Insurance: Property and Casualty Insurance

Financial Services Sector

Investment Thesis
The investment recommendation is to market weight the property and casualty insurance industry. The industry is seeing positive growth drivers in its core operations, increasing premiums earned in auto insurance and homeowners’ insurance, and less catastrophe claims in 2015. However, the investment income has been negatively impacted by the low interest rate environment and the industry did not outperform the market in 2015.

Drivers of Thesis

- The record high auto sales in 2015 has boosted the net written premiums in auto insurance line. The average growth rate was 3% in the past five years. With more disposable income and aging cars, we are expecting the auto insurance line to maintain the same growth rate. Similar trend also applies to the homeowners’ insurance line.

- A long-term plan is under discussion to make terrorism insurance available and affordable, especially with the increasing acts of terrorism. Terrorism insurance has been separated out from standard homeowners’ or commercial insurance line since 2001.

- The application of new technology continually drives efficiency, makes better predictions, and optimizes underwriting standards, which can help improve the industry’s combined ratio.

Risks to Thesis

- The changing climate conditions make it more difficult to predict incidence and severity of catastrophes, which leaves room for uncertainty. If any huge catastrophe happens, it could largely bring down the whole industry’s profitability.

- In the long-term, possible increasing interest rate by the Fed will slow the growth of auto insurance and homeowners’ insurance line, as it will increase the financing cost of auto/home owners.

Historical Return Rates

- YTD Return: -5.58%
- 1 Year Return: 6.23%
- 3 Year Return: 13.10%
- 5 Year Return: 10.55%

Key Statistics

- Three Year Beta: 0.88
- Three Year Sharp Ratio: 1.02
- Dividend Yield: 1.75%
- Price/Earnings (TTM): 12.00
- Price/Earnings (FY1): 11.92
- Price/Sales (TTM): 1.05
- Price/Book (TTM): 0.97
- Price/Cash Flow (TTM): 6.10

Top 7 P/C Insurers by Market Share 2015

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Farm</td>
<td>10.3%</td>
</tr>
<tr>
<td>Allstate</td>
<td>5.2%</td>
</tr>
<tr>
<td>Berkshire Hathaway</td>
<td>5.1%</td>
</tr>
<tr>
<td>Liberty Mutual</td>
<td>5.1%</td>
</tr>
<tr>
<td>Travelers</td>
<td>4.0%</td>
</tr>
<tr>
<td>Progressive</td>
<td>3.6%</td>
</tr>
<tr>
<td>Nationwide</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

12 Month Performance

Source: Yahoo Finance & Factset

Industry Description

The property and casualty insurance industry provides coverage to help protect people or property that policy holders own or rent, such as car, house, or apartment. It also includes legal liability that may result from injury or damage to the property of others. The main insurance policies include but not limited to auto insurance, homeowners’ insurance, catastrophe insurance such as flood, liability insurance, and workers’ compensation.

Important disclosures appear on the last page of this report.
The recommendation to market weight the property and casualty (P/C) insurance industry within the financial services sector is driven by a number of factors. Since P/C insurance policies are usually renewable every 6 – 12 months, P/C insurers are able to adjust their premium rates to reflect changes in interest rates especially during this volatile and low interest rates period. In 2015, personal rates had a 1% increase while commercial rates stayed flat. 

In 2015, the stronger economy and the improving job market have boosted auto and housing sales, and there were less catastrophes compared with that in previous two years. The P/C insurance industry has benefited a lot in its auto insurance line and homeowners’ insurance line. The third quarter of 2015 witnessed the highest nine-month total net income since 2007 for the P/C insurance industry, with $44.0 billion overall net income after tax. In Feb, there already has been a 6.9% sales increase YOY. Going forward in 2016, we expect auto sales will at least stay at the same level as that in 2015.

New Technology is shaping many industries as well as the P/C insurance industry. The big data analytics helps companies to build more precise forecasting models and underwriting standards, thus improve the combined ratio (before catastrophe). As smart phones, tablets, and computers are more and more popular, more customers like purchasing their insurance through on-line channel. According to a research conducted by PWC, cyber insurance premiums written could more than triple to $7.5 billion by 2020, thus on-line customers experience becomes more important and it is easier for customers to compare prices and policies.

