 per share at the time of our last writing, May 11<sup>th</sup>. It has now risen with Alcoa's share price appreciation to \$41.66 and lower earnings to 13.2 times estimated 2007 and 16.4 times 2008

estimates. We have not altered this estimate, despite adverse currency and crude oil cost trends, owing to potential corporate activity.

The shares anticipate more business restructuring or takeover, and would fall should Alcoa successfully overbid a rival for terms above the current \$86.48 Alcan share price.

#### RISKS FOR ALCOA

The biggest risks to Alcoa involve potential global aluminum and alumina overexpansions, overcapacity or demand declines from higher interest rates or oil prices. We estimate Saudi and Dubal 1.4 mmt each megasmelters in 2014 will have operating costs \$0.30 per pound lower than Alcoa's. We believe Alcoa's primary motive in seeking a combination with Alcan involves the \$0.06 per pound (across both companies' total output) of synergies to make both more competitive.

Risks include various higher costs, a lower aluminum price, possibly driven by weak demand conditions here in the United States and abroad; higher interest rates, which could also crimp demand; energy cost inputs; a dollar rebound, high production cost currencies, excess industry smelting, alumina refining, rolling, or other capacities that would depress margins. Contractual sales price caps for ingot, alumina, and finished products could subdue earnings gains, and investors using public disclosures could easily overestimate earnings as such contract terms are not disclosed.

**ALCAN (AL \$86.48, rated Neutral) EARNINGS ESTIMATES REDUCED  
OWING TO HIGHER THAN EXPECTED COST PROSPECTS AND  
DESPITE BETTER THAN EXPECTED SPOT INGOT PRICES**

|             | 2007E  | 2008E  | 2009E  | 2010E  |
|-------------|--------|--------|--------|--------|
| Revised EPS | \$6.26 | \$5.37 | \$3.69 | \$3.77 |
| Prior EPS   | \$6.26 | \$5.57 | \$3.89 | \$3.90 |

Alcan patiently does nothing as antitrust agencies globally, Canadian federal and provincial governments evaluate Alcoa's May 7<sup>th</sup> offer. Their actions could increase the "costs" of Alcoa buying Alcan in addition to Alcan's anticipated share price premium as well as recent adverse exchange rate or energy cost shifts.

One possible line of defense for Alcan to fend off or sustain portions of its share price premium would be to sell its packaging unit for maybe \$7 billion, its aerospace rolling mills for maybe \$5 billion or other specific assets. We estimate the 85%-owned Dutch smelter sale netted \$340-\$500 mm. Proceeds might be used to buy back shares.

We cut our earnings estimates for 2008 to \$5.37 from \$5.57, 2009 to \$3.69 from \$3.89, 2010 to \$3.77 from \$3.90 and introduced 2011 at \$4.57, 2012 at \$4.69 and 2013 at \$5.52 per share at \$0.95 LME aluminum reflecting higher aluminum prices, higher costs due to appreciation of the C\$, euro and other currencies, higher energy and the sale of the 85%-owned Dutch smelter announced in May.

It is uncertain whether another bidder will arise, given the premium within Alcan's share price and the adverse cost trends evident in the C\$ at \$0.9532 or euro at \$1.3625. We shudder at the thought of the C\$ trading at a premium to the US \$, which might make Canadian managements willing to sell out. A "remedy" for Alcan's currency cost problem might be that the Canadian federation dissolve given the dichotomy between Alberta's prosperity and manufacturing job losses in other provinces.

Some potential bidders might not believe eight Mideastern nations will build over 6 mmt of smelting, that Chinese output could continue to grow over 1 mmt each year, that the strong C\$ might be so harsh or that the past six year low interest rate global boom would end. All depends on expectations.

