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edited in  $\LaTeX$ 

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### Chapter 1 Introduction

#### 1.1 Company Overview

It should come to no surprise that the recession of the last three years has taken its toll on the financial and insurance industries especially hard. Between January of 2000 and February of 2007, there were 25 banks that the FDIC retained control of that had essentially "failed". From March of 2007 to present, that number has jumped to 2971. Without substantial government intervention under both the Bush and Obama administrations, the United States banking industry would have almost certainly collapsed causing unconscionable damages including; potentially destroying the long-term value of the US dollar, threatening our national security, and permanently challenging the concept of a free-enterprise "Laissez-Faire" system of economics. One of the biggest receivers of the government funds (referred to as the Troubled Asset Relief Program (TARP)) was "American International Group" (AIG) that received 182.5 billion dollars.

#### 1.2 General Framework

Comparing AIG's financial ratios from 2007 to 2009 can be difficult because there is no one competitor that mirrored AIG's structure. There are many corporations that have specific segments that sell insurance products and financial services, but none compare to the size and scope of AIG. Therefore when analyzing their ratios, we refer to both industry averages and the averages of MetLife, Allstate, and Berkshire-Hathaway, specifically.

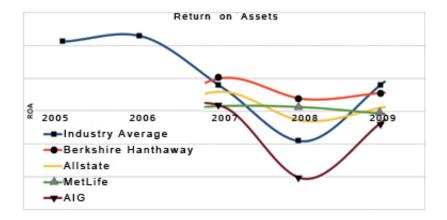
We chose these corporations because their net revenues closely matched AIG's scope. MetLife recently acquired AIG's second largest life insurance unit, "ALICO Insurance Group", and Allstate was among the first receivers of the governments TARP funds after AIG. In a sense, both of them have similarities with AIG. In addition, we offer a direct comparison to Berkshire because of its consistent and low-risk approach to investments (somewhat opposite to AIG's) and its strong presence in the insurance industry.

### Chapter 2 Financial Statement Analysis

#### 2.1 Profitability

#### 2.1.1 Return on Assets

As is pictured to the below<sup>1</sup>, the ROA industry average during the period of 2005 to 2009 was consistently higher than AIG's. This means that even before the economic crisis of 2008, AIG was struggling with profitability with averages in '07, '08, and '09 of .61%, -10.3%, and -1.3%. Conversely Berkshire, who tends to be more conservative on its investments did fluctuate with the economy, but nowhere near level of AIG. It should also be noted that part of this is because of the diversification of Berkshire's assets, compared to AIG's.



#### 2.1.2 Return on Equity

From 2007-2008, AIG's ROE dropped from 6.27% to -133.26%, respectively. Then in 2009, it rose sharply to -17.87%. The reason to this occurrence is the intervention of the US Government and the orderly restructuring of AIG. It should also be noted that the majority of AIG's toxic assets were sold off during this period which accounted for a large portion of AIG's upward trending ROE numbers (08-09). Industry wide, all of our comparative companies displayed a downward ROE trend during this period with Berkshire exhibiting the least fluctuation 2.2.

<sup>&</sup>lt;sup>1</sup>Data Source: [6, AMLA-Insurance Industry Data] [1, AIG-10K]

#### Net Profit Margin

Obviously, AIG encountered a disastrous decrease in 2008 (-894.17%) and rebounded to -11.4% in 2009. While AIG's revenue dropped from '07-08, only slight changes of COGS were recognized. What's more; these expenses always stand as the dominate cost for the whole operations, which were 85.53% in 2009, 919.49% in 2008, and 91.87% in 2007. Berkshire demonstrated its stability by managing its operational expenses in a more consistent way. [Table 2.1]

#### Asset turnover ratios

Industry wide, most companies had a relatively stable performance for their ability to generate sales income from 07-09. AIG turned its assets over at a rate of .01% (primarily due to their mortgage backed securities) which was much lower than the other three companies (0.4% for Berkshire, 0.1% for MetLife, and 0.2% for Allstate).

#### **Equity Multiplier**

A higher equity multiplier indicates higher financial leverage, which means the company is relying more on debt to finance its assets. For AIG, their trend increased from 11 in 2007 to 14 in 2008 exhibiting the fact that it relied more on debt to finance its assets. This strain led to a series of transactions with the Fed culminating with the US Government owning over 80% of AIG.

