

Systemic Risk in the
Insurance Industry

by

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Abstract

This paper examines the transformation of the insurance industry between the years 1997-2011 and shows using regression analysis that the increase in systemic risk for the United States' largest insurance companies strongly corresponds to increases in financial metrics on the firms' income statements and balance sheets, particularly total assets and total investments. This paper also analyzes the changes in the companies' revenue breakdowns from various business segments as well as the changes in the firms' composition of investments over time. This paper focuses on four of the insurance industry's largest and most systemically risky companies, which are AIG, Hartford, MetLife, and Prudential. Key events in the insurance industry over the past fifteen years such as the Gramm-Leach-Bliley Act of 1999, demutualization, the popularization of new financial products, and the financial crisis are also examined in the context of the increase in systemic risk for the industry.

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A. Introduction

The financial crisis demonstrated the effects of a decade plus transformation in the insurance industry from a relatively idiosyncratic business in the 20th century to a business whose failure threatened the health of the global financial system in 2007-2008. The bailout of insurance giant AIG in September of 2008 was a historic event that demonstrated the potential impact a large insurance company's failure might have on the broader economy. Although AIG was perhaps the most well known insurance company to require government assistance, they were not alone among their peer group. Multiple firms such as Hartford and Lincoln Financial also required government assistance in an attempt to avoid further panic in the financial system (Acharya, et al. 2010). This crisis and the introduction of new regulations that attempt to measure and regulate systemic risks in financial institutions presents an occasion to question how the industry has changed from a traditionally idiosyncratic business to one that became tied to the health of the global financial system.

This paper attempts to track the changes in the nation's largest insurance companies over the past decade and a half as they transformed into systemically risky institutions. Below is a graph that shows the change in % contribution to total systemic risk and Systemic Expected Shortfall over time for AIG, as measured by the Systemic Risk Rankings in NYU's V-Lab:

[See table 2]

The change over time in capital shortfall for AIG is dramatic, and reveals that their risk increased enormously in the run-up to the crisis. But what this table does not represent is the underlying causes at the business and balance sheet levels of the increase in AIG's risk. This paper runs regression analysis on systemic risk of these firms and also examines the underlying changes in all these companies as measured by the changes in their composition of revenue as well as changes in their composition of investments. By doing this, I hope to offer a glimpse of what industry trends have been during this period, and how these industry trends relate to the increase in contributions to global systemic risk.

Global insurers are an important part of the global financial system. The companies that I examined, by themselves, held over \$2.25 trillion in assets in 2011, an increase of 127% since 2001. Of these total assets, \$1.4 trillion is held in investments by these four companies (Figure 6). Knowing which investments make up these total assets and how these companies put these assets to use is important for understanding what contributes to the systemic risk these companies pose to the broader financial system.

Since the crisis, methods for measuring a firm's systemic risk have arisen which allow research such as this to take place. NYU's V-Lab (see <http://vlab.stern.nyu.edu/welcome/risk/>) collects data that predicts the expected capital shortfall of financial institutions in the event of a crisis (Systemic Expected Shortfall or SES) as well as the firm's expected % contribution to overall systemic risk in the event of a crisis. This information along with the publicly available financial data of these firms over the past 15 years allows for an analysis of whether or not the market's anticipation of systemic risk relates to the company's reported information, and which financial data may be most predictive of each firm's Systemic Expected Shortfall.

The rest of the paper is as follows: First I state my research questions in section A.1, then I go through background information on systemic risk and the insurance industry in Section B. Section B also includes backgrounds on key events within the insurance industry such as the GLB Act, Demutualization, new financial products, and the mortgage bubble. This information is important for understanding the events that may have led to the trends for the financial metrics. Then Section C covers the Literature Review. Section D discusses the data sources. Section E looks at the data analysis, and then Section F discusses the results of the regression analysis. Finally, Section G concludes the paper.

A. 1 Research Questions

- 1. How has the composition of assets changed over time? Has this correlated with Systemic Risk?*
- 2. How have the business segments changed leading up to the crisis? Following the crisis?*
- 3. Which key events within the industry may have led to increases in systemic risk?*
- 4. Which financial metrics most strongly relate to Systemic Expected Shortfall according to regression analysis?*

B. Background Information

In the traditional model of insurance, a customer pays fees over time to insure against the potential for a large payout in the future. Under this model, there is typically little correlation between the health of the insurer and macroeconomic trends or events. The company's payments are idiosyncratic among its customers and each firm's payouts are idiosyncratic from the rest of the industry (Acharya et al. 2011). Firms could fail, but the primary way for this to happen would be due to business error not macroeconomic events.

As a result of this lower traditional risk, Acharya et al. (2011) explain that insurance companies have a very different set of regulations compared to commercial and investment banks. Perhaps most importantly, insurance companies are regulated at the state level in the United States, with no federal agency mandating nationwide rules for insurance companies. There is an agency (NAIC) that recommends proposals for all states to follow, but it is up to individual states to regulate their own insurance industry. Since the financial crisis, little has changed within the insurance industry, and insurance companies are still regulated at the state level. However, in 2010's Dodd-Frank bill, there was a provision that allowed the Federal Reserve to monitor and regulate those firms that it deems to be systemically risky or pose a threat to the financial system (Acharya et al. 2011).

There are several key events that one should consider when looking at the insurance industry over the last fifteen years. They include the Gramm-Leach-Bliley Act

in 1999, Demutualization in the early 2000's, the introduction of new products tied to systemic risk, and the subprime-mortgage bubble.

B.1 – Gramm-Leach-Bliley Act

The Gramm Leach Bliley Act (GLB) was signed into law in November of 1999. The act was a milestone act in the deregulation of the financial industry, and includes provisions that relate to banks, investment managers, and insurance companies. In broad terms, the act provided for “affiliations among banking, insurance, and securities firms” among other provisions. For the first time since the Glass-Steagall Act of 1933, there were no barriers in the market among banking companies, securities companies, and insurance companies (1).

The act allowed for the creation of “Financial Holding Companies” that blurred the distinction between insurance companies and Bank Holding Companies and allowed these financial holding companies to engage in any act that is “financial in nature or incidental to financial activities.” In most cases, the business of insurance companies falls under this broad definition of being financial in nature, so insurers are able to add banking operations and deposits to their business (1). The Act also spends a significant amount of time dealing with the balance of power between the states as insurance industry regulators and the Fed or OCC as regulators of banking institutions.

Additionally, the act provides guidelines for insurance companies that are interested in reorganizing from a mutual organization to a joint stock organization. This includes limiting regulators from interfering in the reorganization process as well as specific actions that owners must take in relation to the initial public offering (1).

How much this act contributed to systemic risk is unclear due to the many other factors that led to the increase in risk for insurance companies, but this act allowed for several events to happen within the industry. The GBL Act allowed the firm MetLife to set up its own bank in 2001, which accepted deposits until the sale of this division to GE in January of 2013 (3). The Act also allowed for firms such as MetLife to register as Financial Holding Companies in 2009 to get access to the Fed's discount window, which may have helped its failure from causing additional strain on the system. The Act also had provisions making it easier for firms to deregister as mutual companies, which is explained in the next section. (2)

B.2 – Demutualization

Following the GLB Act of 1999, many companies in the insurance industry reorganized their ownership structure from mutual organizations to stock holding companies. In a mutual organization, the customers act as joint owners in the organization. Apart from the basic customer relationship, their participation in the mutual gives them certain rights to profits and votes (4). The organization is run by, funded by, and run for the benefit of the customers. Because of this relationship, the company is not run in the same fashion as publicly owned companies, where the owners are not necessarily customers of the company.

Both MetLife and Prudential went through this process in 2000 and 2001, respectively. The companies announced their plans, voted, and then distributed the demutualization compensation to employees and had their Initial Public Offerings. (4,5).

The two companies remain stock owned companies today. AIG and Hartford are also stock owned companies, and have been for a long time before the GBL Act of 1999.

The affect that demutualization has on companies' contribution to systemic risk has not been adequately studied in the past. However, because of the different interests and incentives for mutual owners compared to stock owners, I hypothesize that the stock owned company will be more focused on achieving a higher return compared to mutual companies who are also customer owned.

B.3 – New Products

The introduction of new financial products such as credit default swaps and guaranteed variable annuity contracts increased both the risk of insurers such as AIG and Hartford as well as their interconnectedness with the fates of other large financial institutions (6, 7, 15, 17).

The most famous entrance of the insurance industry into new products involved AIGFP's entrance into the CDS market. AIG entered the CDS market in 1998, beginning by only insuring against the default risks of corporations (7). Then, beginning in the early 2000's, AIGFP began insuring other types of credit, such as credit card debt, student loans, auto loans, and aircraft leases. Finally, beginning in 2004, AIG started to consistently write CDS for subprime mortgage loans. The piles of mortgage loans that AIG was asked to insure went from being 2% subprime mortgage loans to a peak of 95% in 2007 (7). Eventually, by entering the CDS business, these contracts would eventually expose AIG to over \$500 billion in liabilities (6). These liabilities along with AIG's

holdings of MBS securities as part of its insurance business were the primary reason AIG suffered so greatly during the financial crisis.

The sale of guarantees for variable annuities was an additional innovation that caused strains on the insurers during the crisis (19). A variable annuity is a product that provides its buyer a steady stream of payments, typically during their retirement years until death (20). Prior to the crisis, Hartford and other insurers increasingly sold these annuities with minimum payment guarantees which guarantee a certain level of interest (typically 5%) despite the performance of the assets underlying these annuities (19). These guarantees were profitable before the crisis, but became a large problem as investments cratered, which made it very difficult to meet minimum payments for these annuities (18). Hartford, for example recognized a loss of over \$10 billion on its international annuities business, causing an inability to meet regulatory requirements which led to its need to access the government's Capital Purchase Program for \$3.4 billion. In 2012, Hartford announced plans to spin off this business to focus on its other segments such as its Property and Casualty, which are less reliant on investment returns, and thus less reliant on market forces (21). These guaranteed annuity products likely increase systemic risk because in the event of a crisis, these products become a liability as these companies are unable to meet their obligations to pay these minimum payments.

B.4 – Subprime Mortgage Bubble / Financial Crisis

In the early 2000's, mortgage backed securities made sense from an insurance industry perspective. The securities were highly rated, seemed to have little risk, and offered a higher yield than other AAA rated securities such as government bonds. (6).

Because of changes in accounting over the years, the true exposure to the mortgage crisis for these companies based on their financial statements is difficult to discern. Table 1 shows the total holdings of mortgage-related securities (such as MBS, CDOs and Mortgage Loans) as a percentage of total investments for each of the four companies. Although some of the fluctuation in these metrics may be due to changes in preferences for these securities, it is likely the way these companies report their holdings of mortgage securities also affects these figures, making these figures somewhat unreliable. However, upon analysis, it appears that the insurance companies were holding these securities for some time prior to the crisis.

Because Systemic Expected Shortfall (SES) and volatility for each of the companies rose dramatically in the years right before the crisis, the increase in Systemic risk does not appear, at first glance, to correlate with the increased holdings of mortgage securities. Many of these securities were on the balance sheet for a significant amount of time before the companies' expected shortfall increased. However, this does not mean these securities did not make these companies more systemically risky. Because these assets were not seen by the market as risky until right before the crisis in 2007, the market did not correctly gauge the risk of companies who held these assets. Although AIG's health may have been closely tied to the health of the mortgage securities market, the market did not worry about this correlation because these securities were seen to be safe. This does not mean that holding these assets did not contribute to AIG's failure, it simply means the market did not think these assets would be part of a systemic event.

C. Literature Review

My adviser, Professor Viral Acharya, has done substantial research into measuring systemic risk for financial institutions. This research extends to the creation of a database with NYU's V-Lab that generates a daily measure of a firm's contribution to total systemic risk. To measure systemic risk for these institutions, Acharya with Pederson, Phillipon, and Richardson propose that they measure the firm's systemic expected shortfall (SES) (Acharya et al. 2010). SES is the firm's expected contribution to a systemic crisis, or the firm's expected capital shortfall in the event of an aggregate capital shortfall in the system. By measuring this for the global system, the data shows the total contribution by each firm, allowing them to then be ranked, showing the firms that pose the greatest costs on the system in the event of a market downturn.

In addition to the SES measure, there has been other research into creating models that can measure systemic risk in financial institutions, such as the $\Delta CoVar$ measure of Adrian and Brunnermeir (2009). Additionally, there are other measures such as the CATFIN measure developed by Allen Bali, and Tang (2012) and several others that are given an overview by Bisias, Flood and Valavanis (2012). Although these measures have their own pros and cons when cons, this paper exclusively uses Systemic Expected Shortfall, largely due to my ability to access data for this measure going back fifteen years as well as the availability of up-to-date rankings of firms' total risk.

Research into systemic risk separated by industry has also been prevalent in the last few years. There has been much research into systemic risk relating to the insurance industry, prominently by NYU Professor Stephen Brown (Bail et al. 2011) as well as into the systemic risk of diversified financial institutions (Wagner 2010). Additionally, there has been research by Brunnermeir, Dong, and Palia (2012) that looks into the causes of

higher concentrations of systemic risk at the firm level. The paper by Brunnermeir et al. focuses on banking institutions that have trading and investment banking operations classified as noninterest income. The authors find that operations designated as “non-interest income (noncore activities like investment banking, venture capital, and trading activities) have a higher contribution to systemic risk than traditional banking (2012).” This paper uses both the $\Delta CoVar$ measure of a firm’s systemic risk developed by Adrian and Brunnermeier (2009) as well as the Systemic Expected Shortfall method that I will use in my paper.

One of the few papers that relate systemic risk to the insurance industry comes in the recent 2011 book “Regulating Wall Street” (Acharya et al. 2011). The paper discusses the build-up in risk in the insurance industry and relates the MES measure of systemic risk to the industry. The paper gives background on how the industry has changed and is regulated at the state level. The paper also discusses an overview of the different types of insurance operations as well as the events in the insurance industry during the financial crisis of 2007-2009.

My paper hopes to add to previous research by combining previous research that looked at the analysis of systemic risk, its contributions at the firm level and analyses of insurance companies.

D. Data:

The data that I used for my research included the financial information for AIG, Hartford, MetLife, and Prudential, the data from V-Lab over the last 10-15 years for each

of the companies in my analysis, and the information and dates concerning significant legislation and events that changed the nature of the insurance industry.

