The Henry Fund
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Hartford Financial Services Group Inc. (HIG)

3/31/19

Financial services – Property & Casualty Insurance

Investment Thesis

The Hartford Financial Services Group (HIG) is a P&C insurance and mutual fund company. Due to economic trends such as low interest rates and hard insurance market we recommend a hold rating with the target price range of $51-$53 giving HIG a 2.6%-6.6% upside.

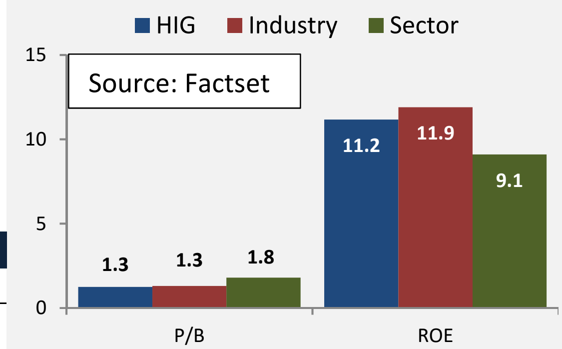
Drivers of Thesis

- Revenue growth has been fueled by acquisitions, this will continue in the near future with the agreement to purchase Navigators Group. This strategy cannot be sustained in the long-term.
- Reorganization of the company has resulted in selling off less profitable divisions within the company and has diversified their portfolio. Moving HIG away from a pure-play P&C insurance company.
- The Federal Reserve is open about not wanting to raise short-term rates in the near future. HIG invests 88% of their asset allocation in interest bearing securities with the portfolio's average duration of 4.8 years. Thus investment income growth will stay stable. We model investment income will grow at an average of 5% a year.

Risks to Thesis

- Long relationship with AARP and aging demographics reverse trend of low to negative policy growth rate.
- Hartford Financials acquisition of Aetna's U.S. group life and disability business proves to be successful and Hartford continues to sell off less profitable divisions to finance new acquisitions.

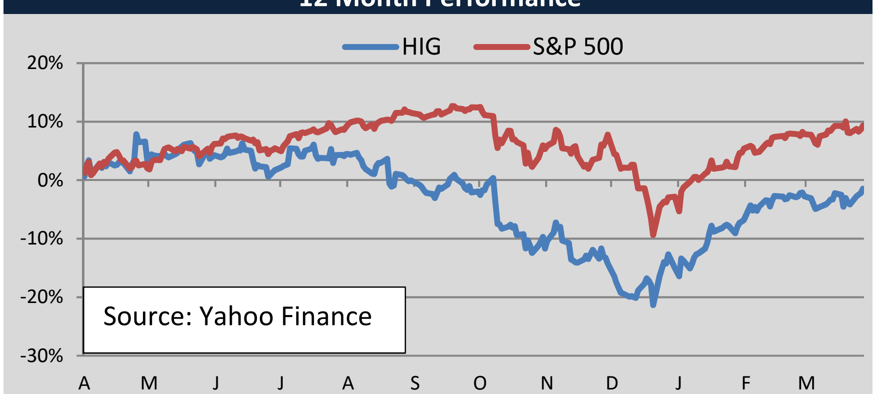
Stock Rating	Hold
Target Price	**$51.00-$53.00**
Henry Fund DCF	$66.60
Henry Fund DDM	$52.26
Relative Multiple	$49.27
Price Data	
Current Price	$49.72
52wk Range	$40.54-56.13
Consensus 1yr Target	$56.67
Key Statistics	
Market Cap (B)	$17.74
Shares Outstanding (M)	359,151.34
Institutional Ownership	94.04%
Five Year Beta	0.97
Dividend Yield	2.24%
Est. 5yr Growth	13.83%
Price/Earnings (TTM)	142.32x
Price/Earnings (FY1)	12.62
Price/Sales (TTM)	0.94
Price/Book (mrq)	1.39
Profitability	
Operating Margin	10.13%
Profit Margin	7.92%
Return on Assets (TTM)	0.90%
Return on Equity (TTM)	11.17%



Earnings Estimates

Year	2017	2018	2019E	2020E	2021E	2022E
EPS	$(0.72)	$4.13	$3.48	$4.28	$4.69	$5.01
growth	*-145.6%*	*673.6%*	*-15.7%*	*23.0%*	*9.6%*	*6.8%*

12 Month Performance



Company Description

Hartford Financial Services Group is a property and casualty insurance company whose market capitalization is approximately $17.74 billion. Hartford Financial also offers mutual fund investments. Headquartered in Hartford, Connecticut they are the 13th largest P&C insurance company in the United States with 1.7% market share. [1] The majority of the underwriting is done at the headquarters.

EXECUTIVE SUMMARY

We have a hold rating for Hartford Financial because they are fueling their growth through acquisitions, and we do not see that as a successful long-term option. The Federal Reserve has made it clear that they do not want to hike up interest rates in the near future, thus Hartford Financial's net investment income will stay steady.

Hartford Financial does not have the size, with only 1.7% market share to largely profit off of commodity based insurance products. When comparing Hartford Financial's market capitalization and profitability ratios to their competitors they are lagging behind.

Hartford Financial's management has reorganized and diversified the company through selling off their annuity and life insurance departments. Those departments were some of the less profitable departments within Hartford Financial. With those proceeds Hartford Financial has acquired different insurance companies at a good value. We see this as a positive for the organization moving forward as Hartford Financial's profitability ratios should increase. With a price to book ratio of 1.25, we do not believe we are getting enough value back with Hartford Financial to increase our position when better positioned competitors have only a slightly higher price to book of 1.32.

COMPANY DESCRIPTION

Hartford Financial Services business model is consistent with most P&C insurance companies. They take in premiums from underwriting risk and reinvest those premiums in mostly low-risk fixed income securities. As you can see from Hartford Financials business segment breakdown [1] that they depend heavily on three main sources for their revenue: commercial lines, group benefits, and personal lines.

At the end of 2018 Hartford Financial had $62,307 million in assets, $13,101 million in shareholder's equity with a market capitalization of $17.74 billion. [1, 2]

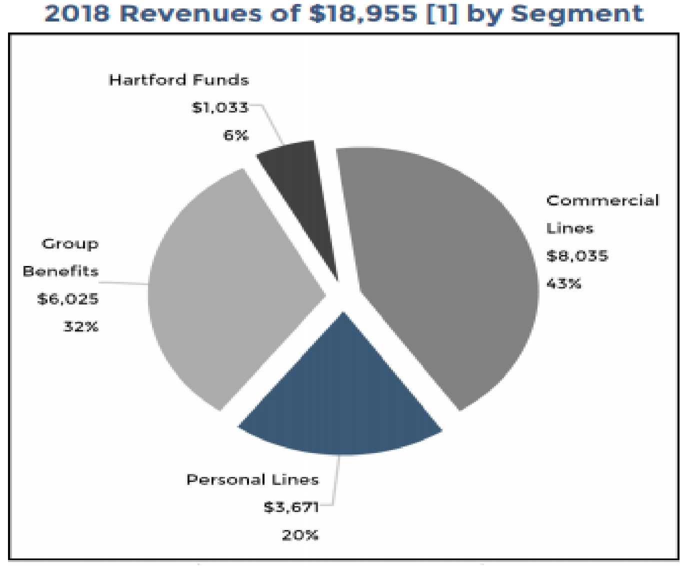
The company believes that their company logo is an asset as one of the most recognizable symbols in the industry, and sets a strong image of the company. Hartford Financial understands the importance of increasing accessibility to new younger customers by investing in technology that appeals more to the younger demographic.

We are concerned that Hartford Financial Services policy growth rates have been declining and HIG is making up for the lost policies by charging a higher premium on new policies. Hartford Financial is not an industry leader in terms of market capitalization therefore have little pricing power in the long-term.

Hartford Financial does have a strong balance sheet with a debt to equity ratio of 3.76x in 2018. [1] We are not worried about the company's ability to pay off their short-term debt obligations.

The chart below breaks down Hartford Financial's business segments. Still heavily dependent on commercial lines as a source of revenue, but with recent acquisitions group benefits segment has grown significantly.

2018 Revenues of $18,955 [1] by Segment



Source: HIG 2018 10K

Commercial Lines

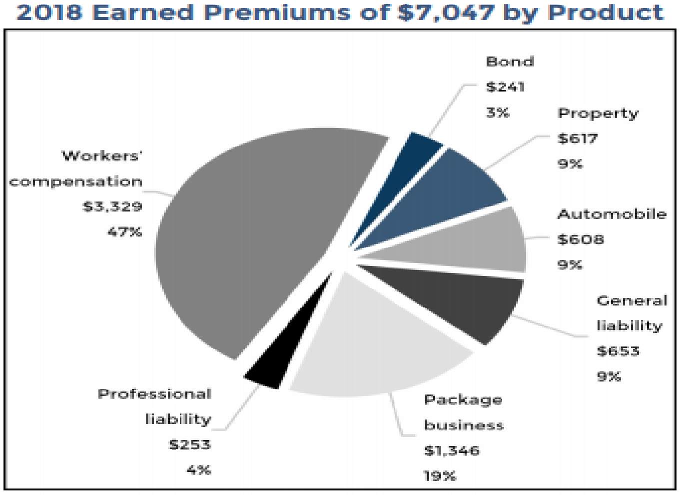
The commercial lines segment is made up of three lines of business: small commercial (53%), middle market (34%), and specialty (12%). [1] In 2018 commercial lines accounted for 37.4% of revenue with $7,047 million in earned premiums.

In 2018 Hartford Financial policy growth rate increased by 0.15% from 2017 which was a positive because in 2017 Hartford Financial had a negative policy growth rate.

In the near future we see the policy growth rate increasing around 3% a year because of the growth in their workers' compensation department. The company has stated that they see a growth opportunity in that section. [1] We model that Hartford Financial will have a 3.00% increase in premium growth rate and 2.25% increase in policies-in-force as of end of period for 2019.

Below is a chart that breaks down the revenue by commercial line product.

