Investment Strategies Amongst Property and Casualty Insurance Companies

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Investment Strategies Amongst Property and Casualty Insurance Companies

Ryan Conforti
Abstract

The purpose of this work is to take an in-depth look into the investment side of property and casualty insurance. Many P&C companies have thrived over the past century, and much of this success can be attributed to investment income. This thesis will examine how investment philosophy changes from firm to firm, while also looking at how strategies have changed over time. It will also look into the insurance “float,” and examine how investors such as Warren Buffett have utilized this instrument to their favor. Investing is a huge aspect of property and casualty insurance, and this piece will give the reader a better idea of how a firm’s investment income comes about.
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Introduction

On the surface, the property and casualty insurance industry doesn’t look like an extremely profitable field to be in. This especially seems to be the case when one looks at the combined ratio’s of many of these companies, which is calculated as the incurred losses plus expenses divided by the earned premium.

\[
\text{Combined Ratio} = \frac{\text{Incurred Losses} + \text{Expenses}}{\text{Earned Premium}}
\]

(Figure 1)

Obviously, companies want to keep this ratio below 100%, as that would indicate that the company is generating an underwriting profit. Insurance companies have a difficult time doing this, although the industry average combined ratio in 2013 was 97.6% (Insurance Journal). The year of 2013 was somewhat of an outlier, as the combined ratio usually comes in at a number a bit higher than this. And in a year in which there is a multitude of unfortunate events, this number can easily jump well above 100%, meaning that the company is not making an underwriting profit for the year.

To the untrained eye, this doesn't look like the best business to be in. Profits are slim and can be volatile based upon natural disasters and other events. But if this is the case, then how has Warren Buffett made billions off of property and casualty insurance? And how have companies such as Liberty Mutual and Travelers thrived for over 100 years? The answer to these questions is investing.
By properly utilizing the float, many property and casualty companies have been able to properly invest the premiums that they earn. Warren Buffett in some sense is the pioneer of this strategy, as much of Berkshire Hathaway’s success stems back to Buffett’s near-flawless management of the float.

At this point in time, it is assumed that all property and casualty insurers invest their premiums. Not doing so would be foolish, as investment income is an integral part of the business. With that being said, the way in which these companies invest their premiums fluctuates greatly. From equities to fixed income to commercial mortgages, nearly every possible source of investment income is utilized by at least one of the many property and casualty firms.

There is not one universally “right” strategy when it comes to property and casualty investing, but obviously there are some strategies that have outperformed others overtime. This thesis will take an in depth look into these various strategies, and show just how different the investment philosophies of these companies are.

**Background**

The origins of the modern property and casualty insurance industry stem back to Great Britain in 1666. Following the Great London Fire, it was realized that some sort of fire insurance was necessary. Nearly 100 years later, Benjamin Franklin was inspired by these British practices, and became the first U.S. based fire insurer. The industry continued to expand, and by the early 1900’s the “lines” of
insurance that we have today were created (American Insurance Association, Property-Casualty Insurance Basics).

Property and casualty insurance covers an extremely wide range of areas including “personal and commercial auto insurance, commercial property and liability coverage for businesses, workers’ compensation, homeowners’ insurance, medical malpractice coverage, and product liability insurance” (American Insurance Association, Property-Casualty Insurance Basics). Each of these categories are considered to be “risks” that businesses and individuals face day in and day out. By getting insurance, people and businesses can help to potentially ease the loss that comes about if any of these aforementioned risks occur.

The creation and cycle of a policy is illustrated in the following diagram:

![Life Cycle of a Policy Diagram](Figure 2) (Figure Courtesy of American Insurance Association)

During this cycle, a premium is calculated, which is essentially the amount that the policyholder must pay in order to have any potential losses covered by the insurer. These premiums are then pooled together, and used to pay out any future claims that might occur. The goal of a property and casualty firm should be to have the amount of premiums that come into the company be greater than the amount of claims that they pay out in any given period.

But what happens to a premium once it gets paid to an insurer? Does the firm simply put the money in storage and wait for that particular customer to make a claim on their policy? The short answer to this question is no. Property and
casualty insurers realize that there is an opportunity to increase profitability by investing premiums that they receive from policyholders. Properly investing can do wonders for a property and casualty firm, and is often the deciding factor between loss and profitability.

Although it isn’t always the first thing that people think of when analyzing the profitability of an insurance company, investment income is a huge aspect of the industry. The following graph shows just how large of an industry insurance investing in its entirety is.

