

Krause Fund Research Spring 2024 | April 16, 2024

Recommendation: BUY

Analysts

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Investment Thesis

We recommend a **BUY** rating for CNA. Current economic conditions provide opportunity for growth in its primary revenue sources, net earned premiums and investment income. CNA had a strong performance in 2023, increasing revenues by nearly 12% year over year. We expect that trend to continue in 2024 and beyond.

Thesis Drivers:

- We forecast revenue to increase by 10% over the next two years. • The P&C has a strong insurance pricing environment, driving an increase in net written premiums and overall net earned premium growth. Current interest rate environments, directly correlated with bond yields, provide growth opportunity for investment income.
- CNA has consistently paid out high dividends, including a specialty dividend in 2023. We expect this trend to continue and forecast a 3.79% increase in dividend per share year over year, providing stable income for investors.

Thesis Risks:

- As inflation remains high, the costs associated with claim • payouts, underwriting, and reinsurance typically increase. These rising expenses can potentially offset the revenues of property and casualty insurance companies.
- Interest rate fluctuations present a potential risk to the P&C • industry. Rising rates can lead to mark-to-market losses on bonds, while falling rates can reduce the return on investments.





Company Information

Company:	CNA Financial Corp.
Industry:	Financial Services
Sector:	Property & Casualty Insurance
Exchange/Ticker:	NYSE/CNA

Price Projections

Target Price:	\$55-60
DCF/EP Model:	\$58.69
DDM:	\$58.59
Relative Valuation (AVG):	\$51.68

Financials

Stock Data:	
Current Price:	\$45.39
52-Week Range:	\$36.41-\$47.37
Market Cap:	11.81B
YTD Performance:	2.56%
P/E:	9.78x
Beta:	0.71
Financial Metri	cs:
Shares Outstanding:	270.9mm
EPS:	\$4.44
Dividend Yield:	3.88%
Net Income:	\$1,205mm
Profit Margin:	9.06%
ROE:	14.1%
ROA:	1.92%
Combined Ratio:	96.0%
Loss Ratio:	59.9%

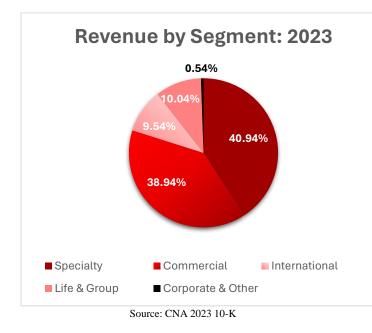
Company Overview

CNA Financial Corp. is involved in offering insurance services and headquartered in Chicago, IL. CNA operates in more than 60 countries worldwide, providing insurance solutions to clients across various industries and sectors. CNA provides services in three main segments: Specialty, Commercial, and International. The Specialty segment, also their largest segment, delivers professional, financial, and specialty property and casualty solutions. The commercial segment focuses on property and casualty coverage for small to mid-market entities, primarily through independent agency distribution. The international segment deals with property and casualty coverages in international markets.

Company Analysis

Company Description:

CNA Financial Corporation (NYSE: CNA) is a leading commercial property and casualty insurance company in the United States. Established in 1897, CNA is a subsidiary of Loews Corporation, which was founded in 1853. CNA is segmented into three operational categories: Specialty, Commercial, and International. The Commercial line provides property and casualty insurance, professional liability insurance, and workers' compensation. The Specialty group provides industry-specific coverage, such as management lability, surety bonds, and warranty services. Beyond that, they also provide risk management services and claims services [1]. While CNA primarily operates in the United States, it also provides services internationally in Canada and Europe [2].



Specialty Segment:

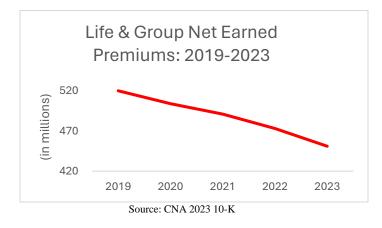
As mentioned in the company description, the Specialty segment offers a variety of coverages, including management and professional liability, surety bonds, and warranty services. These services are offered to various industries, including healthcare, technology, professional services, and marine services [1]. The Management & Professional Liability provides coverage for D&O and E&O, employment practices, cyber coverage across public and privately held firms. These firms range from small to mid-size. For healthcare, customer groups consist of dentists, physicians, and other medical professionals [1]. In Warranty and Alternative risks, extended service contracts and insurance products are provided to protect from mechanical issues. These coverages are for vehicles, electronics, as well as other consumer goods [1]. The contracts are commission-based through independent representatives and sold by auto dealerships throughout North America. As seen in the revenue pie chart, the Specialty segment was the strongest source in 2023, making up nearly 41%. Specialty revenues have been CNA's primary revenue stream and have seen strong growth over the last 5 years. In 2023, Specialty had a loss ratio of 58.5% and combined ratio of 90.4%. When these ratios are under the 100% mark, it demonstrates that its written premiums are outpacing the claims paid out. In 2024, analysts expect net written premiums to increase by 7-10%, primarily due to stable demand and the current insurance pricing environment [3]. Analysts' expectations are in line with our expectations. For that reason, we anticipate that specialty revenues will grow from \$5,490mm in 2023 to \$6,190mm in 2024. Furthermore, due to the current interest rate environment, we believe the loss and combined ratios will stay below the 100% mark.

Commercial Segment:

The commercial segment produces a range of property and casualty insurance for small business, middle market, construction, and other commercial businesses. Property insurance includes standard and excess property, as well as coverage for machinery, boilers, and marines. This is another prominent revenue driver for CNA, providing nearly 39% of revenues in 2023. Casualty insurance is for workers' comp, product liability, commercial auto, and more. The segment also provides loss-sensitive insurance and risk management [2]. Commercial has been borderline unprofitable the past two years, with combined ratios of 97.3% and 96.0% in 2022 and 2023, respectively. In the 10-K, management noted that the expense ratio has improved over the last year, which was guided by higher net earned premiums. Furthermore, to offset high claims, CNA reinvests in premiums and profits from investment income. Although we project a decrease in net investment income from 2023 to 2024, we expect a strong output of \$2,076mm. Like the Specialty segment, Commercial has had consistent growth over the last few years. We forecast that trend to continue with a historical 5% growth year over year.

Life & Group:

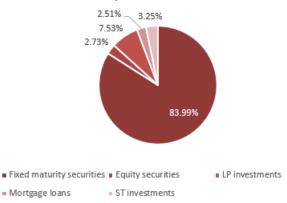
Life & Group consists of the long-term care business and structured settlement obligations, which makes up just over 10% of CNA's revenue in 2023. This segment has historically provided rather immaterial net earned premiums but benefits largely from net investment income. We expect this segment to grow from \$1,279mm to \$1,343mm as it has historically, however that is driven by net investment income. Long term care net earned premiums have declined for this group and we anticipate that will continue, dropping from \$451mm in 2023 to \$440mm in 2024.



International Segment:

The International revenue stream underwrites property and casualty coverages throughout Canada and Europe. This segment is around 10% of CNA's revenue year after year. The Canada operation provides both commercial and specialty insurance for construction, oil & gas, marine industries, and more. This also includes Hardy, or Lloyd's Syndicate 382, which underwrites energy, marine, P&C, and specialty lines with risks throughout the world [2]. Equivalent to the Specialty and Commercial segments, International has had a combined ratio of less than 100%. In 2022 and 2023, these figures were 91.8% and 92.6%, respectively. International had a strong increase in gross written premiums from 2022 to 2023 as well, up \$91 million when factoring for exchange rates. Although exchange rates can be volatile because of geopolitical events, we forecast to increase of 5% year over year, in line with historical growth.

Revenue by Investment Asset: 2023



Fixed Maturity Securities:

Fixed maturity securities make up the largest percentage of CNA's investment income, comprising of nearly 84% in 2023. These securities consist of a fixed duration and set interest rate, including assets like government and corporate bonds. The value of these securities is correlated with bond yields and thus interest rates. In high interest rate environments, returns on these assets are higher. This is evident when comparing the fixed maturity investment income from 2022 to 2023, as it had over 25% growth year over year. As interest rates continue to stay high with a lack of Fed cuts in 2024, we forecast another strong year of investment income in this category of \$2,076mm.

Limited Partnership Investments:

Limited partnership is the second highest driver of investment income at 7.53%. These investments comprise of private debt and equity, as well as hedge fund strategies [4]. These are generally high-risk investments due to high leverage but have been a robust revenue source for CNA. These assets are not liquid as withdrawal provisions are included in these investments. The returns on these are generally in line with equity investments. We project another strong year for limited partnerships, providing \$163mm in revenue in 2024.