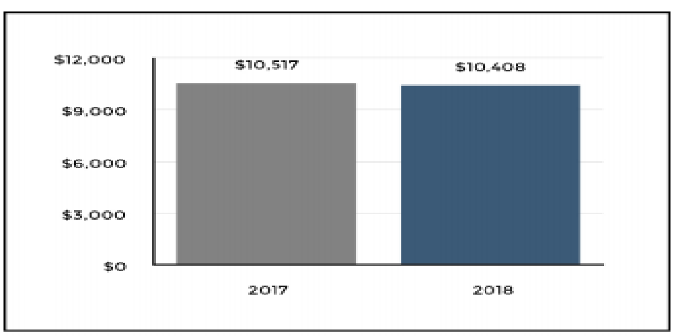
2018 Earned Premiums of $7,047 by Product



Source: HIG 2018 10K

In 2018 the combined ratio for the commercial lines was 91.5, up 50 basis points from 2017. [1] In reference Hartford Financial's combined ratio for the company as a whole was 97.8, thus their commercial lines are extremely more profitable than the rest of the company, due to the competition in the personal lines industry.

P&C Written Premiums



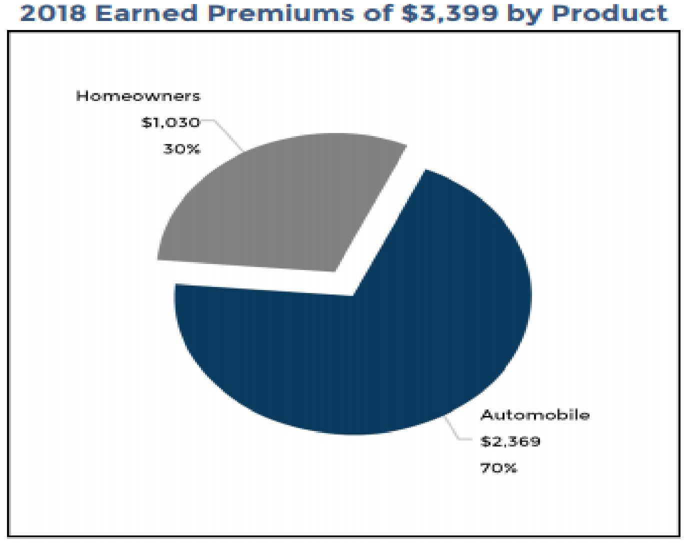
Source: HIG 2018 10K

To make up the revenue in 2017 from having less policies on their books Hartford Financial increased their premium rate by nearly 4.00%. [1] This is not a long-term solution for the company because of their size relative to their competitors. Hartford Financial is not an industry leader in the P&C insurance market, thus cannot sustain growth based off of those higher premiums. We see a long-term premium growth rate of 2.00% in their commercial lines department.

Personal Lines

Hartford Financial offers auto and home personal insurance, and in 2018 personal lines accounted for 18.1% of total revenue. [1] These programs are specifically designed for AARP members, with 80% of the business earned from AARP direct. Hartford Financial's contract with AARP currently runs through January 1, 2023 but has been extended in the past.

2018 Earned Premiums of $3,399 by Product

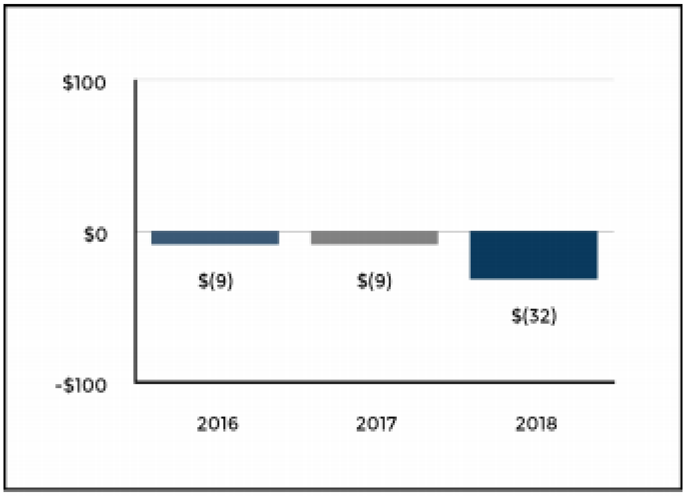


Source: HIG 2018 10K

The personal lines industry is very competitive among insurance companies and sales of direct-to-consumer have rapidly increased in the past three years, meaning the brand recognition will play a larger part on policy sales in the future. [4] Hartford Financial is losing market share in this sector, but revenue has only slightly declined due to the higher premiums they are charging.

Premiums are rising at a fast rate due to the amount of technology and value that are in homes and cars, thus making the contents of homes and cars more valuable. An example of this is having backup cameras, and automatic braking in the cars, these features can be costly to replace, and therefore insurance companies must increase their premium rates. The combined ratio for automobile and homeowners in 2018 were 98.6, and 124.3 respectively. [1]

Net Loss



Source: HIG 2018 10K

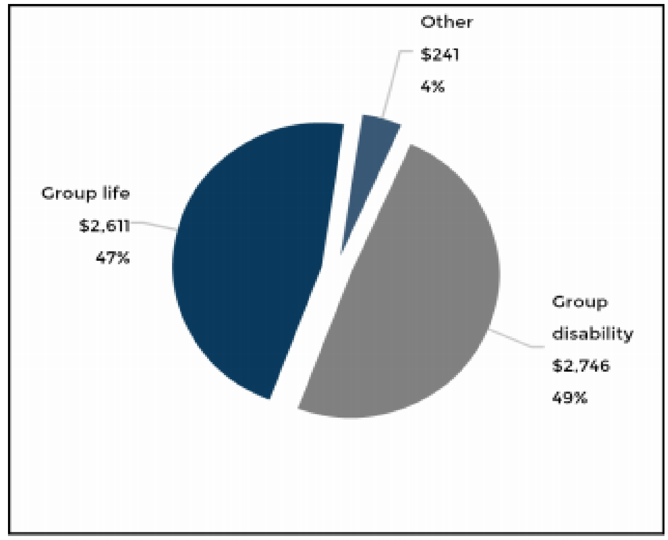
Above is the net loss of Hartford Financials personal line division in the last three years. Net loss was higher in 2018 because of the change to net realized capital losses.

Through company guidance and our forecasts we estimate Hartford Financial will reverse the recent trend of a negative policies-in-force growth rate and will grow around 5.00%. While premium per policy growth will be around 6.00% a year. That number may seem high, but their 5 year average premium per policy growth rate is right at 5.50%.

Group Benefits

Group Benefits covers an entire group of people under a single contract, usually employees of an employer. Hartford Financial acquired Aetna's U.S. group life and disability business to further enhance their presence in this sector.

2018 Premiums and Fee Income of $5,598



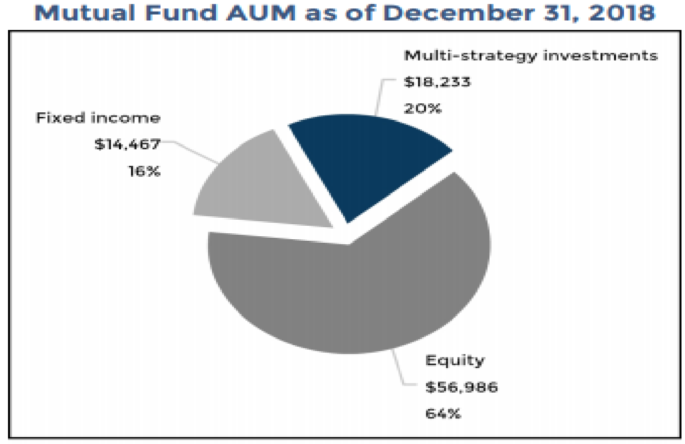
Source: HIG 2018 10K

In 2018 group benefits made up 29.53% of total revenue and grew 52.24% from 2017, mostly due to the acquisition. [1] We estimate that group benefits will grow around 4% a year until the CV year which will have a growth rate of 2.5%. We came about those estimations through historical returns analysis.

Hartford Funds

Harford offers 70 actively managed mutual funds across different asset classes such as: fixed income, equity, and multi-strategy investments. [1] Hartford's funds are a relatively small amount of their income. The fund's only account for 5.3% of total revenue, earning $1,057 million in 2018. [1]

Mutual Fund AUM as of December 31, 2018



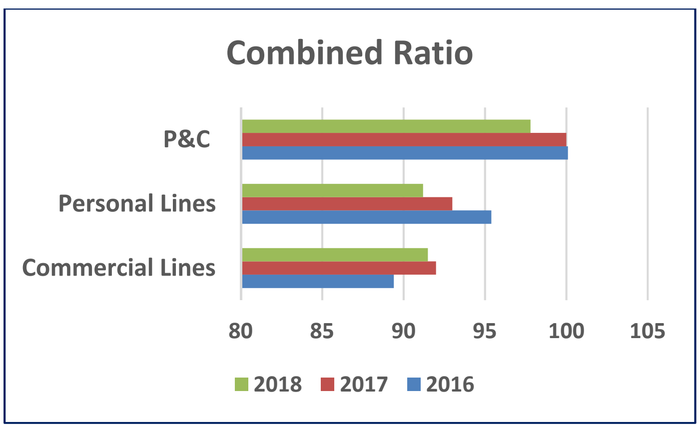
Source: HIG 2018 10K

In 2018 Hartford Financial had $104,840 million in AUM this was a 9.11% decline from 2017, due to the market and withdrawals. [1] The asset management industry is trending towards indexed, low fee assets.

In the future we see AUM increasing around 4.00% a year, this accounts for the market returning 10% and investors withdrawing their money for lower fee assets. Their current expense ratio is 0.98%, we estimate that will only drop a small margin to around 0.95% due to their mutual funds being actively managed. Hartford Financial seems to have settled on an expense ratio. In 2015 they dropped their expense ratio from 2.28% to 0.79%, after 2015 HIG has averaged a 0.92% expense ratio.

Company Analysis

On the chart below you can see the historical combined ratio of Hartford Financial's different business lines. A strength for the company is that their largest business segment in commercial lines is historically the most profitable. Hartford has done a good job on increasing their profitability ratios throughout the years and management is expecting that trend to continue. However, we are not estimating they will be as profitable as management is expecting.



Source: HIG 2018 10K

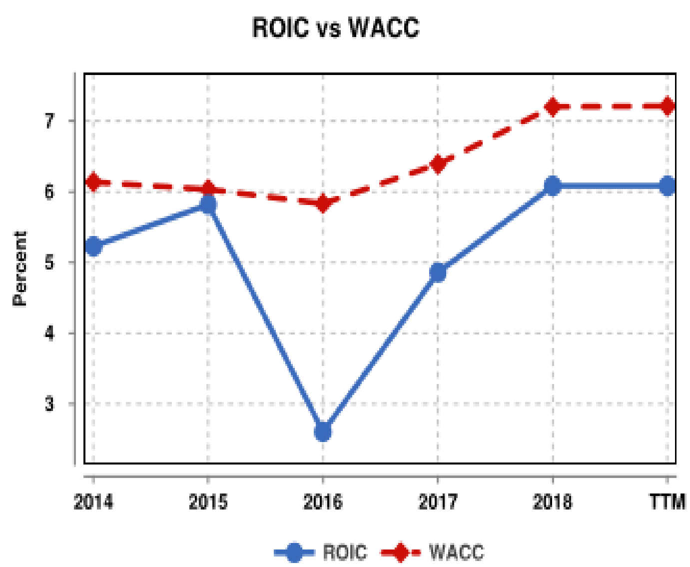
Hartford Financial recognizes their revenue in five different ways. Earned premiums, fee income, net investment income, net realized capital gains, and other revenues.