**Table 9: Alcan Earnings Model (\$ Mil.)**

|  | 2006          | 2007E         | 2008E         | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Raw materials                                    | 1,844         | 2,127         | 1,986         | 1,726         | 1,732         | 1,814         | 1,820         | 1,906         |
| Primary aluminum                                 | 8,661         | 9,476         | 8,883         | 8,235         | 8,860         | 9,824         | 10,419        | 11,414        |
| Engineered products                              | 7,146         | 7,682         | 8,258         | 8,877         | 9,543         | 10,259        | 11,028        | 11,856        |
| Packaging  | 5,960         | 6,169         | 6,385         | 6,608         | 6,839         | 7,079         | 7,326         | 7,583         |
| Discontinued Rolled Products, other, net         | 30            | 50            | 50            | 50            | 50            | 50            | 50            | 50            |
| <b>Total Revenues</b>                            | <b>23,641</b> | <b>25,504</b> | <b>25,561</b> | <b>25,497</b> | <b>27,025</b> | <b>29,026</b> | <b>30,644</b> | <b>32,808</b> |
| Raw materials                                    | 609           | 681           | 600           | 550           | 510           | 510           | 510           | 510           |
| Primary aluminum                                 | 2,962         | 3,643         | 2,933         | 2,080         | 2,119         | 2,497         | 2,505         | 2,913         |
| Engineered products                              | 567           | 498           | 590           | 570           | 585           | 585           | 585           | 585           |
| Packaging  | 550           | 568           | 575           | 595           | 616           | 637           | 659           | 682           |
| Discontinued other, net                          | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| Equity accounting                                | (263)         | (325)         | (215)         | (215)         | (215)         | (215)         | (215)         | (215)         |
| Derivatives adjustment                           | (45)          | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Total Business Group Profit (EBITDA-plus)</b> | <b>4,380</b>  | <b>5,064</b>  | <b>4,482</b>  | <b>3,580</b>  | <b>3,614</b>  | <b>4,014</b>  | <b>4,044</b>  | <b>4,476</b>  |
| <b>Total Cost of Sales</b>                       | <b>19,261</b> | <b>20,440</b> | <b>21,079</b> | <b>21,917</b> | <b>23,410</b> | <b>25,012</b> | <b>26,600</b> | <b>28,332</b> |
| Depreciation                                     | 1,043         | 1,078         | 1,099         | 1,119         | 1,138         | 1,157         | 1,174         | 1,190         |
| Head Office                                      | 305           | 308           | 195           | 200           | 200           | 200           | 200           | 200           |
| Intersegment                                     | 56            | 200           | 175           | 150           | 130           | 130           | 130           | 130           |
| Other items, net                                 | 319           | 50            | 50            | 50            | 95            | 95            | 95            | 95            |
| Net Interest Expense                             | 284           | 254           | 234           | 203           | 149           | 95            | 41            | 7             |
| Special Items synergy expenses                   |               |               |               |               |               |               |               |               |
| Pretax Income                                    | 2,373         | 3,174         | 2,729         | 1,858         | 1,902         | 2,337         | 2,405         | 2,854         |
| Income Taxes                                     | 665           | 1,047         | 900           | 613           | 628           | 771           | 793           | 942           |
| Equity Income                                    | 85            | 120           | 100           | 90            | 80            | 80            | 80            | 80            |