Mortgage Loans:

CNA's mortgage loans portfolio provided 3.25% of investment income in 2023. The portfolio includes investments in securitized tenant loans and ground lease findings. The securities are primarily investment grade quality (BBB). Credit quality of mortgage loans are assessed using debt service credit ratios (DSCR) and loan-to-value ratios (LTV). Although not large, mortgage loans have been a consistent source of investment income. Mortgage rates rose to 6.81% in 2023, resulting in CNA having a lower ROI than the previous two years [5]. We forecast mortgage loan assets to increase in 2024, but given the current mortgage rate environment, we expect just a \$3mm investment income increase year over year.

Equity Securities:

Equity securities are classified in three levels. Level 1 includes publicly traded securities, which are valued at quoted market prices. Level 2 are valued using pricing for comparable securities, precedent transactions, and other pricing models. Level 3 securities are priced through broker/dealer quotes and internal models using assumptions [6]. CNA's equity securities are comprised primarily of Level 1, followed by Level 2 and 3. Although equity security income decreased by \$60mm from 2021 to 2022, it rebounded in 2023 with a \$40mm increase.

Short-term Investments:

Short-term investments typically make up an immaterial amount of CNA's investment income. These investments are less than a year and consist of low-risk investments, such as money market funds and treasury bills. Income on these are driven by treasury yields and due to 2023's interest rate environment, CNA an increase from \$16mm to \$75mm year over year. We expect income from these investments to normalize over the coming years.

Dividend Payout:

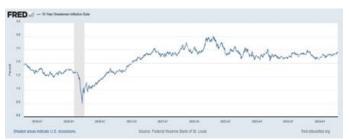
CNA has historically paid high dividends, which is not uncommon in the financial services industry. These companies generate stable cash flows, allowing them to distribute excess cash flows to shareholders. Furthermore, regulatory factors in this industry require capital retention. Rather than holding onto excess funds that cannot improve returns, CNA returns the additional capital to investors. In 2023, this included a specialty \$2.00 dividend. Since 2015, CNA's dividend payout has been nearly 100% of its net income. We expect this trend to continue, alongside growth in dividends per share.

Economic Analysis

Inflation:

Inflation holds significant importance for CNA, as it can impact the cost of paying out claims to policyholders. As inflation rises, the cost of repairing and replacing damage tends to rise, leading to increased claim costs for CNA. Claim costs are currently surpassing the growth in premiums, resulting in potential loss. In 2023, while premiums have increased by only 6%, claim costs have surged by 8% [3]. This can be detrimental for CNA, because as an insurance company continues to raise premiums, it can tend to discourage policyholders.

Figure 1: 10-year break-even U.S. Inflation



U.S. inflation has dropped from 6.4 to 3.4 in 2023. [i] We think inflation could get as low as 2.4% by the end of 2024. We should start to see some of the claim cost loss start to even out with premium costs.

Interest Rates:

One of CNA's major revenue streams includes net investment income; ~17% in 2023 for CNA (Oct 10-Q). This income primarily comes from fixed maturity securities, making up around 87% of total investments in December of 2023. As interest rates rise, newer bonds will have higher yields, making them more attractive. This causes existing bonds' price to drop, to compete with the new ones. This can directly impact CNA as interest rates can affect the fair value of their holdings.

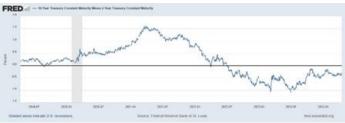


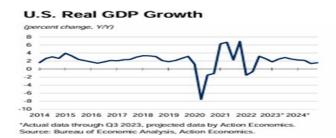
Figure 2: 10-year T-Yield minus the 2-year constant maturity

Graphed above is the spread of the 10-year treasury yield curve minus the 2-year constant maturity. This helps us assess the future value of CNA's portfolio based on interest rate dynamics and market expectations. The yield curve has been declining in recent years due to attempts to slow inflation by tightening monetary policy. We think the yield curve will continue this path through 2024.

GDP & Housing Market:

The real GDP of a country has drastic effects on the housing market, as generally, the wealthier a country is, the more citizens are to own a home. So as real GDP and housing starts/sales increase, the more policyholders CNA can expect to insure. Although, new properties mean new exposure, so the underwriting on new properties must be tailored to their specific exposure risks.

Figure 3: U.S. Real GDP Growth

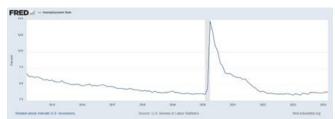


The figure above shows U.S. Real GDP growth over the last 10 years. The FOMC predicts the U.S. Real GDP to growth only 1.5% in 2024. We think it will sit around the 2% range. This can seem underwhelming, as usually Real GDP sits between 2-4%.

Unemployment:

Unemployment can be another economic indicator affecting CNA. Firstly, as the unemployment rate rises, there may be reduced demand for certain insurance products, such as workers' compensation insurance. Moreover, with high unemployment, the less drivers there are going to work. This in turn would reduce the number of auto accidents to insure. This can be a good or bad thing, depending on CNA's ability to match premiums with the increase or decrease in claim costs.

Figure 4: Unemployment Rate



After the Covid-19 pandemic, the U.S. experienced high unemployment. It has declined to around 3.8% [i] as of Feb '23. We expect unemployment to sit in the 3.6-3.8% moving forward. Stagnant job growth, paired with large increases in the labor force, would be the main concern when looking forward.

Automotive Sales:

Automotive sales serve as a positive economic growth indicator, indicating a thriving economy. With increased automotive sales, there are more cars on the road, driving up the demand for auto insurance coverage. Consequently, CNA stands to benefit from heightened premium revenue as automotive sales surge. Moreover, newer vehicles typically command higher premiums than older ones due to their increased repair costs and insurance rates. However, a rise in automotive sales correlates with a potential uptick in auto accidents, which in turn escalates claim costs for CNA. If the surge in claim costs outweighs the increased demand for higher premiums, CNA may incur losses.

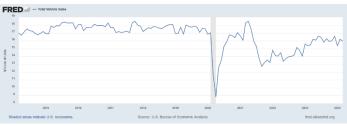


Figure 5: Total Vehicle Sales

The figure above shows total automotive sales in millions over the last 10 years. As shown since the pandemic there has been considerable growth in total automotive sales. We think that automotive sales will continue to grow 3-5% this year.

Industry Analysis

Industry Description:

Property & Casualty (P&C) insurance covers a broad range of insurance products designed to protect individuals and businesses against financial losses resulting from damage to their property or legal liability for damages caused to other people or their property. It's critical to financial services because it provides essential risk management solutions to help stabilize the economy and promote financial security.

Porters 5 Forces:

Threat of new entrants (Low):

Due to the heavy regulations and large capital requirement, the Property and Casualty Insurance sub-industry can be a hard market to break into. Furthermore, the barrier of entry can be rather high as well. Given the consumer-oriented nature of these insurance products, large economies of scale can be hard to obtain, giving a huge cost advantage for bigger players in the industry.

Threat of substitutes (Very low):

In the insurance industry, there are no substitutes, as the only option would be to independently bear the risk of potential losses through self-insurance.

Bargaining power of customers (Low-Medium):

Although consumers of P&C insurance have little control over the cost associated with specific products or bundles, the cost to switch insurance companies is low, which can give the consumer some leverage in the negotiation of price.

Bargaining power of suppliers (Unique):

The suppliers within the P&C insurance industry exhibit diverse roles. Reinsurers, for instance, provide capital to property-casualty insurers, who, in turn, supply insurance products to insurance brokers. On the other hand, a current hardship faced within the sub-industry is the scarcity of talent and labor. Due to the lack of quality insurance professionals within the P&C insurance sub-industry, the bargaining power of suppliers can be rather strong.

Intensity of competitive rivalry (High):

The sub industry can experience very high levels of competition between large insurers as a lot of companies offer similar products and will adjust their prices to compete and gain share of the market. As of recent years, there has been little product differentiation, causing products to seem more commodity-like. Now, insurers get a rise on competition through cost advantage strategies and better operational effectiveness.