(Figure 3) (Figure Courtesy of Swiss Re)

As the above graph shows, the global insurance industry as of 2009 had assets that totaled $22.6 trillion. This number, which includes all lines of insurance, is on par with that of mutual and pension funds. Remarkably, this $22.6 trillion represents approximately “12% of global financial assets” (Swiss Re, Insurance Investment in a Challenging Global Environment). This thesis focuses mainly on property and casualty insurers based in the United States, but it is important to note how large the industry as a whole is. With that being said, the U.S. property and casualty insurance industry is quite extensive by itself. As a matter of fact, “Property-casualty insurers doing business in the United States have more than $1.4
trillion invested in the economy through stock, corporate and government bonds, and real estate mortgages” (American Insurance Association, Property-Casualty Insurance Basics). Many insurers also invest in other areas such as real assets and policy loans, but stocks, bonds, and mortgages are typically the most popular investments.

Amongst these three “popular” investments, bonds are by far the most prominent in the property and casualty insurance industry. In fact, “approximately two-thirds of the industry’s portfolio is held in the form of bonds.” And to further expand on this point, these bonds are primarily of the “high-grade corporate and government” variety (American Insurance Association, Property-Casualty Insurance Basics).

The graph below shows a breakdown of the types of bonds held by property and casualty insurers as of year-end 2012:

<table>
<thead>
<tr>
<th>Bond Type</th>
<th>Property/Casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Bonds</td>
<td>292,718,043,983</td>
</tr>
<tr>
<td>Municipal Bonds</td>
<td>346,058,658,428</td>
</tr>
<tr>
<td>US Government</td>
<td>84,822,919,545</td>
</tr>
<tr>
<td>Agency-backed RMBS</td>
<td>91,832,466,566</td>
</tr>
<tr>
<td>Agency-backed CMBS</td>
<td>6,624,056,967</td>
</tr>
<tr>
<td>Private-label RMBS</td>
<td>17,704,668,057</td>
</tr>
<tr>
<td>Private-label CMBS</td>
<td>26,811,325,248</td>
</tr>
<tr>
<td>Foreign Government</td>
<td>27,350,723,281</td>
</tr>
<tr>
<td>Hybrid Securities ABS and Other</td>
<td>2,077,010,052</td>
</tr>
<tr>
<td>Structured Securities</td>
<td>38,580,273,914</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>934,580,146,041</strong></td>
</tr>
</tbody>
</table>

(Figure 4) (Data Courtesy of NAIC)
As you can see, the majority of these holdings are government issued (municipal and US Government bonds). Aside from this, the majority of the remaining fixed income assets are in corporate bonds.

The majority of property and casualty insurers implement a bond-heavy strategy for a pretty simple reason: to reduce risk. Government bonds are considered to be “risk-free,” while payouts from high-grade corporate bonds are virtually a sure thing. As of right now, there are three companies with a bond rating of AAA: Exxon Mobil, Johnson & Johnson, and Microsoft (Morningstar, Corporate Credit Ratings). These firms have excellent track records, and insurers can feel confident in purchasing bonds issued by these companies.

The fact that the majority of property and casualty insurers seek to reduce risk in their investments should come as a surprise to no one. This is because the main goal of a property and casualty insurer should be to have an underwriting profit. As explained earlier in this thesis, this occurs when a company’s combined ratio is under 100%. If this occurs, then the company as a whole will be profitable for that given period, even without investing a single dollar. For this reason, many insurers seek to make sure that investment income is a sure thing. They refrain from investing in low-grade bonds and stocks, simply because it is not worth it to risk profitability. Many property and casualty insurers seek to have a combined ratio in the high-90’s, while investing premiums in low-risk bonds that come along with small, but almost guaranteed, rates. This is one of the more popular strategies, but as we will see later on, there are many ways to go about property and casualty investing.
The Float

Before getting into the company-by-company breakdown of investment philosophies, it is important to highlight the insurance float, and how it can affect the investment strategy of a firm. The easiest way to describe the float is basically to say that it is “the time period between when premiums are collected and claims paid out” (wikinvest, Float). Insurers seek to increase the amount of money in the float by investing the money that is already in it. They also increase the float by continuously adding premium payments to it.

If managed correctly, the float can be a gold mine for property and casualty insurance companies. Proof of this can be seen by looking at the history of the world’s greatest investor: Warren Buffett. Buffett is a huge supporter of the float, and has made billions of dollars through his genius manipulation of it at Berkshire Hathaway. The graph on the following page shows how great Buffett’s management of the float has been over the years:
According to Berkshire Hathaway’s 10-Q from September 30, 2014, the company’s float is currently valued at approximately $83 billion (Berkshire Hathaway). It’s almost hard to imagine, but just 15 years ago Berkshire Hathaway’s float was valued at just $24.5 billion (Berkshire Hathaway). In a mere 15 years, Buffett was able to increase his float by $58.5 billion.

