



# BUD: THIS BUD'S FOR YOU!

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## RATING: BUY

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Price (11/04/03) \$52.40  
S&P Index: 1050.35  
52 Week Range \$54-45  
Market Cap(mm) \$42,7729  
Shares Out (mm) 864.1  
Enterprise Value: \$48,038.7  
Avg. Daily Volume: 2,215,561  
LT Debt/Total Capital: 68.40  
Net Cash/Share: \$0.2  
Book Value/Share \$3.53

Dividend: \$0.88  
Yield 1.8%

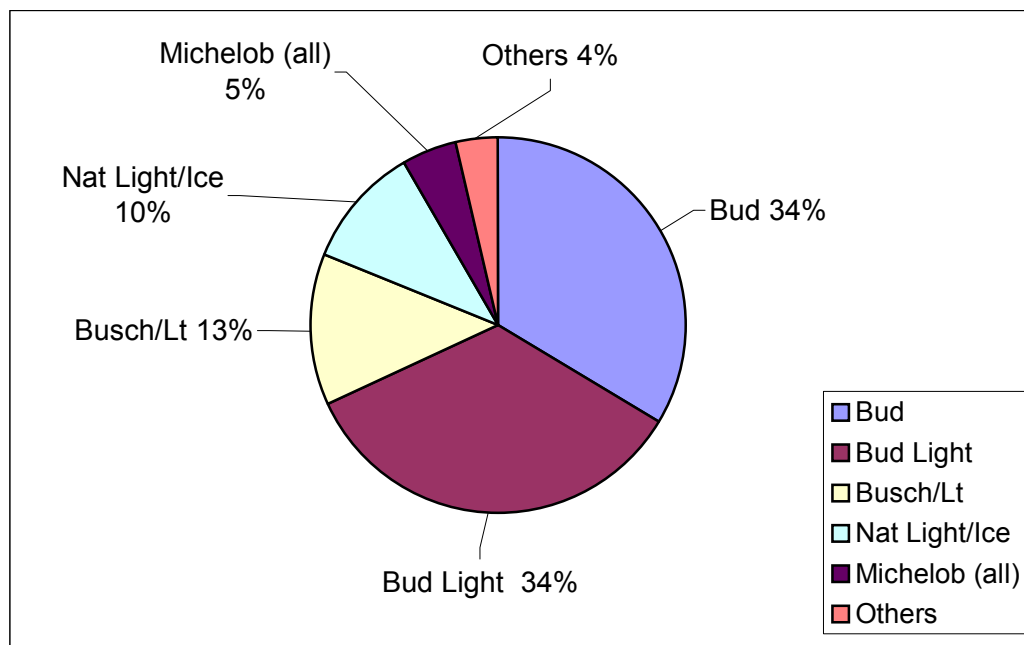
Earnings	2002	2003	2004E
1Q	\$0.51A	\$0.57A	
2Q	\$0.66A	\$0.75A	
3Q	\$0.71A	\$0.80A	
4Q	\$0.32A	\$0.36E	
Fiscal Year			
P/E	\$2.20A	\$2.49E	\$2.75E

- **IMPRESSIVE YEAR TO DATE:** In a challenging year due to smoking bans, poor weather, blackouts, ongoing military activity, and a sluggish economy, BUD posted impressive results YTD. STR's (sales to retailers) increased 1.3% thru Sept. while the industry declined 1%, gaining 1.2 share points and reaching a 50% domestic market share for the first time
- **WHAT NOW?** Using our forecasts, we believe the market price implies a terminal growth rate of 3.1% beyond 2006. In our view, the market is under-estimating future terminal growth beyond 2006, which we believe to be 3.9% implying a price of \$60.77 which includes the cost of a new brewery 5 years from now even though management has not indicated its intention add such capacity.
- **WHAT ARE THE RISKS?** Main non-business risks came in the form of excise taxes and labor relations. With the election of Gov. Schwarzenegger, CA excise tax risks have substantially abated in the highest volume state. AB announced it has reached a tentative agreement with the Teamsters for the contract to replace the current one expiring in February. With respect to business risks, the recent difficult environment will only serve to provide easy comparisons in the future. Continuing growth in Michelob Ultra will provide upward momentum on both the top line and gross margins due to its higher than average variable margin.
- **PRICING COMPETITION:** We believe that the pricing environment will remain friendly in the future primarily due to high industry capacity utilization rates, over 90%, rendering undisciplined pricing un-economical for any competitor.
- **RATE BUD SHARES A BUY:** In addition to our valuation based price appreciation expectation, holders of BUD should benefit from continued share repurchase estimated to amount to 4.6% of float in 2003 with an additional \$2B spent in 2004. BUD has re-purchased on average 3.57% of shares outstanding per year for the last 5 years. Dividends also underpin the stock with \$3 per share paid in 2003 and an announced increase for 2004 in line with EPS growth.

## Company Description

Headquartered in St. Louis, Missouri, Anheuser-Busch Companies, Inc., is the holding company parent of Anheuser-Busch Inc. (ABI), the world's largest brewer of beer. Major brands are Budweiser, Bud Light, Michelob, and Busch. In addition to beverages, BUD also maintains businesses in packaging and entertainment. The packaging segment is comprised of its aluminum beverage can and lid manufacturing, aluminum recycling, label printing, crown and closure liner material manufacturing and glass manufacturing operations. Through its Busch Entertainment Corporation subsidiary, BUD operates nine adventure parks with total annual attendance of 20 million visitors. Domestically, beer represents more than 90% of corporate profits.

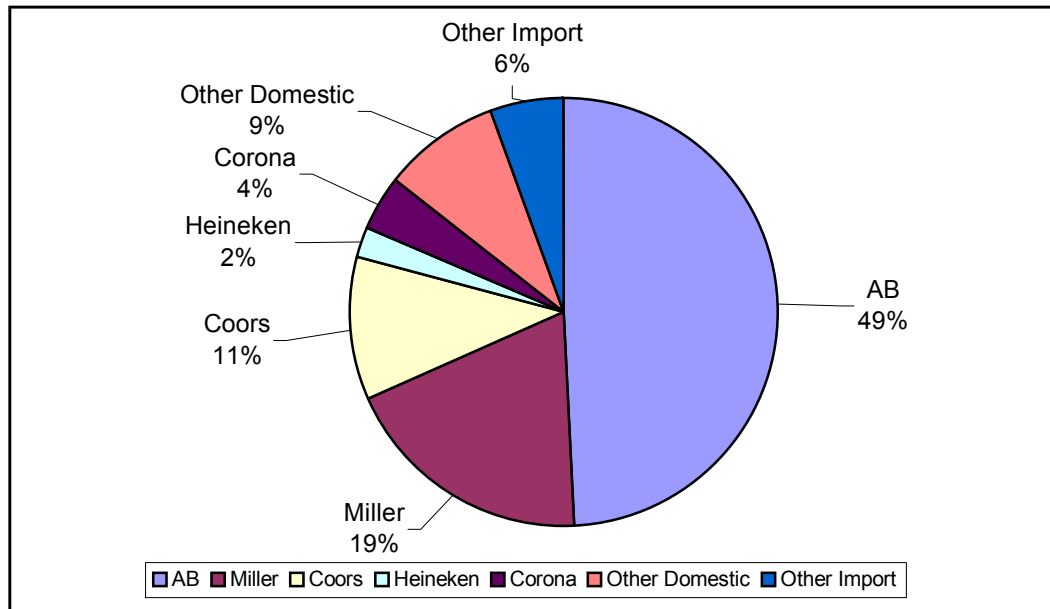
**Share of Anheuser Busch Shipments, 2001**



Source: Beer Marketer's Insight

The international beer segment consists of the Company's export sales and overseas beer production and marketing operations. BUD owns 50% of Grupo Modelo, the maker of Corona Beer, representing 30% of the U.S. import market. It also has brewing operations in England and China, where in addition it has acquired a 9% interest in Tsingtao, the country's largest brewer, which can be increased to 27% through convertible bonds due in 2007.

