

## DuPont Model and Sustainable Growth Rate in Earnings

**Objective:** The objective of this assignment is to introduce students to some of the drivers of sustainable growth in earnings per share (EPS). A firm's *sustainable growth rate* is the maximum rate at which EPS can grow using the present resources (existing assets and existing debt and equity--current capital structure) of a firm. In other words, ***the sustainable growth rate represents a company's ability to fund its growth internally.*** Consequently, a company that is growing faster than its sustainable growth rate will need to use external financing. For example, the company might have to float additional equity and/or debt. *Intuition:* growth requires new assets and these new assets must be financed. We shall also look at what happens when the anticipated growth rate is either greater than or less than the firm's sustainable growth rate.

The Du Pont formula is used to provide an insight into sustainable EPS growth. This formula essentially disaggregates growth into the following financial ratios.

Tax burden \* Interest burden \* Profit margin \* Asset turnover \* Leverage = ROE

Retention ratio =  $(1 - (\text{Dividends}/\text{Earnings})) = (1 - \text{Payout ratio})$

Retention ratio \* ROE = Sustainable growth rate in EPS

**Company:** Anchor Gaming (SLOT).

<http://www.anchorgaming.com/>



“Anchor Gaming has emerged as a Clear Winner in the gambling industry. It makes and leases proprietary slot and video gaming machines (Wheel of Gold, Clear Winner) to casinos and retailers. Though most of its competitors sell slot machines, Anchor leases them under royalty, revenue participation, or rental fee agreements. The company also sells gaming machines and systems; supplies gaming system software and equipment; operates the Colorado Central Station and Colorado Grande casinos and the Sunland Park (New Mexico) racetrack and casino; and operates gaming machine routes in Nevada and Montana. Founder and former chairman Stanley Fulton sold his stake in the firm in 2000 and is buying the Sunland Park facility... “ ((source: <http://www.hoovers.com/>)

October 17, 2000: (Reuters) Anchor Gaming completes the sale of \$250 million of 9.875% eight-year senior subordinated notes due 2008 that were priced to yield 10%. Proceeds from the sale of the notes were used principally to fund the stock purchase transaction.

October 17, 2000: (PRNewswire) Anchor Gaming Chairman Fulton resigns; Anchor Gaming completes the purchase of 4,596,200 shares from Chairman Stanley Fulton and certain Fulton family members for a purchase price of \$66.60 per share. The purchase consideration consisted of \$240 million in cash and \$66 million of promissory notes (two one-year notes)<sup>1</sup>. Stanley Fulton essentially swapped the \$66 million in promissory notes for substantially all of the assets in Anchor Gaming's Sunland Park Racetrack & Casino and its interest in a Massachusetts horse racing facility. Additionally, the Company announced that it has amended its existing \$300 million senior credit facility to increase the maximum borrowings, subject to certain covenants, to \$325 million, subject to certain regulatory approvals.



### **Management Expectations:**

" Our capital expenditure (CapEx) budget for fiscal 2001 is estimated to be between \$45 and \$55 million. We believe that cash flows from operations, borrowings under our senior credit facility, and existing cash balances will be adequate to satisfy our anticipated uses of capital during fiscal year 2001. We are, however, continually evaluating our financing needs. If more attractive financing alternatives or expansion, development or acquisition opportunities become available to us, we may amend our financing plans assuming such financing would be permitted under our debt agreements." (Source: 10K)

**Competitors:** Alliance Gaming (ALLY), Autotote (TTE), Black Hawk Gaming (BHWK), GTECH Holdings (GTK), Silicon Gaming (SGIC), WMS Industries (WMS)

**Assignment:** Download the Du Pont spreadsheet from my website and use the downloaded data in the spreadsheet together with the accompanying model prepared by Chris Hyzy, a former MBA student, to answer the following questions:

1. Calculate the sustainable growth rate using the information contained in the latest 10K (6/30/2000) in conjunction with the Du Pont model that Chris Hyzy constructed.<sup>2</sup> (Hint: Probably the simplest way to do this is to link the spreadsheets together.)
2. Calculate the following ratios as a percentage of sales for 6/30/2000: cost of goods sold/sales, SGA/sales, research & development/sales, current assets excluding cash/sales, and current liabilities (excluding short term debt & capital leases)/sales.

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<sup>1</sup>The two promissory notes have contingent interest e.g., interest is paid only in the event that the Fulton transaction does NOT go through (regulatory authorities stop the deal).

<sup>2</sup>Note: The model that C. Hyzy constructed excludes non-operating income, other income, and extraordinary items. We are concerned here with recurring income from operations. The total value of the company = PV of the company's free cash flow + PV of after-tax nonoperating cash flow. We will discuss this concept later in our course.

3. Given your answers in question 2, and the information on Anchor Gaming in this handout e.g. significant developments, management expectations on capital expenditures, and the assumptions given on the last page of this handout, recalculate the sustainable growth rate in EPS using forecasted 6/30/2001 figures. Prior to this recalculation, set up the applicable T accounts (or one big T account) to help you reconcile the balance sheet and income statement items. For example, management expects an increase in CapEx of \$50 million. Thus, something has to be debited and credited in the T account. Explain what is main driver of the difference between the sustainable growth rate calculated using Year 2000 numbers versus Year 2001 estimates? In other words, how is Anchor "juicing" their growth rate in earnings?

4. Based on information contained in the latest 10K (6/30/2000), analysts expect a long-term growth rate in earnings per share of 15%-16% per annum for Anchor Gaming. How would you change their debt to equity ratio in order to achieve this, e.g., what is their debt/equity ratio? (Hint: Use SOLVER.) For purposes of question 4, assume that the existing interest rate is 0.0735 and the marginal tax rate is .38. Both debt and equity must be greater than or equal to zero.



Limitations of the Du Pont Model:

- The Du Pont model is built on accounting relationships and does not recognize cash flow concepts and measures since they were not "fashionable" when the model was developed

### Assumptions Used in Calculating Year 2001 Financial Statements:

Item	Assumption
Sales	Sales are expected to grow by 36%
Cost of goods sold (COGs)	Does not include depreciation;
NA	Set NA equal to zero e.g., NA = 0
Depreciation	Is expected to decrease to \$48 million
Capital Expenditures (CapEx)	New CapEx = \$50 (mil) is financed by \$10 million of senior subordinated notes (\$250-\$240) and \$40 million in cash.
Depreciation	\$48 million
Other Assets	Remain constant at Year 2000 level
Deferred Charges and Other Long Term Liabilities	Remain constant at Year 2000 level
Short term Debt	Is rolled over using senior credit facility e.g., when ST Debt matures, the company replaces this debt with new ST Debt. Assume that the interest rate on the new ST Debt remains the same. <sup>3</sup>
Taxes	38%
Cash	Is the "Plug"



<sup>3</sup>This assumption will not hold true in the real world since the interest rates will vary on a senior credit facility/ revolving line of credit.