With all that being said, the most beautiful thing about the float is that it is in a sense free money. As stated earlier, the float is comprised of premiums from policyholders. Because of this, a property and casualty insurance company can essentially grow this float at no cost to the firm. Buffett constantly highlights this point, and referred to the float as “money that doesn't belong to us but that we can invest for Berkshire’s benefit” in a recent shareholder letter (Berkshire Hathaway). The float is the main source of property and casualty investing, and has allowed for many companies in this industry to thrive over the years.
Although the float is always a good thing for a company, the profitability and flexibility of the float varies from firm to firm. This is due to the fact that the “length” of the float is dependent on the types of insurance that a particular property and casualty firm writes. Generally speaking, these types of insurance can be broken down into two categories: long tail and short tail. Similar to our general definition of the float, long tail and short tail refers to “the length of time between receiving a premium and paying out claims” (The Motley Fool, Insurance Industry Basics: The Float). Short tail simply refers to lines of insurance that get paid out quickly, while long tail refers to the lines of insurance that take longer to pay out.

Since they have a longer period of time between receipt of the premium and payment of any claims, long tail insurance allows for a property and casualty company to have a more diversified investment strategy. These companies aren’t as constrained by time, so they have the ability to branch out and make investments that primarily short tail insurers cannot afford to make. The graph on the following page shows the percentage of total losses paid over time for various types of accidents:
As you can see, an accident such as workers’ comp takes a much longer time to pay out than something such as a car accident. This is because workers’ comp accidents are more likely to involve an injury in which payment needs to occur periodically throughout the remainder of the insured’s life. Conversely, an auto accident usually calls for injuries and/or damages that aren’t as long lasting. The “other liability” portion has the longest tail. Other liability can include environmental liabilities such as asbestos, which will certainly take a long time to pay off.

Because of the longer tailed nature of certain property and casualty insurer’s products, property and casualty insurers typically have more flexibility when it comes to the investment side of the company. This is particularly true for insurers
who specialize in the “commercial” lines, as this side includes longer tailed lines such as workers’ comp and other liability. “Personal” lines usually call for more immediate payment, and cover items such as auto and homeowners insurance. The majority of larger property and casualty insurers cover both commercial and personal lines, but are willing to take on a higher combined ratio through commercial lines because of the investment flexibility that commercial insurance brings to the table.

An example of this can be seen by looking at Liberty Mutual’s 2013 combined ratio. Overall, the company had a combined ratio of 99.8% for the year, giving them a small underwriting profit. However, when broken down by personal and commercial lines, there is a much larger discrepancy. Personal insurance had a combined ratio of 93.9%, while commercial insurance had a combined ratio of 104.1% (Liberty Mutual). One of the main aspects as to why Liberty Mutual is willing to take on such a high combined ratio in their commercial insurance segment is the aforementioned investment flexibility that comes along with this line.
Company-by-Company Breakdown

Liberty Mutual

Liberty Mutual, one of the nations largest property and casualty insurers, is a good example of the type of company that takes a relatively low-risk approach to investing. Below is a chart illustrating their investment philosophy as of December 31, 2013:

Investment Portfolio
Distribution of cash and invested assets as of December 31, 2013

(Figure 7) (Data Courtesy of Liberty Mutual)

As one can see, the vast majority of their premiums are invested in bonds, cash, and short-term investments. Liberty Mutual also goes on to state that these investments are “heavily concentrated in fixed-income, investment-grade securities” (Liberty Mutual). Typically, investment-grade bonds have a rating of “BBB” or
above. These bonds won’t generate extremely high returns, but they are much less likely to default than junk bonds (rating of “BB” or below).

Many other property and casualty insurance companies employ a very similar investment strategy to that of Liberty Mutual. They take a low-risk approach to investing, focusing their investment philosophy on high-grade bonds. For many companies such as Liberty Mutual, this strategy has been very beneficial. The combination of profitable underwriting and low-risk investments has allowed for many property and casualty insurers to strive over the decades.

With that being said, not all property and casualty insurers choose to invest in this manner. There are a few outliers, which I will illustrate next.

**Markel**

Unlike Liberty Mutual, Markel is an insurer that deals heavily in equities. As of their 2013 Annual Report, Markel has $14.8 billion invested. Of this amount, $3.25 billion is in equities. The rest is in bonds and short-term investments. With that being said, the amount of money allocated to bonds and short-term investments is inflated, due to Markel’s purchase of Alterra. This purchase added $7.9 billion to the investment portfolio, most of which was in investment grade bonds. If it weren’t for this purchase, close to 30% of Markel’s investments would be in equities, which is unusually high for a property and casualty insurer.

On these equity investments, Markel has generated terrific returns. In 2013, the company had a 33.3% return on their equity investments. Even more
impressive is the fact that they have earned a 12.4% return per year over the past ten years, a period which obviously includes the 2008 financial crisis (Markel).

