

Forecasting REIT Funds from Operations (FFO)

Objective: The objective of this assignment is to forecast the income statement and balance sheet and future financing requirements using an Excel spreadsheet. The percentage of sales method, which relates various (but not all) financial statement line items as a percentage of net sales, is the technique used. A second goal of this assignment is to familiarize students with REIT accounting principles and financial statement analysis.

Company¹: Eastgroup Properties (NYSE ticker: EGP) is an equity real estate investment trust (REIT) focused on the development, acquisition and operation of industrial properties in major Sunbelt markets throughout the United States with an emphasis in the states of Florida, Texas, Arizona and California. The Company's goal is to maximize shareholder value by being the leading provider of



functional, flexible, and quality business distribution space for location sensitive tenants primarily in the 5,000 to 50,000 square foot range. EastGroup's strategy for growth is based on ownership of premier distribution facilities generally clustered near major transportation features in supply constrained submarkets. Over 99% of the Company's revenue is generated from renting warehouse distribution space.

Broadway Industrial Park I-VI
Tempe, AZ (316,000 sqft)

EastGroup incurs short-term floating rate bank debt in connection with the acquisition and development of real estate and, as market conditions permit, replaces floating rate debt with equity, including preferred equity, and/or fixed-rate term loans secured by real property. EastGroup also may, in appropriate circumstances, acquire one or more properties in exchange for EastGroup securities.

EastGroup holds its properties as long-term investments, but may determine to sell certain properties that no longer meet its investment criteria. The Company may provide financing in connection with such sales of property if market conditions require. In addition, the Company may provide financing to a partner in connection with an acquisition of real estate in certain situations. EastGroup does not presently intend to invest in the securities of other issuers for the purpose of exercising control. EastGroup does not presently intend to invest in the securities of other issuers for the purpose of exercising control.

EastGroup maintains its principal executive office and headquarters in Jackson, Mississippi. The Company has regional offices in Phoenix, Orlando and Houston and property management offices in Jacksonville, Tampa and Fort Lauderdale.

Competitors: AMB Properties (AMB), First Industrial (FR), and ProLogis (PLD).

¹From Eastgroup Properties 2006 10K (<http://www.eastgroup.net/reports/10K/10K2006.pdf>)

Assignment: Download the spreadsheet **FFOForecast08.xls** and use the data in the workbook together with the assumptions at the end of this case to answer the following questions.

1. Income Statement for REIT Comparables and EGP (10 points): Using the **1. Income Stmt (Comps)** worksheet and the financial statements for AMB, FR, and EGP, reconstruct the income statement for each REIT as well as the Peer Group aggregate (FR + AMB) for various line items in income statement by filling in the area **highlighted in yellow**.
 - a. Please discuss why a REIT analyst calculates and evaluates Net Operating Income (NOI) in addition to Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)? What does the management of a REIT use NOI for? What does REIT management use EBITDA for?
 - b. Why do REITs provide and analysts forecast non-GAAP financial measures, in particular, funds from operations (FFO) and adjusted FFO also known as funds available for distribution (FAD) given that the rest of Wall Street believes that net income available to common stockholders is the most appropriate earnings measurement?
2. Balance Sheet for REIT Comparables and EGP (10 points): Using the **2. Balance Sheet (Comps)** worksheet and the financial statements for AMB, FR, and EGP, reconstruct the balance sheet for each REIT as well as the Peer Group aggregate (FR + AMB) for various line items in balance sheet by filling in the area **highlighted in yellow**.
 - a. Why is Unsecured line of credit a separate line item in the balance sheet from Long Term Debt? What is the purpose for the line of credit e.g., what do REITs use the LOC for? Is the LOC a type of Long Term Debt? If it isn't a type of long term debt, what is it considered from a financial/accounting perspective? Please explain.
 - b. Why is Retained Earnings for First Industrial and Eastgroup Properties a negative number and increasingly negative over time? Please provide some economic intuition for why this is the case?
3. Margin Analysis (10 points): Using the results that you obtained in the preceding questions and the **3. Margin Analysis** worksheet, perform a margin analysis e.g., calculate the appropriate ratios for the years given by filling in the area **highlighted in yellow** for each REIT and the Peer Group.
 - a. Based on the margin analysis of EGP, are rental expenses a variable expense or a fixed expense? What about general and administrative expenses for EGP? Is it possible to forecast both of these expense categories? Please discuss.