The decreasing price of oil and gasoline favored the P/C insurance industry indirectly through boosting the auto sales. But it is a double-edged sword, as in the long-term the positive net written premiums (NWP) cannot offset the loss of existing energy related investments on P/C insurers’ balance sheet and the more accidents resulting from longer miles driven are increasing the auto insurers’ pay out.

The US insurance industry’s NWP totaled $1.1 trillion in 2014, with premiums recorded by P/C insurers accounting for 44% with $502.6 billion NWP, right after the top 1 life and health insurers with $644.5 billion NWP. There were 2,583 P/C insurers in the US including territories in 2014, which accounted for 42% of the total insurance companies. The competition is fierce as the top 25 companies by NWP accounted for more than 60% market share in 2015. Thus inorganic growth through merger and acquisition is very common in this industry. State Farm has been in the first place in recent 7 years with market share around 10%, which almost equaled the total market share of Allstate and Berkshire Hathaway, which rank the second and the third place respectively.

### Net Written Premiums of US P/C Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Premium in billion U.S. dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>424.2</td>
</tr>
<tr>
<td>2010</td>
<td>428.2</td>
</tr>
<tr>
<td>2011</td>
<td>422.4</td>
</tr>
<tr>
<td>2012</td>
<td>461.9</td>
</tr>
<tr>
<td>2013</td>
<td>482.5</td>
</tr>
<tr>
<td>2014*</td>
<td>501.1</td>
</tr>
<tr>
<td>2015*</td>
<td>515.5</td>
</tr>
</tbody>
</table>

Source: Statista (in $billions)

### Policy Types

P/C insurers provide coverage to help protect people or things that policy holders own or rent (both owners and renters will be referred as owners in the remaining report), such as car, house, or apartment. It also includes legal liability that may result from injury or damage to the property of others. The difference between property and casualty insurance is that the property insurance covers events, such as burglary or theft, while casualty insurance covers loss resulting from a direct accident. To be more specific, the main insurance policies include but not limited to auto insurance, homeowners’ insurance, catastrophe insurance such as flood, liability insurance, and workers’ compensation. Auto insurance is the largest product line in P/C insurance industry, followed by homeowners’ insurance and liability insurance.
Auto insurance covers both physical (property) damage and car owners' liability, and accounts for more than 40% of the whole P/C insurance industry's NWP. With the adoption of mandatory auto insurance in most states except Wisconsin and New Hampshire, and the increasing cost of litigation and medical care, the auto insurance line has been boosting in the past 20 years. Auto insurance usually covers bodily injury and property damage liability, uninsured/underinsured motorist, medical payments, comprehensive, collision, rental reimbursement, roadside assistance, customer parts and equipment value, and loan or lease pay off. We expect the auto insurance will keep the growth rate in the following two years as that in 2015.

Homeowners insurance covers property damage caused by such perils as fire, windstorms, hail, lightning, theft or vandalism. Typically, floods and earthquakes are excluded. While homeowners’ insurance has grown faster than auto for many years, auto is generally more profitable. As people who purchase homeowners’ insurance usually also purchase auto insurance, and vice versa, insurance companies offer discount packages when customers purchase these two policies together. However, we are not expecting homeowners’ insurance line continue growing as we expect for auto insurance. Because the high growth rate in recent five years mostly benefit from higher housing sales due to the lower interest rate and recovering demand since the financial crisis in 2008. In the following two years, as we are expecting Fed to keep increasing interest rates, it will lead to higher mortgage payment, thus we are expecting housing insurance to increase at a slower pace around 3%.

Workers’ compensation assures that injured workers get medical care and compensation for a portion of the income they lose while they are unable to return to work. The system is established by statues in each state. The state dictates whether the workers’ compensation insurance is provided by state-run agencies, private insurance companies, or the state alone.

Flood insurance is to protect property from water damage to the structure/content. Typical homeowners’ insurance policies do not cover flooding. Thus a separate flood insurance is available in case property owners want protection from such damage. In Special Flood Hazard Area (SFHA) and high-risk area, federally mortgaged homeowners are required by lenders to carry flood insurance to protect structure. As flood insurance is a service provided by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program (NFIP), the same policy costs the same among different insurance companies and homeowners need to live in a community that participates in the NFIP to be eligible. In the past 5 years, all 50 states have experienced floods or flash floods. The number of NFIP policies in force has plunged by 549,000 or 9.6% since 2009, even as coastal development surges and sea levels rise. As insurance companies have no power in deciding the policy rates and the majority part of the claims are covered by FEMA, we do not expect much growth opportunity or loss from this line.