Although having an equity-heavy portfolio adds to the amount of risk and volatility, Markel typically invests in equities that are large and well established. The following graph shows a breakdown of their equity portfolio by Market Cap:

As one can see, Markel is mainly invested in large cap stocks, which typically have less risk and volatility associated with them than small cap stocks. Amongst Markel’s largest holdings are Berkshire Hathaway B, Walt Disney Co, and General Electric Co. These are just a few of the many large cap equities in Markel's portfolio. Obviously, companies such as these still go through tough times, but they have proven over the years that they have staying power.

In addition to generating above-average investment returns, Markel has also exhibited extremely profitable underwriting, as seen by their combined ratio over the past five years.
The following graph compares our combined ratio to the property and casualty industry's combined ratio for the past five years.

**Combined Ratios**

![Bar chart showing combined ratios for Markel Corporation and Industry Average from 2009 to 2013.]

*Source: A.M. Best Company. Industry Average is estimated for 2013.*

Markel has consistently stayed under the industry average, which is very impressive. By combining profitable underwriting with great investment returns, Markel has been able to build an extremely reputable business. This is reflected in their stock price, which has grown over 100% over the past five years.

**Berkshire Hathaway**

At this point in time, Berkshire Hathaway is a massive conglomerate that owns a wide variety of companies such as Dairy Queen and Fruit of the Loom. With that being said, much of this ability to make large investments stems back to Warren Buffett’s near-flawless management of the insurance float.

Berkshire Hathaway’s insurance operations began in 1967 with their purchase of National Indemnity for $8.6 million (Berkshire Hathaway). As seen previously in figure 5, their insurance float has grown substantially since that time. Berkshire Hathaway now has an extensive insurance network, which is led by The Government Employees Insurance Company (GEICO). Berkshire Hathaway also
grows its float from companies such as BH Reinsurance and General Re. Each of these company's contributions can be seen in the figure below:

(Figure 10) (Data Courtesy of Berkshire Hathaway)

<table>
<thead>
<tr>
<th>Insurance Operations</th>
<th>Underwriting Profit (in millions)</th>
<th>Yearend Float (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH Reinsurance</td>
<td>606  1,294  42,454  37,231</td>
<td></td>
</tr>
<tr>
<td>General Re</td>
<td>277  283  19,280  20,013</td>
<td></td>
</tr>
<tr>
<td>GEICO</td>
<td>1,159  1,127  13,569  12,566</td>
<td></td>
</tr>
<tr>
<td>Other Primary</td>
<td>626  385  8,618  7,430</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$2,668  $3,089  $83,921  $77,240</td>
<td></td>
</tr>
</tbody>
</table>

As you can see, each of Berkshire Hathaway's insurance operations returned an underwriting profit in 2014 and 2013. In fact, the insurance operations as a whole have turned an underwriting profit for 12 straight years. This is critical because any underwriting profit that Berkshire Hathaway makes simply gets added to the float, which Buffett then uses to invest.

In addition to this, all of the lines except for General Re helped to increase the size of Berkshire Hathaway's float from 2013 to 2014. Another important thing to note is the fact that a good portion of Berkshire Hathaway's insurance profit comes from reinsurance. As figure 10 illustrates, BH Reinsurance and General Re are both major lines of business for Berkshire Hathaway. This is important because reinsurance "leaves the company with money for much longer periods of time" (Forbes, The Academic Paper that Explains Warren Buffett's Investment Success). This allows for Berkshire Hathaway to be more flexible with their investments, while also having the ability to control this money for a longer period of time.
As mentioned earlier, Berkshire Hathaway's float has grown at an unbelievable rate, which can be seen through a numerical depiction in the figure below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Float (in $ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>$ 39</td>
</tr>
<tr>
<td>1980</td>
<td>237</td>
</tr>
<tr>
<td>1990</td>
<td>1,632</td>
</tr>
<tr>
<td>2000</td>
<td>27,871</td>
</tr>
<tr>
<td>2010</td>
<td>65,832</td>
</tr>
<tr>
<td>2014</td>
<td>83,921</td>
</tr>
</tbody>
</table>

(Figure 11) (Data Courtesy of Berkshire Hathaway)

By combining this massive float with Warren Buffet's investment expertise, Berkshire Hathaway has been able to successfully invest in equities. The below figure shows Berkshire Hathaway's 15 largest common stock holdings by market value:

