

# Memo

To: Shirley Sicilian  
From: Ann Watts  
CC: Elliott Dubin  
Date: September 19, 2008  
Re: Methodology/Summary Memo – Financial Institutions Research

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This memo provides documentation of the methodology used to gather data and manipulate the data to better understanding the finance and insurance industry. Overall, the data indicates that the percentage of interest income earned by financial and insurance institutions is less than that earned by various other industries. This leads to the idea that rather than focusing on financial and insurance institutions that the focus should be on financial types of income, such as interest income.

## Data Gathering and Manipulation

In order to demonstrate that financial types of income (interest income) are prevalent across many industries, individual company information was gathered from Standard and Poor's Compustat North America file. Individual company information was gathered for all companies from 2001 through 2007 in the following broad North American Industry Classification System (NAICS) codes:

<b>Code</b>	<b>Industry Title</b>
52	Finance and Insurance
31	Manufacturing
32	Manufacturing
33	Manufacturing
42	Wholesale Trade
44	Retail Trade
45	Retail Trade
53	Real Estate / Rental / Leasing

For each individual company, the following information was gathered:

<b>Variable</b>	<b>Definition</b>
ebit	Earnings before Interest and Taxes
ebitda	Earnings before Interest, Taxes, Depreciation, and Amortization
idit	Total Interest and Related Income
ni	Net Income
revt	Total Revenues
txt	Total Income Tax Expense

While all of the above information was gathered for each individual company, the main variables of focus here were total interest and related income and earnings before interest, taxes, depreciation, and amortization (EBITDA). The reason for focusing on EBITDA is that it represents the best measure of

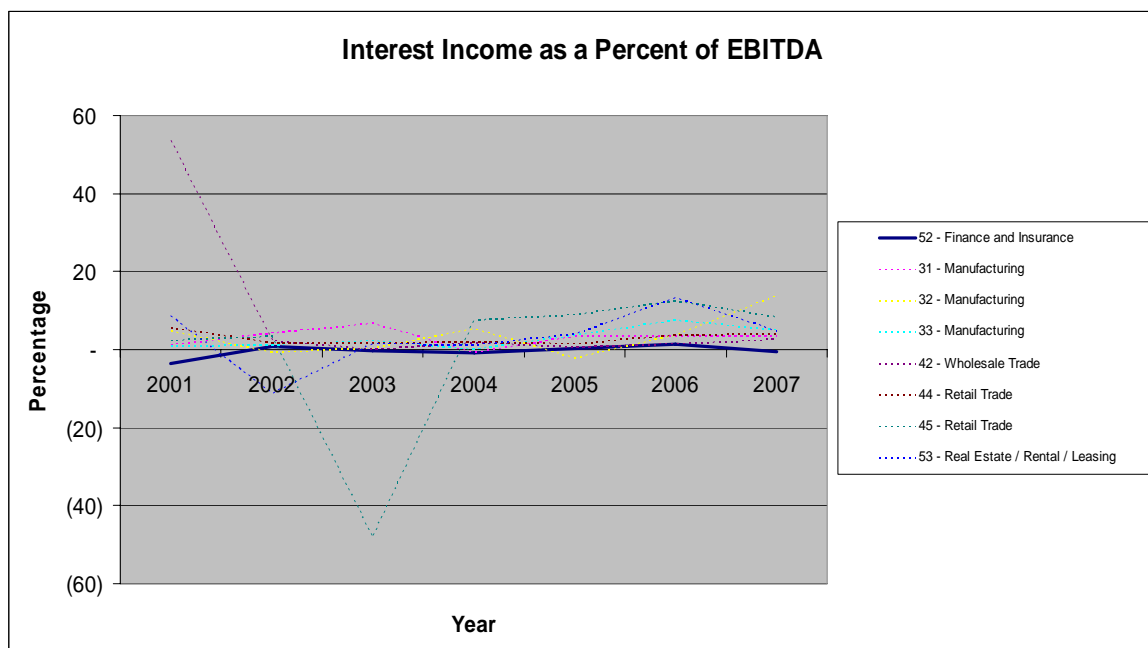
comparison across various industries. EBITDA is a non-GAAP metric that can be used to evaluate a company's profitability. It is calculated by taking the operating revenue less operating expenses plus other revenue. The name comes from the fact that operating expenses do not include interest, taxes, or amortization.

After gathering the data, the following statistics were calculated:

Variable	Definition
ebitpercent	$(IDIT / EBIT) * 100$
ebitdapercent	$(IDIT / EBITDA) * 100$
nipercent	$(IDIT / NI) * 100$
revtpercent	$(IDIT / REV T) * 100$
txtpercent	$(IDIT / TXT) * 100$

## Summary Information

After gathering the information and calculating the statistics, the summary information by NAICS codes is contained in the summary information spreadsheet (Summary Information by NAICS Code.xls). This spreadsheet contains the summary statistics for each two-digit NAICS codes as well as the following chart that shows interest income as a percent of EBITDA for each year.



This chart demonstrates that the percentage of interest income earned by industries other than financial and insurance companies often exceeds that earned by companies in the finance and insurance industry. This leads to the need to focus on the type of income earned by companies rather than simply to focus on the industry.

The summary spreadsheet also contains the frequency of observations by four-digit NAICS codes as well as the summary statistics for each of the four-digit NAICS code groups as detailed on the tabs for the respective two-digit NAICS codes.

## Outlier Information

In addition to calculating the summary statistics, a calculation was also done to show which four-digit NAICS codes contained outliers. The outliers were calculated in two different ways. First, outliers were calculated by determining the mean and standard deviation of the respective two-digit NAICS code group. An observation was considered an outlier if its interest income as a percent of EBITDA (EBITDAPERCENT) were greater than one standard deviation above the mean. Second, outliers were calculated by determining the mean and standard deviation of the finance and insurance two-digit NAICS code group (52 NAICS code). Here, an observation was considered an outlier if its interest income as a percent of EBITDA (EBITDAPERCENT) were greater than one standard deviation above the mean of the finance and insurance NAICS code group. The summary information for the outliers is contained in the outlier information spreadsheet (Outlier Information by NAICS Code.xls). The outliers are shown in the spreadsheet based on two-digit NAICS code groups.

Finally, the spreadsheet also summarizes each type of outliers by year as shown in the following charts. Each of these charts also demonstrates that even outliers in other industries exceed the outliers in the finance and insurance industry.