- b. Can the dividend payout ratio based on Funds Available for Distribution be maintained for EGP in the long run? Why or why not? If the firm maintains the current dividend payout ratio based on FAD, what does this suggest going forward?
4. Forecasting Financial Statements (70 points). Using the worksheet labeled "**4. Forecast of Fin Stmt (EGP)**", please complete the following
- a. Assumption Box and Forecasting FFO (65 points): Fill in the numbers for 12/31/2005 and also the assumptions (see the last page of this handout for the forecasting assumptions). The area to be filled in is highlighted in **yellow**. Next, forecast the income statement and balance sheet for 12/31/2007 and 12/31/2008 using the assumptions given in conjunction with the numbers for 12/31/2006 (Actual). Also assume that Eastgroup Properties will maintain a 57.5% Debt to Total Capital ratio for 2007 and a Debt to Total Capital ratio of 59.5% for 2008. After you have finished forecasting net income, funds from operations (FFO), and adjusted FFO a.k.a. Funds Available for Distribution (FAD), calculate the FFO and FAD per share (EPS) for EGP. How close are your FFO estimates to those of Wall Street analysts using the "**Analysts FFO**" worksheet? Is it within the Maximum and Minimum range of analysts' forecasts?
- b. Sensitivity Analysis (5 points): Given your forecasted FFO per share for 2007 and 2008, use the Data Table command in Excel to perform a FFO sensitivity analysis based on changes in the growth rate in base rent. Please round your answer to two decimal places.

Please hand in a hardcopy of your answers. This is an individual assignment. Anyone caught cheating will be given an automatic F on this project.



Assumptions Used in Forecasting Financial Statements:

Line Item	Assumption												
Date of analysis	Assume that this analysis is performed on 11/19/2007												
Base Rent (growth rate)	Base rent is expected to increase by 13.5% and 7% in Year 2007 and Year 2008 respectively												
Rental expense	Rental expense in real estate is analogous to cost of goods sold (COGs) for a regular firm. Assume that rental expense as a percent of base rent remains constant at 28% for 2007 and 2008.												
Non-Operating Income & Operating Income from non-real estate activities	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">(In thousands)</th> <th style="text-align: right;">2007</th> <th style="text-align: right;">2008</th> </tr> </thead> <tbody> <tr> <td>Equity in earnings of unconsolidated JV</td> <td style="text-align: right;">291</td> <td style="text-align: right;">303</td> </tr> <tr> <td>Other income</td> <td style="text-align: right;">120</td> <td style="text-align: right;">126</td> </tr> <tr> <td>Interest income</td> <td style="text-align: right;">111</td> <td style="text-align: right;">79</td> </tr> </tbody> </table>	(In thousands)	2007	2008	Equity in earnings of unconsolidated JV	291	303	Other income	120	126	Interest income	111	79
(In thousands)	2007	2008											
Equity in earnings of unconsolidated JV	291	303											
Other income	120	126											
Interest income	111	79											
General and administrative expense	This category is referred to as Selling, General & Admin (SGA) for a typical corporation. SGA is assumed to remain at 5.5% of base rent per year.												
Depreciation and Amortization (000s)	\$47,619 (Year 2007) and \$51,849 (Year 2008)												
Real estate depreciation and amortization (000s)	\$47,638 (Year 2007) and \$51,849 (Year 2008)												
Minority Interest In Joint Venture (000s)	\$575 (Year 2007) and \$550 (Year 2008)												
Income from Discontinued Operations	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">(In thousands)</th> <th style="text-align: right;">2007</th> <th style="text-align: right;">2008</th> </tr> </thead> <tbody> <tr> <td>Income from real estate operations</td> <td style="text-align: right;">2,647</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Gain on sale of R.E. investments</td> <td style="text-align: right;">922</td> <td style="text-align: right;">5,600</td> </tr> </tbody> </table>	(In thousands)	2007	2008	Income from real estate operations	2,647	0	Gain on sale of R.E. investments	922	5,600			
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Cash and cash equivalents (000s)	Assume that EGP maintains \$1,500 in cash and cash equivalents each year going forward												
Other Assets (000s)	\$50,784 (Year 2007) and \$55,411 (Year 2008)												
Current Liabilities (000s)	\$32,286 (Year 2007) and \$40,462 (Year 2008)												
Bond Rating	Fitch has rated EGP a BBB (Investment grade). Verify that this is case in the Margin Analysis worksheet by calculating the EBITDA/Interest Expense coverage ratio for EGP comparing EGP's ratio to both First Industrial and AMB Property EBITDA/Interest Expense ratios and there associated bond ratings. This is just one way to "impute" bond ratings. The Altman EM-Z score technique represents another method.												