Earned Premiums: This is the main way source of revenue for Harford Financial. Accounting for roughly 84% of their total revenues each year. [1] Earned premiums were made more important once interest rates started falling and so did net investment income. With rates still relatively low Hartford Financial must focus on strong underwriting procedures that maximize earned premium revenue.

Fee Income: Fee income is the fees earned off their AUM. Hartford Financial was struggling with fee income revenue before 2018. We estimate that fee income will grow a little over 3% a year based off of AUM growth. Fee income is the 3rd largest portion of their income.

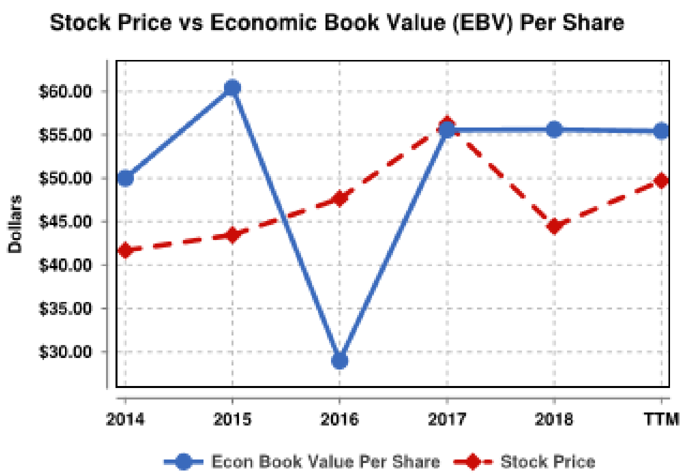
Net Investment Income: As expected net investment income had strong growth in 2018 due to the interest rate hikes that allowed Hartford Financial to reinvest their fixed income securities at a higher yield. Net investment income accounted for 9.4% of total revenue in 2018, 2nd highest behind earned premiums. [1] That is why higher interest rates are so important to insurance companies.

Below is a chart of Hartford Financial's historical WACC vs ROIC percentages. As you can see Hartford Financial is not creating value because the WACC has been around 1% higher than ROIC.



Source: New Constructs, LLC

Below is a different Hartford Financial analysis chart. This chart is attractive to us because the economic book value is greater than the stock price. As shown in previous years stock price has been greater than economic book value.



Source: New Constructs, LLC

These two charts give good insight in why we recommend a hold rating for Hartford Financial. Company outlooks differ depending on the metrics shown.

RECENT DEVELOPMENTS

Reorganization

In 2018 Hartford Financial continued to reorganize their firm through acquisitions and selling off departments. Hartford is diversifying from a pure-play P&C insurance company. They showed that by purchasing Aetna's group life business for $1.45B. [1] This acquisition allowed them to become a market leader in the group life and disability insurer and to diversify the company. Hartford Financial is currently the 2nd largest group life insurer. [1]

In 2012 the company decided to exit the life insurance and annuity market after occurring large losses during the financial crisis. Those losses were a major reason for Hartford Financial $3.4B government bailout. [1] The sale of their Talcott Resolution valued at $2.05B was the last step in the process to exit the life insurance and annuity market. This move is positive for Hartford Financial, ROE is expected to increase because Talcott was returning less than their other departments. [1]

Hartford Financial has other acquisitions in the works to further grow the company. In August, 2018 they agreed to acquire Navigators Group at approximately $2.1B. [Insurance Journal] Navigators Group is a global insurance company that deals in the construction, energy and environmental industries. The acquisition will give them market share in niche markets where Hartford Financial does not currently have any presence in. The deal is expected to close in the first half of 2019.

We estimate that these moves will have a positive impact for Hartford Financial. In 2018 Hartford Financial had double digit revenue growth for the first time in over 5 years, which was fueled by the 52.24% increase in revenue from the group benefits department. [1] However, we do not believe that this is a sustainable plan for the long-term and revenue growth will go back to mid-to-low single digit revenue growth.

Stock Repurchase Program

Hartford Financial announced that its board has authorized a share purchase plan of $1.0B in outstanding shares. This will bring the company's total share repurchase authorization to $2.0B. This program allows the company to buy up to 5.9% of their stock through open market purchases. [1]

2018 Earnings and Expectations

Hartford reported earnings per share of $4.33 in 2018 beating estimates of $4.15 by 4.33%. [5] Hartford beat EPS estimates in all four quarters in 2018, but the 4th quarter estimate was only $0.57. Hartford Financial beat the combined ratio estimate by 0.1 with a combined ratio of 98.0, while the estimates were 98.1.

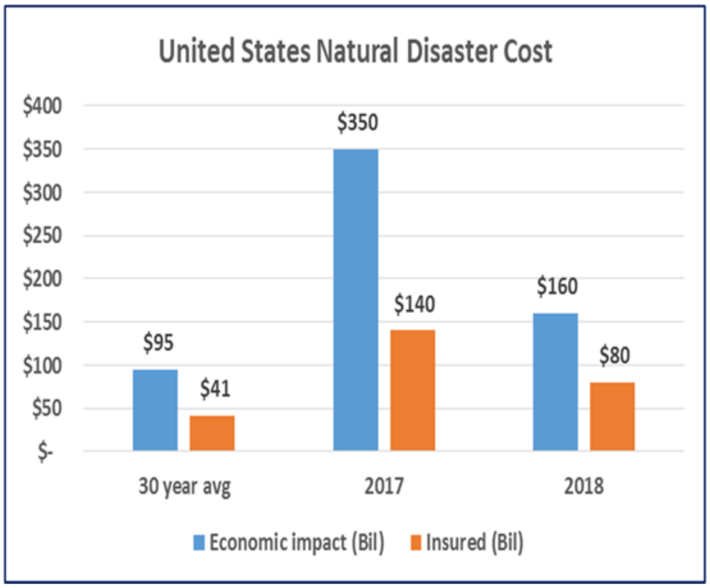
Hartford missed revenue estimates in 2018 despite it having its first double digit revenue growth yoy in over 5 years. Hartford reported revenue of $18,955 MM while estimates were $19,151, missing by 1%. [5]

For 2019 Hartford Financial estimated revenue is $19,707 MM and EPS of $4.97. [5] Our model has Hartford Financial beating revenue estimates but missing EPS estimates. We estimate 2019 Revenue of $19,732 MM and EPS of $3.69. The reason for the difference in EPS estimates is that we do not believe that HIG will have the profitability margins that management is estimating they will have in 2019. Specifically the combined ratio management is estimating of 95.5, this would be a significant improvement from their recent performance.

INDUSTRY TRENDS

Hard Insurance Market

A hard insurance market is when companies underwriting criteria's become stricter and insurance premiums increase, while the amount of policies decreases. The insurance market turned from soft to hard because of the large amount of natural disaster damage the P&C industry has faced over the recent years.



Source: NCDC

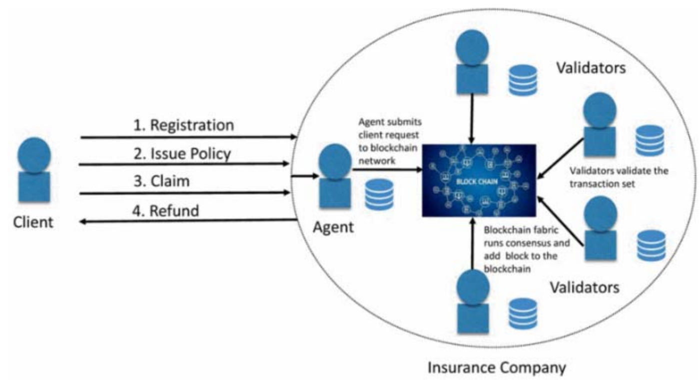
As shown in the graph above the past two years have been well above the 30-year average in terms of economic impact and insured costs. This is causing companies to focus more on underwriting techniques.

The effects of a hardening insurance market is carriers write less insurance policies, but charge a higher premium rate to make up for the loss of revenue.

If the natural disaster cost decreases near the 30-year average we will see the market soften, as companies will be less worried on risk and want the profits of the riskier policies.

Blockchain Technology

Blockchain has the potential to change the insurance industry. Blockchain can make an insurance company significantly more efficient by establishing a distributed ledger. This distributed ledger will settle financial transactions faster, cheaper, and with less operational risk. [9] The insurance industry can expect to see greater margins due to lower operating costs, and better client satisfaction. Blockchain will shift customer's expectations in speed, accessibility, and accuracy in all areas of an insurance company. The current exchange of information is inefficient, fraud-prone, and uses fragmented data sources.



Source: IEEE

Above is a graphic that shows the claim process if blockchain technology was used. All of the data needed in the process of filing a claim would all be under one network, instead of multiple networks where the data is not readily available. There are estimates that the P&C claim process can be up to 3x faster and 5x cheaper which would result in saving insurers over $200B a year. [9]

The Blockchain Insurance Industry Initiative (B3i) was formed by a group of insurers and reinsurers in 2016 to investigate the potential of using distributed ledger technologies within the insurance industry. B3i launched in January with live contracts, which was the first large scale blockchain production across the insurance industry. [9] If successful the current companies that are members of B3i will have a large head start against their competitors. One of Hartford Financial's main competitors Chubb Limited (CB) is a member of B3i. [9] Hartford Financial is not in B3i limiting their blockchain usage when it becomes a reliable function.