Industry Trends:

Profit Pools:

Although the Insurance Industry has generally lower margins than other financial sectors such as banks or capital markets, they are the largest sector in terms of revenue. Furthermore, the P&C Insurance sub-industry has the highest share of revenue compared to a pool of other types of insurance (multi-line insurance, life & health insurance, insurance Brokers, and reinsurance). This can be attributed to many factors. Firstly, P&C Insurers offer a wide range of different coverage bundles. These include property damage, liability, auto accidents, and natural disasters. This is beneficial for a company like CNA because it allows them to generate multiple revenue streams from different levels of risk. When a company can diversify its product line, it generally results in increased market share. Also, due to market regulations, it may be required under law to own coverage for a property and/or vehicle. This creates a consistent stream of new demand for P&C companies.

As 2024 continues, P&C Insurers are looking to increase prices, rising above the usual long-term averages. With an increase in pricing power, commercial lines will look to increase prices and personal lines will look to increase prices to counteract the increase in claims cost. The demand for insurance, especially commercial insurance, is expected to stay strong. This can be attributed to the aggressive action done by the federal reserve when increasing interest rates, resulting in the U.S. economy to stabilize. However, Insurers are facing high reinsurance costs, and are worried about how climate change, like wildfires, might affect property coverage in coastal areas. Most of the pandemic's negative effects (increased claim costs) have been combatted with an increase in rates.

Peer Comparison:

For the Peer Comparison we will look at market cap, sales, and net income for various companies in competition.

Rank	Company	Market Cap	Sales	Net Income
1	PGR	106.19B	61.27B	3.86B
2	TRV	48.56B	41.36B	2.98B
3	ALL	41.06B	55.91B	-2086M
4	HIG	27.10B	24.53B	2.48B
5	WRB	20.67B	12.13B	1.38B
6	MKL	18.77B	15.80B	1.97B
7	CINF	17.66B	9.77B	1.67B
8	L	16.27B	15.90B	1.43B
9	CNA	12.37B	10.40B	1.21B
10	AFG	10.04B	7.55B	865M

Although CNA may have a lower market cap than some of its peers, it has great sales and net income when compared to other companies. This can mean many things, most importantly that it may be undervalued, as its stock price may not emulate its strong financials. This can be beneficial, as a mixture of low market share, high sales, and high net income can be a combination for future growth. Furthermore, these numbers show signs that CNA is very efficient in converting sales to net income, as their ratio is larger than most peer companies. However, a smaller market cap can mean that CNA is susceptible to economic downtowns, more so than larger companies.

Operating Environment:

Valuation Analysis

Net Earned Premiums:

CNA's primary source of revenue is net earned premiums, which have accounted for nearly 71% of its total revenues over the last three years. Over the next two years, we project a CAGR of 5.84% for net earned premiums, which falls below analysts' expectations of 8.04%. [7]. While our growth forecasts are strong, we believe that analyst projections are overly optimistic due to increases in premium prices.

We calculated net earned premium growth using both analyst expectations and historical growth rates. For 2024, analysts forecast a nearly 10% increase in net written premiums due to stable demand and strong pricing. This projection has formed our expectation of 8% growth in the property and casualty (P&C) line. From 2025 to 2028, we anticipate that the P&C segment will stabilize at a historically strong growth rate of 4.50%. However, CNA's long-term care segment, which comprises a small portion of its net earned premiums, has been experiencing a steady decline over the years. We have continued to apply this historical trend by projecting a -2.40% annual growth rate.

Net Investment Income:

Net Investment Income is another significant revenue source for CNA, comprising nearly 17% of its total revenue over the last three years. CNA invests in various asset classes, including stocks, bonds, and alternative investments such as private equity. The primary components of CNA's investment portfolio are fixed maturity securities, followed by limited partnership investments in PE, and equity securities. We have based our income projections on the ROI% for each investment category, applying the expected returns for each relevant asset class.

CNA experienced strong net investment income returns in 2023, which aligned with the prevailing interest rate environment. As interest rates rise, the market value of existing fixed maturity investments decreases. We project a net investment income CAGR of -1.89% as we anticipate that the Federal Reserve will cut rates, which would result in lower bond yields. This projection is below analysts' expectations of a 2.83% CAGR [7]. Our more conservative forecast stems from the reasons mentioned above.

Non-Insurance Warranty Revenue:

CNA began generating non-insurance warranty revenue in 2016, which has since become a significant contributor, accounting for 12% of its revenues over the last three years. This revenue primarily consists of service contracts and insurance products that cover repair costs, maintenance, and support services. We have forecasted these revenues based on historical growth rates. Our expected CAGR is higher than analyst expectations, as we believe this revenue source has become a focal point for CNA and has experienced strong growth over the past four years.

Insurance Claims and Policyholders' Benefits:

Insurance claims paid out represent CNA's largest expense. We forecast this expense based on a historical percentage of net earned premium revenue. That percentage is then applied to the current year's net earned premium revenue. As these revenues have increased, the associated expenses have risen proportionally.

Amortization of Deferred Acquisition Costs:

Amortization of deferred acquisition costs is another significant expense for CNA. This expense relates to the acquisition of insurance policies, including commissions paid to agents and underwriting costs. Like insurance claims payouts, we forecast this expense based on a historical percentage of net earned premium revenue.

Non-Insurance Warranty Expense:

Non-insurance warranty expense is the last major expense for CNA. This expense is directly related to non-insurance warranty revenue, which includes costs associated with offering service contracts and extended warranties. We applied a historical percentage of non-insurance warranty revenue to each year's revenue. As we anticipate strong growth in this revenue source, the corresponding expenses are also expected to increase.

Cost of Equity:

We calculated CNA's cost of equity to be 7.65%, using the Capital Asset Pricing Model (CAPM). This projection includes the current 10-year Treasury yield of 4.595%, our model beta of 0.71 sourced from Bloomberg, and the 4.33% equity risk premium based on Damodaran's 12-month cash yield data [9]. Given that the cost of equity serves as the discount rate in financial modeling, this figure is crucial and is applied consistently throughout our model.

Model Valuations

Discounted Cash Flow & Economic Profit Analysis:

Share Price: \$58.69

The first couple of intrinsic valuation methods we used to compute our implied per-share price were the Discounted Cash Flow (DCF) and Economic Profit (EP) analysis. Since CNA is a financial services company, we calculated the free cash flow to equity (FCFE) for 2024-2028 and discounted it back to the present value using the cost of equity of 7.65%. After accounting for the Employee Stock Ownership Plan (ESOP), dividing by the shares outstanding, and adjusting for timing, we arrived at our implied pershare price of \$58.69.

For the EP analysis, we calculated equity economic profit (EEP) for the years 2024-2028 by multiplying the beginning total stockholders' equity by the difference between ROE and the cost of equity. The resulting EEP was then discounted to present value and added to the invested capital to determine the value of equity. After subtracting the Employee Stock Ownership Plan (ESOP), dividing by the number of shares outstanding, and adjusting for timing, we arrived at our implied per-share price of \$58.69.

The 11.10% CV of ROE and 1.88% CV of Net Income are below analyst projections, primarily due to property and casualty being a slow-growth industry. Although the intrinsic price is above the 52-week range, we believe continued growth in net earned premiums and net investment income will drive consistent revenues. Along with the DDM, the DCF and EP are the primary analyses used to forecast our recommendation for CNA.

Dividend Discount Model:

Share Price: \$58.59

The DDM model is an important valuation method for CNA, given its consistently high dividend payout, which is expected to continue. We discounted the projected dividends per share from 2024-2028 to present value using our cost of equity of 7.65%. Additionally, the terminal value was calculated by multiplying the continuing value (CV) P/E multiple of 14.6x by our CV EPS of \$4.42, which was also discounted to present value. After summing these discounted cash flows and making the necessary partial-year adjustment, we derived an implied per share price of \$58.59.

Our CV EPS of \$4.42 is below analysts' expectations, due to our projection of continued increases in operating costs. Although the 14.6x P/E multiple is significantly above the current trading multiple of 9.8x for CNA, we are comfortable with this figure since it aligns closely with the industry average of 14.03x for the P&C sector [9].

Relative Valuation:

Share Price: \$51.68

For relative valuation, we considered comparable companies within the insurance industry, primarily in middle-market P&C. We excluded competitors with outlier multiples such as Kinsale Capital Group (KNSL) and Assurant (AIZ), which would skew the final share price. The selected comps were Cincinnati Financial Corp (CINF), Old Republic International Corporation (ORI), Markel Group (MKL), American International Group (AIG), and First American Financial Corporation (FAF). Our relative valuation considered the following multiples: P/E 2024 and 2025, PEG 2024 and 2025, as well as P/B and P/Tangible BV. The multiple range was from \$48.10-\$58.66, so we took the average, resulting in a final share price of \$51.68.