Note: If there is a -- in a particular cell of your data spreadsheet, set it equal to zero e.g., -- = 0.

Assumptions Used in Forecasting Financial Statements:

Line Item	Assumption
Interest rate on existing debt	See Margin Analysis worksheet; Use the "Interest Expense/Total Debt" for EGP in Year 2007 as the interest rate on existing debt. Assume that this remains constant at Year 2006 levels for Year 2007 and Year 2008.
Interest rate on new debt	Use the yield on a 10 year Treasury Bond + default spread for EGP based on it's Bond Rating. Since we assume that EGP's debt has a 10 year maturity, both the Treasury bond and the default spread are for 10 years. The "BondSpreads 20071109" worksheet contains the default spread and the "TreasuryRates 20071109" worksheet reports the yields on Treasury Bonds.
Short term debt (Debt Maturing)	This is debt that matures in one year. For debt maturing in each year, please refer to the "Debt Maturity (EGP)" worksheet. Assume that the "Less than 1 year" column represents short term debt for 2007 while the "1-3 Years" column is short term debt for 2008. We are only forecasting On-Balance sheet debt.
Long Term Debt (existing)	Existing Long Term Debt _{T-1} – Short Term Debt _T Existing long term debt at the beginning of the period (same as existing long term debt at the end of the last period) subtracted from current short term debt (debt maturing in the current period).
Long term debt (from all sources: existing + new debt)	Assume that EGP has a 57.5% Debt to Total Capital ratio for 2007 and increases this ratio to 59.5% for 2008. Total Capital = Debt + Shareholders Equity. Hint: you will have to use this capital structure in conjunction with shareholder equity and adjust the total debt amount by short term debt per period. If a firm is at a given debt to total capital ratio, then this assumes that the firm will use the same fixed proportion of debt to equity in financing all of their projects in that year. For example, if a firm's Debt to Total capital ratio is 2.5%, this means that for each dollar of equity that they use to finance their project, they will use \$.0256 of debt e.g. Debt = (.025/.975)*Equity. ²

² Debt = .025*(Debt + Equity) = .025*Debt + .025*Equity ⇒ Debt - .025*Debt = .025*Equity
 ⇒ .975*Debt = .025*Equity ⇒ Debt = (.025/.975)*Equity = .0256*Equity

Assumptions Used in Forecasting Financial Statements:

Line Item	Assumption
Gain on sale of non-operating real estate	\$0 per year for 2007 and 2008.
Preferred dividends (000s)	\$2,624 per year. Remains constant for 2007 and 2008.
Gains on sales of real estate and other assets, net of minority interest (000s)	\$899 (Year 2007) and \$5,600 (Year 2008)
Other Long Term Liabilities (000s)	\$13,895 in Year 2007 and Year 2008
Dividends and distributions per share of Common	\$2.00 per share in Year 2007 increasing to \$2.04 per share in Year 2008
Weighted average shares/units outstanding – basic (000s)	23,766 shares in 2007 increasing to 23,778 shares in 2008.
Real estate, net (000s)	Is the " Plug " e.g. the balance sheet item that "closes" the model. In other words, it makes Assets = Liabilities + Equity. To obtain the amount of real estate, net of accumulated depreciation and amortization (the plug), since Total Assets = Total Liabilities + Equity, it follows that Real Estate, net = Total liabilities and stockholders' equity - Cash and cash equivalents - Cash held in escrows - Other Assets
Total stockholders' equity (000s)	Increases in each period by Net income available to common shareholders minus Common dividends declared (dividends on common stock). $Equity_T = Equity_{T-1} + Net\ Income_T - Common\ Dividends_T$.
Straight-Line Rent (000s)	\$1,411 (Year 2007) and \$3,159 (Year 2008)
Maintenance CapEx (000s)	\$6,145 (Year 2007) and \$8,090 (Year 2008)
Tenant Improvements & Leasing Commissions (000s)	\$15,591 (Year 2007) and \$20,901 (Year 2008)
Stock-Based Compensation Expense (000s)	\$1,693 (Year 2007) and \$0 (Year 2008)
Gain/Loss on Sale of Un-Depreciated Real Estate (000s)	\$0 in Year 2007 and Year 2008
FAS 141-142 Adjustments (000s)	\$290 (Year 2007) and \$248 (Year 2008)
Loan Cost Amortization	\$0 in Year 2007 and Year 2008