<table>
<thead>
<tr>
<th>Shares**</th>
<th>Company</th>
<th>Percentage of Company Owned</th>
<th>12/31/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>151,610,700</td>
<td>American Express Company</td>
<td>14.8</td>
<td>$ 1,287</td>
</tr>
<tr>
<td>400,000,000</td>
<td>The Coca-Cola Company</td>
<td>9.2</td>
<td>1,299</td>
</tr>
<tr>
<td>18,513,482</td>
<td>DaVita HealthCare Partners Inc.</td>
<td>8.6</td>
<td>843</td>
</tr>
<tr>
<td>15,430,586</td>
<td>Deere &amp; Company</td>
<td>4.5</td>
<td>1,253</td>
</tr>
<tr>
<td>24,617,939</td>
<td>DIRECTV</td>
<td>4.9</td>
<td>1,454</td>
</tr>
<tr>
<td>13,062,594</td>
<td>The Goldman Sachs Group, Inc.</td>
<td>3.0</td>
<td>750</td>
</tr>
<tr>
<td>76,971,817</td>
<td>International Business Machines Corp.</td>
<td>7.8</td>
<td>13,157</td>
</tr>
<tr>
<td>24,669,778</td>
<td>Moody’s Corporation</td>
<td>12.1</td>
<td>248</td>
</tr>
<tr>
<td>20,060,390</td>
<td>Munich Re</td>
<td>11.8</td>
<td>2,990</td>
</tr>
<tr>
<td>52,477,678</td>
<td>The Procter &amp; Gamble Company</td>
<td>1.9</td>
<td>336</td>
</tr>
<tr>
<td>22,169,930</td>
<td>Sanofi</td>
<td>1.7</td>
<td>1,721</td>
</tr>
<tr>
<td>96,890,665</td>
<td>U.S. Bancorp</td>
<td>5.4</td>
<td>3,033</td>
</tr>
<tr>
<td>43,387,980</td>
<td>USG Corporation</td>
<td>30.0</td>
<td>836</td>
</tr>
<tr>
<td>67,707,544</td>
<td>Wal-Mart Stores, Inc.</td>
<td>2.1</td>
<td>3,798</td>
</tr>
<tr>
<td>483,470,853</td>
<td>Wells Fargo &amp; Company</td>
<td>9.4</td>
<td>11,871</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td>10,180</td>
</tr>
<tr>
<td>Total Common Stocks Carried at Market</td>
<td></td>
<td>$55,056</td>
<td>$ 117,470</td>
</tr>
</tbody>
</table>

(Figure 12) (Data Courtesy of Berkshire Hathaway)
Berkshire Hathaway has arguably been the most successful insurance investor, as the company’s equity investments have more than doubled in value. They also take an approach to investing that is somewhat similar to that of Markel, as the majority of Berkshire Hathaway’s equity investments are large cap stocks. For this and other reasons, some people even refer to Markel as “Baby Berkshire,” as both companies have been extremely profitable in investing their insurance premiums in stocks.

Unlike the majority of property and casualty insurers, Berkshire Hathaway is mainly invested in equities, as their fixed income portfolio is valued at only $27.64 billion (Insurance Asset Risk, Berkshire Hathaway’s Insurance Investment Income Drops). Obviously, Berkshire Hathaway isn’t your typical property and casualty insurer, as Buffett has turned Berkshire Hathaway into a conglomerate that owns many different companies. With that being said, insurance is still at the core of Berkshire Hathaway’s business, so it is important to note how different yet successful Berkshire’s investment strategy has been.

**Corporate Bond Investment Breakdown**

We have already seen examples of what a property and casualty insurer’s equity portfolio could possibly look like with Markel and Berkshire Hathaway, but what is a typical bond portfolio comprised of? As stated earlier, property and casualty insurers typically take a safer approach to investing, and mainly invest in investment grade corporate bonds. This is illustrated in the chart below, which
shows a breakdown of property and casualty corporate bond holdings by class as of year-end 2012:

<table>
<thead>
<tr>
<th>Class Designation</th>
<th>Property/Casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>83.70%</td>
</tr>
<tr>
<td>2</td>
<td>12.10%</td>
</tr>
<tr>
<td>1&amp;2 (Investment Grade)</td>
<td>95.80%</td>
</tr>
<tr>
<td>3</td>
<td>1.90%</td>
</tr>
<tr>
<td>4</td>
<td>1.10%</td>
</tr>
<tr>
<td>5</td>
<td>1.00%</td>
</tr>
<tr>
<td>6</td>
<td>0.20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Figure 13) (Data Courtesy of NAIC)

In this particular situation, any bond designated to class 1 or 2 is considered to be “Investment Grade,” which calls for a bond to be rated BBB or higher. As you can see, the vast majority of bonds that property and casualty insurers invest in are investment grade, accounting for close to 96% of the entire corporate bond portfolio. Classes 3, 4, 5, and 6 are considered to be “Junk Bonds,” but these only account for around 4% of the average property and casualty corporate bond portfolio. With that being said, the majority of non-investment grade corporate bonds are designated to class 3, which has a much lower chance of default than the other remaining classes.

