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To:	Michael Schostak, Professor
From:	Group 5
Date:	April 23, 2018
Subject:	GE Valuation Group Project.

The purpose of this memo is to provide a detailed valuation of GE, with accompanying analysis for short and long-term outlook. This memo will cover:

- An overview of the company description, segments, and financial performance.
- FCF model with accompanied 5-year forecast.
- Provide a Discounted Cash Flow analysis and Weighted Average Cost of Capital using the CAPM method.
- Sum of the Parts (SOTP) Valuation.
- Leverage Buyout model.

Company Description

General Electric Company is a globally diversified technology and financial services company. The Company's products and services include aircraft engines, power generation, water processing, and household appliances to medical imaging, business and consumer financing, and industrial products.

From turbines and oilfield equipment, to aircraft engines and power plants, General Electric (GE) is plugged in to industrial equipment businesses that shape the modern world. The company produces aircraft engines, locomotives and other transportation equipment, generators and turbines, and oil and gas exploration and production equipment. GE also is a major healthcare products provider. GE still owns GE Capital, but has gradually divested the majority of its non-industrial business assets. To accelerate growth for its oil and gas business, in 2017 GE spent $25 billion to acquire Baker Hughes and merged it with its GE oil & Gas division.

Segments

Currently, the company divides its operations across several segments: Capital, Healthcare, Aviation, Power, Oil & Gas, Renewable Energy, Energy Collections & Lighting, and Transportation. Power is its largest segment, accounting for almost 25% of its total revenue. This is followed by Aviation (above 20%), Healthcare (about 15%), and Energy Connections & Lighting (more than 10%). Transportation accounts for the remainder.

Financial Performance

GE's revenue climbed 5% from $117 billion in 2015 to $124 billion in 2016. This was mainly fueled by increases from its Power (25%) and Renewable Energy (44%) segments. GE's revenue growth for 2016 was also driven by a 6% spike in Industrial revenue, which included the net effects of acquisitions of $11.2 billion, offset by the net effects of dispositions of $5.6 billion and the unfavorable effects of a stronger US dollar of $0.8 billion. The surge in Renewable Energy revenue in 2016 was fueled by growing global demand for wind turbines which resulted n the shipping of 420 more onshore wind turbines than in the prior year, as well as higher sales from the effects of its Alstom acquisition.

GE reported a net loss of more than $6 billion in 2015. The huge net loss was due to $7.4 billion loss from discounted operations. However, GE was able to post net income of $8.8 billion in 2016 due to decreased charges of about $6.7 billion associated with its 2015 GE Capital Exit Plan. The GE Capital Exit Plan accounted for declines in operating cash flow over the years and posted negative cash flow of $244 million in 2016.

Discounted Cash Flow & WACC

Our analysis of the DCF and WACC demonstrates slow grow with a lower than expected WACC. The decision was made to use an 8% market premium as opposed to Bloomberg's of 10.14%. The Weighted Average Cost of Capital was calculated using the Capital Asset Pricing Model. The model suggests that GE WACC is equal to 4,7% a close match to Gurufocus' 4.87%.

Sum of the Parts (SOTP) Valuation

The purpose of the SOTP valuation method is to determine the potential market capitalization of each individual business segment of a conglomerate company. The analysis was conducted based on the EV/EBITDA multiple, with comparable companies being selected for each of GE's business segments. The comparables were chosen to represent companies operating in the same industry with a similar revenue production and scope of operations. These companies and the subsequent financial data were gathered from Yahoo Finance.

The median multiple of comparable business per segment was then applied to the corresponding segment's EBITDA production to generate an enterprise value for each segment. Since GE's latest 10-K Annual Report only listed revenue for each segments, EBITDA was found by allocating the percentage share of segment revenues by the total consolidated EBITDA on the Income Statement. The sum of these segment enterprise values produces the total value of the firm if the conglomerate was dissolved.

Our analysis of GE's enterprise value at today's current trading price is equal to $159 billion. From the SOTP calculations, the estimated value of GE's business segments totals $135 billion. According to our calculations, General Electric is benefiting from a current 15% conglomerate premium and should retain its segments under the established conglomerate structure.

Leverage Buyout

A leverage buyout analysis was performed to determine if GE should be acquired by another company using a significant amount of borrowed money to meet the cost of acquisition. A combination of debt in the form of senior and subordinated debt is used to structure LBOs. The rate chosen for senior debt 6% and Sub Debt 10%, respectively. Using the goal seek function at an IRR of 25% we found that purchase price equity was 28% and upon sale all senior debt would be paid leaving a remaining sub debt balance of $15b. The goal seek analysis also adjusted our purchase/exit EBITDA multiple to 7.6x