D.1 Financial Information Data

For each company, I extracted the financial data from the annual reports and 10k's. I found information going back to 1997 for AIG and Hartford, back to 1998 for MetLife, and back to 2000 for Prudential. The data came from each company's balance sheets, income statements and the "Notes Accompanying the Financial Statements." The "Notes Accompanying the Financial Statements" sections for each of the firms included information concerning breakdowns of revenue by segment as well as a more detailed breakdown each company's investments and investment income.

For each of the companies, I present the data in tables 6-21 in the appendix as close to the original reporting as possible while still adjusting for accounting changes or changes in categories for different businesses. Due to changes in the companies' reporting over time, some of the data had to be adjusted from what is stated specifically on the 10k's. Any changes or consolidations in line items that might have a material impact or cause uncertainty for the results will be noted. In the Data Analysis section, I then highlight key findings in this analysis that help explain how these companies changed over the sample period.

To analyze the data, I separated the data into three different parts. These are: Key Metrics, Business Segments, and Investments.

Key Metrics- First, I extracted information common to each of the companies that might be useful for a broad overview of how each company performed over the

sample period. These key metrics were total revenue, total investment income, total assets, and total investments. To analyze this information, I looked at the growth of each of these four key metrics year over year, as well as the growth from the base year. Additionally, because assets and investments are balance items, I found the average assets for each year by taking the balances at the beginning and ending of each year. The data showing the key metrics is found in tables 1-4.

[see tables 1-4]

Looking at these key metrics is useful as a starting point for analyzing each company. Unlike the segment data and some of the investment data, each of these is consistent over time and across companies.

Business Segments – Each company represents their business segments differently in their annual reports. Some of the firms go into significant detail to show where the revenue from each segment comes from, while others reveal their revenue sources much more broadly. For example, while Prudential segments their businesses into ten separate segments, MetLife only uses four. Additionally, because the data is taken from annual reports that range from 1997 to 2011, different years' annual reports reveal different levels of detail. In the data, there are empty spaces for the business segments where the company did not report data for certain segments for that year.

To analyze the business segments, I looked at the segment as a percentage of total revenues as well as a percentage of total assets. By using these two metrics, the data shows how significantly each segment affects the overall company. If the company has

riskier segments making up a greater percentage of assets or revenue, it is more likely that this company is more systemically risky, all else being equal.

Investments – Each company shows a breakdown of its investments on its balance sheets, and then goes into greater detail within the notes accompanying the financial statements in the annual reports. For each of the companies, I looked at the composition of investment income as well as the composition of total investments. I also looked at the breakdown of fixed maturity securities, both because that is the largest investment class for each company and because this includes the MBS and CDO securities that contributed to the increase in systemic risk for many of these companies.

D.2 V-Lab Data

With the help of my adviser, Professor Viral Acharya and Rob Capellini, the V-Lab Director at NYU, I was able to get a significant amount of data that measures the systemic risk of the companies I analyzed over the last 15-20 years.

V-Lab is run out of New York University's Stern School of business with Rob Capellini as its director. V-Lab “provides real time measurement, modeling and forecasting of financial volatility, correlations and risk for a wide spectrum of assets (V-Lab website).” I obtained data that shows the firms' Marginal Expected Shortfall, Daily Variance, Beta, Correlation, Leverage, Capital Shortfall, and Contribution to Total SRISK. The data is measured daily and goes back to April 1991 for AIG, April 1997 for Hartford, April 2001 for MetLife, and January 2003 for Prudential.

Using this data, I was able to track the change in each firm's expected capital shortfall in the event of a crisis according to market measures such as leverage and volatility. Because the V-Lab data is not directly tied to each firm's investments or business segments, it would be interesting to note whether or not there is a correlation to the aspects of the firms' businesses that I examined with the measure of systemic risk in the market using V-Lab. Additionally, because the V-Lab data uses leverage as part of its calculation of systemic risk, I included graphs showing leverage in the appendix (figures 2-5) with the other V-Lab Data. I did not feel the need to analyze the leverage of each of the companies using financial statement metrics, because the V-Lab data shows daily updates on each firm's leverage using the trading values of the equity. The leverage likely corresponds with increases in the systemic risk of these companies.

E. Data Analysis

All of the analyzed financial data is included in the appendix in figures 6 through 21. This analysis includes the key metrics, segment information, and the investments for each of the companies during the sample period. The data in the tables is presented close to the original reporting. In the analysis below, I highlight some metrics that give a sense of each company's transformation over the sample period.

E.1 Combined Data

To get a sense of the trends among the largest companies in the insurance industry, I calculated total revenues, total investment income, total assets, total

investments, and total capital shortfall for the combined companies. I then calculated year over year growth as well as growth since 2001, which is the first year that included data from all four companies [Figure 6].

Looking at the data in Figure 6, it is apparent that the combined companies' sizes peaked in 2007. In 2007, total assets, revenues and investment income were all at their highest levels of any other year from 2001-2011. These metrics declined in 2008, and by 2011 have bounced back to levels just below their 2007 peaks.

Additionally, I looked at what proportion of these figures came from each of the four companies. From 2000 until 2007, AIG made up the largest percentage of assets, revenues, and investment income, ranging between 44%-51% of revenues and 31%-43% of total assets (figure 10). These numbers significantly dropped in 2008, with AIG making up only 11% of revenues in that year for the four companies. AIG has grown since its drop off, but by 2011, figure 11 shows that MetLife led in all four categories, making up 34% of revenues and 35% of assets, though all four companies are now of similar size (figure 11).

E.2 AIG

Figure 6 shows AIG's **key metrics**. Looking at these metrics, one can see that from 1997 to 2007, AIG's assets grew over 540% from \$163 billion in 1997 to a peak of \$1.06 trillion in 2007. At this peak, 80% of AIG's assets were in the form of investments. Though large, it is important to note that these numbers do not include the total amount of mortgage-related bonds that AIG was on the hook for as a result of its AIGFP

business's underwriting of CDS insurance contracts. Over that same period, AIG's investment income grew by 348%. After 2008, however, both total assets and total investments fell by about half, with investments also making up a smaller percentage of total assets.

When looking at the individual **segments** within AIG, Figure 13 shows that the company's revenue was fairly evenly split between its life insurance business (life, term life, and retirement planning) and its property and casualty business (insurance that protects against property losses to businesses, homes and/or against legal liability that may result from injury or damage to the property of others) from 1997 up to 2007. Following the crisis, AIG shifted its business to focus much more heavily on property and casualty, which focuses more on traditional insurance for firms rather than investments for individuals.

Concerning **Investments**, Figure 15 shows that AIG primarily invests in bonds, with bonds as a percentage of investments increasing over time, to its current high of 64% of total investments. Corporate debt traditionally makes up the bulk of bonds, followed by municipalities and non-US government debt. Bonds tied to the mortgage market traditionally made up a relatively small portion of the investments, with it rising above 1% of investments only in 2006, when it reached 13.7%.

The V-Lab Data and the corresponding graphs for AIG in figure 2 reveal that AIG had little contribution to overall systemic risk until 2005 when there is a large spike as a result of the company's prominent management scandals that year. The company's contribution to risk becomes flat until 2007, in the build up to the crisis, when it becomes among the most volatile and risky of all US financial institutions. AIG also had the lowest leverage ratios of any of the companies analyzed for most of the sample period,

typically having leverage of around three to five times equity from 1996-2005, compared to the other companies, which typically had leverage over ten. These leverage ratios rose dramatically during the crisis, though, as the company's equity value collapsed due to its losses. In addition, AIG is the only company of the four with a negative capital shortfall over much of the time the data is being examined. This means that in the event of a crisis, AIG was presumed to not require government assistance and was projected to have no capital shortfall according to the SES analysis. It was not until late in 2007 and 2008 that the capital shortfall became positive for AIG, meaning that it was projected to contribute to the system's overall capital shortfall.

E.3 Hartford

From 1997 to 2007, figure 8 (**key metrics**) shows that Hartford's assets grew 173% from \$130 billion to its peak of \$360 billion in 2007. At this peak, investments made up only 41% of Hartford's total asset base. Revenue and net investment income grew along similar trends, doubling between 1997 and 2007 before dropping off steeply in 2008. By 2011, neither recovered to the peaks reached in 2006-2007.

Looking at **individual segments**, figure 15 shows that Hartford traditionally had a greater percentage of its revenue come from its Property and Casualty business compared to its Life insurance business, though there is not a large difference over time. The typical range for the P&C business is between 40%-50%, of revenues, while for life the typical range is between 30-40%, except in 2008, where each made over 100% of revenues to make up for the less due to investments draining total revenues.

Figure 16 shows that Hartford has the great majority of its **investments** in Fixed Maturity, AFS securities. In 1997, these securities made up 85% of total investments,

though this declined over time to its current 60% of total investments. Among the Fixed Maturity, AFS securities, Corporate securities are the largest of fixed maturities, typically making up between 40-50% of these securities.

The **V-Lab Data** and corresponding graphs in figure 3 reveal that Hartford's contribution to total systemic risk has actually declined over time until from 1997 to 2011. The decline in Hartford's contribution to overall risk was not due to their decrease in capital shortfall in the event of a systemic event. Hartford's capital shortfall increases over time, but their total contribution decreases due to the increase in the aggregate capital shortfall. Additionally, the volatility as measured by Beta and correlation to the market increases for Hartford. The V-Lab data also shows that Hartford's leverage was typically around 12-20, with a large increase during the crisis as its equity value fell.

E. 4 MetLife

In terms of total assets and revenue, Figure 8 (**Key Metrics**) shows that MetLife performed better during the crisis than both Hartford and AIG. Although there was a small dip in 2008 for assets and 2009 for revenues, the company exceeded its peaks for assets and revenues in 2011 with \$763 billion in assets and \$70 billion for revenues. These values are an increase of 159% for revenues and 246% for assets from 1998.

The data for the **individual segments** in figure 17 for MetLife reveal that the company has shifted its focus from its Insurance Products / Institutional segment to its Retirement Products / Individual segment over the last fifteen years, with the additional Corporate Benefit Funding Segment also taking up a large percentage of revenue

beginning in 2009. While Retirement products made up 40% of revenues in 1997, this share declined to 10% in 2011.

Similar to AIG and Hartford, figure 18 (**Investments**) shows that fixed maturities make up the bulk of MetLife's investment income, ranging from 64%-86% of investment income in the years 1999-2011. Mortgage loans also make up a significant percentage of this income, with 15-17% of total investment income during the years 1998-2011. In terms of total investments, there is a similar trend with the large percentage of fixed maturities and mortgage loans. Within fixed maturities, US Corporate makes up the bulk of securities, with those bonds tied to mortgages also having significant shares of this investment category, with RMBS, ABS, and Mortgage and Asset backed securities having significant shares throughout the time period, reaching its peak in the years right before the crisis.

The **V-Lab data** and corresponding graphs in figure 4 for MetLife reveal that the while the company's capital shortfall and volatility grew over time, the contribution to total systemic risk has declined from its peak, reaching a low point during the crisis as other companies contributed more to aggregate capital shortfall. This is a similar trend to the other companies, with the notable exception of AIG. The leverage for MetLife shows the company with leverage of about 11-13 in the years before the crisis, with an increase during 2007-2009.

E.5 Prudential

From 2000-2011, figure 10 (**key metrics**) shows that there has been a significant growth in assets and revenues of 129% and 86%, respectively. However, compared to the other companies being analyzed, the companies' growth was not as pronounced in the

lead up to the crisis. On the contrary, much of the growth has come in the years following the crisis, with Prudential growing both its revenues and assets by over 25% in 2011 alone.

Prudential breaks down its **business segments** (figure 20) into more segments than its competitors, with ten distinct segments over the time period. Of these, the company's international segment is the largest, with revenues that currently make up 40% of the company's total revenue. Group Insurance, Retirement, and Individual Annuities also make up a significant portion of total revenue.

Similar to the other companies, fixed maturities make up the bulk of **investments** (figure 21) for Prudential, ranging from 56% in 2000 to 71.5% in 2011. Within investments, Corporate securities are the largest holding with foreign government bonds also making up a large portion of these investments.

The **V-Lab data** and corresponding graphs (figure 5) for Prudential reveal a very similar trend to MetLife with growing capital shortfall and volatility over time, but declining contribution to aggregate systemic risk. Prudential's leverage is similar to the other companies as well, with modest leverage of about 11-15 before the crisis and a huge increase in 2007-2009 as equity value fell.

E. Results of Regression Analysis

In this section, I provide the results of the regression analysis that I've run on each of the companies. I ran regressions using balance sheet and income statement metrics as independent variables with company's Systemic Expected Shortfall, as measured by NYU's Systemic Risk Rankings in V-Lab, as the dependent variable. Systemic Expected

Shortfall is a good measure for the systemic risk imposed by each firm on the global financial system because in the event of a crisis; this measurement shows the expected capital necessary for this company to avoid failure.

Because the balance sheet data is measured on a yearly basis, the systemic risk rankings were averaged over the course of the year to match the balance sheet data.

Because the data is measured daily while the balance sheet data is measured yearly, the measurement may not be exact, but witnessing some correlation may still give an idea of the relation between the two data sources.

Also, it's important to note that the results using multiple independent variables yielded some odd results. For the two most predictive regression models using multiple independent variables for AIG and Hartford, there are negative coefficients for one variable in each equation. These negative coefficients seem to imply that these variables are negatively related to Systemic Expected Shortfall, but when doing the regression analysis with one variable using these independent variables for these companies, there is a positive relationship between the variables and the dependent variable. Because of this, I conclude that the negative relationship for these variables is the result of the regression calculation methods and should not imply the negative relationship. For example, Hartford's single variable analysis yielded all positive relationships with systemic expected shortfall, but in the multiple variable regression with average assets and average investments as co-independent variables, average assets has a negative coefficient. However, under this multiple variable analysis, average investments has a larger coefficient than when doing single variable analysis. Thus, the negative variable is necessary to accurately predict systemic shortfall by bringing down the total SES in the analysis.