The relative valuation is on the lower end of our range, and we are moderating our focus on this method. The comparable companies used had lower 2024 and 2025 P/E multiples, while P/B and Tangible P/B had higherend multiples. While this analysis was considered when coming up with price range, we are placing more emphasis on our intrinsic valuation methods.

Sensitivity Analysis

Beta vs. Equity Risk Premium:

When calculating the cost of equity, beta and equity risk premium are key factors. When using beta, or the systematic risk of a company, increases drive down valuation while decreases increase the valuation. The same goes for the equity risk premium, which is the expected return on the market minus the risk-free rate. Increasing the beta by just .05 results in the stock price dropping by nearly 4%. Increasing the equity risk premium by .15% results in a drop in stock price of 1.84%.

					Beta			
	58.69	0.56	0.61	0.66	0.71	0.76	0.81	0.86
	3.88%	69.60	66.91	64.43	62.13	59.98	57.97	56.10
	4.03%	68.42	65.73	63.24	60.94	58.79	56.79	54.92
	4.18%	67.28	64.59	62.10	59.79	57.65	55.66	53.80
ERP	4.33%	66.18	63.48	60.99	58.69	56.55	54.57	52.72
	4.48%	65.12	62.41	59.92	57.63	55.50	53.52	51.68
	4.63%	64.08	61.38	58.89	56.60	54.48	52.51	50.68
	4.78%	63.09	60.38	57.90	55.61	53.50	51.54	49.72

Beta vs. Risk-Free Rate:

Similar to the equity risk premium, the risk-free rate has a significant impact when calculating the cost of equity. When changing the risk-free rate, it has a similar effect, as an increase in the risk-free rate drives the valuation down. Regarding sensitivity testing here, a .15% increase results in a 2.73% decrease in price. However, an increase in beta and the risk-free rate does not impact the price as significantly as the ERP does.

					Beta			
	58.69	0.56	0.61	0.66	0.71	0.76	0.81	0.86
	4.15%	72.60	69.36	66.40	63.69	61.18	58.87	56.72
e	4.30%	70.33	67.29	64.50	61.93	59.56	57.36	55.32
Rat	4.45%	68.19	65.33	62.70	60.27	58.02	55.93	53.99
Risk-Free Rate	4.60%	66.18	63.48	60.99	58.69	56.55	54.57	52.72
4	4.75%	64.29	61.73	59.38	57.19	55.16	53.27	51.51
iii Bii	4.90%	62.50	60.08	57.85	55.77	53.84	52.03	50.35
	5.05%	60.80	58.51	56.39	54.42	52.58	50.85	49.24

CV ROE vs. Cost of Equity:

The carrying value of ROE and Cost of Equity are important when ciphering the DCF and EP analyses. These are especially important when coming up with the carrying value, which is the driving force of the value of equity. These variables have an inverse relationship. In the sensitivity analysis, an increase in the discount rate has a more prominent influence on price than a decrease in ROE.

					CV ROE			
	58.69	10.65%	10.80%	10.95%	11.10%	11.25%	11.40%	11.55%
	7.20%	63.20	63.36	63.51	63.66	63.80	63.94	64.08
≥	7.35%	61.46	61.61	61.76	61.90	62.04	62.18	62.31
đri	7.50%	59.81	59.96	60.10	60.24	60.38	60.51	60.64
of Equity	7.65%	58.25	58.39	58.53	58.67	58.80	58.93	59.05
Cost	7.80%	56.77	56.91	57.04	57.17	57.30	57.42	57.54
ö	7.95%	55.36	55.49	55.63	55.75	55.88	56.00	56.11
	8.10%	54.02	54.15	54.28	54.40	54.52	54.64	54.75

<u>CV Fixed Maturity Asset Growth vs. CV ST</u> Investment Growth:

The CV of fixed maturity asset growth and short-term investment asset growth are significant when computing the DCF and EP models. The change in assets is a key driver when calculating FCFE. As seen below, whether the change is impacting the fixed maturity asset or ST investment asset, the CV does not have a significant effect on price.

	CV Fixed Maturity Asset Growth											
	58.69	3.70%	3.80%	3.90%	4.00%	4.10%	4.20%	4.30%				
Investment Asse	3.90%	58.53	58.58	58.63	58.69	58.74	58.79	58.84				
nt A	4.10%	58.53	58.58	58.63	58.69	58.74	58.79	58.84				
mer	4.30%	58.53	58.58	58.64	58.69	58.74	58.79	58.84				
est	4.50%	58.53	58.59	58.64	58.69	58.74	58.79	58.85				
	4.70%	58.54	58.59	58.64	58.69	58.74	58.79	58.85				
ST	4.90%	58.54	58.59	58.64	58.69	58.74	58.80	58.85				
2	5.10%	58.54	58.59	58.64	58.69	58.75	58.80	58.85				

<u>CV Fixed Maturity Securities Income vs CV Limited</u> Partnership Income:

Fixed Maturity income and limited partnership investment income make up the largest percentage of net investment income for CNA. CV net income is a key driver for the 2028E continuing value, a change in assumptions will impact the stock price. An increase of .10% in fixed maturity securities boosts the price by 2.39%, providing a .15% increase. This is expected as fixed maturity income makes up a much larger portion of CNA's investment income.

				CV Fixed	Maturity S	ecurities		
	58.69	3.70%	3.80%	3.90%	4.00%	4.10%	4.20%	4.30%
CV Limited Partnership	3.70%	54.22	55.63	57.03	58.43	59.83	61.23	62.64
lers	3.80%	54.31	55.71	57.11	58.52	59.92	61.32	62.72
art	3.90%	54.40	55.80	57.20	58.60	60.01	61.41	62.81
dP	4.00%	54.48	55.89	57.29	58.69	60.09	61.49	62.90
lite	4.10%	54.57	55.97	57.37	58.78	60.18	61.58	62.98
Li-	4.20%	54.66	56.06	57.46	58.86	60.26	61.67	63.07
5	4.30%	54.74	56.14	57.55	58.95	60.35	61.75	63.15

<u>CV Insurance Claims Expense vs. CV Amortization of</u> Deferred Acquisition Costs:

Insurance claims paid out and amortization of deferred acquisition costs are two of CNA's largest operating expenses. The change in the applied expense percentage of its corresponding revenue substantially. When the insurance claim percentage increases by 1%, the price falls by nearly 6.5%. When the amortization of deferred acquisition costs increases by .25%, the price decreases by 1.62%.

				Insurance	nsurance Claims CV Expense							
	58.69	-70.00%	-71.00%	-72.00%	-73.00%	-74.00%	-75.00%	-76.00%				
Exper	-16.75%	72.91	69.12	65.32	61.53	57.74	53.95	50.16				
ă	-17.00%	71.96	68.17	64.38	60.59	56.79	53.00	49.21				
S	-17.25%	71.01	67.22	63.43	59.64	55.85	52.05	48.26				
Amortization	-17.50%	70.06	66.27	62.48	58.69	54.90	51.11	47.31				
izat	-17.75%	69.12	65.32	61.53	57.74	53.95	50.16	46.37				
Tor	-18.00%	68.17	64.38	60.59	56.79	53.00	49.21	45.42				
Αr	-18.25%	67.22	63.43	59.64	55.85	52.05	48.26	44.47				

Conclusion

We placed a BUY rating on CNA due to growth opportunity in net earned premiums and net investment income. CNA's continually strong distribution of dividends and our expectation of an increase in dividends per share makes this an attractive investment opportunity. We advise that the Krause Fund continues to hold this company in the portfolio.

Important Disclaimer

This report was created by students enrolled in the Applied Equity Valuation class at the University of Iowa. The report was originally created to offer an internal investment recommendation for the University of Iowa Krause Fund and its advisory board. The report also provides potential employers and other interested parties an example of the students' skills, knowledge, and abilities. Members of the Krause Fund are not registered investment advisors, brokers or officially licensed financial professionals. The investment advice contained in this report does not represent an offer or solicitation to buy or sell any of the securities mentioned. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Krause Fund may hold a financial interest in the companies mentioned in this report.

Citations

- [1] CNA Financial Corporation 10-K 02-08-2022 pg. 33-35
- [2] CNA Financial Corporation 10-K 02-08-2022 pg. 38-39
- [3] Seifert, Catherine and Yahaya Fateh. *Industry Surveys: Property & Casualty Insurance*, January 2024.
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- Figure 1: Federal Reserve Bank of St. Louis, 10-Year Breakeven Inflation Rate [T10YIE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/T10YIE, April 16, 2024.
- Figure 2: Federal Reserve Bank of St. Louis, 10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity [T10Y2Y], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/T10Y2Y, April 16, 2024.
- Figure 3: Seifert, Catherine and Yahaya Fateh. *Industry* Surveys: Property & Casualty Insurance, January 2024.
- Figure 4: U.S. Bureau of Labor Statistics, Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St.