Terrorism Insurance, which was included in standard commercial insurance policies prior to 9/11 and effectively free to charge, is now offered separately. President Obama signed the Terrorism Risk Insurance Program Reauthorized Act of 2015 (H.R.26) on January 12, 2015, which set the insurer deductible at 20% of the direct earned premium in the preceding calendar year and the federal share of
compensation was set at 85% of insured losses that exceed insurer deductibles. The National Association of Insurance Committee is working with the US Department of Treasury’s Terrorism Risk Insurance Program Officer for the terrorism risk insurance program. As it is a relatively newer policy line and the regulation is not perfectly in position yet, there is some uncertainty in this line, which however will not affect the overall P/C insurers’ profitability in the following two years.

**Investment Classifications**

Due to the fact that P/C claim settlement is relatively quick and policy term is usually 6-12 months, P/C insurers maintain the majority of their investments in highly liquid securities that can be converted quickly to cash. This liquidity ensures that policyholders can be paid promptly in the event of a loss. There are three primary funds sources for investment: loss reserves, unearned premium reserve, and policyholders’ surplus or shareholders’ equity. Loss reserves are the funds set aside to pay claims and are the largest component of the P/C insurers’ liabilities. The second largest one is the unearned premium. Policyholders’ surplus or shareholders’ equity is one of the indicators that state regulators use to monitor and control insurers’ solvency and growth.

**Profitability**

The third quarter of 2015 witnessed the highest nine-month total net income since 2007 for P/C insurance industry, with $44.0 billion overall net income after tax, compared with $37.8 billion in 2014, $42.7 billion in 2013 (an unusually strong year), and $27.9 billion in 2012. The P/C insurance industry has been recovering from the 2008 financial crisis steadily and maintained an annual growth rate of total revenue at 2.1% between 2010 and 2015. It is forecasted to be 2.9% between 2015 and 2020 according to IBIS World. Since P/C insurance policies are usually renewable every 6-12 months, P/C insurers are able to adjust their premium rates to reflect rates period.

**Change in Commercial Rate Renewals by line, 2015 Q3**

Source: Insurance Information Institute

However, in current favorable condition that 2015 has been a profitable year for this industry, insurers are expecting a more competitive pricing environment as competitors will try to get more market share by leveraging the sufficient capital they currently have, which

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*Source: SNL Financial*

Compared with Life Insurance companies, P/C insurance companies hold more flexible investments such as equities and cash. The fixed income P/C insurance companies hold are also usually with shorter maturity.

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*Source: Federal Insurance Office, US Treasury, SNL Financial*
will impact the degree to which insurers are able to raise rates.

The profitability of P/C insurance shows strong cyclicality. Historically, the ROE of the P/C insurance industry peaked every 8-10 years. Below chart shows the historical ROE of P/C insurance industry. It suggests next ROE peak will be in 2016-2017.

The changing climate conditions make it more difficult to predict incidence and severity of catastrophes, which could largely bring down the industry’s profitability. In previous years, the insurance sector has been subject to several major weather-related catastrophes, including Hurricane Ike, Hurricane Sandy and Hurricane Katrina.

One main driver of premium growth in the P/C insurance industry comes from the exposure growth, which basically is the increase in the number and value of insurable interests. With auto insurance being the largest P/C line, the increasing auto sales has a huge positive impact on the P/C insurance industry’s NWP. Due to the cheap oil and gasoline price, which also leads to higher disposable income and more miles driven, the stronger economy, and the improving job market, US car sales set record high in 2015, clearing a peak last reached 15 years ago. Besides, the average age of the vehicles in the US is more than 11 years old, and now this pent-up demand for new vehicles is being released during this favorable economic period. New vehicles also bring higher unit written premium as vehicle owners tend to include comprehensive and collision coverage.
The auto industry is going through a transformation itself in both its sale types and design. In the current low interest rate environment, many car dealers, together with auto manufacturers and financing companies, offer auto loans with APR as low as 0% to qualified customers. It largely decreases what customers have to pay out of pocket the moment they buy a car, thus it helps increase auto sales, too. Besides the traditional buy/sell business, leasing is another option now and it is expanding. It gives customers the opportunity to pay on a monthly basis and switch to another new car if they want at the end of leasing term. In most cases, car owners only have to buy auto insurance coverage that meets the minimum legal requirement or a more comprehensive one if they prefer. However, for people who do the leasing, car dealers usually require them to purchase full coverage, which leads to a much higher policy rate and sometimes can triple the price of basic coverage. Thus with more people leasing cars instead of buying one, it is favorable to the auto line insurers.