E.1: AIG

AIG's revenues and investment income show little correlation to the systemic risk using average Systemic Expected Shortfall (SES) over the course of the business year. Assets and Total investments show a stronger correlation, but still lie outside the 95% percent confidence interval. "Average Assets" and "Average Investments," however, show a strong correlation to Systemic Expected Shortfall over the course of the years 1997-2011. These items have p-values of .02 for average assets and .049 for average investments. The R-Square for these are 37% and 29%. This R-Squared can be increased greatly by using both average assets and average investments as multiple independent variables in the same regression. When using both variables, both of these are again within the confidence interval, and the R-Square increases to 63% with an Adjusted R-Square of 57%. The following is the result of this regression, which is the most robust indicator of systemic risk of all the regressions examined:

$$\text{AIG average SES} = -134201 + .8507 \quad + -.90034$$

Where β_1 is equal to "average assets" and β_2 is equal to "average investments" over the period that the average SES is taken.

E.2 Hartford

When running regressions on Hartford, assets and total investments are both significant indicators of average systemic risk over the time period when using one independent variable in the regressions. Investments is a stronger indicator of systemic risk for Hartford, with investments having a p-value of .000718 and an R-Squared of 60% compared to a p-value of .008 for assets and an R-squared of 46%. Average assets and average investments even stronger indications of the average SES for the year, with p-values of .002 and .00026, respectively. Again, the strongest indicator of risk for the year is the regression using two variables of average investments and average assets together. This gives an R-squared of 79% and an Adjusted R-Squared of 75%. The regression equation is as follows:

$$\text{Hartford average SES} = 11,200 - .15122 \quad + .415$$

Where \quad is equal to “average assets” and \quad is equal to “average investments” over the period that the average SES is taken.

E.3 MetLife

Because MetLife has data for its systemic risk rankings going back to 2002, there are only 10 years of data for MetLife’s regressions compared to 15 and 14 for AIG and Hartford, respectively. However, despite having less data, MetLife’s revenue and investment income are both strongly correlated with systemic risk. Both p-values are statistically significant, and the r-squared is 69% for revenue, and 57% for investment income. Though these are strong, average assets and average investments are again the

strongest indicators of systemic risk. They each have p-values less than .0005 and r-squared values greater than 80%. In fact, average investments for MetLife has a greater adjusted r-squared than the multiple regression using average investments and average assets together. This is the most reliable indicator based on the assets on the regressions I ran. The regression equation for average investments is as follows:

$$\text{MetLife average SES} = -9818.87 + .097642$$

Where X is equal to “average investments” over the period that the average SES is taken.

E.4 Prudential

When running Prudential’s regressions, there are 9 years of data for the capital shortfall, so all 9 years are used in the regression analysis. Both Revenue and Investment income are not significant indicators of capital shortfall, while assets and investments are at the 5% indicator, but not at the 1%. The greatest single predictor of capital shortfall is average investments for Prudential. This has a p-value of .011 and an R-Squared of 62%. When taking average assets and investments together, this is actually less reliable as an indicator, with each of the variables falling outside the 5% confidence interval range. The regression equation for average investments is as follows:

$$\text{Prudential average SES} = -27709.4 + .188919$$

Where \bar{I} is equal to “average investments” over the period that the average SES is taken.

E.5 Combined Analysis

To get a sense of the correlation between the summary statistics for all the companies, I performed regression analysis on these statistics with the total capital shortfall for all four companies. Because there is only data going back to 2003 that includes the capital shortfall for all four companies, this analysis had only 8 data sets.

The results of this regression analysis showed that none of the individual key statistics (revenue, investment income, assets, and total investments) were significant indicators and they all lied outside the significance intervals. The only analysis that showed some ability to predict capital shortfall within the 5% confidence interval was the analysis using both assets and total investments together.

F. Conclusion

As demonstrated during the financial crisis, the systemic risk of the largest insurers has increased greatly over the last fifteen years. To avoid future crises, government agencies must identify an effective ex-ante method to identify and regulate systemically risky institutions. My research indicates that in addition to using the Systemic Expected Shortfall method for these large insurance companies, the financial statement information should also be analyzed as it has been shown to be effective indicators of expected systemic risk within these companies. For most of the companies

analyzed, total investments and total assets are the strongest indicators of Systemic Expected Shortfall.

The growth in fixed maturity securities and mortgage related bonds, was also large in the years leading up to the crisis, but because of changes in accounting and changes in the perception of these securities over the last 15 years, it is unclear how closely these securities correlate to the Systemic Expected Shortfall over the sample period. Although these securities were shown to be systemically risky during the crisis, the market did not consider these bonds to be systemically risky until late 2006-2007, so it is likely that these assets did not show a strong relationship to expected systemic risk during the entire sample period. This demonstrates that it is difficult to predict systemic risk when the market misjudges the risk of certain securities. AIG's failure demonstrates this. Although the company was involved in the holdings and insurance of mortgage bonds, they were not projected to contribute to systemic risk until right before the crisis, when it was likely too late for regulators to step in.

In conclusion, there are many factors that led to the increase in risk for the insurance industry. These include regulation, increase in size, the introduction of new products, and changes in the composition of investments. To prevent this in the future, regulators must monitor these systemically risky institutions, and to do this, they should include certain financial metrics in their analysis as they are strong indicators of systemic expected shortfall.

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H. Appendix

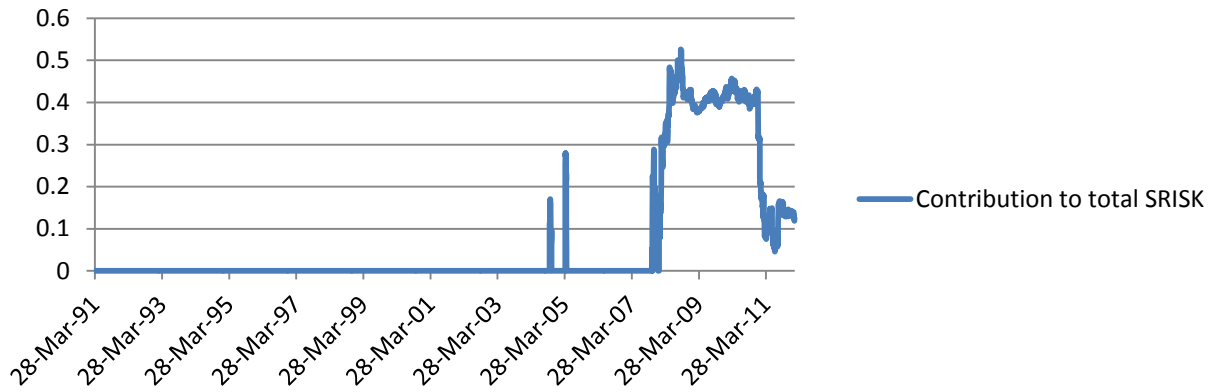
Figure 1: Holdings of Mortgage Related Securities

Holdings of Mortgage Related Securities																
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010			
AIG																
Total Mortgage Related Securities					4153.999	4426.999	3682	4555.001	104827	134500	47109	48504.03	32630.03			
Percent of Investments					1%	1%	1%	1%	13%	16%	7%	8%	8%			
Hartford																
Total Mortgage Related Securities						17809	24496	27533	32057	36154	25301	25051	23849			
Percent of Investments						27%	26%	26%	27%	28%	21%	20%	18%			
MetLife																
Total Mortgage Related Securities	43806.09	46400.07	55524.08	58095.08	69472.08	80597.07	88013.06	113707.1	124300.1	132288.1	110559.1	123713.1	141992			
Percent of Investments	32%	34%	35%	36%	37%	37%	37%	38%	38%	40%	37%	38%	31%			
Prudential																
Total Mortgage Related Securities			8056	6812	9282	5222	11668	12679	47528	45607	37724	34756	34885			
Percent of Investments			5%	4%	5%	3%	5%	6%	20%	19%	16%	13%	12%			

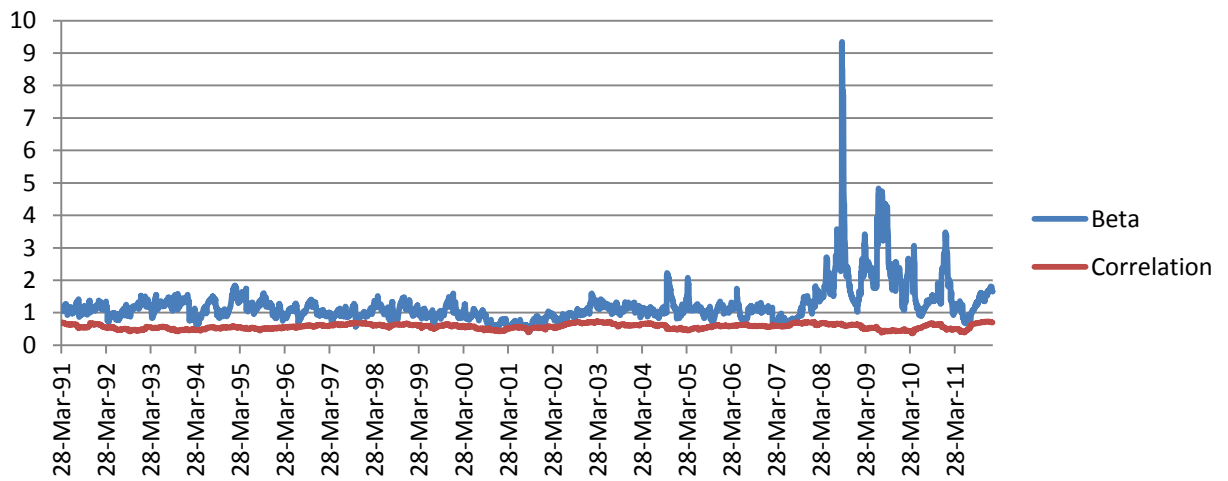
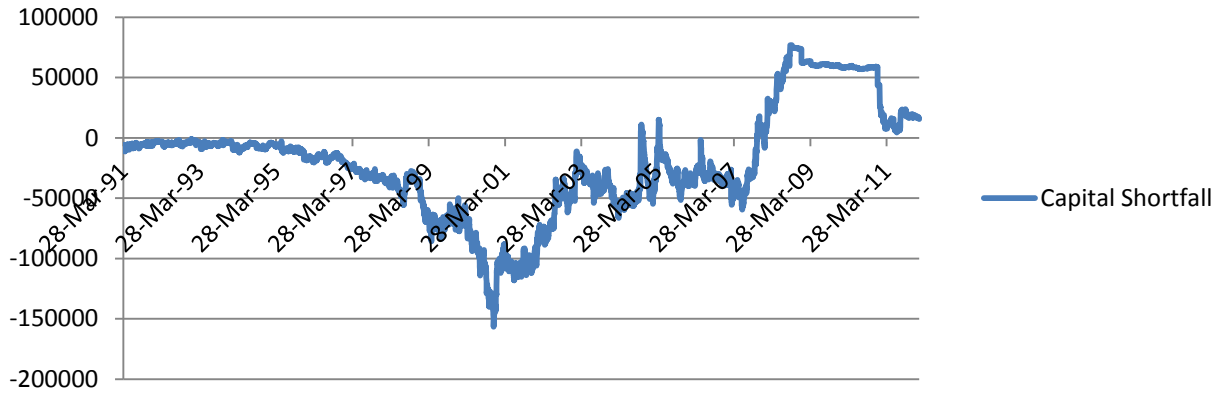
Systemic Risk V-Lab Charts

Figure 2: AIG Systemic Risk Charts

Contribution to total SRISK



Capital Shortfall



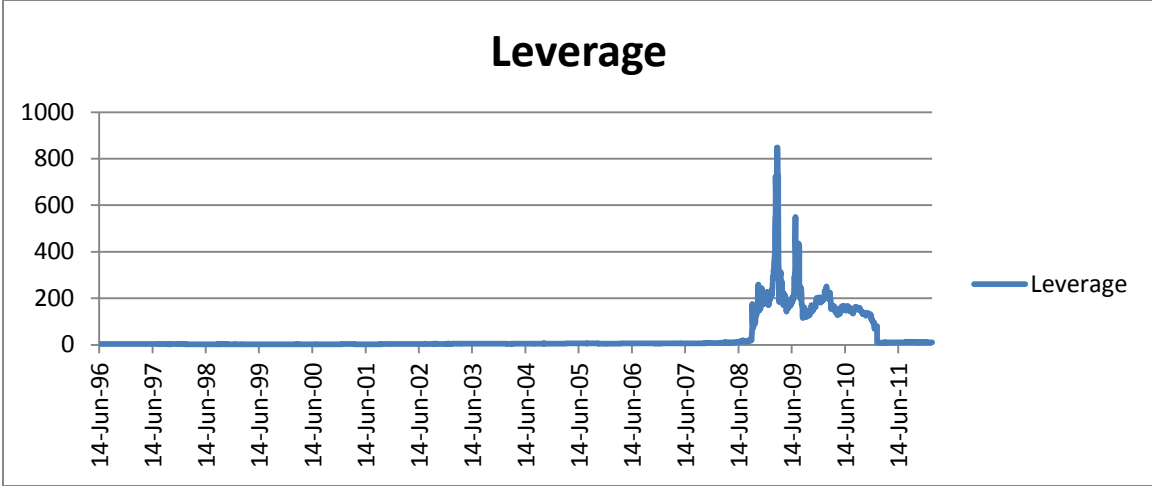
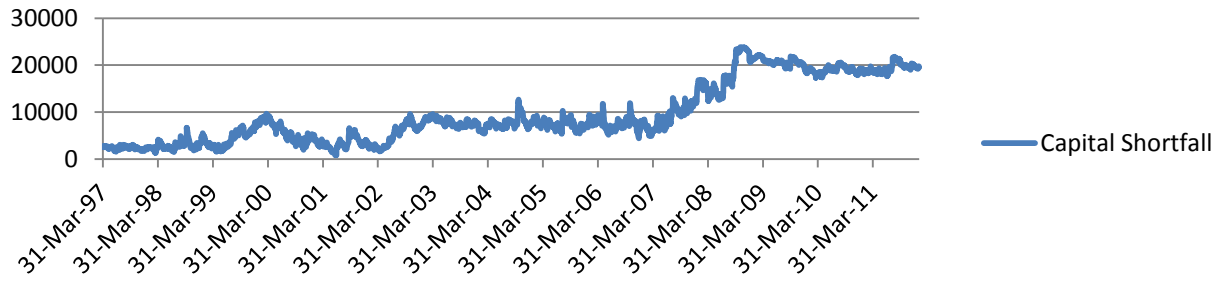
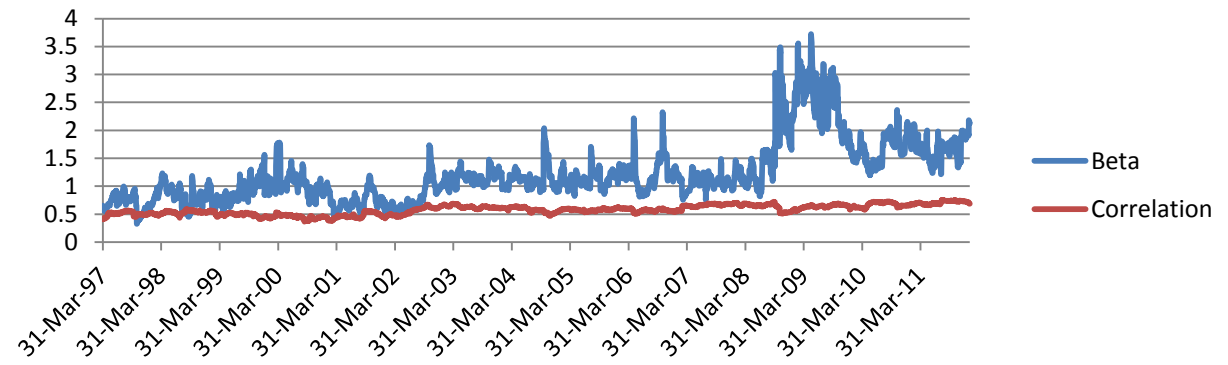
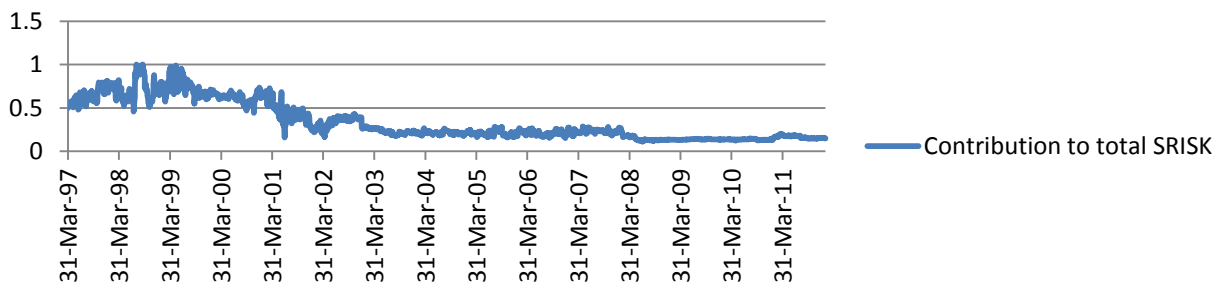