Louis;

https://fred.stlouisfed.org/series/UNRATE, April 5, 2024.

- Figure 5: U.S. Bureau of Economic Analysis, Total Vehicle Sales [TOTALSA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TOTALSA, April 6, 2024.
- [i] "Welcome to Fred, Federal Reserve Economic Data. Your Trusted Source for Economic Data since 1991." *FRED*, Federal Reserve Bank of St. Louis, fred.stlouisfed.org/. Accessed 16 Apr. 2024.
- The [i] represents a certain point on the graph provided by Fred.

Revenue Decomposition

Fiscal varues faciling Dec. 31 2015 2016 2017 2018 2020 2021 2022 2023 2024t 2025t 2026t 2027t 2028t 208t<
Long term care 548 536 539 530 520 504 491 473 451 440 430 419 409 428 Net armed premiums 6,921 6,924 6,924 6,928 7,312 7,428 7,649 8,175 8,667 9,480 10,192 10,620 11,638 11,538 12,037 Fixed maturity securities 1,751 1,819 1,817 1,728 1,941 1,823 1,900 2,025 2,005 Equity securities 12 10 12 18 85 65 83 23 63 15 57 61 54 58 61 65 69 74 60 Short term investments 6 8 10 12 7 9 18 9 4 4 17 18 20 21 200 Other 1 4 1 4 5 1 - 5 28 7 7 </td
Net earned premiums 6,921 6,924 6,988 7,312 7,428 7,649 8,175 8,667 9,480 10,192 10,620 11,068 11,538 12,057 Fixed maturity securities 1,751 1,819 1,812 1,795 1,817 1,728 1,707 1,787 1,941 1,823 1,905 1,990 2,025 2,005 Equity securities 12 10 12 18 85 65 83 23 63 55 59 64 68 43 Imited partnership investments 92 155 207 (22) 180 121 362 (12) 174 163 165 69 74 60 Short term investments 6 8 15 26 34 9 1 16 75 27 28 30 31 29 Trading portfolio 8 10 12 7 9 18 9 4 4 177 <t< td=""></t<>
Fixed maturity securities 1.751 1.819 1.812 1.795 1.817 1.728 1.707 1.787 1.941 1.823 1.905 1.990 2.025 2.005 Equity securities 12 10 12 18 85 65 83 23 63 55 59 64 68 43 Limited partnership investments 92 155 207 (22) 180 121 362 (12) 174 163 176 190 204 124 Mortgage loans 33 41 34 50 51 57 61 54 58 61 65 69 74 60 Short term investments 6 8 10 12 7 9 18 9 4 4 17 18 20 21 20 Other 1 4 1 4 5 1 - 5 28 7 7 7 8 4 Investment Expense (63) (59) (61) (63) 4
Equity securities 12 10 12 18 85 65 83 23 63 55 59 64 68 43 Limited partnership investments 92 155 207 (22) 180 121 362 (12) 174 163 176 190 204 124 Mortgage loans 33 41 34 50 51 57 61 54 58 61 65 69 74 60 Short term investments 6 8 10 12 7 9 18 9 4 4 17 18 20 21 20 Other 1 4 1 4 5 1 - 5 28 7 7 7 8 4 Investment Expense (63) (59) (59) (61) (63) (64) (72) (706 2,179 2,287 2,344 2,198 Fixed maturity securities (66) 66 122 4 (66) - 96 (141)
Limited partnership investments 92 155 207 (22) 180 121 362 (12) 174 163 176 190 204 124 Mortgage loans 33 41 34 50 51 57 61 54 58 61 65 69 74 60 Short term investments 6 8 10 12 7 9 18 9 4 4 7 7 8 4 Investment Expense (63) (59) (59) (61) (63) (64) (72) (79) (75) (79) (83) (87) (88) Net investment income 1,840 1,988 2,034 1,817 2,118 1,935 2,159 1,805 2,264 2,076 2,179 2,287 2,344 2,198 Equity securities (23) (5) - (74) 66 (3) 4 (115) 4 4 4 4 4<
Mortgage loans 33 41 34 50 51 57 61 54 58 61 65 69 74 60 Short term investments 6 8 15 26 34 9 1 16 75 27 28 30 31 29 Trading portfolio 8 10 12 7 9 18 9 4 4 17 18 20 21 20 Other 1 4 1 44 5 1 - 5 28 7 7 8 4 Investment Expense (63) (59 (59) (61) (63) (64) (72) (79) (75) 2,179 2,287 2,344 2,198 Fixed maturity securities (66) 66 122 4 (66) - 96 (141) (91) (91) (91) (91) (91) (91) (91) (91) (91)
Short terr investments 6 8 15 26 34 9 1 16 75 27 28 30 31 29 Trading portfolio 8 10 12 7 9 18 9 4 4 17 18 20 21 20 Other 1 4 1 4 5 1 - 5 28 7 7 7 8 4 Investment Expense (63) (59) (50) (61) (63) (64) (72) (79) (27) 2,287 2,344 2,198 Net investment income 1,840 1,988 2,034 1,817 2,118 1,935 2,159 1,805 2,264 2,076 2,179 2,287 2,344 2,198 Fixed maturity securities (23) (5) - (74) 66 (3) 4 (116) 4 4 4 4 3 Derivatives 10 (2) (4) 9 (111) (10) 6 64 (11) <
Trading portfolio8101279189441718202120Other141451-52877784Investment Expense(63)(59)(59)(61)(63)(64)(64)(72)(79)(75)(79)(83)(87)(88)Net investment income1,8401,9882,0341,8172,1181,9352,1591,8052,2642,0762,1792,2872,3442,198Fixed maturity securities(66)661624(6)-96(141)(91) <t< td=""></t<>
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Investment Expense(63)(59)(59)(61)(63)(64)(64)(72)(79)(75)(79)(83)(87)(88)Net investment income1,8401,9882,0341,8172,1181,9352,1591,8052,2642,0762,1792,2872,3442,198Fixed maturity securities(66)661224(6)-96(141)(91)(91)(91)(91)(91)(91)(91)(91)(91)(90)Equity securities(23)(5)-(74)66(3)4(116)4444443Derivatives10(2)(4)9(11)(10)664(11) <t< td=""></t<>
Net investment income 1,840 1,988 2,034 1,817 2,118 1,935 2,159 1,805 2,264 2,076 2,179 2,287 2,344 2,198 Fixed maturity securities (66) 66 122 4 (6) - 96 (141) (91)<
Fixed maturity securities (66) 66 122 4 (6) - 96 (141) (91)
Equity securities (23) (5) - (74) 66 (3) 4 (116) 4 <
Derivatives 10 (2) (4) 9 (11) (10) 6 64 (1) <
Mortgage loans - - - - (21) 10 (8) (11)
Short term investments and other 12 (9) (25) 9 (20) (20) 4 2 - 2 -
Net investment (losses) gains (67) 50 93 (52) 29 (54) 120 (199) (97) (99) (90) (9
Non-insurance warranty revenue - 361 390 1,007 1,161 1,252 1,430 1,574 1,624 1,762 1,912 2,075 2,252 2,353 Other revenues 407 43 37 50 31 26 24 32 30 32 34 36 38 40 Total revenues 9,101 9,366 9,542 10,134 10,767 10,808 11,879 13,299 13,965 14,646 15,368 16,073 16,549 Net Earned Premium Growth Rate Property and casualty - 0.24% 0.95% 5.16% 1.86% 3.43% 7.54% 6.64% 10.19% 8.00% 4.50% 4.50% 4.50%
Other revenues 407 43 37 50 31 26 24 32 30 32 34 36 38 40 Total revenues 9,101 9,366 9,542 10,134 10,767 10,808 11,879 13,299 13,965 14,646 15,368 16,073 16,549 Net Earned Premium Growth Rate Property and casualty - 0.24% 0.95% 5.16% 1.86% 3.43% 7.54% 6.64% 10.19% 8.00% 4.50%
Total revenues 9,101 9,366 9,542 10,134 10,767 10,808 11,879 13,299 13,965 14,646 15,368 16,073 16,549 Net Earned Premium Growth Rate - 0.24% 0.95% 5.16% 1.86% 3.43% 7.54% 6.64% 10.19% 8.00% 4.50%
Net Earned Premium Growth Rate Property and casualty - 0.24% 0.95% 5.16% 1.86% 3.43% 7.54% 6.64% 10.19% 8.00% 4.50%
Property and casualty - 0.24% 0.95% 5.16% 1.86% 3.43% 7.54% 6.64% 10.19% 8.00% 4.50% 4.50% 4.50% 4.50%
Long term care2.19% 0.56% -1.67% -1.89% -3.08% -2.58% -3.67% -4.65% -2.40% -2.40% -2.40% -2.40% 4.50%
Total Net Earned Premium - 0.04% 0.92% 4.64% 1.59% 2.98% 6.88% 6.02% 9.38% 7.51% 4.20% 4.22% 4.24% 4.50%
Growth Rate on Investment Securities
Fixed maturity securities 4.42% 4.45% 4.37% 4.54% 4.30% 3.87% 3.85% 4.75% 4.80% 4.31% 4.31% 4.20% 4.00%
Equity securities 6.09% 9.09% 1.73% 2.31% 9.83% 6.55% 8.02% 3.41% 9.22% 7.41% 7.41% 7.41% 7.35% 4.40%
Limited partnership investments 3.61% 6.54% 8.74% -1.11% 10.27% 7.47% 19.47% -0.62% 8.00% 6.93% 6.93% 6.93% 6.93% 6.90% 4.00%
Mortgage loans 4.87% 6.94% 4.05% 5.96% 5.13% 5.34% 6.27% 5.19% 5.60% 5.48% 5.48% 5.48% 5.48% 5.45% 4.25%
Short term investments 0.36% 0.57% 1.04% 2.02% 1.83% 0.47% 0.05% 0.87% 3.46% 1.19% 1.19% 1.19% 1.19% 1.19% 1.19% 1.05%
Trading portfolio 4.06% 9.09% 1.73% 0.90% 1.04% 1.81% 0.87% 0.59% 0.59% 2.30% 2.30% 2.25% 2.10%
Other 2.27% 11.11% 2.27% 7.55% 7.69% 1.32% 0.00% 6.41% 35.00% 8.18% 8.18% 8.18% 4.50%
Investment Expense -0.14% -0.13% -0.13% -0.13% -0.13% -0.13% -0.13% -0.17% -0.15% -0.15% -0.15% -0.15% -0.15%
Total Investment - 8.04% 2.31% -10.67% 16.57% -8.64% 11.58% -16.40% 25.43% -8.30% 4.96% 4.97% 2.46% -6.23%
Asset Investments:
Fixed maturity securities at fair value \$ 39,572 \$ 40,905 \$ 41,487 \$ 39,546 \$ 42,207 \$ 44,631 \$ 44,880 \$ 37,627 \$ 40,425 \$ 42,244 \$ 44,145 \$ 46,132 \$ 48,208 \$ 50,136
Equity securities at fair value 197 110 695 780 865 992 1,035 674 683 738 797 860 929 971
Limited partnership investments 2,548 2,371 2,369 1,982 1,752 1,619 1,859 1,926 2,174 2,348 2,536 2,739 2,958 3,091
Other invested assets 44 36 44 53 65 76 91 78 80 84 87 91 95 100
Mortgage loans less allowance for uncol 678 591 839 839 994 1,068 973 1,040 1,035 1,106 1,182 1,263 1,350 1,410
Short term investments 1,660 1,407 1,436 1,286 1,907 1,990 1,832 2,165 2,273 2,385 2,504 2,628 2,747
Total Investments 44,699 45,420 46,870 44,486 47,744 50,293 50,328 43,177 46,562 48,792 51,132 53,589 56,168 58,454
Return on Investment Assets:
Fixed maturity securities at fair value - 3.37% 1.42% -4.68% 6.73% 5.74% -0.56% -15.22% 7.44% 4.50%
Equity securities at fair value - -44.16% 531.82% 12.23% 10.90% 14.68% 4.33% -34.88% 1.34% 8.00% 8.00% 8.00% 4.50%
Limited partnership investments6.95% -0.08% -16.34% -11.60% -7.59% 14.82% 3.60% 12.88% 8.00% 8.00% 8.00% 8.00% 4.50%
Other invested assets - -18.18% 22.22% 20.45% 22.64% 16.92% 19.74% -14.29% 2.56% 4.50% 4
Mortgage loans less allowance for uncol12.83% 41.96% 0.00% 18.47% 7.44% -8.90% 6.89% -0.48% 6.86% 6.86% 6.86% 6.86% 4.50%
Morrgage loans less allowance for uncol - -12.83% 41.95% 0.00% 18.47% 7.44% -8.90% 5.89% -0.48% 5.85%

