Assignment 2 Financial Ratio and Text Analysis

AM16

March 3, 2020

> Introduction to working with standardized financial accounting data and an introduction to text analytics of accounting related documents.

You are an analyst with a private equity firm, evaluating an airline as a potential acquisition target. You need to summarize the performance of the target airline as well as its relative performance and valuation compared to industry peers and over time.

Project report memo

Your project report should include a summary memo of approximately *four* pages that addresses the following points:

Part A: Financial Ratio Analysis (for maximum score of 17/20)

Available data

- *airline_data.txt* contains an extract of annual financial data for the scheduled airline industry from 2000 to the present. It includes both US airlines as well as international airlines that file financial statements with the SEC.

- *compustat_BS_IS-SOCF.xls* is a map to the Capital IQ variables

Part A Questions

1. Read in and provide a brief summary of the financial data you have available. This data is extracted from Capital IQ, and as a result is "standardized". (4 points)

2. Select a firm as your target. There are two conditions: (1) your airline should be alive today; (2) *do not* select Delta Air Lines (ticker: DAL). (1 point)

3. Choose *a few* ratios from among those discussed in class that you believe are useful measures and that address each of the following perspectives. Explain (one or two sentences) your rationale for selecting each ratio. (3 points)

   (a) Operating performance
   (b) Credit/liquidity

(c) Valuation

4. Select a set of peer firms and compare the performance of your target firm to the peer firms over time, using the ratios you selected. (7 points)

5. Describe any issues you felt arose due to the use of standardized data and how you would address those issues given more resources (2 points).

Part B: Text Analytics of Accounting Disclosures (for maximum score of 20/20)

The SEC reviews all firms' annual reports at least once every three years, beginning in 2005. When the SEC identifies a disclosure issue or has other questions that they think investors would want to know, they write the company a *comment letter*. The company responds to these letters in writing and may also revise their financial reports.

Available data

The directory *letters* contains downloaded and text-converted SEC comment letters for the airline industry.[1] The filename provides meta-information about the document separated by underscores, e.g.: "*0000003202_13816_CORRESP_2007-09-20_2007-12-26.txt*"

[1] E.g., a sample comment letter for Southwest Airlines

(a) CIK number, 3202, a firm identifier with the SEC, padded with zeros

(b) Comment letter conversation id, 13816, a number that identifies a related series of back-and-forth letters and responses.

(c) Type, CORRESP, where type UPLOAD means a letter from the SEC to the firm, and CORRESP is the firm's response to the SEC.

(d) File date, 2007-09-20, the date the file was originally transmitted.

(e) Publication date, 2007-12-26, the date the file was released to the public on the SEC web site.

Part B Questions

6. Give an overview of the airline industry comment letters: e.g., who received them and when? (1 point)

7. Identify topics addressed by the SEC to the airline industry (1 point)

8. Examine any relevant association you believe might exist between comment letters and a ratio from Part A (1 point)

Note on collaboration

While this is a *group assignment*, you may only collaborate within your group.

Collaboration betweeen groups is not permitted, except for general technical support questions posted to the discussion board.

Note on analysis and presentation

1. A zipped directory will be provided with case data.

2. Your analysis should be completed in R.

3. Your submission should include

   (a) Your report solution memorandum document in PDF format; and

   (b) A zipped directory that contains your R program and any necessary data files such that it can be executed independently.