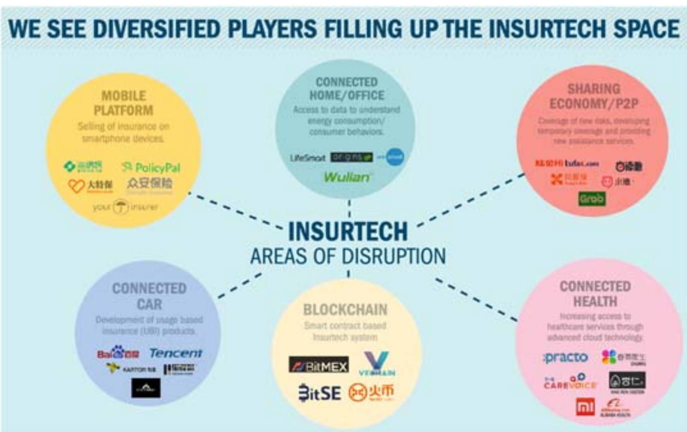
There is very little information available that connects Hartford Financial and blockchain technology. If Hartford Financial does not have a plan or is properly investing in block chain technology then they will fall behind against their competitors in margins, net income, and customer satisfaction.

Alternative Insurance Models

Insurtech references the use of technology designed to make the insurance industry more efficient and cheaper through offering ultra-customized policies.

Traditionally actuarial tables are used to assign policies to a specific risk category, then policies are grouped together to the point where it is profitable for the company. This results in some people over paying if you're in the top half of that category. Insurtech companies are using AI and data sources such as a car's GPS to properly price a policy. [11] All this data is used to price premiums based on behavior.

Regulations and required capital is holding these insurtech companies back. These companies currently do not have the capital to underwrite and manage the amount of risk needed.



Source: The Digital Insurer

The graphic above shows some of the different players in the insurtech space from home/office energy consumer behaviors to usage based products. There is a growing interest in this field as their as been $7.1B raised since 2012. [10]

MARKETS AND COMPETITION

Premiums are based upon competition and or exclusivity. For a commodity such as home and auto most of the public has it so there are many insurance carriers trying to get into that business. Thus the intense competition drives down prices. The larger firms have a competitive advantage against their smaller counter parts through economies of scale, pricing power, and margins.

U.S. P&C Insurance 2017				
Rank	Firm	Premiums Written Bil		Market Share
1	State Farm	$	64.8	10.1%
2	Berkshire Hathaway	$	38.4	6.0%
3	Liberty Mutual Grp.	$	33.8	5.3%
4	Allstate	$	31.5	4.9%
5	Progressive	$	27.8	4.3%
6	Travelers	$	24.8	3.9%
7	Chubb Ltd. Grp.	$	21.2	3.3%
8	USAA	$	20.1	3.1%
9	Farmers Ins. Grp.	$	19.8	3.1%
10	Nationwide	$	19.2	3.0%
11	AIG	$	14.0	2.2%
12	Zurich Ins. Grp	$	13.0	2.0%
13	**Hartford Financial**	**$**	**11.1**	**1.7%**
Source: NAIC				

The graph above ranks the largest United States P&C insurance companies based of premiums written.

Porter's 5-Forces

Threat of New Entrants: Is low to small entrepreneurs because of the amount of capital needed to create a diversified portfolio and the regulations that the companies must follow. However, the threat of new entrants is high from other financial service companies such as banks or investment banks. These companies have the capital to disrupt the market, but some countries prohibit banks from entering the market. Access to distribution channels would not be difficult, new companies could sell directly to their customers via the internet. The largest threat of new entrants is from existing insurance companies that create a subsidiary companies to specialize on one area of the market. An example would be if an existing insurance company funded an insurtech company.

Power of Suppliers: The power of suppliers is low for capital, and distribution channel. However, larger companies threaten smaller companies by luring away their human talent in the form of underwriters. The access to more and larger markets could attract the talented underwriters at smaller insurance companies, as well as the ability to pay better. In this low unemployment market the larger companies are willing to pay extra for a premium employee.

Power of Buyers: Corporate insurance clients have a large amount of buying power due to the amount of people and dollars they represent. As do the individuals because of how easy it is to switch providers. Thus in commodity insurance the companies are competing on price for customer's business.

Threat of Substitutes: There are multiple substitutes available for customers. However, in the niche markets of insurance such as seniors and hazardous sports companies can have a competitive advantage. This is where the smaller insurance companies can make higher margin policies, due to the lack of competition driving the premium price down.

Competitive Rivalry: Is high due to the amount of P&C insurance companies there are, as well as the accessibility of customers to find other insurance company's quotes. Many large insurance companies offer very similar products, making competition between insurance companies high. What separates these companies is how cost efficient their operations are.

Summary: If an existing insurance company sees an area of the market where they could steal market share they will go for it. Underwriting and risk management talent can be the best asset a company can have and to be successful in a mature market a company must have lean operations. What gives companies a competitive advantage in the market place is their pricing power, and lean operational costs.

P&C insurance companies compete with each other on price and customer service. In the commodity sectors, automobile and homeowners, there is intense competition between the firms. For special programs there is little to none competition in price because that program was created for a specific client segment.

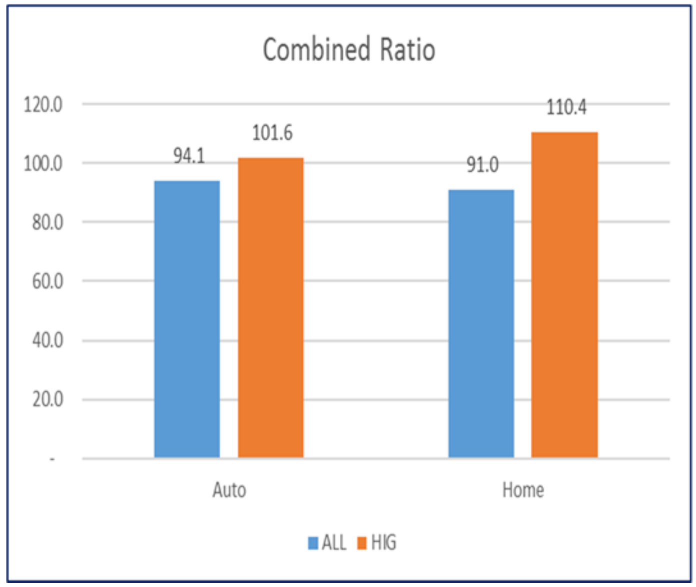
Peer Comparisons

Allstate (All)

Allstate is a property and casualty company but has a different business model then Hartford Financial. Allstate earns the majority of their premiums through personal lines specifically through auto and homeowners. [13]

There are pros and cons to be so heavily concentrated in that market. On the pro side home and auto insurance is a commodity so everyone has to have it, which means there is a large market for these insurance products. On the con side since the market is so big almost every major insurer is competing on price in that market. In these markets the products are very similar so insurance companies are competing with each other on price.

As shown on the graph below, Allstate is very profitable in the auto and home insurance markets where Hartford Financial is losing money in that industry. This graph shows exactly why Hartford is shifting away from the personal line insurance market. They simply cannot nor want to compete with other larger insurance firms.

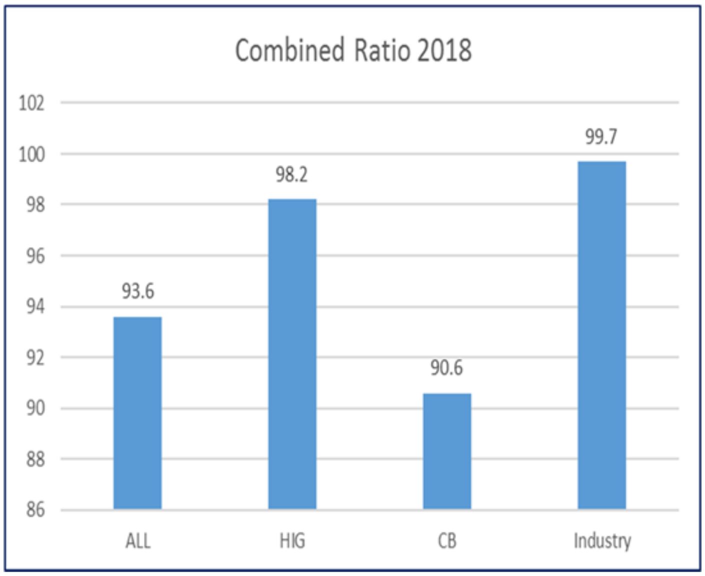


Source: HIG 10K, ALL 10K

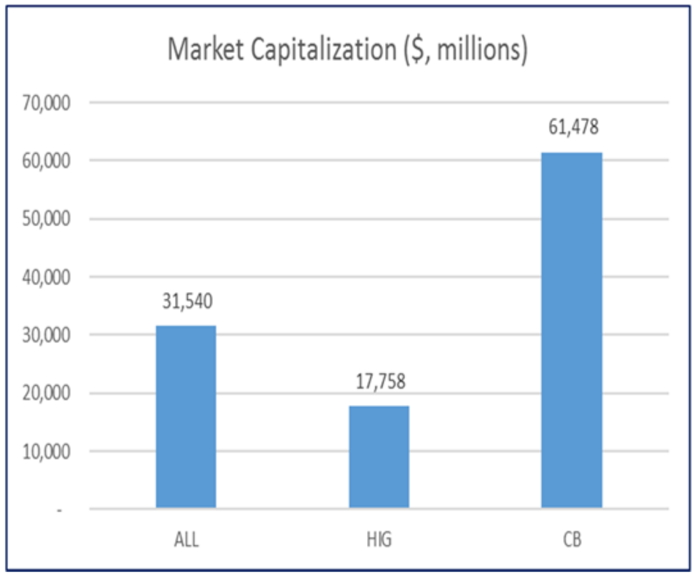
Chubb Limited (CB)

Chubb Limited's business model is similar to Hartford Financial because their commercial P&C insurance is their largest business segment (42%) as is Hartford's. [14]

Chubb differs from Hartford in that they have customers overseas, and they are still in the life insurance market. We estimate that Chubb is the best positioned competitor because of their size, underwriting abilities, diversification within their portfolio, and the price to book ratio is at a reasonable level. On top of that Chubb is a member of B3i giving them a head start when blockchain technology is used in the insurance industry.