Another reason that people prefer leasing a car rather than purchasing one is because the technology upgrading becomes quicker and quicker and people want to drive the most advanced ones. According to Edmunds, during the past five years, the leased share of new vehicles increased by at least 50% and accounted for 25% of the total sales in 2015.

This is beneficial to P/C insurers, as under the existing pricing strategy, it will increase the unit policy price. However, there is also a negative effect from the advanced technology. KPMG predicted within 25 years, the personal auto insurance market will shrink as much as 60% as the adoption of autonomous vehicles will reduce the need for auto insurance. The accident frequency can be reduced by 80% by the year 2040 mainly due to safer cars and more human-free driving. Currently more than 90% of accidents are caused by driver error, PWC forecasted the claims will decrease by 35% by 2035.\textsuperscript{26}

The cheaper oil price and higher disposable income not only boost auto sales, but also the mileages driven. In September 2015, miles driven for the trailing 12 months increased 3.4%, which was the fastest growth in 15 years. Combined with the fact that there are more cars on the road, the number of crashes increased for three years straight for the first time in almost two decades.\textsuperscript{27} As healthcare costs and vehicle-repair costs are increasing, the payout size insurers are making are also increasing. However, as we noted before, P/C insurers are able to adjust their premium rates every 6-12 months and personal rates increased by 1% in 2015. So we do not foresee the increasing accidents will hurt the industry's profitability any further.
Increasing Households

The number of housing units actually occupied has increased by two million units in 2015, of which half comes from population growth and the other half comes from adult children moving out of their parents’ basements, singles living without roommates now, and couples getting divorced. With job creation supporting family income growth, low mortgage rates, and easing credit availability supporting financing, the housing sales in the US was also boosted in 2015. Though currently we see positive growth in housing sales, the increasing interest rate will potentially increase the mortgage payment, thus negatively affect housing sales in the future. The homeownership rate is forecast to grow 0.9% from 2016 to 2021 by IBIS Worlds.

Regulation

This industry is highly regulated. The regulatory environment for insurers in the US has grown vastly more complex in the wake of the global financial downturn. In the past, insurance regulation was primarily the responsibility of the states. But now, insurance regulation is being influenced and defined by a complex mix of regulators and quasi-regulators at three different levels: state, federal, and international. Generally, the most important regulation of property and casualty insurance involves capital adequacy requirements, which affect industry profitability. Any increase in the amount of capital required per premium will limit the industry’s ability to underwrite new insurance policies. Besides, the development of “Sharing Economy”, such as UBER, AirBnB, and Task Rabbit, also has big impact of the P/C insurance industry. The insurance gaps in lines such as auto and home require new insurance solutions. It is expected that the regulation for P/C insurers to remain relatively steady in following two years, except for the development of terrorism insurance and “Sharing Economy” regulations.

MARKETS AND COMPETITION

Though there are more than 2,500 P/C insurers in the US, the top 25 companies by NWP occupy more than 60% of the market share, which indicates a rather fierce competition among insurers.
There are two types of ownership structures in the P/C insurance industry: mutual and stock. A mutual insurance company is owned by its policyholders, and its capital is called policyholders’ surplus, while a stock insurance company is owned by its stockholders, and its capital is represented by shareholders’ equity. State Farm, which is the largest P/C insurer by NWP, is a mutual company, while companies following it such as Allstate, Liberty Mutual, and Berkshire Hathaway are public equities.

Due to the maturity of the industry and the big number of small players, inorganic growth through mergers or acquisitions is very popular. ACE acquired Chubb in July 2015 for $28.3 billion, which was the biggest ever deal for the insurance industry. Allianz, Berkshire Hathaway, AXA, and Travelers also expressed interest back then, which means there may still be potential M&A activities in P/C insurance industry in following years.

**Key Metrics**

Due to the blurry definition of debt and lack of capital expenditures and depreciation, price to book ratio is a good indicator when evaluating financial services industry. In 2015 Q3, the price to book ratio of the P/C insurance industry is 0.90. Compared with previous three quarters’ average ratio of 0.98, it indicates that the P/C insurance industry overall may be underpriced. Meanwhile, companies such as Allstate, Hartford, and LOEWS also had a below 1 price to book ratio in 2015Q3.