## Major Brewers & Importers Market Share In 2002

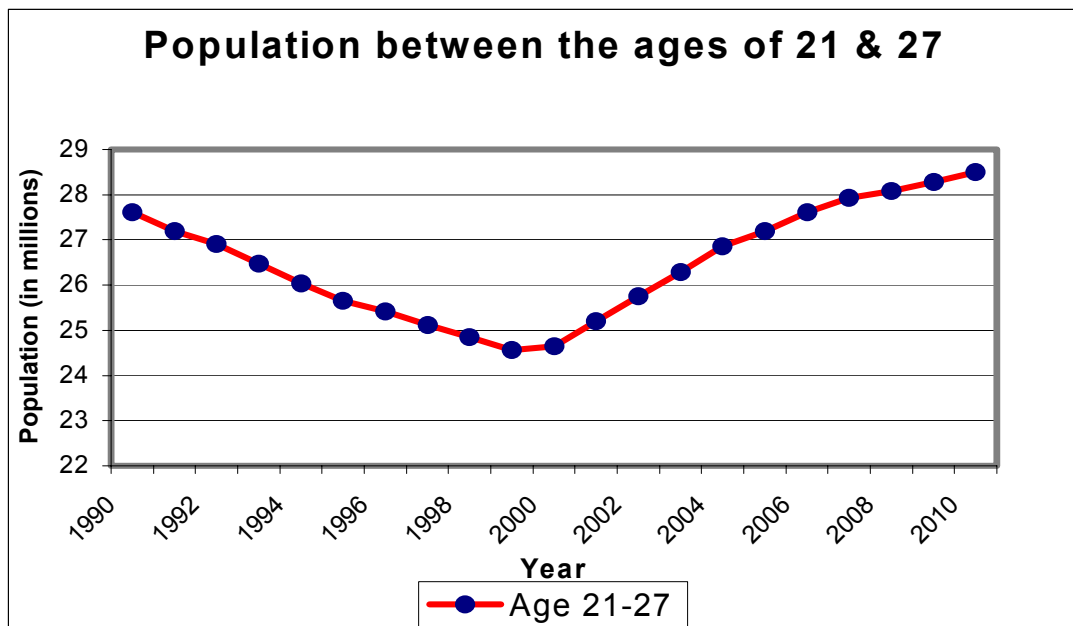


Source: Beer Marketer's Insight

## Beer Industry 101

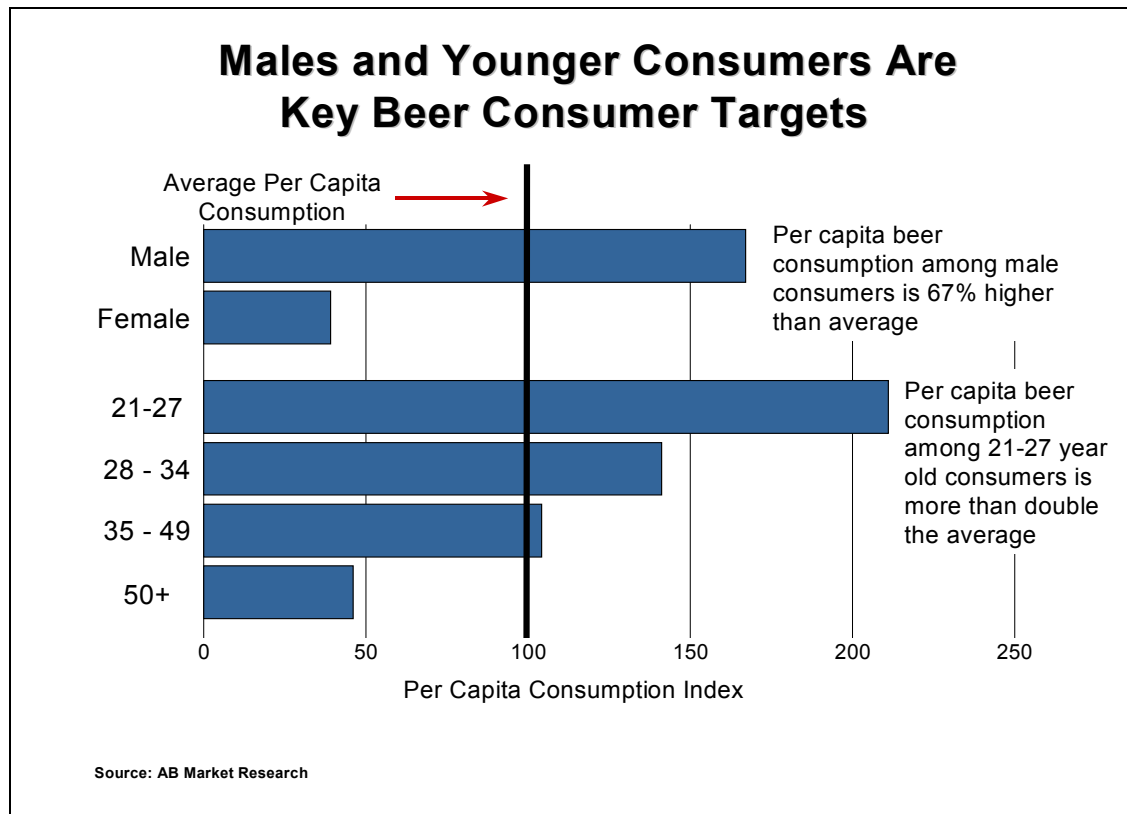
### Consumption

Beer began growing again in the late 1990's, at roughly 1% to 1.5% annualized, due to the onset of the echo boom effect, which more than offset the declining consumption from baby boomers as a group. This demographic group ranging in ages from 21 to 27 years of age is set to grow 13% from 2001 to 2010, and consumes slightly over twice the average per capita amount of beer.



Source: U.S. Census Bureau

In contrast the population over 50 years of age is set to grow at a rate of 25% between 2001 and 2010, but since its consumption is less than half the average per capita consumer, as seen on table 2. Nevertheless, even though the younger age group grows at half the rate, they consume 4 times as much beer on average, thus underpinning consumption growth by 1% to 1.5% annually, in our view.



## Consumer Pricing

Low single digit annual percentage increases in the price consumers paid for beer resumed in late 1998. We expect the recent trend of annual year-on-year rate increases to continue for the foreseeable future. In 2003, BUD achieved price increases of 2.5% over two stages. As a part of its 2004 pricing strategy, BUD increased prices in October and will increase case prices to distributors by \$0.60 per case for a total price increase of roughly 2.5%. More importantly, we believe the price increases will not have an adverse effect on volumes consumed. This pricing power is the fruit of extensive empirical research by AB and has culminated in a strategy whereby the company is able to increase prices between 2% and 3% with the smallest impact on price. This is further evidence that AB is managing the business for profit, rather than volume expansion.