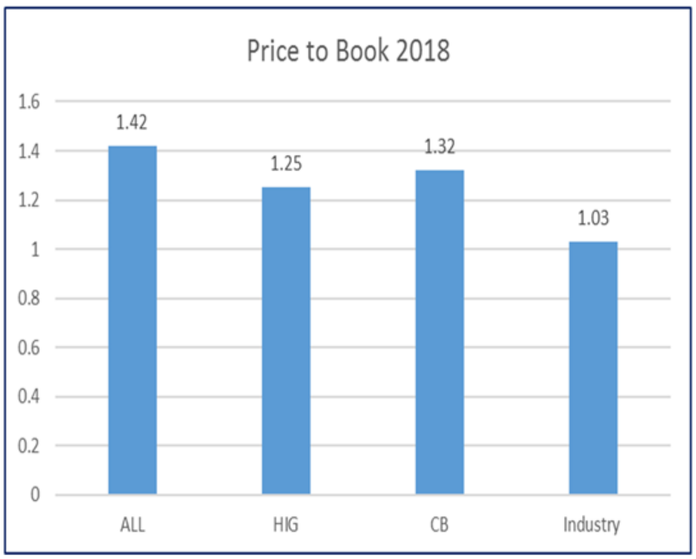
Source: Factset



Source: Factset

As shown in the chart above Chubb is the most profitable and financially stable out of the comparable companies.

The size difference in the companies jumps off the page in this chart. Chubb's size allows them to be a market leader. Hartford Financial is trying to increase their market capitalization through acquisitions.



Source: Factset

We believe that Allstate and Hartford are overvalued compared to their competitors, and that Chubb is receiving good value.

ECONOMIC OUTLOOK

Unemployment Rate

The P&C insurance market is largely driven by economic growth. The unemployment rate is a lagging indicator of the economy.

As shown in the graph below unemployment did not hit the peak until 2010, a year after the financial crisis.

This chart shows that the economy is doing very well and should continue to grow in the near future. This is a positive for the P&C insurance industry.

When the economy is doing well households build up wealth and then can decide to use that wealth to buy something of value and entertainment to them. Example is that the economy is doing well so household A decides to spend an extra $20,000 to buy a boat. Household A then will purchase insurance on that boat, thus the economy growing fuels new written policies.

Investment outlook

As of 2018 the average P&C insurer's investment portfolios duration was 5.1 years. The chart below is historical rates of the 5-year treasury rate. The rate hikes in 2018 were a positive to the P&C insurance companies because it added income due to reinvesting at higher rates.

Looking forward we estimate that rates will stay stable which does not help the net investment outlook for the P&C insurance companies.

Hartford Financial's fixed income portfolios fair value in 2018 was $43.7 billion, with an average duration of 4.7 years. Down from 5.2 years in 2017. The flattening 5-year treasury rate means that Hartford Financial will have to depend more on their underwriting and less on their net investment income.

CATALYSTS FOR GROWTH

Catalysts for growth for United States P&C insurance companies are economic growth, upward sloping yield curve, and unemployment.

Economic growth fuels new premiums written. An upward sloping yield curve allows insurance companies to receive a higher yield on their fixed income portfolios, which make up the majority of their investments.

INVESTMENT POSITIVES

- Strong economic growth should fuel policy growth.
- Hartford is reorganizing their company to be more focused on higher earning sectors, and losing market share in less profitable business lines.

INVESTMENT NEGATIVES

- Insurance Industry has been out performed by the S&P 500 in the last two years.
- Hartford Financial's profitability ratios are much lower than their competitors.
- Interest rates are stabilizing not allowing the insurance companies to gain more on their net investment income and have to be even more profitable in their policy underwriting.

VALUATION

Commercial lines total earned premiums were forecasted out by multiplying the previous year's policies-in-force by the policies-in-force growth rate and the earned premium per policy by the premium growth rate. Those growth rates were calculated from Hartford Financial's historical growth rates and guidance from management. The long term growth rates for policies-in-force and premiums were 2.25% and 3.00% respectively.

Forecasting out group benefits was challenging because in 2018 Hartford Financial increased their group benefits portfolio by almost $2 billion due to the Aetna acquisition. We assumed around a 4% growth rate for the next few years based on management's expectations and then settled into a long term growth rate of 2.50%. This number is higher than their other business segments long-term growth rates and that is because we estimate that Hartford Financial will focus on being a market leader and growing that line of business. Group benefits also diversifies their portfolio from a pure-play P&C insurance company.

Mutual Fund revenue was forecasted out on the assumptions that the market would return 4% - 8% a year but would have a 2% - 4% withdrawal rate due to cheaper asset management options, such as a 0% AUM expense ratio ETF. To combat the withdrawal rate we estimate that the company will decrease their expense ratio from 0.98% to 0.94% in the long-term.

Compared to management and other analyst we are more bearish on the costs Hartford Financial will incur in 2019. The estimated combined ratio in 2019 is 95.8, which would be the best ratio in four years by a significant amount. [5] We estimate that the combined ratio will be between 96.5 and 97.5.

The discounted cash flow model was constructed by using the simple model for free cash flows to equity (FCFE). Assumptions used when creating the model is that the risk free rate was 2.66% which is the YTM of the 10-year U.S. Treasury rate, and a assumed equity risk premium of 4.95% which was determined through historical data analysis and forecasted rates. The CV NI growth rate that was used was 3.25%. Through our DCF model we came up with a valuation of $66.60.

The dividend discount model (DDM) assumes all of the assumptions in the FCFE model, but has the CV EPS growth rate of 5.25%. The DDM resulted in a valuation of $52.26. We feel that this is the best model for valuation because of Hartford Financials consistent historical dividend payment despite volatile cash flows and earnings. We estimate that Hartford will continue to pay a strong dividend in the future.

KEYS TO MONITOR

We are interested in looking back at Hartford Financial in five years and measure how well management reorganized the company and how the company continues to fund their acquisitions. Their group insurance business in particular because they are a market leader in the group insurance market. Those moves will greatly affect the company's future revenue growth and income.

Another trend to look at is the growth in Hartford Financial's personal line portfolio, and whether or not management can perform at the guidance they have given. HIG does not have the size or profitability ratios to greatly profit in that highly competitive market. Something to watch is if they try to sell parts of that business to finance future acquisitions.

Factors that would have to change for us to change our hold rating is interest rates would have to hike up a couple of times where their net investment income would become more profitable. If that is the case then expect Hartford Financial to try and boost up their policy numbers so they will have more money to invest at a higher rate. The other factor is if they are leading the insurance market at either blockchain technology or financing an insurtech company.

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IMPORTANT DISCLAIMER

Hartford Financial Services Group Inc.

Revenue Decomposition

Millions

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Earned Premium Analysis								
Commercial Lines								
Bond	$ 218	$ 230	$ 241					
Property	577	604	618					
Automobile	643	630	610					
General liability	585	604	653					
Package business	1,249	1,301	1,364					
Professional liability	231	246	254					
Workers' compensation	3,187	3,287	3,341					
Commercial Lines total earned premiums	**$ 6,690**	**$ 6,902**	**$ 7,081**	**$ 7,458**	**$ 7,873**	**$ 8,272**	**$ 8,606**	**$ 8,954**
Policies -in-force as of end of period (thousands)	1,346	1,338	1,340	1,370	1,404	1,432	1,461	1,490
Policies -in-force as of end of period growth	1.58%	-0.59%	0.15%	2.25%	2.50%	2.00%	2.00%	2.00%
Earned premium per policy	$ 4,970	$ 5,158	$ 5,284	$ 5,443	$ 5,606	$ 5,774	$ 5,890	$ 6,008
Premium Growth Rate	0.53%	3.79%	2.44%	3.00%	3.00%	3.00%	2.00%	2.00%
Personal Lines								
Homeowners	$ 1,188	$ 1,117	$ 1,041	$ 1,199	$ 1,354	$ 1,514	$ 1,620	$ 1,718
automobile	2,749	2,617	2,398	2,758	3,128	3,446	3,673	3,915
Personal Lines total earned premiums	**$ 3,937**	**$ 3,734**	**$ 3,439**	**$ 3,957**	**$ 4,482**	**$ 4,959**	**$ 5,292**	**$ 5,633**
Policies -in-force as of end of period (thousands) (homeowners)	1,176	1,038	927	1,001	1,066	1,120	1,142	1,165
Policies -in-force as of end of period growth (homeowners)	-7.55%	-11.73%	-10.69%	8.00%	6.50%	5.00%	2.00%	2.00%
Policies -in-force as of end of period (thousands) (auto)	1,965	1,702	1,510	1,631	1,737	1,824	1,860	1,897
Policies -in-force as of end of period growth (auto)	-4.70%	-13.38%	-11.28%	8.00%	6.50%	5.00%	2.00%	2.00%
Earned premium per policy (homeowners)	$ 1,010	$ 1,076	$ 1,123	$ 1,198	$ 1,270	$ 1,352	$ 1,418	$ 1,475
Premium per policy growth rate (homeowners)	6.02%	6.52%	4.36%	6.65%	6.00%	6.50%	4.90%	4.00%
Earned premium per policy (auto)	$ 1,399	$ 1,538	$ 1,588	$ 1,691	$ 1,801	$ 1,890	$ 1,975	$ 2,063
Premium per policy growth rate (auto)	6.92%	9.91%	3.28%	6.50%	6.50%	4.90%	4.50%	4.50%
Property & Casualty Other								
Earned Premium	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Group Benefits								
Group Disability	$ 1,506	$ 1,718	$ 2,746	$ 2,870	$ 2,984	$ 3,104	$ 3,197	$ 3,261
Group Life	1,512	1,745	2,611	2,728	2,838	2,951	$ 3,040	$ 3,100
Other	20	21	24	25	26	27	28	28
Group Benefits total earned premiums	**$ 3,223**	**$ 3,677**	**$ 5,598**	**$ 5,850**	**$ 6,084**	**$ 6,327**	**$ 6,517**	**$ 6,650**
Mutual Funds								
Mutual fund	$ 779	$ 888	$ 932					
Life and annuity run-off businessheld for sale	106	104	100					
Talcott Resolution	-	-						
Mutual Fund Total Revenue	**$ 885**	**$ 992**	**$ 1,032**	**$ 1,057**	**$ 1,088**	**$ 1,110**	**$ 1,132**	**$ 1,149**
AUM	97,308	115,350	104,840	$ 109,558	$ 113,940	$ 116,789	$ 119,708	$ 122,102
AUM growth rate	5.81%	18.54%	-9.11%	4.50%	4.00%	2.50%	2.50%	2.00%
Expense ratio	0.91%	0.86%	0.98%	0.96%	0.96%	0.95%	0.95%	0.94%
Expense ratio growth rate	15.68%	-5.44%	14.46%	-2.00%	-1.00%	-0.50%	-0.50%	-0.50%
Corporate								
corporate	$ 3	$ 9	$ 32	$ 34	$ 35	$ 37	$ 39	$ 41
Total net investment income	1,577	1,603	1,780	1,869	1,962	2,061	2,164	2,272
Net realized capital gains	(110)	165	(112)	165	168	172	175	179
Other revenues	86	85	105	85	85	85	85	85
Corporate Total Revenue	**$ 1,556**	**$ 1,862**	**$ 1,805**	**$ 2,153**	**$ 2,251**	**$ 2,354**	**$ 2,463**	**$ 2,576**
Total Revenue	**$ 16,291**	**$ 17,167**	**$ 18,955**	**$ 20,474**	**$ 21,778**	**$ 23,022**	**$ 24,010**	**$ 24,962**