#### **Profitability Implication**

Based on different ratios and our further analysis of AIG's financials, we can see a positive trend of profitability for AIG. Their strategy moving forward is to focus on its general insurance business, its domestic and foreign life insurance sectors, and retirement service businesses; while at the same time addressing their liquidity concerns and repayment to the FED. However, the persistence of the global economy driven by tight credit markets and high unemployment will likely continue to adversely affect AIG's growth and sustainability[1].

#### 2.2 Risk

#### 2.2.1 Short Term Solvency

We use two key ratios to measure AIG's short-term solvency, the current ratio and times interest earned. We did not include the quick ratio because inventories do not make their appearance on AIG or its competitors' balance sheets.

#### **Current Ratio**

AIG's current ratios from '07-'09 were .248, 4.554, and 1.619, respectively. AIG is struggling in part because of a significant drop of current liabilities from 2007 to 2008. Two major reasons explain this situation. First, there was less liquidity available in the financial market during the recession and second, companies tended to decrease the amount of liabilities to reduce risk and uncertainty. Thus, AIG strategically reduced its short-term risk (with a 355.4% cushion) in payback but stresses its cash inflows in operation during the crisis. [Table 2.5]

#### Times Interest Earned Ratio

AIG's Times Interest Earned Ratios across the three years are: 1.79 for 2007, -5.33 for 2008 and 0.17 for 2009. Comparative averages for the same time period are 7.91 (Berkshire), 1.88 (MetLife), and 20.98 (Allstate). Clearly, AIG is below industrial averages, with pre-interest income barely covering its interest expenses. Yet AIG's Financial Services Segment alone accounts for 80.45% of the company's total interest expenses in 2007, and its TIE is -1.22 resulting from a \$9,515 million pre-tax loss in this segment. If we take out the segment, the rest of the company's TIE is 9.36 for the year 2007, which stays on an acceptable level. Therefore, AIG's Financial Services Segment is responsible for the short-term solvency trouble AIG faced. After excluding this segment, AIG's core insurance business can generate enough revenue to cover its short-term interest obligations. [Table 2.6]

#### 2.2.2 Long Term Debt Position

#### Leverage

AIG's debt to equity ratio falls into the range between 10 and 15. It is comparable with MetLife and Allstate but significantly higher than Berkshire's. High leverage magnifies both gains and losses and often indicates higher volatility in income and higher default risk. AIG's high debt-to-equity ratio in 2008 exposed its shareholders to great losses translating an ROA of -10% into an ROE of -894%. For a vertical comparison, AIG's debt-to-equity went up to 15.32 in 2008 while staying around 11 in the years before and after. This is because in 2008, in order to stay in business, AIG needed to raise enough capital to payback claims to its many counter-parties and prepare itself for uncertainty through creditlines with New York Fed, a channel helped piling up its debts to taxpayers.

#### Current Debt to Total Debt

AIG's Current Debt to Total Debt in 2007 was 39.80%, it dropped to 2.67% in 2008, and increased to 4.85% in 2009. One reason for this is that there was a liquidity shock in the short-term debt market in the financial crisis. Another reason is that the company is strategically shifting its debt from shorter term to longer maturities as is evidenced in AIG's 10-K[1]. The post-2008 level of short-term debt varies across companies, Berkshire had a higher

ratio compared to other pure' insurance companies, for whom the current portion of their total liabilities usually was much less significant and mostly takes the form of unpaid claims or pre-paid premiums. However, a deeper analysis of AIG's balance sheet shows how in 2007, AIG was a big issuer of commercial papers (representing 16.89% of its total liabilities) and other short-term debt securities. This explains the high ratio in 2007.

#### 2.2.3 Industry Specific Analysis

For financial institutions<sup>2</sup>, it is important to examine the underwriting ratios to evaluate their performances; specifically, the loss ratio for insurance. Calculated by dividing loss expenses by premiums earned, it shows the percentage of payouts as compared to the amount received from customers. Higher loss ratios indicate a need for better risk management to guard against future possible insurance payouts. On average, AIG's Loss Ratio (75%-94%) is slightly higher than its competitors(66%-87%). However, also we find that the General Insurance Segment has a moderate ratio(around 70%), while the Life Insurance Segment have huge loss ratios(217,119, 226%). The typical range of loss ratio for life insurance is 60% - 110% and 40% - 60% for property and casualty insurances[5]. AIG's General Insurance segment is 'normal' in terms of risk management; yet its Life Insurance Segment's loss ratio is far above the safe threshold. This eventually leads to its sale of ALICO unit to MetLife.