Figure 3: Hartford Systemic Risk Charts

Capital Shortfall



Contribution to total SRISK



Leverage

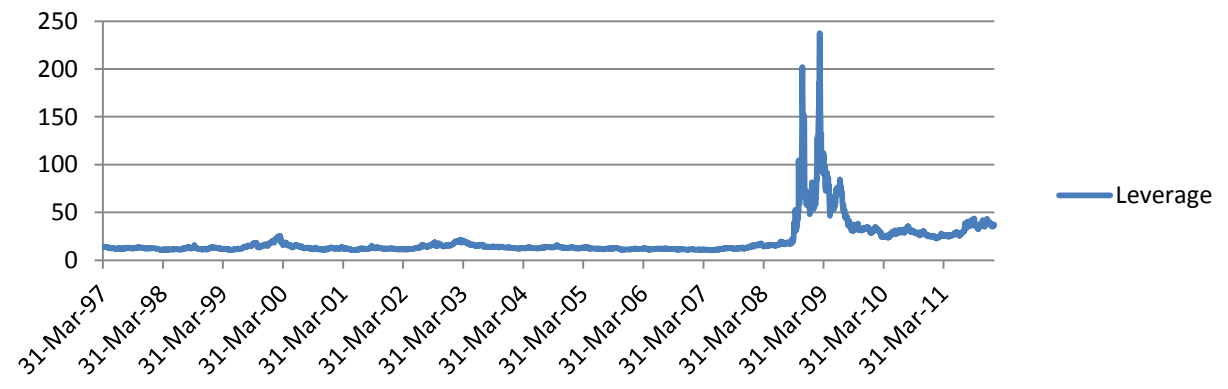
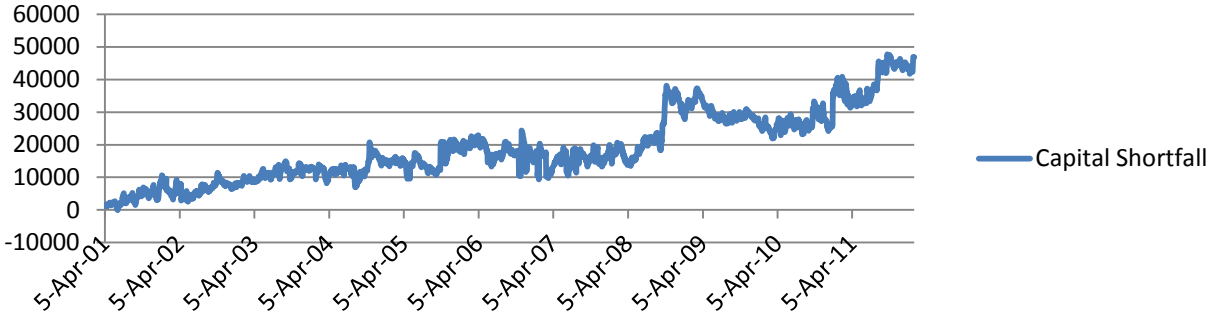
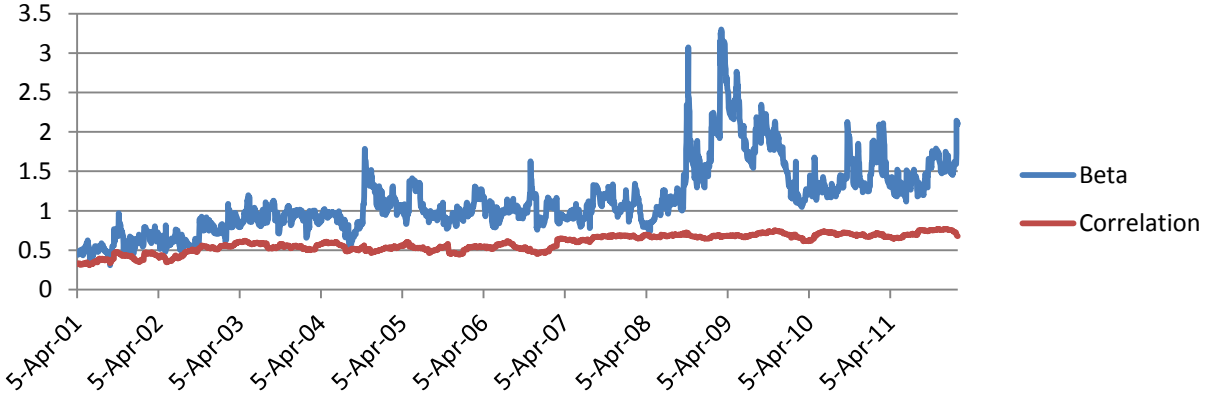
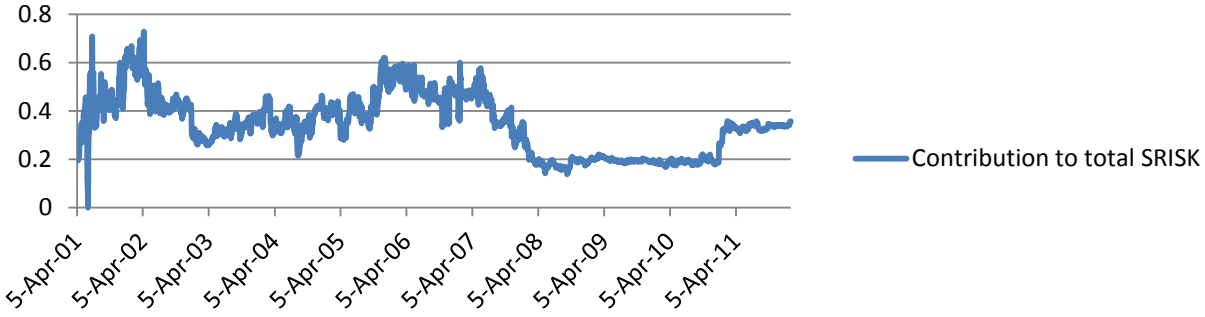


Figure 4: MetLife Systemic Risk Charts

Capital Shortfall



Contribution to total SRISK



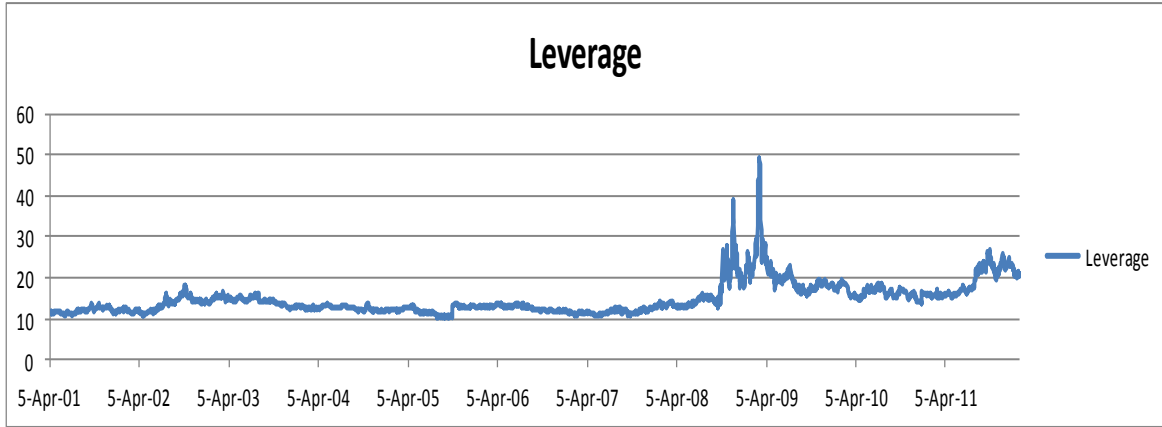
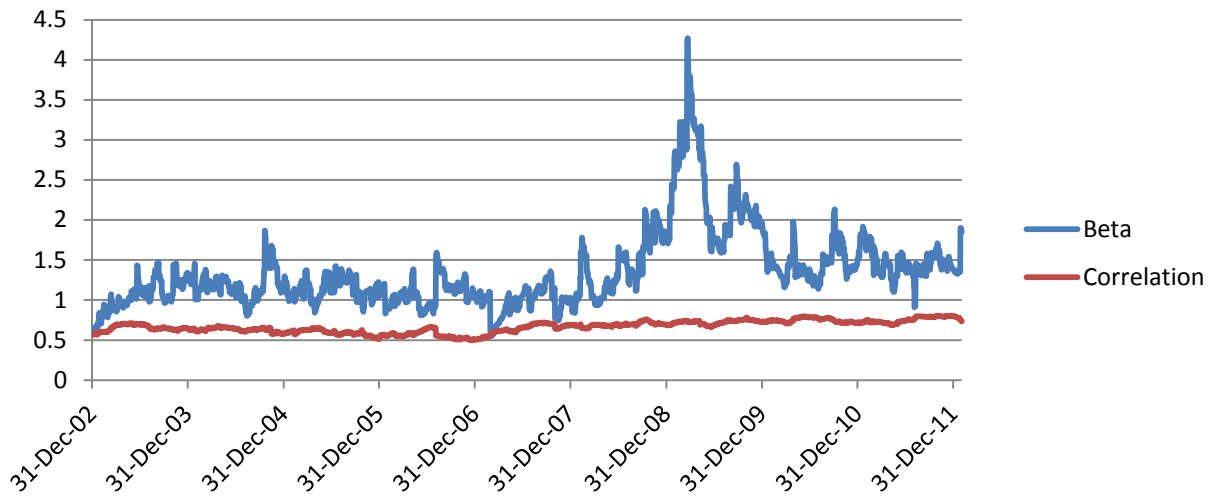
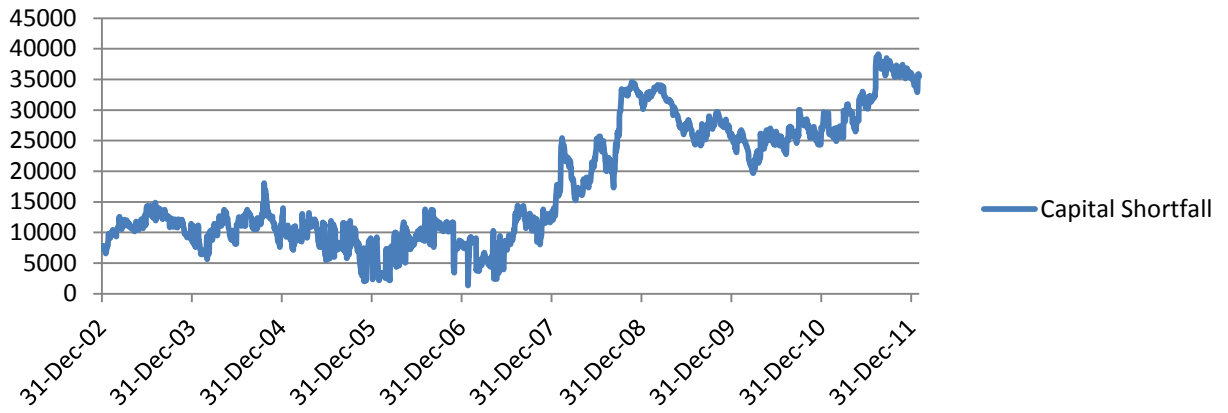
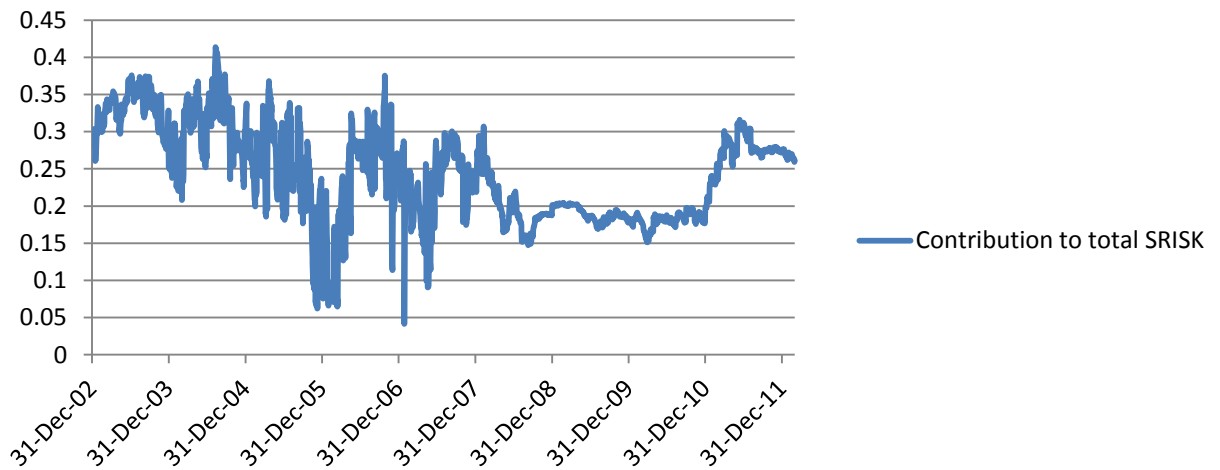