Net Investment Income Analysis								
Fixed maturities, available-for-sale ("AFS"), at fair value	32,182	36,964	38,060	37,489	36,927	36,373	35,827	35,290
Fixed maturities, at fair value using the fair value option ("FVO")	211	41	34	28	23	19	15	13
Equity securities, AFS, at fair value	945	1,012	1,047	1,084	1,122	1,161	1,202	1,244
Equity securities, trading, at fair value	-	-						
Mortgage loans	2,886	3,175	3,296	3,263	3,230	3,198	3,166	3,134
Policy loans, at outstanding balance	-	-	-	-	-	-	-	-
Limited partnerships and other alternative investments	1,527	1,588	1,648	1,690	1,732	1,766	1,802	1,838
Other investments	111	96	91	86	82	77	73	69
Short-term investments	1,895	2,270	2,331	2,390	2,449	2,498	2,548	2,599
Total Investments	**$ 39,757**	**$ 45,146**	**$ 46,507**	**$ 46,029**	**$ 45,564**	**$ 45,092**	**$ 44,633**	**$ 44,187**

Asset Class Allocation								
Fixed maturities, available-for-sale ("AFS"), at fair value	80.95%	81.88%	81.84%	81.45%	81.04%	80.66%	80.27%	79.87%
Fixed maturities, at fair value using the fair value option ("FVO")	0.53%	0.09%	0.07%	0.06%	0.05%	0.04%	0.03%	0.03%
Equity securities, AFS, at fair value	2.38%	2.24%	2.25%	2.36%	2.46%	2.58%	2.69%	2.82%
Equity securities, trading, at fair value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mortgage loans	7.26%	7.03%	7.09%	7.09%	7.09%	7.09%	7.09%	7.09%
Policy loans, at outstanding balance	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Limited partnerships and other alternative investments	3.84%	3.52%	3.54%	3.67%	3.80%	3.92%	4.04%	4.16%
Other investments	0.28%	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%
Short-term investments	4.77%	5.03%	5.01%	5.19%	5.38%	5.54%	5.71%	5.88%
Total Investments	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Hartford Financial Services Group Inc.
Income Statement
Millions

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Revenues								
Earned premiums	$ 13,697	$ 14,141	$ 15,869	$ 17,265	$ 18,439	$ 19,558	$ 20,415	$ 21,237
Fee income	857	980	1,313	1,418	1,509	1,595	1,663	1,705
Net investment income (expense)	1,577	1,603	1,780	1,057	1,088	1,110	1,132	1,149
Total net realized capital gains (losses)	(110)	165	(112)	(121)	(129)	(136)	(142)	(145)
Other revenues	86	85	105	113	121	128	133	136
Total revenues	$ 16,107	$ 16,974	$ 18,955	$ 19,732	$ 21,028	$ 22,254	$ 23,201	$ 24,081
Expenses								
Benefits, losses and loss adjustment expenses	9,961	10,174	11,165	11,740	12,362	13,104	13,648	14,125
Amortization of deferred policy acquisition costs	1,377	1,372	1,384	1,455	1,532	1,624	1,692	1,751
Insurance operating costs and other expenses	3,341	4,375	4,281	4,501	4,740	5,024	5,233	5,416
Loss (gain) on extinguishment of debt	-	-	6	-	-	-	-	-
Loss (gain) on reinsurance transactions	650	-	-	-	-	-	-	-
Interest expense	327	316	298	313	330	350	364	377
Amortization of other intangible assets	4	14	68	72	75	80	83	86
Total benefits, losses and expenses	15,660	16,251	17,202	18,082	19,040	20,182	21,020	21,756
Income from continuing operations before ir	447	723	1,753	1,651	1,988	2,072	2,182	2,325
Income tax expense (benefit)	(166)	985	268	347	417	435	458	488
(Loss) Income from continuing operations, n	613	(262)	1,485	1,304	1,570	1,637	1,723	1,837
(Loss) income from discontinued operations, net	283	(2,869)	322	-	-	-	-	-
Net (loss) income	**$ 896**	**$ (3,131)**	**$ 1,807**	**$ 1,304**	**$ 1,570**	**$ 1,637**	**$ 1,723**	**$ 1,837**
Basic Earnings Per Share (EPS)	$ 1.58	$ (0.72)	$ 4.13	$ 3.63	$ 4.39	$ 4.65	$ 4.98	$ 5.40
Number of shares outstanding	374	357	359	358	352	346	340	334
Annual Dividends per share	$ 0.86	$ 0.94	$ 1.10	$ 0.93	$ 1.12	$ 1.19	$ 1.27	$ 1.38

Hartford Financial Services Group Inc.

Balance Sheet

Millions

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Assets								
Fixed maturities, available-for-sale (AFS), at fair value	$ 32,182	$ 36,964	$ 35,652	$ 37,489	$ 36,927	$ 36,373	$ 35,827	$ 35,290
Fixed maturities, at fair value using the fair value option ("FVO")	211	41	22	28	23	19	15	13
Equity securities, AFS, at fair value	945	1,012	1,214	1,084	1,122	1,161	1,202	1,244
Equity securities, trading, at fair value	-	-	-	-	-	-	-	-
Mortgage loans	2,886	3,175	3,704	3,263	3,230	3,198	3,166	3,134
Policy loans, at outstanding balance	-	-	-	-	-	-	-	-
Limited partnerships and other alternative investments	1,527	1,588	1,723	1,690	1,732	1,766	1,802	1,838
Other investments	111	96	192	86	82	77	73	69
Short-term investments	1,895	2,270	4,283	4,373	4,483	4,601	4,725	4,861
Total Investments	**39,757**	**45,146**	**46,790**	**46,029**	**45,564**	**45,092**	**44,633**	**44,187**
Cash	328	180	121	167	124	1,236	1,102	1,811
Premiums receivable and agents' balances, net	3,730	3,910	3,995	3,946	4,206	4,451	4,640	4,816
Reinsurance recoverables, net	3,659	4,061	4,357	4,706	5,006	5,292	5,519	5,657
Deferred policy acquisition costs	645	650	670	691	736	779	812	843
Deferred income taxes, net	2,999	1,164	1,248	1,164	1,164	1,164	1,164	1,164
Goodwill	567	1,290	1,290	1,290	1,290	1,290	1,290	1,290
Property and equipment, net	991	1,034	1,006	1,026	1,047	1,068	1,089	1,111
Other intangible assets	44	659	657	655	653	651	649	647
Other assets	2,836	2,230	2,173	2,467	2,628	2,782	2,900	3,010
Assets held for sale	169,020	164,936	-	-	-	-	-	-
Total Assets	**$ 224,576**	**$ 225,260**	**$ 62,307**	**$ 62,140**	**$ 62,418**	**$ 63,804**	**$ 63,798**	**$ 64,535**
Liabilities								
Reserve for future policy benefits & unpaid losses	$ 28,639	$ 33,000	$ 33,671	$ 32,450	$ 31,895	$ 31,565	$ 31,243	$ 30,931
Other policyholder funds and benefits payable	602	816	767	816	816	816	816	816
Unearned premiums	5,392	5,322	5,282	5,130	5,257	5,341	5,336	5,298
Short-term debt	416	320	413	500	200	800	-	-
Long-term debt	4,494	4,678	4,265	4,678	4,678	4,678	4,678	4,678
Other liabilities (includes variable interest entity liabilities of $0 and $5)	4,596	5,188	4,808	4,813	4,841	4,859	4,960	4,951
Liabilities held for sale	163,534	162,442	-	-	-	-	-	-
Total liabilities	**207,673**	**211,766**	**49,206**	**48,387**	**47,687**	**48,059**	**47,033**	**46,673**
Stockholders' Equity								
Preferred stock	-	-	334	334	334	334	334	334
Common stock & paid-in capital	5,251	4,383	4,382	4,733	5,035	5,322	5,551	5,771
Retained earnings	13,114	9,642	11,055	12,028	13,204	14,431	15,723	17,099
Treasury stock	(1,125)	(1,194)	(1,091)	(1,763)	(2,263)	(2,763)	(3,263)	(3,763)
Accumulated other comprehensive income (loss), net of tax	(337)	663	(1,579)	(1,579)	(1,579)	(1,579)	(1,579)	(1,579)
Total stockholders' equity	**16,903**	**13,494**	**13,101**	**13,753**	**14,731**	**15,745**	**16,765**	**17,862**
Total liabilities and stockholders' equity	**$ 224,576**	**$ 225,260**	**$ 62,307**	**$ 62,140**	**$ 62,418**	**$ 63,804**	**$ 63,798**	**$ 64,535**