| Minority Interest                                | (7)           | (10)          | (10)          | (10)          | 0             | 0             | 0             | 0             |
| Amortization of Goodwill/loss from discontinu    | (11)          | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Net Income</b>                                | <b>1,775</b>  | <b>2,236</b>  | <b>1,918</b>  | <b>1,325</b>  | <b>1,354</b>  | <b>1,646</b>  | <b>1,691</b>  | <b>1,992</b>  |
| <b>Earnings Per Share</b>                        | <b>\$4.75</b> | <b>\$6.26</b> | <b>\$5.37</b> | <b>\$3.69</b> | <b>\$3.77</b> | <b>\$4.57</b> | <b>\$4.69</b> | <b>\$5.52</b> |
| Divds. Per share                                 | \$0.70        | \$0.90        | \$0.90        | \$0.90        | \$0.90        | \$0.90        | \$0.90        | \$0.90        |
| Cash Flow Per Share                              | \$8.78        | \$9.58        | \$8.69        | \$6.98        | \$7.11        | \$8.00        | \$8.17        | \$9.08        |
| Dil. Shares Outstanding                          | 373.6         | 357.0         | 357.5         | 359.0         | 359.5         | 360.0         | 360.5         | 361.0         |
|  | 2006          | 2007E         | 2008E         | 2009E         | 2010E         | 2011E         | 2012E         | 2013E         |
| Ingot Shipments                                  | 3.018         | 3.177         | 3.244         | 3.494         | 3.844         | 4.194         | 4.544         | 4.894         |
| Packaging  | 1.055         | 1.092         | 1.130         | 1.170         | 1.211         | 1.253         | 1.297         | 1.342         |
| Engineered Products                              | 0.260         | 0.260         | 0.260         | 0.260         | 0.260         | 0.260         | 0.260         | 0.260         |
| Total Alum. Shipments                            | 4.333         | 4.529         | 4.634         | 4.924         | 5.315         | 5.707         | 6.101         | 6.497         |
| Primary Smelter Virgin Output                    | 3.105         | 3.289         | 3.125         | 3.250         | 3.250         | 3.500         | 3.500         | 3.500         |
| Secondary Recycled Scrap Output                  | 0.837         | 0.862         | 0.888         | 0.915         | 0.942         | 0.970         | 0.999         | 1.029         |
| Implied Ingot Bought (excludes tolling)          | 0.391         | 0.378         | 0.621         | 0.759         | 1.123         | 1.237         | 1.602         | 1.967         |
| Alumina sales                                    | 3.602         | 3.692         | 3.784         | 3.879         | 3.976         | 4.075         | 4.177         | 4.282         |
| <b>Ingot Realizations (\$/Lb)</b>                | <b>\$1.19</b> | <b>\$1.31</b> | <b>\$1.20</b> | <b>\$1.03</b> | <b>\$1.01</b> | <b>\$1.03</b> | <b>\$1.01</b> | <b>\$1.03</b> |
| <b>Fab, Europe Prices (\$/lb)</b>                | <b>\$1.65</b> | <b>\$1.57</b> | <b>\$1.52</b> | <b>\$1.36</b> | <b>\$1.32</b> | <b>\$1.32</b> | <b>\$1.32</b> | <b>\$1.32</b> |
| <b>Engineered Products Prices</b>                | <b>\$3.28</b> | <b>\$3.53</b> | <b>\$3.51</b> | <b>\$3.35</b> | <b>\$3.31</b> | <b>\$3.31</b> | <b>\$3.31</b> | <b>\$3.31</b> |
| LME Ingot Price                                  | \$1.13        | \$1.23        | \$1.12        | \$0.95        | \$0.93        | \$0.95        | \$0.93        | \$0.95        |
| Ingot EBIT Cost (\$/Lb.)                         | <b>\$0.76</b> | <b>\$0.79</b> | <b>\$0.79</b> | <b>\$0.76</b> | <b>\$0.76</b> | <b>\$0.76</b> | <b>\$0.76</b> | <b>\$0.76</b> |
| Additional FAB Cost (\$/Lb.) Europe              | \$0.61        | \$0.62        | \$0.62        | \$0.62        | \$0.62        | \$0.62        | \$0.62        | \$0.62        |
| <b>EBITDA/Lb.</b>                                | <b>0.387</b>  | <b>0.451</b>  | <b>0.398</b>  | <b>0.293</b>  | <b>0.272</b>  | <b>0.285</b>  | <b>0.269</b>  | <b>0.283</b>  |
| Packaging Operating Margin                       | 9.23%         | 9.20%         | 9.00%         | 9.00%         | 9.00%         | 9.00%         | 9.00%         | 9.00%         |