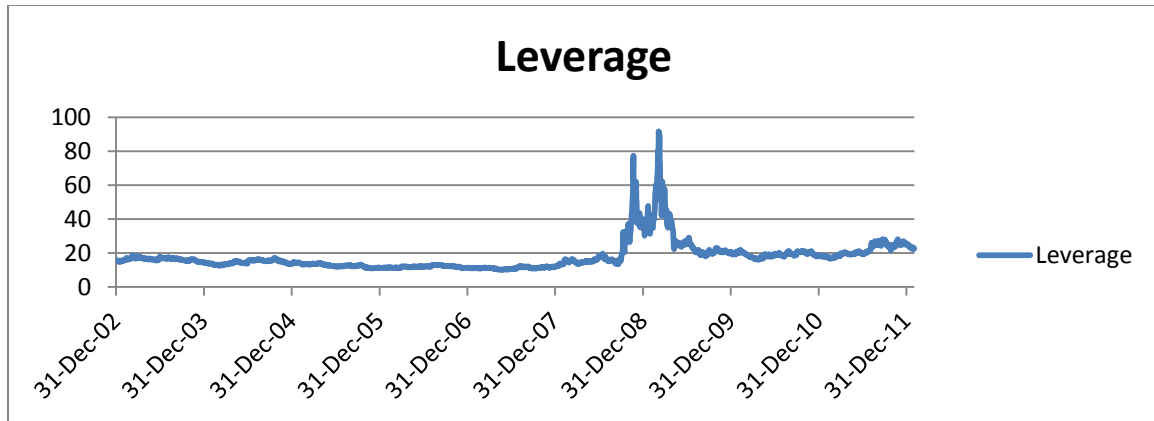
Figure 5: Prudential Systemic Risk Charts

Capital Shortfall



Contribution to total SRISK





Key Metrics

Figure 6: Combined Analysis Key Metrics:

(Amounts in Millions)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Key Metrics															
Total revenues	42332	74043	75310	128373	136077	143721	161006	187301	212472	215084	217539	100587	172917	190040	205403
<i>Year over year Growth</i>					6.0%	5.6%	12.0%	16.3%	13.4%	1.2%	1.1%	-53.8%	71.9%	9.9%	8.1%
<i>Growth From 2000</i>					6.0%	12.0%	25.4%	45.9%	65.5%	67.5%	69.5%	-21.6%	34.7%	48.0%	60.0%
Net investment income	9030	20723	21166	35840	37220	38124	38881	45202	55866	60152	64058	34396	52328	53900	50398
<i>Year over year Growth</i>					3.9%	2.4%	2.0%	16.3%	23.6%	7.7%	6.5%	-46.3%	52.1%	3.0%	-6.5%
<i>Growth From 2000</i>					3.9%	6.4%	8.5%	26.1%	55.9%	67.8%	78.7%	-4.0%	46.0%	50.4%	40.6%
Total Assets	295714	560376	660521	1004996	1224148	1313246	1552287	1818516	2038348	2287935	2465242	2093744	2174639	2269218	2283983
<i>Year over year Growth</i>					21.8%	7.3%	18.2%	17.2%	12.1%	12.2%	7.7%	-15.1%	3.9%	4.3%	0.7%
<i>Growth From 2000</i>					21.8%	30.7%	54.5%	80.9%	102.8%	127.7%	145.3%	108.3%	116.4%	125.8%	127.3%
Total investments	160763	321225	361015	560601	732143	850834	981398	1187421	1310987	1472204	1563172	1319770	1328370	1287183	1414533
<i>Year over year Growth</i>					30.6%	16.2%	15.3%	21.0%	10.4%	12.3%	6.2%	-15.6%	0.7%	-3.1%	9.9%
<i>Growth From 2000</i>					30.6%	51.8%	75.1%	111.8%	133.9%	162.6%	178.8%	135.4%	137.0%	129.6%	152.3%
<i>Percent of Assets</i>	54.4%	57.3%	54.7%	55.8%	59.8%	64.8%	63.2%	65.3%	64.3%	64.3%	63.4%	63.0%	61.1%	56.7%	61.9%
Total Capital Shortfall	-28411.6	-34679.1	-63007.8	-90757.7	-101471	-53865.2	-4871.54	-12380.7	2159.483	3297.094	2518.486	112344.3	140865.4	128585.4	107168

Figure 7: AIG Key Metrics

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Key Metrics													
Total revenues	28871	31915	36356	56338	61766	67482	79421	97666	108905	113387	110064	11104	75447
<i>Year over year Growth</i>		10.5%	13.9%	55.0%	9.6%	9.3%	17.7%	23.0%	11.5%	4.1%	-2.9%	-89.9%	579.5%
<i>Growth from 1997</i>		10.5%	25.9%	95.1%	113.9%	133.7%	175.1%	238.3%	277.2%	292.7%	281.2%	-61.5%	161.3%
Net investment income	6375	7393	8723	12663	13977	15034	15508	18465	22165	26070	28619	12222	18992
<i>Year over year Growth</i>		16.0%	18.0%	45.2%	10.4%	7.6%	3.2%	19.1%	20.0%	17.6%	9.8%	-57.3%	55.4%
<i>Growth from 1997</i>		16.0%	36.8%	98.6%	119.2%	135.8%	143.3%	189.6%	247.7%	308.9%	348.9%	91.7%	197.9%
Total Assets (value, not formula)	163971	194398	268238	306577	492982	561229	678346	801145	853370	979410	1060505	860418	847585
<i>Year over year Growth</i>		18.6%	38.0%	14.3%	60.8%	13.8%	20.9%	18.1%	6.5%	14.8%	8.3%	-18.9%	-1.5%
<i>Growth from 1997</i>		18.6%	63.6%	87.0%	200.7%	242.3%	313.7%	388.6%	420.4%	497.3%	546.8%	424.7%	416.9%

Figure 8: Hartford Key Metrics

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Key Metrics												
Total revenues	13461	15022	13528	14703	15980	16417	18733	22708	27083	26500	25916	9219
<i>Year over year Growth</i>		11.6%	-9.9%	8.7%	8.7%	2.7%	14.1%	21.2%	19.3%	-2.2%	-2.2%	-64.4%
<i>Growth from 1997</i>		11.6%	0.5%	9.2%	18.7%	22.0%	39.2%	68.7%	101.2%	96.9%	92.5%	-31.5%
Net investment income	2655	3102	2627	2674	2850	2929	3233	4943	8231	6515	5359	-6005
<i>Year over year Growth</i>		16.8%	-15.3%	1.8%	6.6%	2.8%	10.4%	52.9%	66.5%	-20.8%	-17.7%	-212.1%
<i>Growth from 1997</i>		16.8%	-1.1%	0.7%	7.3%	10.3%	21.8%	86.2%	210.0%	145.4%	101.8%	-326.2%
Total assets	131743	150632	167051	171532	181238	181975	225853	259735	285557	326544	360361	287583
<i>Year over year Growth</i>		14.3%	10.9%	2.7%	5.7%	0.4%	24.1%	15.0%	9.9%	14.4%	10.4%	-20.2%
<i>Growth from 1997</i>		14.3%	26.8%	30.2%	37.6%	38.1%	71.4%	97.2%	116.8%	147.9%	173.5%	118.3%
Total investments	41122	43696	39141	40669	46689	54530	65847	94408	106935	119171	131086	120107
<i>Year over year Growth</i>		6.3%	-10.4%	3.9%	14.8%	16.8%	20.8%	43.4%	13.3%	11.4%	10.0%	-8.4%
<i>Growth from 1997</i>		6.3%	-4.8%	-1.1%	13.5%	32.6%	60.1%	129.6%	160.0%	189.8%	218.8%	192.1%
<i>Percent of Assets</i>		31.2%	29.0%	23.4%	23.7%	25.8%	30.0%	29.2%	36.3%	37.4%	36.5%	41.8%
Average assets		141187.5	158841.5	169291.5	176385	181606.5	203914	242794	272646	306050.5	343452.5	323972
<i>Year over year Growth</i>			12.5%	6.6%	4.2%	3.0%	12.3%	19.1%	12.3%	12.3%	12.2%	-5.7%
<i>Growth from 1998</i>			12.5%	19.9%	24.9%	28.6%	44.4%	72.0%	93.1%	116.8%	143.3%	129.5%
Average investments		42409	41418.5	39905	43679	50609.5	60188.5	80127.5	100671.5	113053	125128.5	125596.5
<i>Year over year Growth</i>			-2.3%	-3.7%	9.5%	15.9%	18.9%	33.1%	25.6%	12.3%	10.7%	0.4%
<i>Growth from 1998</i>			-2.3%	-5.9%	3.0%	19.3%	41.9%	88.9%	137.4%	166.6%	195.1%	196.2%

Figure 9: MetLife Key Metrics

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Key Metrics												
Total revenues	27106	25426	31000	31260	33147	35190	38804	44776	42929	47158	50989	40657
<i>Year over year Growth</i>		-6.2%	21.9%	0.8%	6.0%	6.2%	10.3%	15.4%	-4.1%	9.9%	8.1%	-20.3%
<i>Growth from 1997</i>		-6.2%	14.4%	15.3%	22.3%	29.8%	43.2%	65.2%	58.4%	74.0%	88.1%	50.0%
Net investment income	10228	9816	11024	11255	11329	11472	12364	14910	16247	18063	16296	14741
<i>Year over year Growth</i>		-4.0%	12.3%	2.1%	0.7%	1.3%	7.8%	20.6%	9.0%	11.2%	-9.8%	-9.5%
<i>Growth from 1997</i>		-4.0%	7.8%	10.0%	10.8%	12.2%	20.9%	45.8%	58.8%	76.6%	59.3%	44.1%
Total Assets	215346	225232	254134	256898	277426	326814	356808	481645	527715	558562	500732	539134
<i>Year over year Growth</i>		4.6%	12.8%	1.1%	8.0%	17.8%	9.2%	35.0%	9.6%	5.8%	-10.4%	7.7%
<i>Growth from 1997</i>		4.6%	18.0%	19.3%	28.8%	51.8%	65.7%	123.7%	145.1%	159.4%	132.5%	150.4%
Total Investments	135721	135860	156527	162222	188335	218072	234967	301709	323152	334734	298311	327567
<i>Year over year Growth</i>		0.1%	15.2%	3.6%	16.1%	15.8%	7.7%	28.4%	7.1%	3.6%	-10.9%	9.8%
<i>Growth from 1997</i>		0.1%	15.3%	19.5%	38.8%	60.7%	73.1%	122.3%	138.1%	146.6%	119.8%	141.4%
<i>Percent of Assets</i>	63.0%	60.3%	61.6%	63.1%	67.9%	66.7%	65.9%	62.6%	61.2%	59.9%	59.6%	60.8%
Average assets		220289	239683	255516	267162	302120	341811	419226.5	504680	543138.5	529647	519933
<i>Year over year Growth</i>			8.8%	6.6%	4.6%	13.1%	13.1%	22.6%	20.4%	7.6%	-2.5%	-1.8%
<i>Growth from 1999</i>			8.8%	16.0%	21.3%	37.1%	55.2%	90.3%	129.1%	146.6%	140.4%	136.0%
Average investments		135790.5	146193.5	159374.5	175278.5	203203.5	226519.5	268338	312430.5	328943	316522.5	312939
<i>Year over year Growth</i>			7.7%	9.0%	10.0%	15.9%	11.5%	18.5%	16.4%	5.3%	-3.8%	-1.1%
<i>Growth from 1999</i>			7.7%	17.4%	29.1%	49.6%	66.8%	97.6%	130.1%	142.2%	133.1%	130.5%