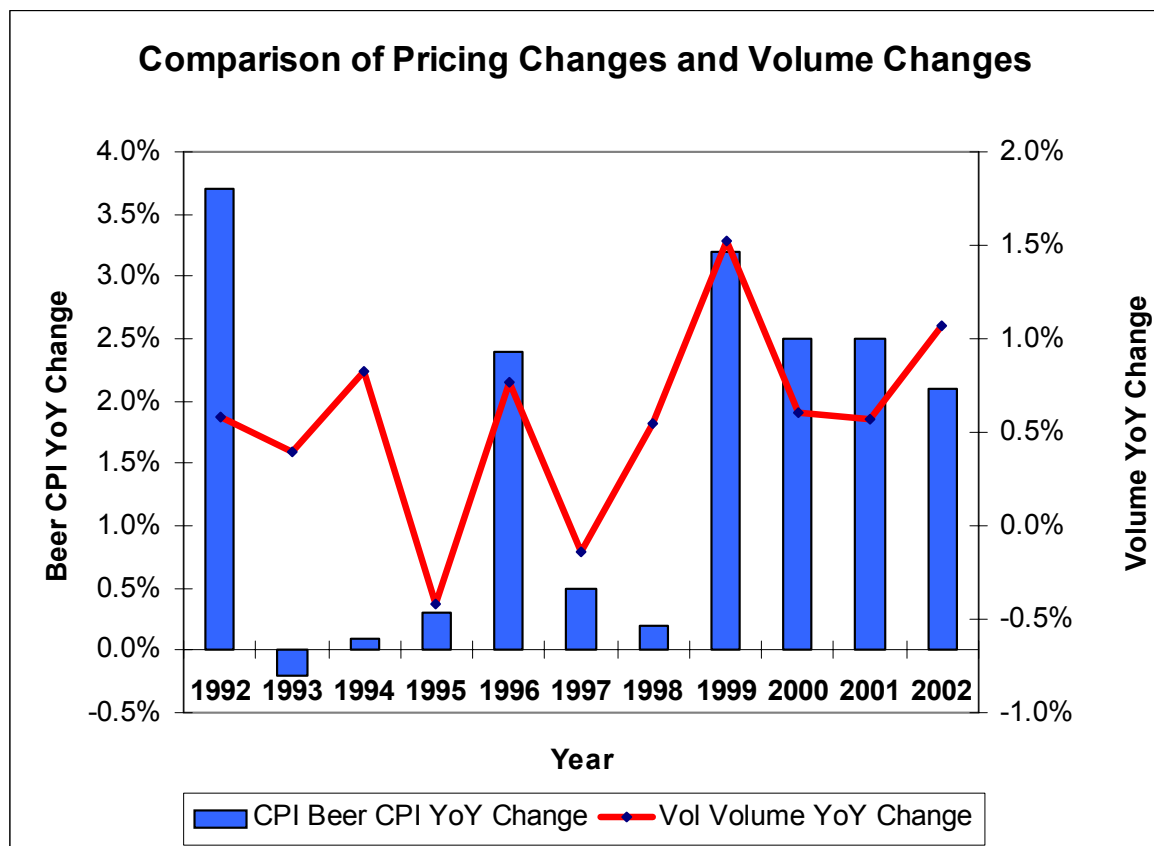
Historically, the rates at which beer prices increase tend to be equal to or fall below CPI. Beer prices bucked the trend in September 2003 by rising faster than CPI<sup>1</sup>. At first this may suggest that pricing growth will revert back to historical norms soon. However, the high levels of current capacity utilization suggest otherwise. BUD's capacity utilization stands at 95% today, with industry capacity also over 90%, and the company has no

<sup>1</sup> Merrill Lynch  
Anheuser Busch

plans to build any more breweries. This reality gives BUD pricing power in the foreseeable future and imposes pricing discipline among its competitors. As a matter of fact, SAB Miller increased prices in the Chicago area, its largest market, during October, following BUD's lead. It thus seems unlikely that competitors will seek to gain share through price competition. Furthermore, premium imports are priced 25% higher than the premium BUD portfolio thus providing a high enough umbrella under which BUD can raise prices over time.

Market demand for beer has been inelastic,  $-0.23^2$  as estimated from U.S. Department of Agriculture individual and household food-consumption survey data for 1987-1988. This means that a 1% increase in the price of beer results in a 0.23 percent reduction in the quantity of beer demanded by U.S. consumers. AB has estimated price elasticity itself and concluded it to be  $-.40$ . The category can then be further subdivided into High-End, Premium, Popular, and Value brands with price elasticities ranging from highly inelastic for High End Brands to highly elastic for Value brands. This places an important limitation on the market power of any one brewer to raise prices unilaterally. It is thus important for brewers to remain disciplined on pricing with AB leading the move with their October price increase and SAB Miller and Coors following suit within 6 months. We thus expect the 4<sup>th</sup> and 1<sup>st</sup> quarter price increases to be "stick".

The Graph below provides evidence for the lack of correlation between changes in the price of beer and changes in the volumes of beer shipments confirming our views of price inelasticity.



<sup>2 2</sup> X. M. Gao, E. J. Wiles, and G. L. Kramer, "A Microeconomic Model of the U.S. Consumer Demand for Alcoholic Beverages," *Applied Economics*, January 1995, pp. 59-69.

Source: U.S Department Of Commerce

We performed a regression analysis on the above data and found that the R-squared was 0.29, meaning that changes in price are weakly correlated to changes in volume, further proving the inelasticity of beer demand.

### **Market Size and Drivers**

The domestic beer market is a \$27 Billion industry growing at a rate of roughly 3-3.5% per year. This growth figure is composed of annualized volume increase of 1-1.5% and beer CPI increases of roughly 2.5%. Major drivers include demographics, pricing, and product innovation. BUD derives more than 90% of its sales from the US market.

#### Worldwide Beer Sales Volume

Year Ended December 31, 2002 (millions of barrels)

	2002	2001	Change
Domestic	101.8	99.7	2.1%
International	8.0	7.5	5.4%
Worldwide	109.8	107.2	2.3%
International equity partner brands*	18.1	17.2	5.3%
Total brands	127.9	124.4	2.8%

\*revenue pro-rated to BUD's investment in partner companies

Unlike global brewers such as Interbrew and Heineken, BUD's presence outside its home market is limited. Its primary participation in the non-US beer market is through its strategic investment stakes in three companies: Grupo Model of Mexico (50%), Cervecerias Unidas of Chile (20%), and Tsingtao (9%). In relation to the latter investment, analysts see the beer market in China growing anywhere between 10~20%. Furthermore, it is believed that the primary beer drinking population, the 18~29 year olds, is growing the fastest in China than any other country<sup>3</sup>.

### **Product Differentiation**

Several studies indicate that under blind taste tests beer drinkers cannot distinguish between brands. This has important implications for brewers seeking to introduce new line extensions or products because each one must fill an unmet perceived customer need. Recently brewers have been trying to successfully differentiate their products, that is to say establish consumer *perception* of product superiority allowing them to increase prices over the alternatives. One such case is the Michelob Ultra example, catering to the growing low calorie consumer sector. We believe that AB's success in differentiating Michelob Ultra stands as a role model for new product launches like World Select and Bare Knuckle stout. In the case of World select, AB needs to meet the needs of the status-seeking consumer, the largest constituency of Heineken.

Addressing the demand for low-carbohydrate beer, Michelob Ultra has received a positive response from consumers since its launch this year. Consumers have shown a

<sup>3</sup> Anheuser Busch estimates

willingness to pay a premium for such a product. BUD's first move into this segment with Michelob Ultra is already putting other brewers on the defensive by prompting them to position their light beers as a low-carb beer. For example, the message in Amstel Light's new campaign is that the difference in carb content between their beer and Michelob Ultra amounts to no more than three peanuts worth.

### **Advertising**

It might seem counter intuitive but in the case of beer there seems to be no hard correlation between advertising and sales. For example AB significantly increased its advertising expenditures on its Budweiser brand –total and per barrel- from 1991 to 1992, but Budweiser's total sales and share of market fell nevertheless. In contrast, Natural light has been one of AB's steadiest performers even though it spends less than a nickel per barrel on advertising<sup>4</sup>.