Source: Company Reports and JT Very Independent Research, LLC Estimates

## EARNINGS MODEL MANIPULATIONS

We raised our LME spot price estimates by \$0.03 for 2007, \$0.07 for 2008, \$0.05 for 2009, \$0.06 for 2010 and initialized 2011-13 at \$0.95 per pound. We raised our ingot cost estimate for Alcan by \$0.03 to \$0.79 for 2007, \$0.07 to \$0.79 for 2008 and \$0.05 for 2009-10 to \$0.76 per pound. We raised estimated fabricating costs and shaved packaging margins by 1% of sales. These changes were largely offsetting.

The most adverse mechanic in our model was the sale of the 85%-owned 228,000 tonne Dutch Vlissingen smelter to a UK LBO group, which cut volume.

We estimated new ventures in Oman, South Africa, Saudi Arabia or expansions in Kitimat, Quebec or Iceland increase smelter output, which we estimate falls to 3.125 mmt in 2008 and rises to 3.25 mmt in 2009 and 2010 and then 3.5 mmt in 2011-13. The pace of new development projects always involves uncertainty, as recent votes in Iceland illustrate or the slow tedious pace of negotiations in South Africa, Quebec or BC have demonstrated as well.

## POTENTIAL ASSET SALE STRATEGIES TO FUEL FUTURE SHARE REPURCHASES OR TO SATISFY ANTITRUST

We theorize that EU antitrust officials may ask Alcoa to create a viable integrated aluminum producer to support the aerospace rolling mills. After all, how would a standalone aerospace supplier cast proprietary alloys on a low cost basis or maintain confidentiality if they had to specify to Alcoa to mix their alloys?

We valued Alcan's 259,000-ton smelter at Dunkerque at \$4000/ton or \$1.036 billion and the 135,000-ton smelter at Saint-Jean-de-Maurienne at \$3000/ton or \$405 million. We valued Neuf-Brisach rolling facility at 1/9<sup>th</sup> of Novelis's enterprise value or \$634 million.

We estimate the values of Alcan's Isoire and Ravenswood aerospace oriented rolling facilities at near \$5 billion. This is approximate as Alcan's engineered products segment also contains some wire and cable and other minor product lines that might represent up to 25% of the operating profit.

We estimated Alcoa and Alcan's packaging business unit to be worth \$3 billion and \$5 billion, respectively. We compared book value, revenue and EBITDA to estimate the value of packaging business. Year-end 2006 book value of Alcoa's packaging business was at \$2.757 billion and Alcan at \$6.868 billion. 2006 annual revenue of Alcoa's packaging business was at \$3.235 billion and Alcan at \$5.960 billion. We estimated 2006 EBITDA of packaging unit of Alcoa at \$274 million and Alcan at \$480 million.

## INPUTS TO POTENTIAL BIDDERS VALUE MODELS

Determining the net present value of Alcan involves many complex inputs, including future aluminum prices, world growth rates, China's recent 40%-plus aluminum growth rate ytd, real interest rates, exchange rates, C\$ trends, euro budget issues,

global warming protocol, electricity conservation trends, geopolitical issues and other inputs.

The attached discussion illustrates the “horse race” between revenues and costs, as moderately better aluminum prices may or may not offset adverse currency trends, higher crude oil prices or other cost trends.

Alcan’s ability to complete its own growth initiatives is unknown. The pace of expansions in Iceland, Quebec, Kitimat in British Columbia and South Africa has been uneven.

The pace of expansions around the world varies, and some projects may or may not be built. Some potential bidders might not believe eight Mideastern nations will build over 6 mmt of smelting, that Chinese output could continue to grow over 1 mmt each year, that the strong C\$ might be so harsh or that the past six year low interest rate global boom would end. All depends on expectations.

A reasonable financial advisor, consultant, resource company or LBO group could study these same issues and reach different valuations. This makes the ongoing process ever more interesting.

#### INVESTMENT OVERVIEW AND PRICE OBJECTIVE

We raised our investment rating to Neutral Weight from Underweight and our price objective to \$85 from \$48 on May 9 because the Alcoa bid put Alcan into play. Alcoa could sweeten its bid to prevail, or regulatory blockages could delay or thwart it. Private bids or international bidders could enter.