Figure 10: Prudential Key Metrics

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Key Metrics											
Total revenues	26332	27071	26675	27662	28123	31708	32268	34401	29275	32380	38200
<i>Year over year Growth</i>		2.8%	-1.5%	3.7%	1.7%	12.7%	1.8%	6.6%	-14.9%	10.6%	18.0%
<i>Growth From 2000</i>		2.8%	1.3%	5.1%	6.8%	20.4%	22.5%	30.6%	11.2%	23.0%	45.1%
Net investment income	9479	9138	8832	8668	9430	10560	11320	12017	11883	11390	11865
<i>Year over year Growth</i>		-3.6%	-3.3%	-1.9%	8.8%	12.0%	7.2%	6.2%	-1.1%	-4.1%	4.2%
<i>Growth From 2000</i>		-3.6%	-6.8%	-8.6%	-0.5%	11.4%	19.4%	26.8%	25.4%	20.2%	25.2%
Total Assets	272753	293030	292616	321274	400828	417776	454266	485814	445011	480203	539854
<i>Year over year Growth</i>		7.4%	-0.1%	9.8%	24.8%	4.2%	8.7%	6.9%	-8.4%	7.9%	12.4%
<i>Growth From 2000</i>		7.4%	7.3%	17.8%	47.0%	53.2%	66.5%	78.1%	63.2%	76.1%	97.9%
Total investments	148515	165834	183208	181041	217756	221401	235417	243107	242025	260552	283912
<i>Year over year Growth</i>		11.7%	10.5%	-1.2%	20.3%	1.7%	6.3%	3.3%	-0.4%	7.7%	9.0%
<i>Growth From 2000</i>		11.7%	23.4%	21.9%	46.6%	49.1%	58.5%	63.7%	63.0%	75.4%	91.2%
<i>Percent of Assets</i>	54.5%	56.6%	62.6%	56.4%	54.3%	53.0%	51.8%	50.0%	54.4%	54.3%	52.6%
Average assets		282891.5	292823	306945	361051	409302	436021	470040	465412.5	462607	510028.5
<i>Year over year Growth</i>			3.5%	4.8%	17.6%	13.4%	6.5%	7.8%	-1.0%	-0.6%	10.3%
<i>Growth from 2001</i>			3.5%	8.5%	27.6%	44.7%	54.1%	66.2%	64.5%	63.5%	80.3%
Average investments		157174.5	174521	182124.5	199398.5	219578.5	228409	239262	242566	251288.5	272232
<i>Year over year Growth</i>			11.0%	4.4%	9.5%	10.1%	4.0%	4.8%	1.4%	3.6%	8.3%
<i>Growth from 2001</i>			11.0%	15.9%	26.9%	39.7%	45.3%	52.2%	54.3%	59.9%	73.2%

Figure 11: AIG Percentage of Totals

AIG percentage of totals	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total revenues	44%	45%	47%	49%	52%	51%	53%	51%	11%	44%	41%	31%
Net investment income	35%	38%	39%	40%	41%	40%	43%	45%	36%	36%	39%	29%
Total Assets	31%	40%	43%	44%	44%	42%	43%	43%	41%	39%	30%	24%
Total investments	38%	49%	50%	53%	54%	52%	54%	55%	50%	46%	32%	29%

Figure 12: MetLife Percentage of Totals

MetLife percentage of totals	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total revenues	24.1%	23.0%	23.1%	21.9%	20.7%	21.1%	20.0%	21.7%	50.7%	23.5%	27.5%	34.2%
Net investment income	30.8%	30.2%	29.7%	29.5%	27.4%	26.7%	27.0%	28.2%	47.4%	28.2%	32.5%	38.9%
Total Assets	25.3%	21.0%	21.1%	21.1%	19.6%	23.6%	23.1%	22.7%	23.9%	24.8%	32.1%	35.0%
Total investments	27.9%	22.2%	22.1%	22.2%	19.8%	23.0%	22.0%	21.4%	22.6%	24.7%	35.8%	36.2%

Segments Information:

Figure 13, 14: AIG Segment Information

AIG Revenues By Segment	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chartis / General Insurance (P&C)															
Total Chartis	14403	16495	18356	20146	22128	26171	33833	41961	45174	49206	51708	44676	35023	37196	40702
Percent of Total Revenue	49.9%	51.7%	50.5%	35.8%	35.8%	38.8%	42.6%	43.0%	41.5%	43.4%	47.0%	402.3%	46.4%	48.0%	63.4%
Percent of Total Assets	8.8%	8.5%	6.8%	6.6%	4.5%	4.7%	5.0%	5.2%	5.3%	5.0%	4.9%	5.2%	4.1%	5.4%	7.3%
Sunamerica / Life Insurance and Retirement Services															
Total SunAmerica	14468	15420	18000	26963	29893	31541	36678	43400	47316	50878	53570	3054	11366	14747	15315
Percent of Total Revenue	50.1%	48.3%	49.5%	47.9%	48.4%	46.7%	46.2%	44.4%	43.4%	44.9%	48.7%	27.5%	15.1%	19.0%	23.8%
Percent of Total Assets	8.8%	7.9%	6.7%	8.8%	6.1%	5.6%	5.4%	5.4%	5.5%	5.2%	5.1%	0.4%	1.3%	2.2%	2.8%

AIG Revenues By Segment	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Other Operations																
Mortgage Guaranty														1183	1168	944
Global Capital Markets														1109	532	266
Direct Investment Book														1950	1499	1004
Retained Interests														419	1819	486
Corporate and Other														3058	2631	1415
Diverted Businesses														18481	13811	
Consolidations and Eliminations														-936	-55	-36
Total Other Operations	85	50	-25	-190	-452	-530	-983	96	565	483	457	-81	25264	21405	4079	
Percent of Total Revenue	0.3%	0.2%	-0.1%	-0.3%	-0.7%	-0.8%	-1.2%	0.1%	0.5%	0.4%	0.4%	-0.7%	33.5%	27.6%	6.3%	
Percent of Total Assets	0.1%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	3.0%	3.1%	0.7%	
Financial Services																
Total	3042	3044	3340	5954	6485	6815	6242	7495	10525	7777	-1309	-31095				
Percent of Total Revenue	10.5%	9.5%	9.2%	10.6%	10.5%	10.1%	7.9%	7.7%	9.7%	6.9%	-1.2%	-280.0%				
Percent of Total Assets	1.9%	1.6%	1.2%	1.9%	1.3%	1.2%	0.9%	0.9%	1.2%	0.8%	-0.1%	-3.6%				
Asset Management																
Total	555	707	985	3465	3712	3485	3651	4714	5325	4543	5625	-4526				
Percent of Total Revenue	1.9%	2.2%	2.7%	6.2%	6.0%	5.2%	4.6%	4.8%	4.9%	4.0%	5.1%	-40.8%				
Percent of Total Assets	0.3%	0.4%	0.4%	1.1%	0.8%	0.6%	0.5%	0.6%	0.6%	0.5%	0.5%	-0.5%				
Aircraft Leasing Revenue																
Percent of Total Revenue														4992	4718	4457
Percent of Total Assets														0.6%	0.7%	0.8%
Consolidations and Eliminations																
Percent of Total Revenue										500	13	-924	-1198	-540	-316	
Percent of Total Assets										0.4%	0.0%	-8.3%	-1.6%	-0.7%	-0.5%	
										0.1%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	
Total Revenues From Business Segments																
Percent of Total Assets	32553	35716	40656	56338	61766	67482	79421	97666	108905	113387	110064	11104	75447	77526	64237	
	19.9%	18.4%	15.2%	18.4%	12.5%	12.0%	11.7%	12.2%	12.8%	11.6%	10.4%	1.3%	8.9%	11.3%	11.6%	

Figure 15: AIG Investment Information:

AIG Selected Investments	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Fixed maturities:															
Bonds available for sale, at market value	38078	48243	77028	89631	199774	242385	300935	344399	359516	386869	397372	363042	365462	228302	263981
<i>Percent of Investments</i>	31.8%	34.0%	41.4%	41.7%	55.9%	57.1%	58.3%	53.8%	52.8%	48.7%	46.5%	55.1%	59.5%	55.4%	64.1%
<i>Growth since 1997</i>		27%	102%	135%	425%	537%	690%	804%	844%	916%	944%	853%	860%	500%	593%
Bonds held to maturity, at amortized cost	12530	12658	12076	11533			8037	18294	21528	21437	21581				
<i>Percent of Investments</i>	10.5%	8.9%	6.5%	5.4%			1.6%	2.9%	3.2%	2.7%	2.5%				
<i>Growth since 1997</i>		1%	-4%	-8%			-36%	46%	72%	71%	72%				
Bonds trading securities, at market value	719	1005	1038	846	842	981	282	2984	4636	10836	9982	37248	31243	26182	24364
<i>Percent of Investments</i>	0.6%	0.7%	0.6%	0.4%	0.2%	0.2%	0.1%	0.5%	0.7%	1.4%	1.2%	5.6%	5.1%	6.4%	5.9%
<i>Growth since 1997</i>		40%	44%	18%	17%	36%	-61%	315%	545%	1407%	1288%	5081%	4245%	3541%	3289%
Selected AFS Bonds - Fair Value															
U.S. government and government sponsored Entities	2246	3041	2455	2539	3843	5152	5024	8174	7878	7748	8252	4705	5223	7350	6078
<i>Percent of Investments</i>	1.9%	2.1%	1.3%	1.2%	1.1%	1.2%	1.0%	1.3%	1.2%	1.0%	1.0%	0.7%	0.8%	1.8%	1.5%
<i>Growth Year over Year</i>		35%	-19%	3%	51%	34%	-2%	63%	-4%	-2%	7%	-43%	11%	41%	-17%
Municipalities / States	6876	6876	9321	11187	34821	43411	48188	38296	49654	60631	46854	61257	54102	46620	37498
<i>Percent of Investments</i>	5.7%	4.8%	5.0%	5.2%	9.7%	10.2%	9.3%	6.0%	7.3%	7.6%	5.5%	9.3%	8.8%	11.3%	9.1%
<i>Growth Year over Year</i>		0%	36%	20%	211%	25%	11%	-21%	30%	22%	-23%	31%	-12%	-14%	-20%
Non-US Governments						37205	45014	67643	61725	67884	70200	67537	65584	16808	25735
<i>Percent of Investments</i>						8.8%	8.7%	10.6%	9.1%	8.5%	8.2%	10.2%	10.7%	4.1%	6.2%
<i>Growth Year over Year</i>						21%	50%	-9%	10%	3%	-4%	-3%	-74%	53%	
Corporate Debt						156617	202709	230286	240259	262290	241520	185619	192138	124894	144818
<i>Percent of Investments</i>						36.9%	39.3%	36.0%	35.3%	33.0%	28.3%	28.2%	31.3%	30.3%	35.2%
<i>Growth Year over Year</i>							29%	14%	4%	9%	-8%	-23%	4%	-35%	16%
Corporate and bank debt	27969	42248	50185	121056	130965	9580	8736	24089	16478						
<i>Percent of Investments</i>	23.4%	29.8%	27.0%	56.3%	36.6%	2.3%	1.7%	3.8%	2.4%						
<i>Growth Year over Year</i>			51%	19%	141%	8%	-93%	-9%	176%	-32%					
Foreign Government obligations	11152	11152	15157	18981	30145	63	36	799	1371						
<i>Percent of Investments</i>	9.3%	7.9%	8.1%	8.8%	8.4%	0.0%	0.0%	0.1%	0.2%						
<i>Growth Year over Year</i>			0%	36%	25%	59%	-100%	-43%	2119%	72%					
RMBS												29752	28324	19808	34604
<i>Percent of Investments</i>												4.5%	4.6%	4.8%	8.4%
<i>Growth Year over Year</i>													-5%	-30%	75%
CMBS												11226	13289	6411	7946
<i>Percent of Investments</i>												1.7%	2.2%	1.6%	1.9%
<i>Growth Year over Year</i>													18%	-52%	24%
CDO/ABS												6131	6891	6411	7302
<i>Percent of Investments</i>												0.9%	1.1%	1.6%	1.8%
<i>Growth Year over Year</i>													12.4%	-7.0%	13.9%
Mortgage backed, asset backed, and collateralized						4154	4427	3682	4555	104827	134500				
<i>Percent of Investments</i>						1.0%	0.9%	0.6%	0.7%	13.2%	15.7%				
<i>Growth Year over Year</i>							7%	-17%	24%	2201%	28%				

Figure 16: Hartford Segment Information

Hartford Segment Information	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Life															
Individual Variable Annuity						1236	1310	1618	1784	1957	2225	1943	1468		
Retail						1532	1623	2028	2272	2609	3055	2753	2132		
Retirement Plans						35	49	77	162	212	242	338	324		
Institutional						777	1103	778	624	732	1238	1041	495		
Individual Life				640	890	697	727	746	768	832	808	828	940		
Group Benefits				2207	2507	2327	2362	3652	3811	4149	4301	4391	4350		
International															
Variable annuity									477	691	820	876	763		
Fixed MVA annuity									6	10	10	-7	31		
Other											2	3	33		
Total International									483	701	832	872	827		
Investment Products				2380	2506										
COLI				767	719										
Other				-4	-73	26	113	36	83	81	67	60	58		
Total Life	4699	5788	5536	5990	6549	5394	5977	7317	8203	9316	10543	10283	9126	8895	8755
<i>Percent of Total Revenues</i>	34.9%	38.5%	40.9%	40.7%	41.0%	32.9%	31.9%	32.2%	30.3%	35.2%	40.7%	111.5%	37.4%	40.3%	40.1%
<i>Percent of Total Assets</i>	3.6%	3.8%	3.3%	3.5%	3.6%	3.0%	2.6%	2.8%	2.9%	2.9%	2.9%	3.6%	3.0%	2.8%	2.9%
Property & Casualty															
Earned premiums															
Personal Lines	1928	2268	2505	2713	2897	3107	3304	3568	3640	3765	3889	3926	3952		
Small Commercial									2421	2652	2736	2724	2580		
Middle Market									2355	2454	2351	2299	2101		
Business Insurance				2298	2645	3126	3695	4298							
Specialty Commercial				1202	1242	1455	1864	2040	1766	1572	1515	1382	1228		
Commercial	3287	3385	3271												
Reinsurance	645	716	680	809	920										
Ceded premiums related to 9/11					-91										
Total Property & Casualty	5860	6369	6456	7022	7613	7688	8863	9906	10182	10443	10491	10331	9861	9691	9874
<i>Percent of Total Revenues</i>	43.5%	42.4%	47.7%	47.8%	47.6%	46.8%	47.3%	43.6%	37.6%	39.4%	40.5%	112.1%	40.4%	44.0%	45.2%
<i>Percent of Total Assets</i>	4.4%	4.2%	3.9%	4.1%	4.2%	4.2%	3.9%	3.8%	3.6%	3.2%	2.9%	3.6%	3.2%	3.0%	3.2%