### **Ongoing Strategy**

Below is an outline of their ongoing strategic efforts.

- BUD is committed to increasing profitability on domestic beer sales, as measured by profit per barrel. This commitment is underscored by the recent launch of "Brewery of the Future" Initiative where the company believes it can increase 2 million barrels of additional production without increasing CAPEX spending.
- Grow market share. Management's guidance is to do so at a pace of +50bp per year. In 2002 however, they managed to gain 120bp in market share from its competitors.
- Achieve profitable investments in non-US markets. BUD has earned \$350 million in equity income from such investments in 2002. Their investment this year in the convertible bonds of Tsingtao, China's dominant brewer, could take BUD's equity stake in the company from 9.9% to 27% by 2007. China sales from its Wuhan brewery grew mid to high teens in percentage terms with significant profitability.
- Retail space merchandising – a centralized initiative to increase shelf space of BUD products at retailers.
- Continue strengthening of brands in BUD's family of products. Next year provides easy comps due to this year's challenging volume environment. Michelob Ultra began its launch in the 4<sup>th</sup> quarter of last year capturing 1.1% share which current share standing at 2.5%. AB will be lapping Ultra's introduction the 4<sup>th</sup> quarter with accelerating share gains expected. The brand also adds to margins as it's priced 19% above the BUD family of products. The company will also be launching World Select in selected markets, to compete with Heineken and Beck's. The beer will be marketed differently than traditional AB products, with on premise and print media accounting for most of the marketing spending.
- Distribution. This is a big source of BUD's competitive advantage. Beer companies are precluded from owning the distribution channel but AB creatively developed franchise agreements with 70% of its distributors whereby they can only carry its family of products. This exclusivity agreement has aligned interests and resulted in AB trends among exclusive wholesalers tripling those of non-exclusive wholesalers. In contrast, SAB Miller and Coors share distribution with other brands resulting in a far less efficient distribution and in-store and on-premise sales/marketing efforts.

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<sup>4</sup> Ken Elzinga, Beer Industry, The Structure of American Industry 10<sup>th</sup> edition.

## **INVESTMENT THESIS**

### ***Valuation***

The cornerstone of our thesis is our belief that the market is underestimating future growth for AB. Specifically; we built parallel models with equal projections through 2006. We built a "Market DCF Model" where BUD is valued by forecasting aggregate free cash flow for two years followed by a perpetuity. This is consistent with the way most analysts are also valuing BUD. In contrast, our DCF model separates cash flows by market and values them in accordance with their individual life cycle growth characteristics and risk profile. The "Market" and analysts select a terminal growth rate and beta by increasing the values appropriate for a large domestic brewer to reflect the increased growth prospects and systematic risk in developing and maturing markets. The market model suggests a terminal growth rate of 3.1% at the current \$52.40, which we believe underestimates true growth potential. Trying to compare "apples to apples", our target price of \$60.77 (including cost of a new brewery) suggests a terminal growth rate of 3.9% if we were to use the "Market DCF Model of aggregate cash flows.

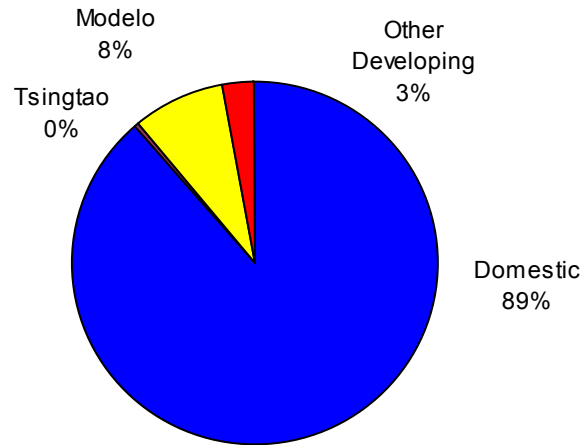
<b>Current Market Valuation of BUD stock</b>										
1999 FCF	2000 FCF	2001 FCF	2002 FCF	2003E FCF	2004E FCF	2005E FCF	2006E FCF	Terminal Value	WACC	Price
\$ 1,431	\$ 1,428	\$ 1,726	\$ 2,162	\$ 2,221	\$ 2,504	\$ 2,602	\$ 2,808	\$ 54,621	8.40%	\$ 52.40

Our model (please see appendix), as described below, tests the accuracy of these subjective adjustments made by the market and analysts. Since BUD's operations in developing and consolidating countries are exposed to a significantly higher degree of market risk, the DCF computes BUD's enterprise value as the present value of four series of cash flows. This approach parallels the industry life-cycle segmentation analysis. Finally, applying the APV valuation method simplifies the valuation and improves its accuracy because capital structure assumptions are not needed for each operating segment.

$$PV(BUD) = PV(\text{Consumer Resistant and Maturing}) + PV(\text{Modelo}) + PV(\text{Tsingtao}) + PV(\text{Other}) + PV(\text{Debt Tax Shield})$$



### Composition of BUD's Present Value



The investment thesis asserts that the correlation between beer consumption and GDP growth weakens as less developed countries evolve into mature nations. Consequently, beta, which measures market risk, declines gradually for brewers' operations in developing and consolidating countries. BUD's aggregate beta is difficult to forecast because the international operations will represent a larger portion of BUD's free cash flow in the future, but international operations' beta will be lower. Selecting a terminal growth rate is also challenging because different facets of BUD's operations are growing at different rates. Using cash flow betas for each stream of cash flow resolves these complications, and the aggregate asset beta for BUD equals the weighted average of the cash flow betas. The weights are the present value of the cash flow.

$$\beta_{\text{Cash Flow}} = [(1 + r_f) * \text{Cov}(C', r_m)] / [\sigma_{r_m}^2 (C - \lambda \text{Cov}(C', r_m))]$$

### Key Inputs to $\beta_{\text{Cash Flow}}$ Equation

Covariance is a key determinant of the cash flow's beta. The three factors affecting the covariance are the variance of market returns, the variance of the expected cash flow and the correlation coefficient (rho) between these variances. Historical free cash flow was used to estimate the variance for expected cash flows, and the variance of the market's return is based on historical returns for the country's index. Rho is influenced by both the relationship between per capita GDP and beer consumption and the correlation between real GDP growth and the market return.

$$\text{Cov}(C', r_m) = \rho * \sigma_{r_m}^2 * \sigma_{C'}^2$$

The following table provides the values for rho for each series of cash flows, assuming GDP has perfect correlation to the market return.

Life Cycle Stage	R <sup>2</sup>	ρ
Developing	0.773	0.879
Consolidating	0.735	0.857
Maturing	0.639	0.799
Consumer Resistant	Negligible	Negligible

Note: Rho, the correlation coefficient, equals the square root of R<sup>2</sup>. Source: ABN Amro

Lambda represents the reward to investors per unit of market variance. The DCF is not sensitive to changes in lambda.

$$\lambda = (r_m - r_f) / \sigma_{rm}^2$$

### **Methodology for Developing and Consolidating Markets**

The present value of a stream of cash flows from a brewer in a developing or consolidating market is the sum of a forecast period, a high growth annuity, an above average growth annuity and a perpetuity. This mirrors the market's lifecycle-based evolution. The terminal growth rate for all perpetuities is 2.5%.