Hartford Financial Services Group Inc.
Cash Flow Statement

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018
Net income (loss)	$ 176	$ 798	$ 1,682	$ 896	$ (3,131)	$ 1,807
Net realized capital losses (gains)	(1,149)	141	156	187	(111)	165
Amortization of deferred policy acquisition costs	2,701	1,729	1,502	1,523	1,417	1,442
Additions to deferred policy acquisition costs	(1,330)	(1,364)	(1,390)	(1,390)	(1,383)	(1,404)
Depreciation & amortization	189	276	373	398	399	467
Pension settlement expense	-	-	-	-	747	-
Loss on extinguishment of debt	213	-	21	-	-	6
Loss (gain) on sale of business	102	653	(6)	81	3,257	(202)
Reinsurance (gain) loss on disposition	1,574	(23)	-	-	-	-
Other operating activities, net	69	203	153	178	408	408
Increase (decrease) in reserve for future policy benefits and unpai	(308)	226	-	-	-	-
(Increase) decrease in reinsurance recoverables	(561)	(22)	176	272	(935)	(323)
Increase (decrease) in accrued and deferred income taxes	(526)	328	363	(250)	170	(103)
Decrease (increase) in receivables and other assets	(409)	(122)	-	-	-	-
(Decrease) increase in payables and accruals	497	(937)	-	-	-	-
Impact of tax reform on accrued and deferred income taxes	-	-	-	-	877	-
Increase in unpaid losses and loss adjustment expenses, reserve for future policy benefits, a			275	322	1,648	493
Net securities, trading	(1)	-	-	-	-	-
Net change in other assets and other liabilities	-	-	(549)	(151)	(1,177)	87
Net cash flows from operating activities	**1,237**	**1,886**	**2,756**	**2,066**	**2,186**	**2,843**
Proceeds from the sale/maturity/prepayment of:						
Fixed maturities, available-for-sale	40,266	25,309	25,946	24,486	31,646	24,700
Fixed maturities, fair value option	322	401	181	238	148	23
Equity securities at fair value		-	-	-	-	1,230
Equity securities, available-for-sale	274	354	1,319	709	810	-
Mortgage loans	468	646	792	647	734	483
Partnerships	368	490	624	779	274	433
Payments for the purchase of:						
Fixed maturities, available-for-sale	(35,446)	(22,545)	(27,744)	(21,844)	(30,923)	(23,173)
Fixed maturities, fair value option	(150)	(369)	(251)	(94)	-	-
Equity securities at fair value	-	-	-	-	-	(1,500)
Equity securities, available-for-sale	(212)	(683)	(1,454)	(662)	(638)	-
Mortgage loans	(718)	(604)	(870)	(717)	(1,096)	(983)
Partnerships	(353)	(312)	(620)	(441)	(509)	(481)
Proceeds from business sold	815	963	(173)	(247)	(314)	(224)
Derivatives, net	(2,208)	10	(307)	(224)	(250)	(122)
Change in policy loans, net	(5)	(11)	3,071	(1,377)	(144)	(3,460)
Additions to property and equipment, net	(64)	(121)	(29)	(129)	21	(3)
Change in short-term investments, net	318	(1,814)	-	-	222	1,115
Other investing activities, net	70	(18)	-	(175)	(1,423)	-
Net cash flows from investing activities	**3,745**	**1,696**	**485**	**949**	**(1,442)**	**(1,962)**
Deposits and other additions to investment and universal life-type	5,942	5,289	4,718	4,186	4,602	1,814
Withdrawals and other deductions from investment and universal	(25,034)	(21,870)	(17,085)	(14,790)	(13,562)	(9,210)
Net transfers from separate accounts related to investment and u	16,978	14,366	11,046	9,822	7,969	6,949
Repayments at maturity or settlement of consumer notes	(77)	(13)	(33)	(17)	(13)	(2)
Net increase (decrease) in securities loaned or sold under agreem	(1,988)	-	507	188	1,320	(621)
Repurchase of warrants	(33)	-	-	-	-	-
Repayment of long-term and short-term debt	(1,338)	(200)	(773)	(275)	(416)	(826)
Proceeds from the issuance of debt	533	-	-	-	500	490
Preferred stock issued	-	-	-	-	-	334
Net (return) issuance of shares under incentive and stock compen	20	30	42	9	(10)	(16)
Treasury stock acquired	(600)	(1,796)	(1,250)	(1,330)	(1,028)	-
Dividends paid on common stock	(21)	(282)	(316)	(334)	(341)	(379)
Dividends paid on preferred stock	(202)	-	-	-	-	-
Net cash flows from financing activities	**(5,820)**	**(4,476)**	**(3,144)**	**(2,541)**	**(979)**	**(1,467)**
Foreign exchange rate effect on cash	(155)	(135)	(48)	(40)	70	(10)
Less: net increase (decrease) in cash classified as assets held for sa	-	-	47	249	(17)	(537)
Net increase (decrease) in cash	**(993)**	**(1,029)**	**49**	**209**	**53**	**(547)**
Cash - beginning of period	2,421	1,428	399	143	328	180
Cash - end of period	**1,428**	**399**	**143**	**328**	**180**	**121**

Hartford Financial Services Group Inc.

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2019E	2020E	2021E	2022E	2023E
Net income (loss)	1,304	1,570	1,637	1,723	1,837
Change in total investments	761	465	472	459	447
Change in premiums receivable	49	(259)	(245)	(189)	(176)
Deferred policy acquisition costs	(21)	(45)	(43)	(33)	(31)
Change in reinsurance recoverables	(349)	(300)	(286)	(227)	(138)
Change in deferred tax assets	84	-	-	-	-
Change in other intangible assets	2	2	2	2	2
Change in other assets	(294)	(162)	(153)	(118)	(110)
Change in combined reserve for losses and loss adjustment expenses	(1,221)	(555)	(330)	(321)	(313)
Change in policyholder funds and benefits payable	49	-	-	-	-
Change in unearned premiums	(152)	127	84	(5)	(39)
Change in other liabilities	5	29	18	100	(9)
Net cash provided by Operating activities	**218**	**871**	**1,155**	**1,391**	**1,471**
Change in net PPE	(20)	(21)	(21)	(21)	(22)
Change in assets held for sale	-	-	-	-	-
Change in liabilities held for sale	-	-	-	-	-
Change in short-term debt	87	(300)	600	(800)	-
Change in long-term debt	413		-	-	-
Change in treasury stock	(672)	(500)	(500)	(500)	(500)
Change in common stock and APIC	351	302	288	228	220
Dividends	(331)	(394)	(410)	(432)	(460)
Net cash provided by Financing activities	**(172)**	**(913)**	**(44)**	**(1,525)**	**(762)**
BoP cash	121	167	124	1,236	1,102
Increase in cash	46	(42)	1,111	(134)	709
Eop cash	167	124	1,236	1,102	1,811

Hartford Financial Services Group Inc.
Common Size Income Statement (% of sales)

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Revenues								
Earned premiums	85.04%	83.31%	83.72%	87.49%	87.69%	87.89%	87.99%	88.19%
Fee income	5.32%	5.77%	6.93%	7.19%	7.17%	7.17%	7.17%	7.08%
Net investment income (expense)	9.79%	9.44%	9.39%	5.36%	5.17%	4.99%	4.88%	4.77%
Total net realized capital gains (losses)	-0.68%	0.97%	-0.59%	-0.61%	-0.61%	-0.61%	-0.61%	-0.60%
Other revenues	0.53%	0.50%	0.55%	0.57%	0.57%	0.57%	0.57%	0.57%
Total revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Expenses								
Benefits, losses and loss adjustment expen	61.84%	59.94%	58.90%	59.50%	58.79%	58.88%	58.82%	58.66%
Amortization of deferred policy acquisition	8.55%	8.08%	7.30%	7.38%	7.29%	7.30%	7.29%	7.27%
Insurance operating costs and other expen	20.74%	25.77%	22.59%	22.81%	22.54%	22.58%	22.55%	22.49%
Loss (gain) on extinguishment of debt	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Loss (gain) on reinsurance transactions	4.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interest expense	2.03%	1.86%	1.57%	1.59%	1.57%	1.57%	1.57%	1.57%
Amortization of other intangible assets	0.02%	0.08%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Total benefits, losses and expenses	97.22%	95.74%	90.75%	91.63%	90.55%	90.69%	90.60%	90.34%
Income from continuing operations be	2.78%	4.26%	9.25%	8.37%	9.45%	9.31%	9.40%	9.66%
Income tax expense (benefit)	-1.03%	5.80%	1.41%	1.76%	1.99%	1.96%	1.97%	2.03%
(Loss) Income from continuing operati	3.81%	-1.54%	7.83%	6.61%	7.47%	7.36%	7.43%	7.63%
(Loss) income from discontinued operatior	1.76%	-16.90%	1.70%	0.00%	0.00%	0.00%	0.00%	0.00%
Net (loss) income	5.56%	-18.45%	9.53%	6.61%	7.47%	7.36%	7.43%	7.63%

Hartford Financial Services Group Inc.
Balance Sheet
Millions

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Assets								
Fixed maturities, available-for-sale	14.33%	16.41%	57.22%	60.33%	59.16%	57.01%	56.16%	54.68%
Fixed maturities, at fair value usin	0.09%	0.02%	0.04%	0.04%	0.04%	0.03%	0.02%	0.02%
Equity securities, AFS, at fair value	0.42%	0.45%	1.95%	1.74%	1.80%	1.82%	1.88%	1.93%
Equity securities, trading, at fair va	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mortgage loans	1.29%	1.41%	5.94%	5.25%	5.17%	5.01%	4.96%	4.86%
Policy loans, at outstanding balan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Limited partnerships and other alt	0.68%	0.70%	2.77%	2.72%	2.77%	2.77%	2.82%	2.85%
Other investments	0.05%	0.04%	0.31%	0.14%	0.13%	0.12%	0.11%	0.11%
Short-term investments	0.84%	1.01%	6.87%	7.04%	7.18%	7.21%	7.41%	7.53%
Total Investments	17.70%	20.04%	75.10%	74.07%	73.00%	70.67%	69.96%	68.47%
Cash	0.15%	0.08%	0.19%	0.27%	0.20%	1.94%	1.73%	2.81%
Premiums receivable and agents' I	1.66%	1.74%	6.41%	6.35%	6.74%	6.98%	7.27%	7.46%
Reinsurance recoverables, net	1.63%	1.80%	6.99%	7.57%	8.02%	8.29%	8.65%	8.77%
Deferred policy acquisition costs	0.29%	0.29%	1.08%	1.11%	1.18%	1.22%	1.27%	1.31%
Deferred income taxes, net	1.34%	0.52%	2.00%	1.87%	1.86%	1.82%	1.82%	1.80%
Goodwill	0.25%	0.57%	2.07%	2.08%	2.07%	2.02%	2.02%	2.00%
Property and equipment, net	0.44%	0.46%	1.61%	1.65%	1.68%	1.67%	1.71%	1.72%
Other intangible assets	0.02%	0.29%	1.05%	1.05%	1.05%	1.02%	1.02%	1.00%
Other assets	1.26%	0.99%	3.49%	3.97%	4.21%	4.36%	4.55%	4.66%
Assets held for sale	75.26%	73.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Assets	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Liabilities								
Reserve for future policy benefits	12.75%	14.65%	54.04%	52.22%	51.10%	49.47%	48.97%	47.93%
Other policyholder funds and ben	0.27%	0.36%	1.23%	1.31%	1.31%	1.28%	1.28%	1.26%
Unearned premiums	2.40%	2.36%	8.48%	8.26%	8.42%	8.37%	8.36%	8.21%
Short-term debt	0.19%	0.14%	0.66%	0.80%	0.32%	1.25%	0.00%	0.00%
Long-term debt	2.00%	2.08%	6.85%	7.53%	7.49%	7.33%	7.33%	7.25%
Other liabilities (includes variable	2.05%	2.30%	7.72%	7.75%	7.76%	7.62%	7.77%	7.67%
Liabilities held for sale	72.82%	72.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total liabilities	92.47%	94.01%	78.97%	77.87%	76.40%	75.32%	73.72%	72.32%
Stockholders' Equity								
Common stock	2.34%	1.95%	7.03%	7.62%	8.07%	8.34%	8.70%	8.94%
Retained earnings	5.84%	4.28%	17.74%	19.36%	21.15%	22.62%	24.64%	26.50%
Treasury stock	-0.50%	-0.53%	-1.75%	-2.84%	-3.63%	-4.33%	-5.11%	-5.83%
Accumulated other comprehensiv	-0.15%	0.29%	-2.53%	-2.54%	-2.53%	-2.47%	-2.47%	-2.45%
Total stockholders' equity	**7.53%**	**5.99%**	**21.03%**	**22.13%**	**23.60%**	**24.68%**	**26.28%**	**27.68%**
Total liabilities and stockholders'	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Hartford Financial Services Group Inc.
Value Driver Estimation
Millions