#### 2.3 Conclusion and Analysis Evaluation

The above analysis examines AIG's financial situation by evaluating two critical aspects of any business: profitability and risk. Though still in doubt about how far it could go, AIG's profitability is indeed recovering steadily after the 2008 crisis. It is currently generating positive revenue in certain segments. Also, AIG used to be a company with great appetite for risk. Now it is endeavoring to achieve better risk management by selling off risky business units and stepping away from risky securities tradings.

In evaluating our analysis, we are struck by two significant constraints in which we had to work around. First, because of the size and scope of AIG (regarding multiple segments but not individually submitted 10-K's for each segment), it was especially difficult to compare their financials to the industry averages and our comparative corporations. Secondly, we were caught in a dilemma in that AIG's financials were so toxic and heavy in the financial and insurance sectors that to not include them would be a disservice to the industry as a whole. However, we recognize that by including them, the industry averages were unjustly lowered. The industry average may be additionally biased because of the limited scope of time that was measured; with regards to the financial crisis (partly led by AIG).

<sup>&</sup>lt;sup>2</sup>Banks, financial service companies, insurance companies, securities firms and credit unions sometimes have very different ways of reporting financial information[2].

## Bibliography

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# Appendix: Ratio Tables

Table 2.1: ROA

ROA % (Net)	2009	2008	2007
American International Group Inc	(1.28)	(10.31)	0.61
Berkshire Hathaway Inc.	2.85	1.84	5.07
MetLife Inc	(0.43)	0.6	0.79
Allstate Corp.	0.64	(1.15)	2.95

Table 2.2: ROE

ROE % (Net)	2009	2008	2007
American International Group Inc	(17.87)	(133.26)	6.27
Berkshire Hathaway Inc.	6.7	4.33	11.53
MetLife Inc	(7.90)	10.86	12.52
Allstate Corp.	5.82	(9.71)	21.22

Table 2.3: Net Profit Margin

Net Profit Margin %	2009	2008	2007
American International Group Inc	(11.40)	(894.17)	5.63
Berkshire Hathaway Inc.	7.16	4.63	11.17
MetLife Inc	(5.47)	6.29	8.14
Allstate Corp.	2.67	(5.71)	12.61

Table 2.4: Asset Turnover

Total Asset Turnover	2009	2008	2007
American International Group Inc	0.11	0.01	0.11
Berkshire Hathaway Inc.	0.4	0.4	0.45
MetLife Inc	0.08	0.1	0.1
Allstate Corp.	0.24	0.2	0.23

Table 2.5: Current Ratio

Current Ratio	2009	2008	2007
American International Group Inc	1.69	4.55	0.25
Berkshire Hathaway Inc.	0.39	0.16	0.33
MetLife Inc	2.44	13.68	0.61
Allstate Corp.	0.12	0.23	N/A

Table 2.6: Times Interest Earned

Times interest Earned	2009	2008	2007
American International Group Inc	0.17	(5.33)	N/A
Berkshire Hathaway Inc.	5.04	3.54	7.92
MetLife Inc	N/A	N/A	N/A
Allstate Corp.	4.18	(7.62)	20.98

Table 2.7: Sales / Receivables

Sales / Receivables	2009	2008	2007
American International Group Inc	1.62	0.26	2.65
Berkshire Hathaway Inc.	0.28	NA	NA
Allstate Corp.	2.86	2.61	3.44
MetLife Inc	2.41	3.00	3.56

Table 2.8: Gearing Ratio

Gearing Ratio	2009	2008	2007
American International Group Inc	1.79	3.65	1.84
Berkshire Hathaway Inc.	0.29	0.47	0.05
MetLife Inc	1.32	2.09	0.56
Allstate Corp.	6.95	9.60	6.16

Table 2.9: Loss Ratio

Loss Ratio %	2009	2008	2007
American International Group Inc	94.95	75.8	83.37
AIG-General Insurance	75.99	66.14	51.80
AIG-Life Insurance	226.60	119.31	217.41
Berkshire Hathaway Inc.	72.04	70.91	71.72
MetLife Inc	89.49	87.67	83.8
Allstate Corp.	72.33	75.1	66.17

Table 2.10: Other Ratios

Calculated Tax Rate %	2009	2008	2007
American International Group Inc	-	-	16.27
Berkshire Hathaway Inc.	30.63	26.12	32.71
MetLife Inc	-	31.18	28.01
Allstate Corp.	31.57	-	30.32
Earnings Before Tax Margin %	2009	2008	2007
American International Group Inc	(14.22)	(979.48)	8.13
Berkshire Hathaway Inc.	10.27	7.03	17.05
MetLife Inc	(10.55)	9.94	11.85