Not all investors choose to utilize bond ratings, but nevertheless, it is important to note how historically reliable the corporate bond investments of property and casualty insurers have been. For the most part, they only invest in companies that have a track record of not defaulting, as seen by the breakdown of bond ratings.
Things get a bit more interesting when looking at the particular sectors that property and casualty investors choose to hold corporate bonds in. The chart below illustrates the breakdown of property and casualty corporate bond holdings by sector at year-end 2012:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Property/Casualty</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financials</td>
<td>92,116,027,499</td>
<td>31%</td>
</tr>
<tr>
<td>Finance</td>
<td>29,372,859,085</td>
<td>10%</td>
</tr>
<tr>
<td>Banking</td>
<td>46,866,249,480</td>
<td>16%</td>
</tr>
<tr>
<td>Insurance</td>
<td>15,876,918,934</td>
<td>5%</td>
</tr>
<tr>
<td>Communications</td>
<td>23,213,522,822</td>
<td>8%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>16,775,826,147</td>
<td>6%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>30,003,635,294</td>
<td>10%</td>
</tr>
<tr>
<td>Energy</td>
<td>26,023,983,324</td>
<td>9%</td>
</tr>
<tr>
<td>Health Care</td>
<td>22,043,367,413</td>
<td>8%</td>
</tr>
<tr>
<td>Industrials</td>
<td>21,494,975,956</td>
<td>7%</td>
</tr>
<tr>
<td>Materials</td>
<td>21,271,139,337</td>
<td>7%</td>
</tr>
<tr>
<td>Technology</td>
<td>12,915,087,452</td>
<td>4%</td>
</tr>
<tr>
<td>Utilities</td>
<td>24,331,140,086</td>
<td>8%</td>
</tr>
<tr>
<td>Government</td>
<td>2,039,560,151</td>
<td>1%</td>
</tr>
<tr>
<td>Unknown</td>
<td>489,778,502</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>292,718,043,983</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

(Figure 14) (Data Courtesy of NAIC)

As you can see above, Financials is far and away the most popular sector for property and casualty corporate bond holdings, as it accounts for 31% of total corporate bond investments. It is also interesting to look more in depth into this sector by breaking Financials down into three sub-sectors: Finance, Banking, and Insurance. Out of these three sub-sectors, banking is actually the most popular, accounting for approximately half of all investments in the Financials sector. The U.S. insurance segment as a whole has 23.7% of its corporate bond investments in
the Financials sector, so the 31% from strictly property and casualty companies is well above the insurance industry average (NAIC, Capital Markets Special Report). Areas of insurance that account for the remainder of the 23.7% include life, health, fraternal, and title.

By delving deeper into investments made by property and casualty insurers in the Financials sector, we can see the average length of many of these investments. The chart below shows the average length of Financials sector investments by life, property and casualty, health, fraternal, and title insurers:

![Figure 15](Chart Courtesy of NAIC)

This thesis focuses on investments made by property and casualty insurers, but it is interesting to see how the length of their investments stack up to those of other insurers. As the above chart illustrates, the majority of corporate bond
investments in the Financials sector by property and casualty companies range from anywhere from 1-5 years in length. The next most popular length is 5-10 years, with very little investments having a length of above 10 years.

There are a few particular financial companies that the insurance industry as a whole chooses to invest in. Wells Fargo is far and away the most popular equity stake, with the vast majority of that being held by Berkshire Hathaway. With that being said, there is much more parity when it comes to the debt side of things, as there are a number of financial institutions in which U.S. insurers have $10 billion or more in corporate bond holdings. This list includes Bank of America, GE Capital, and JP Morgan Chase. There are also many other financial institutions that are just under this $10 billion threshold such as Wells Fargo, Citigroup, and Goldman Sachs (NAIC, Capital Markets Special Report).

Aside from Financials, it seems as if property and casualty insurers have relatively well-diversified corporate bond portfolios. The only other aspect of their investment strategy that seems to be a bit out of the ordinary is the fact that the Technology sector only accounts for 4% of property and casualty corporate bond holdings. With that being said, the remainder of the major sectors is relatively well distributed, with each sector ranging anywhere from 6% - 10% of total corporate bond holdings.
How Investment Philosophy Has Changed

The general trend within the property and casualty insurance industry is that companies were “de-risking” from the years 2000 to 2008. This de-risking strategy included a general movement away from equities, and more towards bonds. This trend is illustrated in the graph below:

(Figure 16) (Chart Courtesy of Towers Watson)

This graph shows the change in the asset allocation of non-life insurers from 2000-2010. We can see that over this time period, particularly from 2000-2008, property and casualty insurers worldwide had been moving away from equities, and more towards bonds. This change away from equities is more than reasonable, especially when looking at how volatile the stock market has been since the start of the millennium.
The first extreme stock market fluctuation in this millennium was the dot-com bubble. On March 10, 2000, the tech-heavy NASDAQ Composite “peaked at 5046.86 points, double the value of where it was the year before” (The Bubble Bubble, Dot-Com Bubble). Following this high, the NASDAQ plummeted, reaching a low of 1114.11 points on October 9, 2002.