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Net income	896	(3,131)	1,807	1,304	1,570	1,637	1,723	1,837
Beginning TSE	17,642	16,903	13,494	13,101	13,753	14,731	15,745	16,765
Return on equity (ROE)	**5.08%**	**-18.52%**	**13.39%**	**9.95%**	**11.42%**	**11.11%**	**10.95%**	**10.96%**
Net income	896	(3,131)	1,807	1,304	1,570	1,637	1,723	1,837
Beginning TA	228,348	224,576	225,260	62,307	62,140	62,418	63,804	63,798
Return on investment (ROI)	**0.39%**	**-1.39%**	**0.80%**	**2.09%**	**2.53%**	**2.62%**	**2.70%**	**2.88%**
Net income	896	(3,131)	1,807	1,304	1,570	1,637	1,723	1,837
Plus: change in total liabilities	(3,033)	4,093	(162,560)	(819)	(700)	372	(1,026)	(360)
Less: change in total assets	(3,772)	684	(162,953)	(167)	278	1,386	(6)	737
FCFE	**1,635**	**278**	**2,200**	**652**	**592**	**623**	**704**	**740**
Beginning TSE	17,642	16,903	13,494	13,101	13,753	14,731	15,745	16,765
ROE	5.08%	-18.52%	13.39%	9.95%	11.42%	11.11%	10.95%	10.96%
Cost of equity (Re)	7.39%	7.39%	7.39%	7.39%	7.39%	7.39%	7.39%	7.39%
Economic Profit (EP)	**(407)**	**(4,379)**	**810**	**336**	**555**	**549**	**561**	**599**

Hartford Financial Services Grou

Cost of equity (Re)

Risk Free	2.66%
Equity risk premium	4.95%
Beta	0.97
Cost of equity (Re)	**7.39%**

Hartford Financial Services Group Inc.

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:	
CV NI Growth	2.50%
CV ROE	10.96%
Cost of Equity	7.39%

Fiscal Years Ending Dec. 31	2019E	2020E	2021E	2022E	2023E
DCF Model					
Period	1	2	3	4	5
FCFE	652	592	623	704	740
Net Income					1,837
CV				29,024	
Present value of FCFE	607	514	503	529	
Present value of CV				21,826	
Present value of equity	23,979				
Less: Value ESOP	37				
Adjusted present value of equity	23,942				
Shares outstanding	359				
Intrinsic value per share	**$ 66.60**				
Partial year adjustment	**$ 67.58**				
EP Model					
Economic profit (EP)	336	555	549	561	599
Net Income					1,837
CV				12,259	
Present value of EP	313	481	443	422	419
Present value of CV				9,219	
Total present value of EP	10,878				
Beginning TSE	13,101				
Less: Value of ESOP	37				
Present value of equity	23,942				
Shares outstanding	359				
Intrinsic value per share	**$ 66.60**				
Partial year adjustment	**$ 67.58**				

Hartford Financial Services Group Inc.

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

Fiscal Years Ending Dec. 31	2019E	2020E	2021E	2022E	2023E
Period	1	2	3	4	5
EPS	$ 3.63	$ 4.39	$ 4.65	$ 4.98	$ 5.40
Key Assumptions					
CV EPS growth	5.25%				
CV ROE	10.96%				
Cost of Equity	7.39%				
Future Cash Flows					
P/E Multiple (CV Year)	65.050				
EPS (CV Year)					
Future Stock Price					
Dividends Per Share	$ 0.93	$ 1.12	$ 1.19	$ 1.27	
				$ 64.52	
Discounted Cash Flows	$ 0.86	$ 0.97	$ 0.96	$ 0.96	
				$ 48.52	
Intrinsic Value	**$ 52.26**				
Partial year adjustment	**$ 52.98**				

Hartford Financial Services Group Inc.
Relative Valuation Models

Ticker	Company	Price	EPS 2019E	EPS 2020E	P/E 19	P/E 20	BVPS 19	BVPS 20	P/B 19	P/B 20
ALL	Allstate Corporation	$94.57	$9.15	$9.15	10.3	9.6	63.6	69.1	1.42	1.44
AFL	Aflac Incorporated	$48.75	$4.24	$4.24	11.5	11.1	31.6	34.6	1.47	1.52
PGR	Progressive Corporation	$72.27	$5.00	$5.00	14.5	13.7	22.3	26.1	3.25	3.32
TRV	Travelers Companies	$131.02	$11.08	$11.08	11.8	11.3	93.0	98.7	1.38	1.40
LNC	Lincoln National Corporation	$62.81	$9.08	$9.08	6.9	6.1	76.8	85.2	0.74	0.79
CB	Chubb Limited	$134.51	$10.89	$10.89	12.4	11.6	117.4	124.7	1.35	1.36
				Average	**11.2**	**10.6**			**1.6**	**1.6**
HIG	Hartford Financial Services Gro	$48.73	$ 4.39	$ 4.65	11.1	10.5	36.4	38.3	1.3	1.3

Implied Value:

Relative P/E (EPS19)	**$ 49.27**
Relative P/E (EPS20)	**$ 49.14**
P/B 19	**$ 58.37**
P/B 20	**$ 62.68**

Hartford Financial Services Group Inc.
Key Management Ratios

Fiscal Years Ending Dec. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Liquidity Ratios								
Liquid assets / total reserve	1.53	1.49	1.51	1.55	1.56	1.61	1.61	1.64
Activity or Asset-Management Ratios								
Expense ratio	11.32%	12.39%	13.15%	13.83%	14.56%	15.43%	16.07%	16.64%
Loss ratio	72.72%	71.95%	70.36%	68.00%	67.04%	67.00%	66.85%	66.51%
Combined ratio	84.05%	84.33%	83.51%	81.83%	81.60%	82.43%	82.92%	83.15%
Financial Leverage Ratios								
Leverage ratio (asset / equity)	13.29	16.69	4.76	4.52	4.24	4.05	3.81	3.61
Debt to capital (debt / assets)	0.92	0.94	0.79	0.78	0.76	0.75	0.74	0.72
Debt to equity (debt / equity)	12.29	15.69	3.76	3.52	3.24	3.05	2.81	2.61
Equity to Total Assets	0.08	0.06	0.21	0.22	0.24	0.25	0.26	0.28
Profitability Ratios								
Operating margin (op. income / TR)	85.04%	83.31%	83.72%	87.49%	87.69%	87.89%	87.99%	88.19%
Net margin (NI / TR)	5.56%	-18.45%	9.53%	6.61%	7.47%	7.36%	7.43%	7.63%
Return on equity (NI / avg. total equity)	5.76%	-20.13%	11.62%	8.38%	10.10%	10.52%	11.08%	11.81%
Payout Policy Ratios								
Dividend cover (NI / dividends paid)	2.79	(9.33)	4.57	3.93	3.99	3.99	3.99	3.99
Cash flow dividend cover (operating cash / dividends paid)	1.02	0.54	0.31	0.50	0.32	3.01	2.55	3.93
Dividend payout ratio	35.89%	-10.71%	21.86%	25.42%	25.07%	25.07%	25.06%	25.05%

Hartford Financial Services Group Inc.

Sensitivity Analysis

Commercial premium Growth rate

commercial policy growth rate	$ 52.26	2.00%	2.50%	3.00%	3.50%	4.00%
	2.25%	50.17	50.60	51.21	52.26	54.36
	2.50%	50.69	51.12	51.74	52.79	54.89
	2.75%	51.21	51.63	52.26	53.32	55.42
	3.00%	51.73	52.16	52.79	53.85	55.96
	3.25%	52.26	52.68	53.32	54.37	56.49

AUM Growth rate

Expense ratio growth rate	$ 52.26	3.50%	4.00%	4.50%	5.00%	5.50%
	-2.42%	50.10	50.67	51.24	51.70	52.17
	-2.20%	50.78	51.36	51.94	52.41	52.88
	-2.00%	51.10	51.67	52.26	52.73	53.20
	-1.80%	51.87	52.46	53.05	53.53	54.01
	-1.62%	52.69	53.29	53.89	54.38	54.86

Premium per policy (commercial lines)

Premium per policy (auto)	$ 52.26	4,912.18	5,170.72	5,442.86	5,715.00	6,000.75
	1,526.40	49.84	50.41	50.98	51.44	51.90
	1,606.74	50.68	51.25	51.83	52.30	52.77
	1,691.30	51.10	51.67	52.26	52.73	53.20
	1,775.87	51.69	52.28	52.87	53.35	53.83
	1,864.66	52.45	53.04	53.64	54.12	54.61

Policy growth (homeowners)

Policy growth (auto)	$ 52.26	7.22%	7.60%	8.00%	8.40%	8.82%
	6.40%	51.97	51.51	51.05	51.51	51.97
	7.20%	52.72	52.25	51.78	52.25	52.72
	8.00%	53.20	52.73	52.26	52.73	53.20
	8.80%	54.10	53.62	53.14	53.62	54.10
	9.60%	55.06	54.57	54.08	54.57	55.06

Group benefits earned premiums

Commercial lines earned premiums	$ 52.26	5,279.54	5,557.41	5,849.91	6,142.41	6,449.53
	6,040.60	48.02	47.59	47.16	47.59	48.02
	6,711.78	50.54	50.09	49.65	50.09	50.54
	7,457.53	53.20	52.73	52.26	52.73	53.20
	8,203.29	55.07	54.58	54.09	54.58	55.07
	9,023.61	56.99	56.49	55.98	56.49	56.99