Income Statement

(in millions)																
Fiscal Years Ending Dec. 31		2015	2016	2017	2018	2019	20	020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E(C
Revenues																
Net earned premiums	\$	6,921 \$	6,924	\$ 6,988	\$ 7,312	\$ 7,428	\$7,6	549 \$	8,175	\$ 8,667	\$ 9,480	\$ 10,192	\$ 10,620	\$ 11,068	\$ 11,538	\$ 12,0
Net investment income		1,840	1,988	2,034	1,817	2,118	1,9	935	2,159	1,805	2,264	2,076	2,179	2,287	2,344	2,1
Net investment (losses) gains		(67)	50	93	(52)	29	(!	54)	120	(199)	(99)	(97)	(99)	(99)	(99)	(9
Non-insurance warranty revenue			361	390	1,007	1,161	1,2	252	1,430	1,574	1,624	1,762	1,912	2,075	2,252	2,3
Other revenues		407	43	37	50	31		26	24	32	30	32	34	36	38	
Total Revenues		9,101	9,366	9,542	10,134	10,767	10,8	308	11,908	11,879	13,299	13,965	14,646	15,368	16,073	16,5
Claims, Benefits and Expenses																
Insurance claims and policyholders' benefits	(5	5,384)	(5,283)	(5,310)	(5,572)	(5,806)	(6,1	70)	(6,371)	(6,653)	(7,068)	(7,598)	(7,918)	(8,252)	(8,602)	(8,80
Amortization of deferred acquisition costs	(1	,540)	(1,235)	(1,233)	(1,335)	(1,383)	(1,4)	10)	(1,443)	(1,490)	(1,644)	(1,799)	(1,875)	(1,954)	(2,037)	(2,11
Non-insurance warranty expense		-	(271)	(299)	(923)	(1,082)	(1,1	59)	(1,328)	(1,471)	(1,544)	(1,565)	(1,699)	(1,843)	(2,000)	(2,09
Other operating expense	(1	,473)	(1,281)	(1,229)	(1,202)	(1,142)	(1,12	26)	(1,191)	(1,339)	(1,398)	(1,547)	(1,623)	(1,703)	(1,781)	(1,83
Interest		(155)	(159)	(161)	(138)	(131)	(12	22)	(113)	(112)	(127)	(132)	(164)	(170)	(150)	(18
Total claims, benefits and expenses	3)	3,552)	(8,229)	(8,232)	(9,170)	(9,544)	(9,98	87)	(10,446)	(11,065)	(11,781)	(12,642)	(13,279)	(13,922)	(14,570)	(15,01
Income before income tax		549	1,137	1,310	964	1,223	82	21	1,462	814	1,518	1,322	1,368	1,446	1,503	1,53
Income tax expense		(70)	(278)	(411)	(151)	(223)	(13	31)	(278)	(132)	(313)	(278)	(287)	(304)	(316)	(32
Net Income	\$	479 \$	859 \$	899	\$ 813	\$ 1,000	\$ 69	90 \$	1,184	\$ 682	\$ 1,205	\$ 1,045	\$ 1,081	\$ 1,142	\$ 1,187	\$ 1,21
Basic earnings per share	\$	1.77 \$	3.18	3.32	\$ 2.99	\$ 3.68	\$ 2.	54 \$	4.36	\$ 2.51	\$ 4.44	\$ 3.85	\$ 3.96	\$ 4.18	\$ 4.34	\$ 4.4
Total shares outstanding	27	0.27	270.62	271.22	271.47	271.41	271.3	39	271.37	270.90	270.90	272.36	273.52	273.52	273.52	273.5
Basic weighted average shares	27	0.20	270.40	271.10	271.50	271.60	271.0	60	271.80	271.60	271.30	271.63	272.94	273.52	273.52	273.5
Basic dividends per share	\$	3.00 \$	3.00	3.10	\$ 3.30	\$ 3.40	\$ 3.4	48 \$	2.27	\$ 3.60	\$ 2.88	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.4