Figure 17: Hartford Investments Information

Hartford Investments	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Net Investment Income																
Fixed maturities [2]						2510	2800	3689	3952	4266	4653	4310	3617	3489	3396	
<i>Percent of Total Investments</i>						4.6%	4.3%	3.9%	3.7%	3.6%	3.5%	3.6%	2.9%	2.7%	2.5%	
<i>Percent of Total Security</i>						5.1%	4.6%	4.9%	5.2%	5.3%	5.8%	6.6%	5.1%	4.4%	4.1%	
Equity securities, AFS								799	3847	1824	139	167	93	53	36	
<i>Percent of Total Investments</i>								0.8%	3.6%	1.5%	0.1%	0.1%	0.1%	0.0%	0.0%	
<i>Percent of Total Security</i>								5.5%	15.1%	5.9%	0.4%	11.5%	7.6%	5.4%	3.9%	
Mortgage loans								59	84	158	293	333	307	260	281	
<i>Percent of Total Investments</i>								0.1%	0.1%	0.1%	0.2%	0.3%	0.2%	0.2%	0.2%	
<i>Percent of Total Security</i>								4.9%	4.9%	4.8%	5.4%	5.1%	5.2%	5.8%	4.9%	
Equity securities, trading											145	-10340	3188	-774	-1359	
<i>Percent of Total Investments</i>											0.1%	-8.6%	2.5%	-0.6%	-1.0%	
Composition of Invested Assets																
Fixed maturities, AFS, at fair value	35053	35331	32875	34492	40046	48889	61263	75100	76440	80755	80055	65112	71153	77820	81809	
<i>Percent of Total Investments</i>	85.2%	80.9%	84.0%	84.8%	85.8%	89.7%	93.0%	79.5%	71.5%	67.8%	61.1%	54.2%	56.7%	59.4%	60.6%	
Fixed maturities, at fair value using the fair value option														649	1328	
<i>Percent of Total Investments</i>														0.5%	1.0%	
Equity securities, AFS, at fair value	1992	1066	1286	1056	1349	917	565	14466	25495	31132	38777	1458	1221	973	921	
<i>Percent of Total Investments</i>	4.8%	2.4%	3.3%	2.6%	2.9%	1.7%	0.9%	15.3%	23.8%	26.1%	29.6%	1.2%	1.0%	0.7%	0.7%	
Mortgage loans								792	1194	1718	3298	5407	6469	5938	4489	5728
<i>Percent of Total Investments</i>								1.2%	1.3%	1.6%	2.8%	4.1%	5.4%	4.7%	3.4%	4.2%
Policy loans, at outstanding balance	3759	6687	4222	3610	3317	2934	2512	2662	2016	2051	2061	2208	2174	2181	2001	
<i>Percent of Total Investments</i>	9.1%	15.3%	10.8%	8.9%	7.1%	5.4%	3.8%	2.8%	1.9%	1.7%	1.6%	1.8%	1.7%	1.7%	1.5%	
Composition of Fixed Maturity Investments - Life (Fair Value)																
ABS								5193	7469	7878	7691	8915	2466	2523	2889	3153
<i>Percent of Fixed Maturities</i>								8.5%	9.9%	10.3%	9.7%	11.1%	3.8%	3.5%	3.7%	3.9%
<i>Percent of Investments</i>								7.9%	7.9%	7.4%	6.5%	6.8%	2.1%	2.0%	2.2%	2.3%
CDOs								917	1227	990	1308	1745	2612	2892	2611	2487
<i>Percent of Fixed Maturities</i>								1.5%	1.6%	1.3%	1.7%	2.2%	4.0%	4.1%	3.4%	3.0%
<i>Percent of Investments</i>								1.4%	1.3%	0.9%	1.1%	1.3%	2.2%	2.3%	2.0%	1.8%
CMBS								8470	11748	13002	16900	17031	8313	8544	7917	6951
<i>Percent of Fixed Maturities</i>								13.8%	15.6%	17.0%	21.4%	21.3%	12.8%	12.0%	10.2%	8.5%
<i>Percent of Investments</i>								12.9%	12.4%	12.2%	14.2%	13.0%	6.9%	6.8%	6.0%	5.2%
Corporate								27378	34153	34018	35891	34198	27181	35243	39884	44011
<i>Percent of Fixed Maturities</i>								44.7%	45.5%	44.5%	45.4%	42.7%	41.7%	49.5%	51.3%	53.8%
<i>Percent of Investments</i>								41.6%	36.2%	31.8%	30.1%	26.1%	22.6%	28.1%	30.4%	32.6%
Foreign Govt. / Govt. Agencies								2652	2928	2365	2140	1908	2821	1408	1683	2161
<i>Percent of Fixed Maturities</i>								4.3%	3.9%	3.1%	2.7%	2.4%	4.3%	2.0%	2.2%	2.6%
<i>Percent of Investments</i>								4.0%	3.1%	2.2%	1.8%	1.5%	2.3%	1.1%	1.3%	1.6%
Municipal								10770	11337	12218	12406	13489	10655	12065	12124	13260
<i>Percent of Fixed Maturities</i>								17.6%	15.1%	16.0%	15.7%	16.8%	16.4%	17.0%	15.6%	16.2%
<i>Percent of Investments</i>								16.4%	12.0%	11.4%	10.4%	10.3%	8.9%	9.6%	9.3%	9.8%
RMBS													5108	4847	5683	5757
<i>Percent of Fixed Maturities</i>													7.8%	6.8%	7.3%	7.0%
<i>Percent of Investments</i>													4.3%	3.9%	4.3%	4.3%
MBS								2437	2799	3861	2702	2763				
<i>Percent of Fixed Maturities</i>								4.0%	3.7%	5.1%	3.4%	3.5%	0.0%	0.0%	0.0%	0.0%
<i>Percent of Investments</i>								3.7%	3.0%	3.6%	2.3%	2.1%	0.0%	0.0%	0.0%	0.0%
US Treasuries													5956	3631	5029	4029
<i>Percent of Fixed Maturities</i>													9.1%	5.1%	6.5%	4.9%
<i>Percent of Investments</i>													5.0%	2.9%	3.8%	3.0%
Short Term Investments								3366	3400	2063						
<i>Percent of Fixed Maturities</i>								5.5%	4.5%	2.7%						
<i>Percent of Investments</i>								5.1%	3.6%	1.9%						
Total Fixed Securities								61263	75100	76440	79074	80055	65112	71153	77820	81809

Figure 18: MetLife Segment Information

MetLife Segment Information	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Insurance Products / Institutional (2008)														
Total Operating Revenues	10094	10411	11809	12495	13406	14487	15984	18774	20586	22096	24160	25842	26276	26149
<i>Percent of Total Revenues</i>	37.2%	40.9%	38.1%	40.0%	40.4%	41.2%	41.2%	41.9%	48.0%	46.9%	47.4%	63.6%	50.3%	37.2%
<i>Percent of Total Assets</i>	4.7%	4.6%	4.6%	4.9%	4.8%	4.4%	4.5%	3.9%	3.9%	4.0%	4.8%	4.8%	3.6%	3.3%
Retirement Products / Individual (2008)														
Total Operating Revenues	11094	11081	12652	12506	12564	12376	12462	13990	15020	15547	14961	5734	6514	7106
<i>Percent of Total Revenues</i>	40.9%	43.6%	40.8%	40.0%	37.9%	35.2%	32.1%	31.2%	35.0%	33.0%	29.3%	14.1%	12.5%	10.1%
<i>Percent of Total Assets</i>	5.2%	4.9%	5.0%	4.9%	4.5%	3.8%	3.5%	2.9%	2.8%	2.8%	3.0%	1.1%	0.9%	0.9%
Corporate Benefit Funding														
Total Operating Revenues												7205	7364	8079
<i>Percent of Total Revenues</i>												17.7%	14.1%	11.5%
<i>Percent of Total Assets</i>												1.3%	1.0%	1.0%
Auto and Home														
Total Operating Revenues	1520	1875	2870	2977	3031	3099	3154	3125	3123	3205	3195	3115	3154	3238
<i>Percent of Total Revenues</i>	5.6%	7.4%	9.3%	9.5%	9.1%	8.8%	8.1%	7.0%	7.3%	6.8%	6.3%	7.7%	6.0%	4.6%
<i>Percent of Total Assets</i>	0.7%	0.8%	1.1%	1.2%	1.1%	0.9%	0.9%	0.6%	0.6%	0.6%	0.6%	0.6%	0.4%	0.4%

Figure 19: MetLife Investment Information

MetLife Investment Information	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net Investment Income														
Fixed Maturity Securities	6563	6766	8538	8574	8367	8817	9397	11414	14049	15150	13577	11545	12407	15037
<i>Percent of Total Investment Income</i>	64.2%	68.9%	77.4%	76.2%	73.9%	76.9%	76.0%	76.6%	86.5%	83.9%	83.3%	78.3%	70.9%	76.7%
<i>Percent of Security</i>	6.5%	7.0%	7.6%	7.4%	6.0%	5.3%	5.3%	5.0%	5.8%	6.3%	7.2%	5.1%	3.8%	4.3%
Equity Securities	78	40	41	49	43	31	80	65	122	279	258	178	128	141
<i>Percent of Total Investment Income</i>	0.8%	0.4%	0.4%	0.4%	0.4%	0.3%	0.6%	0.4%	0.8%	1.5%	1.6%	1.2%	0.7%	0.7%
<i>Percent of Security</i>	3.3%	2.0%	1.9%	1.6%	2.7%	1.9%	3.7%	1.9%	2.4%	4.6%	8.1%	5.8%	3.6%	4.7%
Mortgage Loans	1572	1479	1693	1848	1883	1903	1963	2302	2534	2863	2855	2741	2824	3164
<i>Percent of Total Investment Income</i>	15.4%	15.1%	15.4%	16.4%	16.6%	16.6%	15.9%	15.4%	15.6%	15.9%	17.5%	18.6%	16.1%	16.1%
<i>Percent of Security</i>	9.3%	7.5%	7.7%	7.8%	7.5%	7.2%	6.1%	6.2%	6.0%	6.1%	5.6%	5.4%	4.5%	4.4%
Investments														
Fixed maturities available-for-sale, at fair value	100767	96981	112979	115398	140288	167725	176377	230050	241928	242242	188251	227642	324797	350271
<i>Percent of Total Investments</i>	74.2%	71.4%	72.2%	71.1%	74.5%	76.9%	75.1%	76.2%	74.9%	72.4%	63.1%	69.5%	70.6%	68.5%
<i>Growth Since 1998</i>		-3.8%	12.1%	14.5%	39.2%	66.4%	75.0%	128.3%	140.1%	140.4%	86.8%	125.9%	222.3%	247.6%
Trading Securities, at fair value								825	759	779	946	2384	18589	18268
<i>Percent of Total Investments</i>								0.3%	0.2%	0.2%	0.3%	0.7%	4.0%	3.6%
Equity securities, at fair value	2340	2006	2193	3063	1613	1598	2188	3338	5094	6050	3197	3084	3602	3023
<i>Percent of Total Investments</i>	1.7%	1.5%	1.4%	1.9%	0.9%	0.7%	0.9%	1.1%	1.6%	1.8%	1.1%	0.9%	0.8%	0.6%
Mortgage Loans held for investment												49352	48181	58976
<i>Percent of Total Investments</i>												16.5%	14.7%	12.8%
Mortgage loans held for sale												2012	2728	3321
<i>Percent of Total Investments</i>												0.7%	0.8%	0.7%
Mortgage loans on real estate	16827	19739	21951	23621	25086	26249	32406	37190	42239	47030				
<i>Percent of Total Investments</i>	12.4%	14.5%	14.0%	14.6%	13.3%	12.0%	13.8%	12.3%	13.1%	14.0%				
<i>Growth Since 1998</i>		17.3%	30.5%	40.4%	49.1%	56.0%	92.6%	121.0%	151.0%	179.5%				
Real estate and real estate joint ventures	6287	5649	5504	5730	3926	4714	3076	4665	4802	6597	7535	6852	8030	8563
<i>Percent of Total Investments</i>	4.6%	4.2%	3.5%	3.5%	2.1%	2.2%	1.3%	1.5%	1.5%	2.0%	2.5%	2.1%	1.7%	1.7%
Other invested assets	1484	1501	2821	3298	3727	4645	5295	8078	10428	12642	17248	12709	15430	23628
<i>Percent of Total Investments</i>	1.1%	1.1%	1.8%	2.0%	2.0%	2.1%	2.3%	2.7%	3.2%	3.8%	5.8%	3.9%	3.4%	4.6%
Fixed Income Securities, AFS														
US Corporate	48588	46177	47442		49257	60391	61720	74318	75074	77426	63303	72187	91772	105785
<i>Total Fixed Maturity</i>	48.2%	47.6%	42.1%		35.2%	36.1%	35.1%	32.3%	31.0%	32.0%	33.6%	31.7%	28.3%	30.2%
<i>Total Investments</i>	35.8%	34.0%	30.3%		26.2%	27.7%	26.3%	24.6%	23.2%	23.1%	21.2%	22.0%	19.9%	20.7%
Foreign Corporate Securities					19229	23842	27469	34981	34338	38305	29679	38030	67888	64081
<i>Total Fixed Maturity</i>					13.8%	14.3%	15.6%	15.2%	14.2%	15.8%	15.8%	16.7%	20.9%	18.3%
<i>Total Investments</i>					10.2%	10.9%	11.7%	11.6%	10.6%	11.4%	9.9%	11.6%	14.7%	12.5%
Foreign Government Securities	3601	4206	5341	4890	7596	8764	8568	11446	13207	15271	10153	11947	42002	52536
<i>Total Fixed Maturity</i>	3.6%	4.3%	4.7%	4.3%	5.4%	5.2%	4.9%	5.0%	5.5%	6.3%	5.4%	5.2%	12.9%	15.0%
<i>Total Investments</i>	2.7%	3.1%	3.4%	3.0%	4.0%	4.0%	3.6%	3.8%	4.1%	4.6%	3.4%	3.6%	9.1%	10.3%
RMBS					28026	31454	32230	47246	51666	56489	36028	44020	45852	42637
<i>Total Fixed Maturity</i>					20.0%	18.8%	18.3%	20.6%	21.4%	23.3%	19.1%	19.3%	14.1%	12.2%
<i>Total Investments</i>					14.9%	14.4%	13.7%	15.7%	16.0%	16.9%	12.1%	13.4%	10.0%	8.3%
US Treasury and Agency Securities	7747	6299	9634	9213	15934	15945	17826	26958	30633	21245	21310	25447	33304	40012
<i>Total Fixed Maturity</i>	7.7%	6.5%	8.6%	8.0%	11.4%	9.5%	10.1%	11.7%	12.7%	8.8%	11.3%	11.2%	10.3%	11.4%
<i>Total Investments</i>	5.7%	4.6%	6.2%	5.7%	8.5%	7.3%	7.6%	8.9%	9.5%	6.3%	7.1%	7.8%	7.2%	7.8%
CMBS					6857	11031	12501	17698	16522	17728	12644	15622	20675	19069
<i>Total Fixed Maturity</i>					4.9%	6.6%	7.1%	7.7%	6.8%	7.3%	6.7%	6.9%	6.4%	5.4%
<i>Total Investments</i>					3.6%	5.1%	5.3%	5.9%	5.1%	5.3%	4.2%	4.8%	4.5%	3.7%
State and political Subdivisions	623	1542	1639	1531	2742	3349	3899	4750	6300	4419	4557	7208	10129	13235
<i>Total Fixed Maturity</i>	0.6%	1.6%	1.5%	1.3%	2.0%	2.0%	2.2%	2.1%	2.6%	1.8%	2.4%	3.2%	3.1%	3.8%
<i>Total Investments</i>	0.5%	1.1%	1.0%	0.9%	1.5%	1.5%	1.7%	1.6%	1.9%	1.3%	1.5%	2.2%	2.2%	2.6%
ABS					9503	11863	10876	11573	13873	11041	10523	13162	13168	12979
<i>Total Fixed Maturity</i>					6.8%	7.1%	6.2%	5.0%	5.7%	4.6%	5.6%	5.8%	4.1%	3.7%
<i>Total Investments</i>					5.0%	5.4%	4.6%	3.8%	4.3%	3.3%	3.5%	4.0%	2.9%	2.5%
Corporate				47889										
<i>Total Fixed Maturity</i>				41.8%										
<i>Total Investments</i>				29.5%										