This ratio of written premiums to surplus is typically used for P/C insurers to measure leverage and capital adequacy. A ratio of 1.0 is considered strong, and the smaller, the better, which is a sign that the insurer is theoretically using its capacity to write more policies assuming policies are charged at proper premiums. Currently the ratio of 12-month trailing net premiums to surplus of the P/C insurance industry is 0.77, which is almost the strongest level in history.
ECONOMIC OUTLOOK

Interest rates will affect P/C insurers’ both investment income and policy premium. With the increase in the fed funds rate, the 1-yr T-Bill and the 10-yr T-Bond yields are expected to increase over the next three years and reached a full normalization of interest rates around 2019. The increasing interest rate will benefit P/C insurers with potentially higher investment yield. However, it will also increase the cost for people who buy a house/car or lease a car through financing options. Thus we may see a decreasing auto and homeowners’ insurance market as a result of the increasing interest rate.

Source: Insurance Information Institute

The US unemployment rate has continued to decline with the Dec 2015 rate being reported at 5.0%, and the disposable income has been increasing since 2013. It will help boost both auto sales and housing sales at least in the following two years. The disposable income has a compound growth rate at 1.5% between 2011-2016 and is forecasted to be 1.9% between 2016 and 2021 by IBIS World.

Source: IBIS World

CATALYSTS FOR GROWTH

The two main sources of profitability of P/C insurers, policy premiums and investment income, are both closely linked with the economic growth. While economic conditions have generally improved since 2008, there is continued uncertainty of default by one or more European sovereign debt issuers. Such events will have a negative impact on global financial institutions and capital markets generally. The global economies are more and more closely correlated nowadays. The already established facts, such as negative Japanese interest rate and record-low Chinese GDP growth, indicated that the global economy is slowing down.

Though current inflation in the US is low, the government is trying to stabilize the economy if not increase, which will highly probably create an inflationary environment. As a result, it could adversely affect P/C insurers’ loss costs and investment portfolio valuation. And due to the cyclicality
of P/C insurance industry, we are expecting a ROE peak in the following two years.

**INVESTMENT POSITIVES**

- Boosting auto sales, especially in new vehicles, are bring higher unit written premium and policy volume to the auto insurance line, which accounts for more than 40% of the whole P/C insurance industry’s NWP.
- More housing units are being sold and occupied, which indicates a strengthening market in 2016 and will bring more NWP to the homeowners’ insurance line.
- With the increasing acts of terrorism and due to the fact that terrorism-related loss is no longer covered under standard policy after 9/11, there will be more need for such coverage.

**INVESTMENT NEGATIVES**

- The low price of oil and gasoline is a double-edged sword. Though in the short-term, it is boosting auto sales, thus bringing higher NWP to the auto insurance line, in the long-term the positive premiums cannot offset the loss of existing energy-related investments on P/C insurers’ balance sheet, which has already happened in 2015.
- The incidence and severity of catastrophes are difficult to predict. With the changing climate conditions, the unpredictability and frequency of natural disasters could adversely affect P/C insurance industry’s operations, financial conditions, and liquidity.
- The Fed increased interest rate in Dec 2015, and there is still high probability that it will keep increasing interest rate in 2016.

**KEYS TO MONITOR**

The oil and gasoline price is closely linked with the NWP of the auto insurance line and the investment income for P/C insurance companies with energy-related investment, not to mention a fluctuating oil and gasoline price will bring volatile macro economy, too. Investment returns are an important part of the P/C insurance companies’ overall profitability, and the investment portfolio can be adversely affected by changes in interest rates, thus it is necessary to closely monitor the interest rate and default rate, which currently are both historically low.

**CONCLUSION**

The overall operating climate remains stable for the P/C insurance industry. Due to the less favorable investment environment, companies that have higher value are those with operating net income as the main source for the total profit, with abundant capital for competitive pricing strategy, with combined ratio below 95%, and are engaged in applying new technology for continuous business improvement. Besides, inorganic growth through acquisitions is a well-accepted practice in this industry. Companies with more cash or policy surplus are at better positions to grow the business. In summary, we believe the P/C insurance industry will continue the profit growth in the following two years as long as there is no devastative catastrophe. Companies like Hartford, Chubb, and CNA with lower price to book, premiums to surplus, and P/E ratio will bring investors higher return.

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