Balance Sheet

Fiscal Years Ending Dec. 31	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E(CV)
Assets														
Investments:														
Fixed maturity securities at fair value	\$ 39,572	\$ 40,905	\$ 41,487	\$ 39,546	\$ 42,207	\$ 44,631	\$ 44,380	\$ 37,627	\$ 40,425 \$	42,244	\$ 44,145	\$ 46,132	\$ 48,208	\$ 50,136
Equity securities at fair value	197	110	695	780	865	992	1,035	674	683	738	797	860	929	971
Limited partnership investments	2,548	2,371	2,369	1,982	1,752	1,619	1,859	1,926	2,174	2,348	2,536	2,739	2,958	3,091
Other invested assets	44	36	44	53	65	76	91	78	80	84	87	91	95	100
Mortgage loans less allowance for uncollectible rece	678	591	839	839	994	1,068	973	1,040	1,035	1,106	1,182	1,263	1,350	1,410
Short term investments	1,660	1,407	1,436	1,286	1,861	1,907	1,990	1,832	2,165	2,273	2,385	2,504	2,628	2,747
Total Investments	44,699	45,420	46,870	44,486	47,744	50,293	50,328	43,177	46,562	48,792	51,132	53,589	56,168	58,454
Cash	387	271	355	310	242	419	536	475	345	204	572	284	204	197
Reinsurance receivables less allowance for uncolled	4,453	4,416	4,261	4,426	4,179	4,457	5,463	5,416	5,412	5,402	5,629	5,866	6,115	6,390
Insurance receivables less allowance for uncollectib	2,078	2,209	2,292	2,323	2,449	2,607	2,945	3,158	3,442	3,423	3,567	3,718	3,876	4,050
Accrued investment income	404	405	411	391	395	380	377	402	444	419	440	462	473	444
Deferred acquisition costs	598	600	634	633	662	708	737	806	896	917	955	996	1,038	1,085
Deferred income taxes	638	379	137	392	199	66	142	1,251	1,016	299	310	327	340	347
Property and equipment at cost less accumulated d	343	310	326	324	282	252	226	226	253	163	119	98	89	86
Goodwill	150	145	148	146	147	148	148	144	146	146	146	146	146	146
Deferred non-insurance warranty acquisition expense	-	-	212	2,513	2,840	3,068	3,476	3,671	3,661	3,891	4,248	4,457	4,661	4,800
Other assets	1,295	1,078	921	1,208	1,473	1,628	2,261	2,274	2,534	2,602	2,671	2,743	2,816	2,891
Total Assets	\$ 55,045	\$ 55,233	\$ 56,567	\$ 57,152	\$ 60,612	\$ 64,026	\$ 66,639	\$ 61,000	\$ 64,711 <mark>\$</mark>	66,258	\$ 69,789	\$ 72,686	\$ 75,926	\$ 78,889
Liabilities														
Insurance reserves:														
Claim and claim adjustment expenses	22,663	22,343	22,004	21,984	21,720	22,706	24,174	22,120	23,304	24,376	25,602	26,844	28,820	29,707
Unearned premiums	3,671	3,762	4,029	4,183	4,583	5,119	5,761	6,374	6,933	6,732	7,238	7,542	7,861	8,194
Future policy benefits	10,152	10,326	11,179	10,597	12,311	13,318	13,236	13,480	13,959	14,551	15,167	15,810	16,480	17,178
Short term debt	350	-	150	-	-	-	-	243	550	-	500	498	-	497
Long term debt	2,210	2,710	2,708	2,680	2,679	2,776	2,779	2,538	2,481	2,481	2,585	2,694	2,808	2,926
Deferred non-insurance warranty revenue	-	-	972	3,402	3,779	4,023	4,503	4,714	4,694	5,186	5,628	6,107	6,627	6,925
Other liabilities includes due to loews corporation ex	,	4,123	3,281	3,089	3,325	3,377	3,377	2,983	2,897	2,772	2,653	2,539	2,429	2,325
Total liabilities	\$ 43,289	\$ 43,264	\$ 44,323	\$ 45,935	\$ 48,397	\$ 51,319	\$ 53,830	\$ 52,452	\$ 54,818 <mark>\$</mark>	56,098	\$ 59,373	\$ 62,034	\$ 65,025	\$ 67,752
Commitments and contingencies														
Stockholders' Equity														
Common stock	2,836	2,856	2,858	2,875	2,886	2,894	2,898	2,903	2,904	2,964	3,013	3,013	3,013	3,013
Retained earnings	9,313	9,359	9,414	9,277	9,348	9,081	9,663	9,336	9,755	9,986	10,217	10,479	10,752	11,013
Accumulated other comprehensive income / (loss)	(315)	(173)	32	(878)	51	803	320	(3,598)	(2,672)	(2,672)	(2,672)	(2,672)	(2,672)	(2,672)
Treasury stock, at cost	(78)	(73)	(60)	(57)	(70)	(71)	(72)	(93)	(94)	(118)	(143)	(167)	(192)	(216)
Total stockholders' equity	11,756	11,969	12,244	11,217	12,215	12,707	12,809	8,548	9,893	10,160	10,415	10,652	10,901	11,137
Total liabilities and stockholders' equity	\$ 55,045	\$ 55,233	\$ 56,567	\$ 57,152	\$ 60,612	\$ 64,026	\$ 66,639	\$ 61,000	\$ 64,711 <mark>\$</mark>	66,258	\$ 69,789	\$ 72,686	\$ 75,926	\$ 78,889

Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cash Flows from Operating Activities									
Net income	\$ 479 \$	859 \$	899 9	\$813\$	1,000 \$	690 \$	1,184 \$	682 \$	1,205
Deferred income tax benefit / expense	(150)	136	168	(20)	(46)	(49)	43	(89)	2
Trading portfolio activity	17	(9)	9	-	(16)	(5)	20	6	1
Net realized investment losses / gains	67	(50)	(93)	52	(29)	54	(120)	199	99
Equity method investees	195	238	84	330	11	(8)	(127)	250	(8)
Net amortization of investments	17	(27)	(40)	(70)	(89)	(67)	(81)	(129)	(191)
Depreciation and amortization	84	77	88	79	68	60	54	51	73
Changes in:									
Receivables, net	82	(130)	92	(229)	137	(409)	(1,358)	(226)	(245)
Accrued investment income	(1)	(3)	(4)	19	(3)	16	3	(29)	(41)
Deferred acquisition costs	311	(8)	(24)	(6)	(26)	(43)	(30)	(79)	(85)
Insurance reserves	241	237	22	482	358	1,681	2,485	2,058	1,667
Other assets	(79)	(95)	-	-	-	-	-	-	-
Other liabilities	126	162	-	-	-	-	-	-	-
Other, net	(2)	29	53	(223)	(225)	(145)	(76)	(192)	(192)
Net cash flows provided by operating activities	1,387	1,416	1,254	1,227	1,140	1,775	1,997	2,502	2,285
Cash Flows from Investing Activities	·		,		·	, ,	, ,	·	
Dispositions:									
Fixed maturity securities - sales	4,390	5,328	5,438	8,408	5,842	5,904	3,816	5,909	4,029
Fixed maturity securities - maturities, calls and redemptions	4,095	3,219	3,641	2,370	2,997	3,760	4,464	2,358	1,334
Equity securities	57	81	46	89	214	355	316	509	317
Limited partnerships	174	290	192	343	479	373	246	138	164
Mortgage loans	26	207	26	128	143	74	190	125	122
Purchases:									
Fixed maturity securities	(8,675)	(9,827)	(9,065)	(10,785)	(8,661)	(10,269)	(9,307)	(9,821)	(6,616)
Equity securities	(62)	-	(166)	(258)	(186)	(452)	(304)	(294)	(293)
Limited partnerships	(188)	(252)	(171)	(419)	(198)	(224)	(440)	(337)	(402)
Mortgage loans	(123)	(120)	(274)	(128)	(298)	(172)	(95)	(200)	(127)
Change in other investments	4	7	(3)	(12)	(11)	(8)	(6)	8	(2)
Change in short term investments	34	258	(6)	168	(535)	(39)	(83)	155	(274)
Purchases of property and equipment	(125)	(146)	(102)	(99)	(26)	(23)	(26)	(52)	(90)
Disposals of property and equipment	-	107	-	(00)	(28)	(20)	-	(02)	-
Other, net	21	2	20	18	15	16	1	(10)	(5)
Net cash flows used by investing activities	(372)	(846)	(424)	(177)	(225)	(705)	(1,228)	(1,512)	(1,843)
Cash Flows from Financing Activities	(012)	(010)	(121)	(177)	(220)	(100)	(1,220)	(1,012)	(1,010)
Dividends paid to common stockholders	(811)	(813)	(842)	(896)	(929)	(950)	(621)	(982)	(787)
Proceeds from the issuance of debt	(011)	498	496	(000)	496	495	(021)	(302)	491
Repayment of debt		(358)	(391)	(180)	(520)	(419)		-	(243)
Purchase of treasury stock	-	(000)	(001)	(100)	(320)	(18)	(18)	(39)	(243)
Other, net	4	-	(18)	(9)	(23)	(10)	(18)	(11)	(24)
Net cash flows used by financing activities	(807)	(673)	(755)	(1,085)	(988)	(902)	(648)	(1,032)	(14)
Effect of foreign exchange rate changes on cash-continuing operations	(807)	(13)	(755)	(1,065)	(900)	(902)		(1,032)	(577)
Net change in cash	(11) 197	(13)	9 84	(10) (45)	5 (68)	9 177	(4) 117		(130)
Cash, beginning of period	197	387	271	355	310	242	419	(61) 536	(130) 475
Cash, end of period	190	507	2/1	555	310	242	419	330	473