PV(Developing) = PV(Forecast) + PV(High Annuity) + PV (Above Avg Annuity) + PV(Perpetuity)

Variables	Consumer Resistant	Modelo	Tsingtao	Other Developing
Present Value (Unlevered)	48,574	4,566	149	1,571
β <sub>Cash Flow 2004</sub>	0.41	1.44		1.93
R <sub>f</sub>	0.045	0.045		0.045
R <sub>m</sub>	0.105	0.164		0.180
σ <sub>rm</sub> <sup>2</sup>	0.040	0.091		0.100
Free Cash Flow 2004	2,140	278		65
Cov(C',r <sub>m</sub> ) 2004	33	23		10
λ	1.50	1.31		1.31
Perpetuity Begins	2006	2031		2041

### **Modelo**

BUD owns 50.2% of Grupo Modelo, a Mexican brewer that produces Corona. BUD uses the equity method to account for its stake. Modelo's free cash flow has grown significantly in recent years. This was driven by microeconomic factors, such as strong demand for its product and leveraging economies of scale, as well as macroeconomic factors, like robust GDP growth and political reform.

Economists predict Mexico's real GDP growth will continue to grow at 5.1% for the next three years. Therefore, the model forecasts EBITDA to grow at 15%. This value is consistent with EBITDA growth rate during periods of similar real GDP growth. Free cash flow will grow faster than EBITDA because Modelo is leveraging its fixed assets. Modelo will also benefit from a Mexico's gradual reduction in corporate taxes from 35% to 32% by 2005. After the forecast horizon, Modelo will grow at 10% for another 5 years and at 5% for 20 years. Finally, it will enter long-run equilibrium with a growth rate of 2%. These values support Mexico's transformation into a maturing or consumer resistant market.

The covariance between the expected cash flow and the market return is lower than implied by the relationship between GDP in consolidating countries and beer consumption because the correlation between Mexico's primary stock index (MSXE) and real GDP growth has not been strong. This is due to the volatility caused by fear of contagion from problems in Brazil and Argentina since the mid 1990s. These events created high variance in returns, but they did not disturb the long-term growth of the MXSE. MXSE, Modelo and real GDP have all grown significantly (15.2%, 16.5% and 5.1% annually, respectively) since the banking crisis in 1995. The DCF implies a value of \$9.1 billion for all of Modelo. This compares to its current market value of \$8.5 billion. Modelo appears to be fairly valued.

### ***Tsingtao Beer***

BUD purchased convertible bonds in Tsingtao Beer for \$149 million in 2003. Unfortunately, neither BUD nor Tsingtao provides any data on profitability. However, the investment was a recent transaction; therefore, the model values Tsingtao at BUD's purchase price. The maximum amount that BUD could have overpaid for the stake is only \$149 million, which would not impact the valuation of BUD. Conversely, Tsingtao would have been found another buyer if the stake was worth significantly more than \$149 million (e.g. \$1.5 billion).

### ***Other Developing***

Other represents BUD's operations, excluding Modelo and Tsingtao, in all markets besides consumer resistant and maturing. This segment contributes only a small portion of BUD's free cash flow, and it only recently became profitable. However, it has potential for strong growth. Argentina comprises BUD's most significant investment, excluding Modelo and Tsingtao, in developing and maturing markets. Economists predict Argentina's real GDP will grow at 4.7% to 4.9% in the near future. The expectations for Southeast Asia, another key segment, are for even greater expansion (6.8% to 6.9%). The model forecasts free cash growth of 25% to 30% in the near term from Other Developing markets due to the predictions for strong economic growth. The free cash flow growth rate slows to 12% in 2006 and 6% in 2016 as the economies become more mature. Finally, these markets will reach long-run equilibrium in 2041.

The market's variance and expected return are based on the Brazil's index, the Bovespa, because it is the best indicator of overall performance in emerging markets. Both the expected market return and volatility of the Bovespa have declined over time.

Since the market's variance and expected return should be based on future expectations, a slight downward adjustment was made. The covariance between expected cash flow and the market return is high for Other Developing markets. The strong correlation between free cash flow and the performance of emerging market indices supports this assumption. Consequently, the cash flow beta is initially high. The cash flow beta declines over time because the correlation between beer consumption and real GDP growth is weaker in developed nations.

### ***Return Analysis***

We believe that ROIC is a good analytical tool for understanding company performance. ROIC is then used to ascertain the economic profit generated by company for its shareholders. In the case of BUD we can see that the company has generated an ROIC in excess of its cost of capital for the observed period. This value creation in percentage terms is easily transformed into dollar economic profits accruing to shareholders by multiplying it by invested capital. A source of BUD's value creation has been its financial policy focused on decreasing its weighted average cost of capital. Its policy is to increase its debt level as high as possible while still retaining its A+ ratings in conjunction to locking in favorable rates as evidenced by its recent issuance of 43/8 40 year bonds.

The return analysis also serves to understand the value of BUD's growth opportunities. The company has been able to successfully commit new capital to new ventures such as its purchases of Modelo, Tsingtao, and the construction of the Wuhan brewery in China where it can achieve returns in excess of its cost of capital.

**ANHEUSER BUSCH RETURN ANALYSIS, 1997 - 2004E**

	FY97	FY98	FY99	FY00	FY01	FY02	FY03E	FY04E
<b>REPORTED ROIC CALCULATION</b>								
Net Income	1,179	1,233	1,402	1,552	1,750	1,934	2,081	2,245
+ After Tax Interest Expense	202	210	215	204	217	227	246	264
+ Amortization	13	10	15	35	40			
+ Increase In LIFO Reserves		(17)	(17)	7		7		
+ Increase In Deferred Taxes		35	40	29	(6)	(22)		
= Net Optng Profit After Tax (NOPAT)	1,394	1,470	1,655	1,826	2,001	2,146	2,327	2,508
Common Equity	4,042	4,216	3,922	4,129	4,062	3,052	2,419	2,110
+ Net Debt	4,218	4,494	4,729	5,215	5,821	6,414	6,987	7,343
+ Deferred Taxes	1,294	1,304	1,345	1,373	1,367	1,345	1,345	1,345
+ LIFO Reserve	118	100	83	90	90	97	97	97
+ Accumulated Amortization	107	116	132	146	186	186	186	186
= Invested Capital	9,778	10,230	10,210	10,952	11,526	11,094	11,034	11,081
<b>RETURN ON INVESTED CAPITAL (ROIC)</b>	<b>14.14%</b>	<b>14.70%</b>	<b>16.20%</b>	<b>17.26%</b>	<b>17.80%</b>	<b>18.97%</b>	<b>21.03%</b>	<b>22.69%</b>
<b>WACC</b>								
Market Capitalization	42,139	63,126	68,937	44,135	40,743	42,515	42,700	46,922
+ Total Debt	3,271	4,366	4,719	5,123	5,374	5,984	6,603	7,075
= Total Capital Outstanding	45,410	67,492	73,656	49,258	46,117	48,499	49,303	53,997
Marginal Cost Of Debt	6.9%	5.8%	6.2%	6.5%	5.8%	5.0%	4.5%	5.0%
X Marginal Tax Rate	35%	35%	35%	35%	35%	35%	35%	35%
A Cost Of Debt	7%	6%	6%	7%	6%	5%	5%	5%
B Debt To Capital Ratio	7.20%	6.47%	6.41%	10.40%	11.65%	12.34%	13.39%	15.00%
Beta	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
X Equity Risk Premium	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
+ Risk Free Rate	6.4%	5.3%	5.7%	6.0%	5.3%	4.5%	4.0%	4.5%
C Cost of Equity	10.4%	9.3%	9.7%	10.1%	9.4%	8.6%	8.1%	8.6%
D Equity To Capital Ratio	92.8%	93.5%	93.6%	89.6%	88.3%	87.7%	86.6%	86.9%
= [A x B] + [C x D] = WACC	<b>10.16%</b>	<b>9.09%</b>	<b>9.49%</b>	<b>9.72%</b>	<b>8.95%</b>	<b>8.12%</b>	<b>7.58%</b>	<b>8.19%</b>
ROIC	14.14%	14.70%	16.20%	17.26%	17.80%	18.97%	21.03%	22.69%
WACC	10.16%	9.09%	9.49%	9.72%	8.95%	8.12%	7.58%	8.19%
(ROIC - WACC)	<b>3.99%</b>	<b>5.61%</b>	<b>6.71%</b>	<b>7.54%</b>	<b>8.86%</b>	<b>10.85%</b>	<b>13.45%</b>	<b>14.50%</b>
<b>ECONOMIC PROFIT ***</b>	<b>\$390</b>	<b>\$574</b>	<b>\$685</b>	<b>\$826</b>	<b>\$1,021</b>	<b>\$1,204</b>	<b>\$1,484</b>	<b>\$1,606</b>