Figure 20: Prudential Segment Information

Prudential Business Segments				2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Individual Annuities / Individual Life (2005)															
Revenues				2741	2720	2704	3019	3681	4008	2101	2503	1999	2515	3195	3638
<i>Percent of Total Revenues</i>				10.4%	10.0%	10.1%	10.9%	13.1%	12.6%	6.5%	7.3%	6.8%	7.8%	8.4%	7.4%
Net Investment Income				845	3248	833	861	1011	1118	618	580	800	979	878	790
<i>Percent of Total Revenues</i>				3.2%	12.0%	3.1%	3.1%	3.6%	3.5%	1.9%	1.7%	2.7%	3.0%	2.3%	1.6%
P&C Insurance															
Revenues				1800	2051	2209									
<i>Percent of Total Revenues</i>				6.8%	7.6%	8.3%									
<i>Percent of Total Assets</i>				0.7%	0.7%	0.8%									
Net Investment Income				193	158	158									
<i>Percent of Total Revenues</i>				0.7%	0.6%	0.6%									
Retirement															
Revenues				2624	2394	2359	2281	3225	4025	4379	4708	4844	4659	5183	4871
<i>Percent of Total Revenues</i>				10.0%	8.8%	8.8%	8.2%	11.5%	12.7%	13.6%	13.7%	16.5%	14.4%	13.6%	9.9%
<i>Percent of Total Assets</i>				1.0%	0.8%	0.8%	0.7%	0.8%	1.0%	1.0%	1.0%	1.1%	1.0%	1.0%	0.8%
Net Investment Income				2307	2148	2074	2043	2612	3050	3425	3676	3564	3309	3238	3178
<i>Percent of Total Revenues</i>				8.8%	7.9%	7.8%	7.4%	9.3%	9.6%	10.6%	10.7%	12.2%	10.2%	8.5%	6.5%
Asset Management															
Revenues				1533	1462	1325	1360	1464	1696	1991	2319	1686	1257	1888	2311
<i>Percent of Total Revenues</i>				5.8%	5.4%	5.0%	4.9%	5.2%	5.3%	6.2%	6.7%	5.8%	3.9%	4.9%	4.7%
<i>Percent of Total Assets</i>				0.6%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.4%	0.3%	0.3%	0.4%
Net Investment Income				58	87	60	61	87	105	170	216	85	90	121	119
<i>Percent of Total Revenues</i>				0.2%	0.3%	0.2%	0.2%	0.3%	0.3%	0.5%	0.6%	0.3%	0.3%	0.3%	0.2%
Individual Life															
Revenues										2217	2602	2754	2768	2815	2900
<i>Percent of Total Revenues</i>										6.9%	7.6%	9.4%	8.5%	7.4%	5.9%
<i>Percent of Total Assets</i>										0.5%	0.5%	0.6%	0.6%	0.5%	0.5%
Net Investment Income										548	656	749	809	903	978
<i>Percent of Total Revenues</i>										1.7%	1.9%	2.6%	2.5%	2.4%	2.0%
Financial Advisory															
Revenues				3400	2751	2455	1306	318	453						
<i>Percent of Total Revenues</i>				12.9%	10.2%	9.2%	4.7%	1.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Percent of Total Assets</i>				1.2%	0.9%	0.8%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Investment Income				310	256	175	53	2	10						
<i>Percent of Total Revenues</i>				1.2%	0.9%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Group Insurance															
Revenues				2801	3248	3582	3717	3892	4200	4555	4799	4960	5285	5458	6068
<i>Percent of Total Revenues</i>				10.6%	12.0%	13.4%	13.4%	13.8%	13.2%	14.1%	14.0%	16.9%	16.3%	14.3%	12.4%
<i>Percent of Total Assets</i>				1.0%	1.1%	1.2%	1.2%	1.0%	1.0%	1.0%	1.0%	1.1%	1.1%	1.0%	1.0%
Net Investment Income				485	547	578	585	561	593	621	671	647	623	668	686
<i>Percent of Total Revenues</i>				1.8%	2.0%	2.2%	2.1%	2.0%	1.9%	1.9%	2.0%	2.2%	1.9%	1.7%	1.4%
International															
Revenues				2275	4449	5400	5821	6789	8081	8325	9027	9185	10592	12220	19788
<i>Percent of Total Revenues</i>				8.6%	16.4%	20.2%	21.0%	24.1%	25.5%	25.8%	26.2%	31.4%	32.7%	32.0%	40.3%
<i>Percent of Total Assets</i>				0.8%	1.5%	1.8%	1.8%	1.7%	1.9%	1.8%	1.9%	2.1%	2.2%	2.3%	3.2%
Net Investment Income				161	483	719	778	933	1324	1425	1644	1957	2172	2469	3377
<i>Percent of Total Revenues</i>				0.6%	1.8%	2.7%	2.8%	3.3%	4.2%	4.4%	4.8%	6.7%	6.7%	6.5%	6.9%
Corporate Operations															
Revenues				539	444	402	166	185	233	326	239	119	-253	-229	-179
<i>Percent of Total Revenues</i>				2.0%	1.6%	1.5%	0.6%	0.7%	0.7%	1.0%	0.7%	0.4%	-0.8%	-0.6%	-0.4%

Figure 21: Prudential Selected Investments

Prudential Selected Investments	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Fixed maturities:												
Available for sale, at fair value	83827	109942	125463	128943	151078	155153	162816	162162	158056	175225	194983	254648
<i>Percent of Investments</i>	56.4%	66.3%	68.5%	71.2%	69.4%	70.1%	69.2%	66.7%	65.3%	67.3%	68.7%	71.5%
<i>Growth Year Over Year</i>		31.2%	14.1%	2.8%	17.2%	2.7%	4.9%	-0.4%	-2.5%	10.9%	11.3%	30.6%
Held to maturity, at amortized cost	12448	374	2612	3068	2747	3362	3469	3548	3808	5120	5226	5107
<i>Percent of Investments</i>	8.4%	0.2%	1.4%	1.7%	1.3%	1.5%	1.5%	1.5%	1.6%	2.0%	1.8%	1.4%
<i>Growth Year Over Year</i>		-97.0%	598.4%	17.5%	-10.5%	22.4%	3.2%	2.3%	7.3%	34.5%	2.1%	-2.3%
Trading account assets, at fair value	7217	5043	3449	3302	12964	13781	14262	14473	13875	16020	17771	19481
<i>Percent of Investments</i>	4.9%	3.0%	1.9%	1.8%	6.0%	6.2%	6.1%	6.1%	5.7%	6.1%	6.3%	5.5%
<i>Growth Year Over Year</i>		-30.1%	-31.6%	-4.3%	292.6%	6.3%	3.5%	1.5%	-4.1%	15.5%	10.9%	9.6%
Fixed maturities, available-for-sale												
US Treasury and Agencies	7424	8060	8986	7432	6759	7022	6956	6498	7578	8268	11298	15104
<i>Percent of Fixed Maturities</i>	8.9%	7.3%	7.2%	5.8%	4.5%	4.5%	4.3%	4.0%	4.8%	4.7%	5.8%	5.9%
<i>Percent of Total Investments</i>	5.0%	4.9%	4.9%	4.1%	3.1%	3.2%	3.0%	2.7%	3.1%	3.2%	4.0%	4.2%
States and Political Subdivisions	3173	1987	2174	1985	2484	2194	863	920	911	1375	2231	3055
<i>Percent of Fixed Maturities</i>	3.8%	1.8%	1.7%	1.5%	1.6%	1.4%	0.5%	0.6%	0.6%	0.8%	1.1%	1.2%
<i>Percent of Total Investments</i>	2.1%	1.2%	1.2%	1.1%	1.1%	1.0%	0.4%	0.4%	0.4%	0.5%	0.8%	0.9%
Foreign Government Bonds	4647	17590	22472	25148	27479	26175	25965	28066	34739	41209	50239	76987
<i>Percent of Fixed Maturities</i>	5.5%	16.0%	17.9%	19.5%	18.2%	16.9%	15.9%	17.3%	22.0%	23.5%	25.8%	30.2%
<i>Percent of Total Investments</i>	3.1%	10.6%	12.3%	13.9%	12.6%	11.8%	11.0%	11.5%	14.4%	15.8%	17.7%	21.6%
Corporate	61897	76925	83965	90524	104195	108663	83132	82816	79054	91546	98217	126873
<i>Percent of Fixed Maturities</i>	73.8%	70.0%	66.9%	70.2%	69.0%	70.0%	51.1%	51.1%	50.0%	52.2%	50.4%	49.8%
<i>Percent of Total Investments</i>	41.7%	46.4%	45.8%	50.0%	47.8%	49.1%	35.3%	34.1%	32.7%	35.1%	34.6%	35.6%
ABS							25186	20459	11992	10238	10991	10693
<i>Percent of Fixed Maturities</i>							15.5%	12.6%	7.6%	5.8%	5.6%	4.2%
<i>Percent of Total Investments</i>							10.7%	8.4%	5.0%	3.9%	3.9%	3.0%
CMBS							9831	10949	10052	11018	12037	12080
<i>Percent of Fixed Maturities</i>							6.0%	6.8%	6.4%	6.3%	6.2%	4.7%
<i>Percent of Total Investments</i>							4.2%	4.5%	4.2%	4.2%	4.2%	3.4%
RMBS / MBS	6686	5380	7866	3854	10161	11099	10883	12454	13730	11571	9970	9856
<i>Percent of Fixed Maturities</i>	8.0%	4.9%	6.3%	3.0%	6.7%	7.2%	6.7%	7.7%	8.7%	6.6%	5.1%	3.9%
<i>Percent of Total Investments</i>	4.5%	3.2%	4.3%	2.1%	4.7%	5.0%	4.6%	5.1%	5.7%	4.4%	3.5%	2.8%
Total	83827	109942	125463	128943	151078	155153	162816	162162	158056	175225	194983	254648
Net Investment Income												
Fixed Maturities, AFS	5938	6826	6344	6308	6647	7557	8325	8797	8462	8182	8346	9374
<i>Percent of Investment Income</i>	49.4%	64.8%	66.7%	68.4%	66.2%	65.4%	65.6%	65.0%	66.3%	69.0%	68.1%	69.3%
<i>Percent Fixed Maturities AFS</i>	7.1%	6.2%	5.1%	4.9%	4.4%	4.9%	5.1%	5.4%	5.4%	4.7%	4.3%	3.7%
Fixed maturities, HTM	1028	12	80	117	110	93	95	90	87	135	150	140
<i>Percent of Investment Income</i>	8.5%	0.1%	0.8%	1.3%	1.1%	0.8%	0.7%	0.7%	0.7%	1.1%	1.2%	1.0%
<i>Percent Fixed Maturities HTM</i>	8.3%	3.2%	3.1%	3.8%	4.0%	2.8%	2.7%	2.5%	2.3%	2.6%	2.9%	2.7%
Equity Securities	67	45	73	54	88	106	263	292	325	302	285	315
<i>Percent of Investment Income</i>	0.6%	0.4%	0.8%	0.6%	0.9%	0.9%	2.1%	2.2%	2.5%	2.5%	2.3%	2.3%
<i>Percent Equity Securities</i>	2.9%	2.0%	2.6%	1.6%	2.0%	2.1%	3.2%	3.4%	5.4%	4.4%	3.7%	4.2%
Trading Account Assets	734	294	135	66	402	662	708	758	833	821	822	889
<i>Percent of Investment Income</i>	6.1%	2.8%	1.4%	0.7%	4.0%	5.7%	5.6%	5.6%	6.5%	6.9%	6.7%	6.6%
Commercial Mortgage and Other Loans	1370	1432	1416	1368	1507	1580	1628	1745	1950	1929	1887	1926
<i>Percent of Investment Income</i>	11.4%	13.6%	14.9%	14.8%	15.0%	13.7%	12.8%	12.9%	15.3%	16.3%	15.4%	14.2%
Securities Purchased Under Agreements to Resell	28	11										
<i>Percent of Investment Income</i>	0.2%	0.1%										
Policy Loans	478	522	529	497	463	471	491	521	544	570	577	598
<i>Percent of Investment Income</i>	4.0%	5.0%	5.6%	5.4%	4.6%	4.1%	3.9%	3.9%	4.3%	4.8%	4.7%	4.4%
Broker Dealer Related Receivables	1222	513	259	95	52	75	174	199	147	-3	0	0
<i>Percent of Investment Income</i>	10.2%	4.9%	2.7%	1.0%	0.5%	0.6%	1.4%	1.5%	1.2%	0.0%	0.0%	0.0%
Short Term Investments and Cash	683	465	312	182	179	345	589	684	527	121	45	58
<i>Percent of Investment Income</i>	5.7%	4.4%	3.3%	2.0%	1.8%	3.0%	4.6%	5.1%	4.1%	1.0%	0.4%	0.4%