We lowered our investment rating to Underweight from Overweight on March 20 as (a) we increased our estimate of Chinese output for 2007 by 1.4 mmt to 12.4 mmt from our prior 11 mmt estimate up from 9.35 mmt in 2006, (b) we increased our estimate of Chinese aluminum use in 2007 by 0.5 mmt since their industrial production recently rose faster than expected, (c) we cut our estimate of U.S. aluminum use in 2007 by 0.25 mmt as most manufacturing activity measures in the U.S. are falling fast, (d) we raised our estimate of year-end 2007 aluminum inventories by 1 mmt and (e) we cut our earnings estimates for Alcan to reflect a 2% higher than previously estimated cost structure owing to euro appreciation and the failure to obtain caustic soda, carbon anode, resin, transportation and other cost reductions in proportion to the drop from peak \$77 crude oil spot prices.

#### RISKS

Upside opportunities of a bidding war exist. We do not expect too many bidders because of prospects of aluminum oversupply.

We believe downside risks back to \$60 exist should regulatory obstacles block Alcoa, and no deal develops. The recent strength of the C\$ may discourage bidders, or discourage bidding to the levels anticipated in the current Alcan share price.

Investment risks include a global economic slowdown, weakening of the U.S. dollar, and higher costs such as energy and raw materials. Weakness in the aerospace market or slow orders for the A380 or A350 would hurt results as well. Greater availability of electricity, competitors capacity expansions for bauxite or alumina, announcements of new smelters abroad, greater short-term output in China, earlier than expected completions of smelters in China and other events that increase competition serve to reduce Alcan's future earnings. Mideast smelter constructions in eight nations exceeding 6 mmt offer lower costs than Alcan's Canadian hydro, and Russia and other nations around the world plan capacity additions as well.

## DISCLOSURES

"John Tumazos Very Independent Research, LLC" (JTVIR) is a Delaware Corporation with pending registration as an investment advisor in the state of New Jersey owing to our place of business in New Jersey.

JTVIR is not a broker-dealer, and conducts no trades. Its primary business is to provide "unbundled" metals and paper industry securities and market research to institutions or corporations in a zero commission, electronic execution, electronic dissemination, unbundled format for a specified annual fee structure.

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.

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 policy permits personal trading in the metals or paper industries, though no positions were taken in companies within regular research coverage after July 2001 after joining Prudential Financial and until after one month of completed New Jersey registration of JTVIR. Our policy is that any personal trading must be consistent with our recommendation, made two business days or more AFTER a recommendation or change in recommendation and held for a minimum of 30 days or one month. We believe it is virtuous for a securities analyst to "put his or her money where his mouth is" to invest consistent with the recommendation to clients after such recommendation has been made, and we disagree with some restrictions made upon broker-dealer employees after 2000 era scandals.

Our policy permits up to three directorships and up to five consulting projects, advisory assignments or financial advice to corporations that might supplement, backcheck or

substitute for certain services of a large investment banking firm. For example, we would accept an engagement to evaluate investment banking advice on behalf of a manufacturing company concerned whether advice is sincere or intended to maximize fees. Currently no such relationships exist.

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 Thymin 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 was dropped from the prior June 6, 2007 Prudential Equities Group universe owing to a pending takeover by Sherritt International.

In accordance with applicable rules and regulations, we note above parenthetically that our stock ratings of "Overweight," "Neutral Weight," and "Underweight" most closely correspond with the more traditional ratings of "Buy," "Hold," and "Sell," respectively; however, please note that their meanings are not the same. (See the definitions above.) We believe that an investor's

decision to buy or sell a security should always take into account, among other things, that the investor's particular investment objectives and experience, risk tolerance, and financial circumstances. Rather than being based on an expected deviation from a given benchmark (as buy, hold and sell recommendations often are), our stock ratings are determined on a relative basis (see the foregoing definitions).

There is no intention to "balance" the number of Overweight or Underweight ratings, as instances of broad over- or under-performance among basic industrials may occur. This is opposite to prior policy of Prudential Equities Group, for example, which sought to have an equal number of Over- or Underweight ratings. JTVIR makes each investment judgment in a "bottoms up" manner based on the assets of each individual company.

### **Price Target – Methods/Risks**

The methods used to determine the price target generally are based on future earning estimates, product performance expectations, cash flow methodology, historical and/or relative valuation multiples. The risks associated with achieving the price target generally include customer spending, industry competition and overall market conditions.

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

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