\*\*\* Invested capital x (ROIC - WACC)

We expect the company to continue the upward trend in ROIC as the company increases its equity stake in Tsingtao from the current 9.9% to 27% in 2007, and its Wuhan brewery, currently operating at 50% capacity utilization, benefits from increased BUD brand sales in China. The company's investment in Modelo should also contribute significantly with Modelo's revenues set to grow at 6% while its operating income is set to grow at 11%.

**Correlation between Weather and Abnormal Returns for BUD**

Since there is a strong positive relationship between warm weather and beer consumption, BUD's free cash flow increases during hot summers. If the market is at least semi-strong efficient, it will incorporate this information, and BUD's share price will increase immediately. If the market is not efficient, the price of BUD will increase when the firm releases earnings because investors will be surprised.

To test the trading strategy, mean monthly temperature data was collected for Houston, Los Angeles and New York from 1980 to 2003. These cities represent a significant portion of BUD's sales, and they provide information about weather in nearby cities. For example, if the temperature is above average in Houston, it's probably above average in Dallas. The data was dissected into two sets. The first contained temperature data for the months of May and June. This study focuses on the summer months because an above average temperature for January or March is unlikely to affect beer sales.

The average temperature is the control variable. The dependent variable is the abnormal return for BUD between April 30 and July 31. BUD reports second quarter earnings in the July.

$$\text{Abnormal Return} = \Delta\% \text{ BUD} - (1 + r_f)^t - 1 + \beta_{\text{BUD}} (r_m - r_f)$$

In an inefficient market buying BUD when the temperature is above average and shorting the stock when the temperature is below average would earn excess returns. Therefore, a high correlation between abnormal returns and the temperature index would signal a trading opportunity. Unfortunately, the R-squared value for this set of data was only 4%. The same analysis on data for July, August and September produced an R-squared value of 7%. The results of this study indicate that the market is aware of the relationship between BUD's free cash flow and the weather.

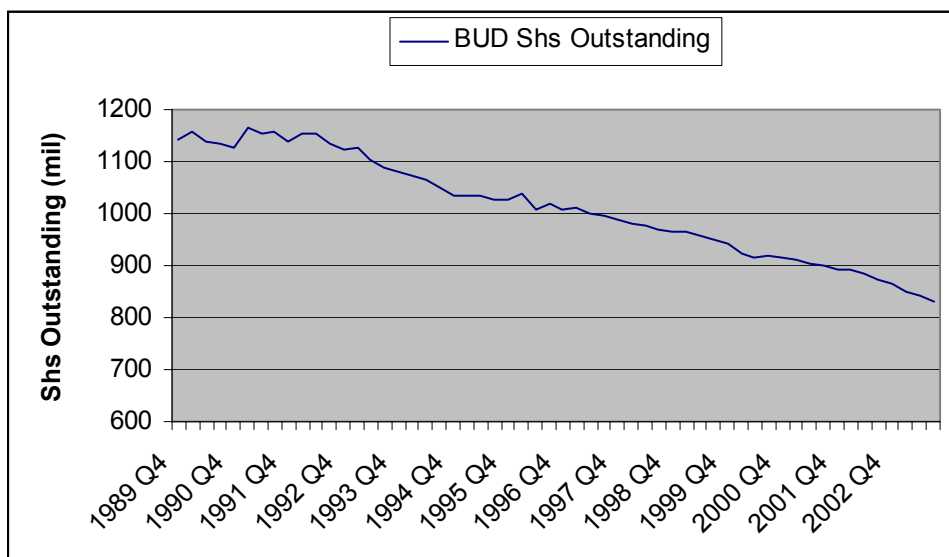
<b>Correlation between Weather and Abnormal Returns for BUD (April 30th thru July 31st)</b>					
	05 - 07 S&P Return	05 - 07 BUD Return	Expected Return	Abnormal Return	Heat Avg
1980	0.094	0.041	0.069	-0.027	65.3
1981	-0.014	0.142	-0.007	0.149	64.3
1982	-0.080	0.208	-0.053	0.261	64.0
1983	-0.011	0.042	-0.005	0.047	65.3
1984	-0.059	0.136	-0.038	0.174	65.3
1985	0.062	0.165	0.046	0.119	64.7
1986	0.003	-0.062	0.005	-0.067	64.3
1987	0.105	-0.081	0.077	-0.157	63.7
1988	0.041	0.012	0.032	-0.020	64.3
1989	0.118	-0.093	0.085	-0.178	64.0
1990	0.077	-0.145	0.057	-0.202	64.3
1991	0.033	0.124	0.026	0.098	63.3
1992	0.022	0.023	0.019	0.004	64.3
1993	0.018	-0.018	0.016	-0.034	64.3
1994	0.016	0.000	0.014	-0.014	64.3
1995	0.092	0.160	0.067	0.093	66.0
1996	-0.022	0.027	-0.012	0.039	65.7
1997	0.191	-0.048	0.137	-0.184	66.3
1998	0.008	0.261	0.009	0.252	66.3
1999	-0.005	0.014	0.000	0.015	65.7
2000	-0.015	0.225	-0.007	0.233	65.3
2001	-0.031	0.011	-0.018	0.030	64.7
2002	-0.153	0.055	-0.104	0.160	65.7
2003	0.135	-0.036	0.097	-0.133	65.3
<b>R-Square</b>					<b>0.04</b>
<b>Correlation Coefficient</b>					<b>0.20</b>