A similar stock market plummet occurred during the 2007-2008 Financial Crisis. According to USEconomy.com, “The Dow Jones Industrial Average hit its all-time high on October 9, 2007, closing at 14,164.43. Less than 18 months later, it had fallen more than 50% to 6,594.44 on March 5, 2009” (About, Stock Market Crash of 2008).

These two stock market crashes show that the equity market can be extremely volatile. Because of this, it is very reasonable that property and casualty insurers started a trend of moving away from equities. Many of these corporations simply cannot take the risk of investing in volatile securities, and it seems as if many property and casualty investors essentially lost confidence in the stock market from 2000-2008.

However, it seems as if property and casualty investors are slowing starting to regain confidence in the equity market following the financial crisis. Looking at the change in property and casualty investment allocation from 2005 through year end 2012 can shows us more proof of this confidence boost.
The following chart shows us the breakdown of property and casualty equity investments from four years: 2005, 2008, 2010, and 2012.

![P/C Insurer Equity Investments Chart](image)

From 2005 to 2008, the percentage of property and casualty insurer’s portfolios that were allocated to common stock decreased from 23.6% to 21.9%. This goes along with the previously highlighted “de-risking” strategy that was occurring during this time period. In addition to this, 2008 was the peak of the financial crisis, so it makes sense that property and casualty insurers had a low amount of their assets invested in the volatile equity market.

What’s interesting to me is what happened after the financial crisis. I personally expected to see a decrease in equity investments after 2008, as it was difficult for investors to be confident in the market at that time. In reality, property
and casualty companies actually *increased* their exposure to equities following the financial crisis. By 2010, equity investments had increased 1% from 2008 to 22.9%. As of year-end 2012, this number has increased even more, as it hit 25.7% according to the NAIC’s most recent data.

In addition to an increase in equity holdings, property and casualty insurers also chose to increase their corporate bond holdings following the financial crisis. The following graph illustrates this change:

(Figure 18) (Chart Courtesy of NAIC)

As you can see, there was relatively little change year over year in the amount of corporate bonds held by property and casualty insurers in the years prior to 2008. But following the financial crisis in 2008, property and casualty insurers for the most part decided to greatly increase their corporate bond portfolios, as holdings went from around $190 billion in 2008 to around $290 billion in 2012.
Obviously, if the percentage of equities and corporate bonds held are increasing, then some other area of the portfolios must be decreasing. Interestingly enough, it seems as if this increase in corporate bonds and equities has come at the expense of municipal bonds, followed by a later decrease in government treasury bonds.

Government treasury bonds are considered to be “risk-free,” while municipal bonds are nearly risk-free, but still have a threat of default. According to a 2013 Moody’s article, “the one-year default rate for Moody’s-rated municipal issuers remains very low at an average of 0.030% for the last five years, compared to the 0.009% average for the 1970-2007 period” (Moody’s, Municipal Bond Defaults Have Increased Since the Financial Crisis, but Numbers Remain Low).

This shows that municipal bonds are still a very low risk investment, but they have become a tad more risky following the 2008 financial crisis. It is unlikely that this slight increase in riskiness had a major impact on the decrease in municipal bond holdings, but it is probably something that property and casualty investors took into account.
As stated earlier, a drop in municipal bond holdings occurred immediately after the financial crisis in 2008. Prior to 2008, there had been a steady increase in municipal bond holdings, which coincides with the de-risking strategy that some property and casualty insurers were executing at that time. This is illustrated in the chart below:

![Chart showing P/C Insurer Municipal Bond Investments](Figure 19)

(Data Courtesy of NAIC)

This chart gives us a visual depiction of the decrease in municipal bond holdings following the financial crisis. As stated earlier, equity and corporate bond holdings increased after 2008, and this came at the expense of municipal bonds. Municipal bond holdings fell from 28.6% in 2008, all the way down to 21.9% at the end of 2012.

Government issued treasury bonds have also seen a slight decrease following the 2008 financial crisis, although their decrease hasn’t occurred in a linear fashion.
The graph below shows how their position in property and casualty portfolios has changed:

![Graph showing the percentage of investments in U.S. Government Bond Investments from 2005 to 2012.](image)

(Figure 20) (Data Courtesy of NAIC)

Government bonds saw an increase following the 2008 financial crisis, but then saw a rather major decrease from 2010 to 2012. As of year-end 2012, Government bonds only accounted for 5.4% of property and casualty investment portfolios.

All of this information tells us one very important thing: Property and casualty investment portfolios are *not* stagnant. The philosophies that these property and casualty insurers take change year-to-year, dependent upon the economy and other factors.
A.I.G. Impact

Another event that has caused property and casualty insurers to rethink their investment philosophy is the financial crisis’ impact on A.I.G. American International Group, or A.I.G. for short, is a multinational corporation specializing in property and casualty insurance. Prior to the financial crisis, A.I.G was considered to be “too big to fail,” and was the world’s largest insurer.

As of year-end 2008, A.I.G. had $860 billion in total assets. But as the financial crisis rolled along, A.I.G. came dangerously close to losing everything due to their risky practices. A brief overview of American International Group’s risky practices is outlined below:

“The holding company of A.I.G. had an unregulated noninsurance entity, A.I.G. Capital Markets (AIGCM). AIGCM took on extraordinary risks involving credit derivatives tied to asset-backed subprime and other positions that were a primary cause of A.I.G.’s collapse. The company also had severe problems with aggressive investment of collateral funds for its securities lending business, which also led to a need for federal government support” (Acharya, Biggs, Richardson, and Ryan, On the Financial Regulation of Insurance Companies).
A.I.G was able to coast by for a little bit while utilizing this risky strategy, but it eventually came back to bite them. The government had to eventually step in, and granted a $182 billion bailout to A.I.G. This had a massive impact on the company’s stock price, as illustrated in the graph below:

![chart](Figure 21)  
(Chart Courtesy of Yahoo Finance)

In total, A.I.G. stock dropped from above $1,400/share to below $10/share. A.I.G. hasn't even come close to fully recovering from this event, and will likely never be anywhere near where they were prior to the financial crisis.

This instance with A.I.G. is important to note because it shows us that none of the property and casualty insurers are immune to difficult times. The investment portion of a property and casualty insurer is monumental, and a hiccup in that department could bring down the entire company. The expectation is that other insurers learned from this mistake by A.I.G., and will now refrain from getting involved in such risky securities.
Conclusions

The main goal of this thesis was to add more transparency to the investment philosophies that property and casualty insurers take. Investing is a huge part of any property and casualty insurer’s profits, yet I feel as if it is a section of the business that doesn’t get enough attention. With that being said, I personally was interested in learning more about it, and decided to center this thesis on investment strategies amongst property and casualty insurance companies.

When I first began writing this thesis, there were three main points that I wanted to look into:

1. How does investment philosophy vary from company to company?
2. How do companies, Berkshire Hathaway in particular, grow their float?
3. How has investment philosophy changed, particularly in the years following the financial crisis?

In order to satisfy the first point, I looked into three insurers: Liberty Mutual, Markel, and Berkshire Hathaway. Liberty Mutual is a typical low-risk investor, as the vast majority of their investments are in high-grade bonds. This is a strategy that many insurers use, and can be very beneficial for many companies.

With that being said, Markel and Berkshire Hathaway have much different portfolios. They have a much higher allocation to equities, which for the most part are of the large cap variety.
Berkshire Hathaway is also the epitome of float management, which is something that I was extremely interested in learning more about. I initially thought that Buffett had created some extremely complicated and elaborate way to increase the size of the float, but this definitely is not the case. There really is not any secret to how to expand the float. Basically what it comes down to is profitable property and casualty underwriting combined with smart investing. If these two things are done, then the float has a very good chance to expand. It is no coincidence that Berkshire Hathaway has doubled its float over the past 12 years, a stretch in which they saw profitable underwriting every year.

The last point that I wanted to make sure I addressed was how investment philosophy has changed, particularly following the financial crisis. At the beginning of my research, I expected to find that property and casualty insurers had moved more into less-risky municipal and government bonds following the financial crisis. I realized that bond yields were extremely low, but I still figured that property and casualty insurers would be skeptical of the equity market following the collapse of the market. This was an incorrect hypothesis by me, as property and casualty insurers as a whole decided to increase their positions in equities and corporate bonds following the crisis.

While compiling research, I had run into an article that talked about a strategy of “de-risking” that property and casualty insurers were taking during the early 2000’s. During that timespan, property and casualty insurers were noticeably decreasing their exposure to equities, as they seemed to be pursuing a strategy that could be deemed as de-risking.
But in the years following the financial crisis, it seems as if property and casualty insurers took an opposite approach. Many of these companies increased their holdings in equities and corporate bonds, while decreasing their municipal and government bond holdings.

Some people might say that this strategy caused property and casualty insurers to become more “risky” with their investments, but I instead choose to say that they became *opportunistic*. In the time period following the financial crisis, bond prices have fallen, while major stock indices such as the S&P 500 have skyrocketed. The return that a well-managed equity portfolio would have garnered over this time period is substantially larger than that of a bond portfolio. I feel as if many property and casualty insurers simply expected the stock market to bounce back, and took advantage of this opportunity.

The great thing about property and casualty insurance is that many insurers were able to take advantage of this opportunity because of the float and long-tail nature of many property and casualty lines. Other insurers that specialize in areas such as life insurance do not have this luxury, and have very little capital allocated to equities.

In conclusion, I learned that investment philosophies amongst property and casualty insurance companies certainly do change. They definitely are not stagnant, and alter year-to-year more than the average person may think that they do.
Works Cited