### Correlation between Weather and Abnormal Returns for BUD (July1st thru Sept 30th)

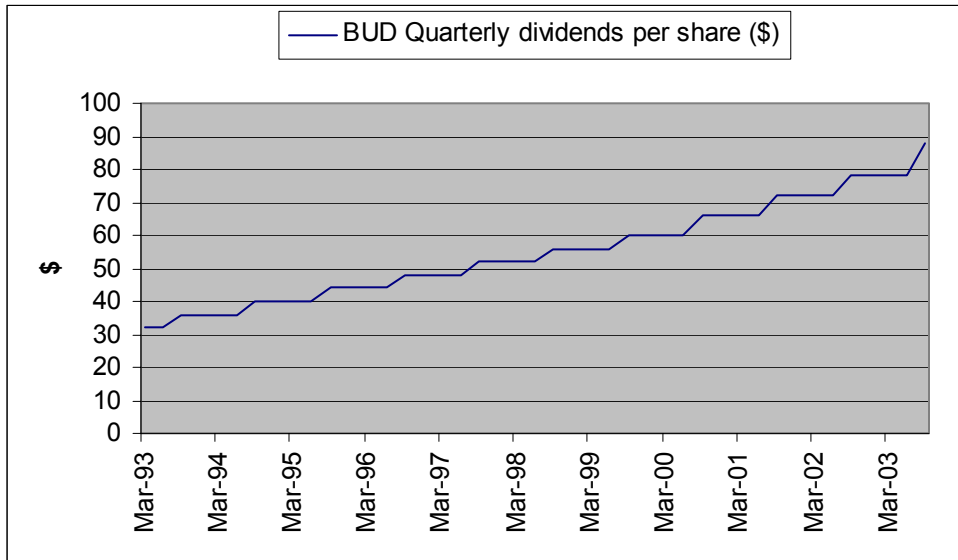
	07-10 S&P Return	07-10 BUD Return	Expected Return	Abnormal Return	Heat Avg
1980	0.116	0.041	0.084	-0.043	60.0
1981	-0.071	0.142	-0.047	0.189	61.5
1982	0.220	0.208	0.157	0.051	59.0
1983	-0.027	0.042	-0.016	0.058	59.5
1984	0.084	0.136	0.062	0.074	61.5
1985	-0.011	0.165	-0.004	0.170	59.5
1986	-0.027	-0.062	-0.016	-0.046	60.0
1987	-0.172	-0.081	-0.117	0.036	60.5
1988	0.020	0.012	0.017	-0.005	59.5
1989	0.070	-0.093	0.052	-0.145	61.0
1990	-0.151	-0.145	-0.103	-0.042	61.0
1991	0.057	0.124	0.043	0.081	60.5
1992	0.026	0.023	0.021	0.001	60.5
1993	0.038	-0.018	0.030	-0.048	61.0
1994	0.063	0.000	0.047	-0.047	60.5
1995	0.067	0.160	0.050	0.110	60.5
1996	0.052	0.027	0.039	-0.012	62.0
1997	0.033	-0.048	0.026	-0.074	62.0
1998	-0.031	0.261	-0.019	0.280	63.0
1999	-0.007	0.014	-0.002	0.016	62.0
2000	-0.017	0.225	-0.009	0.234	62.0
2001	-0.134	0.011	-0.091	0.102	62.0
2002	-0.105	0.055	-0.071	0.126	61.0
2003	0.034	-0.036	0.027	-0.063	61.0
R-Square					0.07
Correlation Coefficient					0.27

### Dividends and Share Repurchase

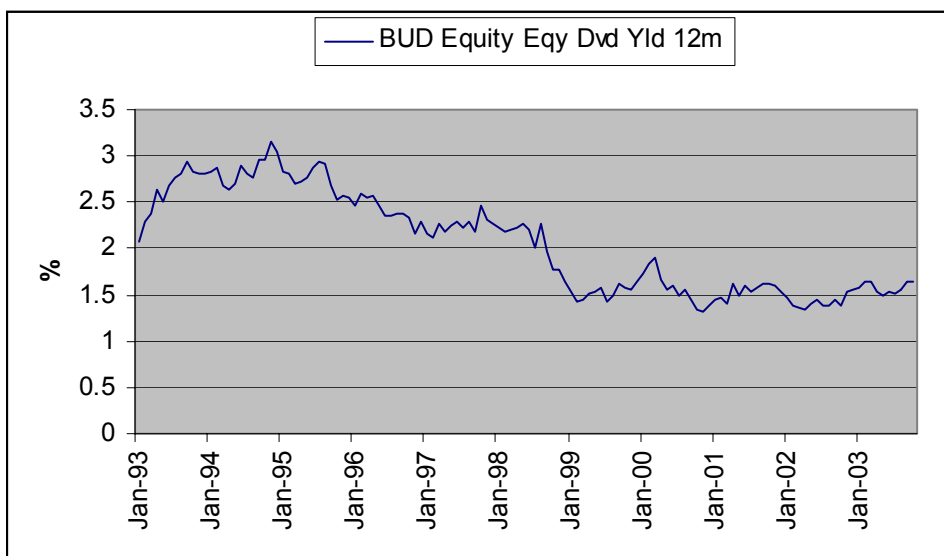
There are additional support features that strengthen BUD's valuation. The first is BUD's ongoing stock repurchase program. The company has re-purchased 3.57% of shares outstanding every year over the past 5 years. The board authorized in March 2003 for 100 million shares of the company to be repurchased. Year to date, BUD has spent \$2B on share repurchase to buy 4.6% of shares outstanding and the company has guided that it will spend an additional \$2B again in 2004.



Also supporting BUD's stock is its track record of increasing dividend payments. The graph below shows that BUD has not reduced its dividends over the last ten years.



Nevertheless, it can be argued that the yield has decreased over time due to rising stock prices. To that end we graphed BUD's dividend yield over time, distinctly showing that its yield, currently at 1.8%, sits at the high end of the last 4-year range. Management also announced in July that it will increase dividends in line with EPS growth in the future. In short, the share repo, dividend policy, and the commitment from BUD to maintain high enough levels of debt in order to minimize its WACC while maintaining its A+ credit rating, is clear evidence that management is functioning in an optimal fashion in terms of maximizing shareholder wealth. Evidence of such excellent managerial execution is yet another reason why we rate the company a BUY.





## Appendix A - DCF Model

### Anheuser Busch Model

Maturing & Consumer Resistance	2000	2001	2002	2003	Q4 03	2004	2005
EBITA	1,626	1,747	1,794	1,984	285	2,125	2,231
Taxes	618	662	712	769	115	829	870
NOPLAT	1,008	1,085	1,082	1,216	171	1,296	1,361
Δ Net Investment	742	574	-432	-60	-15	47	50
Depreciation	769	795	847	865	216	891	935
Free Cash Flow	1,034	1,306	2,361	2,141	402	2,140	2,247
Per Capita GDP							
Tax Rate	38.0%	37.9%	39.7%	38.7%	40.2%	39.0%	39.0%
Growth Rate EBITA and Net Investment		7.5%	2.7%	10.6%		7.1%	5.0%
$\beta_{\text{Cash Flow}} = [(1 + r_f) * \text{Cov}(C', r_m)] / [\sigma_m^2 (C - \lambda \text{Cov}(C', r_m))]$							
$r_f$				0.045	0.045	0.045	0.045
Market Risk Premium				0.060	0.060	0.060	0.060
$r_m$				0.105	0.105	0.105	0.105
$\text{Cov}(C', r_m)$				33	6	33	34
$\sigma_m^2$				0.040	0.040	0.040	0.040
$\lambda$				1.50	1.50	1.50	1.50
$\beta_{\text{Cash Flow}}$				0.41	0.41	0.41	0.40
Discount Factor					1.017	1.088	1.163
Present Value of Forecasted Cash Flows		4,294					
Free Cash Flow 2006		2,303					
Perpetuity Growth Rate		2.5%					
Discount Rate		7.0%					
Present Value		44,280					
Value of Unlevered Cash Flows		48,574					

Modelo		2000	2001	2002	2003	Q4 03	2004	2005
Net Income		5,170	5,299	5,647	6,494	1,624	7,468	8,588
EBITDA		9,674	9,800	10,932	12,572	3,143	14,458	16,626
Taxes		3,386	3,430	3,826	4,274	1,069	4,771	5,320
Δ Working Capital		255	2,156	888	710	178	746	783
Capital Expenditures		4,751	4,037	4,032	4,133	1,033	4,236	4,342
Free Cash Flow		1,282	177	2,186	3,454	864	4,705	6,181
Exchange Rate		9.6	9.4	9.8	10.8	11.2	11.2	11.2
Free Cash Flow USD		134	19	222	319	77	422	554
BUD's Share of FCF		67	9	112	160	39	212	278
Δ GDP		5.8%	5.2%	5.1%	5.1%	5.1%	5.1%	5.1%
Tax Rate		35.0%	35.0%	35.0%	34.0%	34.0%	33.0%	32.0%
Growth Rate EBITA		16.1%	1.3%	11.6%	15.0%		15.0%	15.0%
Growth Rate Working Capital		2.3%	19.3%	6.7%	5.0%		5.0%	5.0%
Growth Rate Cap Ex		42.5%	-15.0%	-0.1%	2.5%		2.5%	2.5%
Ownership		50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%
Working Capital		11,163	13,319	14,207	14,917	14,917	15,663	16,446

$$\beta_{\text{Cash Flow}} = [(1 + r_f) * \text{Cov}(C', r_m)] / [\sigma_m^2 (C - \lambda \text{Cov}(C', r_m))]$$

$r_f$	0.045	0.045	0.045
Market Risk Premium	0.119	0.119	0.119
$r_m$	0.164	0.164	0.164
$\text{Cov}(C', r_m)$	4	23	30
$\sigma_m^2$	0.091	0.091	0.091
$\lambda$	1.31	1.31	1.31
$\beta_{\text{Cash Flow}}$	1.42	1.44	1.44
Discount Factor	1.050	1.277	1.552

$$\text{PV(Unlevered Cash Flows)} = \text{PV(Forecasted Cash Flows)} + \text{PV(Annuity 2006-2010)} + \text{PV(Annuity 2011-2020)} + \text{PV(Perpetuity)}$$

<b>PV(Forecasted Cash Flows)</b>	<b>382</b>
<b>Annuity (2006-2010)</b>	
BUD Free Cash Flow 2006	306
Years	5
Annuity Growth Rate	10.0%
$\beta_{\text{Cash Flow}}$	1.15
$r_f$	0.045
$r_m$	0.124
Discount Rate	13.6%
<b>Present Value</b>	<b>814</b>
<b>Annuity (2011-2030)</b>	
BUD Free Cash Flow 2011	493
Years	20
Annuity Growth Rate	5.0%
$\beta_{\text{Cash Flow}}$	0.92
$r_f$	0.045
$r_m$	0.108
Discount Rate	10.3%
<b>Present Value</b>	<b>1,976</b>
<b>Perpetuity</b>	
Free Cash Flow 2031	1,307
Annuity Growth Rate	2.5%
$\beta_{\text{Cash Flow}}$	0.41
$r_f$	0.045
$r_m$	0.105
Discount Rate	7.0%
<b>Present Value</b>	<b>1,395</b>
<b>PV(Unlevered Cash Flows)</b>	<b>4,566</b>
<b>Tsingtau</b>	<b>149</b>
Neither BUD nor Tsingtau provide operating data. However, BUD's investment is a recent market transaction.	

Other Developing		2000	2001	2002	2003	Q4 03	2004	2005
Pre-Tax Income		33	56	76	101	25	131	171
Net Income		22	36	49	66	16	85	111
Equity Income (Excluding Modelo)		(71)	(29)	63	41	10	50	62
Free Cash Flow		(5)	2	28	32	8	68	87
Free Cash Flow / Net Income		10.0%	25.0%	25.0%	30.0%	30.0%	50.0%	50.0%
Pre-Tax Income Growth Rate		N/A	67.5%	36.9%	32.8%		30.0%	30.0%
Equity Income Growth Rate		N/A	N/A	N/A	-34.8%		20.0%	25.0%
GDP Growth								
Argentina		2.0%	4.6%	5.0%	4.9%	4.9%	4.7%	4.7%
South America (Excluding Brazil, Argentina)		2.0%	3.8%	4.2%	4.2%	4.2%	4.3%	4.3%
Southeast Asia		6.9%	7.0%	7.1%	6.9%	6.9%	6.8%	6.8%
Sub-Saharan Africa		3.8%	4.7%	5.0%	4.9%	4.9%	4.8%	4.8%

Note: Argentina is the most important country. The countries troubles were a major factor in the negative equity income.

$$\beta_{\text{Cash Flow}} = [(1 + r_f) * \text{Cov}(C', r_m)] / [\sigma_m^2 (C - \lambda \text{Cov}(C', r_m))]$$

$r_f$	0.045	0.045	0.045
Market Risk Premium	0.135	0.135	0.135
$r_m$	0.180	0.180	0.180
$\text{Cov}(C', r_m)$	1	10	13
$\sigma_m^2$	0.100	0.100	0.100
$\lambda$	1.35	1.35	1.35
$\beta_{\text{Cash Flow}}$	2.06	1.93	1.93
Discount Factor	1.072	1.401	1.829

$$\text{PV(Unlevered Cash Flows)} = \text{PV(Forecasted Cash Flows)} + \text{PV(Annuity 2006-2010)} + \text{PV(Annuity 2011-2020)} + \text{PV(Perpetuity)}$$

**PV(Forecasted Cash Flows) 103**

**Annuity (2006-2016)**

BUD Free Cash Flow 2006	97
Years	10
Annuity Growth Rate	12.0%
$\beta_{\text{Cash Flow}}$	1.16
$r_f$	0.045
$r_m$	0.135
Discount Rate	14.9%
<b>Present Value</b>	<b>412</b>

**Annuity (2016-2040)**

BUD Free Cash Flow 2006	301
Years	25
Annuity Growth Rate	6.0%
$\beta_{\text{Cash Flow}}$	0.70
$r_f$	0.045
$r_m$	0.117
Discount Rate	9.5%
<b>Present Value</b>	<b>650</b>

**Perpetuity**

Free Cash Flow 2041	1,292
Annuity Growth Rate	2.5%
$\beta_{\text{Cash Flow}}$	0.41
$r_f$	0.045
$r_m$	0.105
Discount Rate	7.0%
<b>Present Value</b>	<b>407</b>

**PV(Unlevered Cash Flows) 1,571**

Value of Levered Firm = Value of Unlevered Firm + PV(Debt Tax Shield)

$PV(\text{Tax Shield}) = [\text{Tax Savings} / (r_{\text{Asset}} - g)] * [(1 + r_{\text{Asset}}) / (1 + r_{\text{Debt}})]$

Interest Expense 2003	401
Tax Savings	155
$r_a$	7.0%
$r_d$	4.0%
Growth Rate	3.0%
PV(Tax Shield)	4,018

Value of Levered Firm	58,879
Debt	7,075
Value of Equity	51,804
Shares	836
Share Price	<b>\$61.97</b>
Cost of Brewery in Year 5 (\$1.5B cost)	<b>\$ 1.20</b>
Target Share Price	<b>\$60.77</b>

## Appendix B – Sources of Information

Mark Swartzberg – Legg Mason  
Mark Astrachan – Legg Mason  
Brian Angerame – Citicorp Asset Management  
August Busch, Randy Baker – Anheuser Busch (Morgan Stanley Presentation 11/5/03)  
Crisp (Wharton Research Database)  
Modelo's website  
Yahoo Finance  
"Valuation" by McKinsey & Company, Tom Copeland, Tim Koller, Jack Murrin; John Wiley & Sons, 2000  
Tsingtao's website  
[www.sec.gov](http://www.sec.gov)  
Lecture Notes to Accompany Principles of Corporate Finance, Matthew Spiegel and Richard Stanton; McGraw Hill 2002  
<http://lwf.ncdc.noaa.gov/oa/climate>

Our investment rating system is three tiered, defined as follows:

**BUY** - We expect this stock to outperform the S&P 500 by more than 10% over the next 12 months.

**HOLD** - We expect this stock to perform within 10% (plus or minus) of the S&P 500 over the next 12 months.

**SELL** - We expect this stock to underperform the S&P 500 by more than 10% over the next 12 months and believe the stock could decline in value.