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Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E(CV)
CASH FLOWS FROM OPERATING ACTIVITIES					
Net Income	\$ 1,045	\$ 1,081	\$ 1,142	\$ 1,187	\$ 1,210
Reinsurance receivables	10	(227)	(238)	(249)	(275)
Insurance receivables	19	(144)	(151)	(158)	(174)
Deferred income taxes	717	(10)	(18)	(13)	(6)
Other assets	(68)	(70)	(71)	(73)	(75)
Claim & claim adjustment expenses	1,072	1,226	1,241	1,977	886
Unearned premiums	(201)	505	304	318	333
Future policy benefits	592	617	643	670	698
Deferred non-insurance warranty revenue	492	442	479	520	298
Other liabilities	(125)	(119)	(114)	(109)	(105)
Net cash provided by operating activities	3,553	3,300	3,218	4,071	2,790
CASH FLOWS FROM INVESTING ACTIVITIES					
Fixed maturity securities at fair value	(1,819)	(1,901)	(1,987)	(2,076)	(1,928)
Equity securities at fair value	(55)	(59)	(64)	(69)	(42)
Limited partnership investments	(174)	(188)	(203)	(219)	(133)
Other invested assets	(4)	(4)	(4)	(4)	(4)
Mortgage loans	(71)	(76)	(81)	(87)	(61)
Short term investments	(108)	(113)	(119)	(124)	(118)
Accrued investments	25	(21)	(22)	(11)	29
Property and equipment, net	90	44	21	9	4
Deferred non-insurance warranty acquisition expense	(230)	(357)	(209)	(204)	(138)
Deferred acquisition costs	 (21)	(39)	(40)	(42)	(47)
Net cash used for investing activities	(2,366)	(2,713)	(2,708)	(2,828)	(2,438)
CASH FLOWS FROM FINANCING ACTIVITIES					
Payments of dividends	(814)	(849)	(881)	(914)	(949)
Short term debt	(550)	500	(2)	(498)	497
Long term debt	-	104	109	113	118
Issuance of common stock	60	48	-	-	-
Repurchase of common stock	 (24)	(24)	(24)	(24)	(24)
Net cash used for/provided by financing activities	 (1,328)	(220)	(798)	(1,323)	(358)
NET INCREASE (DECREASE) IN CASH	(141)	368	(288)	(80)	(6)
CASH, BEGINNING OF YEAR	 345	204	572	284	204
CASH, END OF YEAR	\$ 204	\$ 572	\$ 284	\$ 204	\$ 197

Common Size Income Statement

Fiscal Years Ending Dec. 31	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E(CV)
Revenues														
Net earned premiums	12.6%	12.5%	12.4%	12.8%	12.3%	11.9%	12.3%	14.2%	14.6%	15.4%	15.2%	15.2%	15.2%	15.3%
Net investment income	3.3%	3.6%	3.6%	3.2%	3.5%	3.0%	3.2%	3.0%	3.5%	3.1%	3.1%	3.1%	3.1%	2.8%
Net investment (losses) gains	-0.1%	0.1%	0.2%	-0.1%	0.0%	-0.1%	0.2%	-0.3%	-0.2%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Non-insurance warranty revenue	0.0%	0.7%	0.7%	1.8%	1.9%	2.0%	2.1%	2.6%	2.5%	2.7%	2.7%	2.9%	3.0%	3.0%
Other revenues	0.7%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Total Revenues	16.5%	17.0%	16.9%	17.7%	17.8%	16.9%	17.9%	19.5%	20.6%	21.1%	21.0%	21.1%	21.2%	21.0%
Claims, Benefits and Expenses														
Insurance claims and policyholder:	-9.8%	-9.6%	-9.4%	-9.7%	-9.6%	-9.6%	-9.6%	-10.9%	-10.9%	-11.5%	-11.3%	-11.4%	-11.3%	-11.2%
Amortization of deferred acquisitio	-2.8%	-2.2%	-2.2%	-2.3%	-2.3%	-2.2%	-2.2%	-2.4%	-2.5%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%
Non-insurance warranty expense	0.0%	-0.5%	-0.5%	-1.6%	-1.8%	-1.8%	-2.0%	-2.4%	-2.4%	-2.4%	-2.4%	-2.5%	-2.6%	-2.6%
Other operating expense	-2.7%	-2.3%	-2.2%	-2.1%	-1.9%	-1.8%	-1.8%	-2.2%	-2.2%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%
Interest	-0.3%	-0.3%	-0.3%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
Total claims, benefits and expenses	-15.5%	-14.9%	-14.6%	-16.0%	-15.7%	-15.6%	-15.7%	-18.1%	-18.2%	-19.1%	-19.0%	-19.2%	-19.2%	-19.0%
Income before income tax	1.0%	2.1%	2.3%	1.7%	2.0%	1.3%	2.2%	1.3%	2.3%	2.0%	2.0%	2.0%	2.0%	1.9%
Income tax expense	-0.1%	-0.5%	-0.7%	-0.3%	-0.4%	-0.2%	-0.4%	-0.2%	-0.5%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%
Net Income	0.9%	1.6%	1.6%	1.4%	1.6%	1.1%	1.8%	1.1%	1.9%	1.6%	1.5%	1.6%	1.6%	1.5%

Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Assets														
Investments:														
Fixed maturity securities at fair value	71.89%	74.06%	73.34%	69.19%	69.63%	69.71%	66.60%	61.68%	62.47%	63.76%	63.26%	63.47%	63.49%	63.55%
Equity securities at fair value	0.36%	0.20%	1.23%	1.36%	1.43%	1.55%	1.55%	1.10%	1.06%	1.11%	1.14%	1.18%	1.22%	1.23%
Limited partnership investments	4.63%	4.29%	4.19%	3.47%	2.89%	2.53%	2.79%	3.16%	3.36%	3.54%	3.63%	3.77%	3.90%	3.92%
Other invested assets	0.08%	0.07%	0.08%	0.09%	0.11%	0.12%	0.14%	0.13%	0.12%	0.13%	0.13%	0.13%	0.13%	0.13%
Mortgage loans less allowance for uncollection	1.23%	1.07%	1.48%	1.47%	1.64%	1.67%	1.46%	1.70%	1.60%	1.67%	1.69%	1.74%	1.78%	1.79%
Short term investments	3.02%	2.55%	2.54%	2.25%	3.07%	2.98%	2.99%	3.00%	3.35%	3.43%	3.42%	3.44%	3.46%	3.48%
Total Investments	81.20%	82.23%	82.86%	77.84%	78.77%	78.55%	75.52%	70.78%	71.95%	73.64%	73.27%	73.73%	73.98%	74.10%
Cash	0.70%	0.49%	0.63%	0.54%	0.40%	0.65%	0.80%	0.78%	0.53%	0.31%	0.82%	0.39%	0.27%	0.25%
Reinsurance receivables less allowance for	8.09%	8.00%	7.53%	7.74%	6.89%	6.96%	8.20%	8.88%	8.36%	8.15%	8.07%	8.07%	8.05%	8.10%
Insurance receivables less allowance for un	3.78%	4.00%	4.05%	4.06%	4.04%	4.07%	4.42%	5.18%	5.32%	5.17%	5.11%	5.12%	5.10%	5.13%
Accrued investment income	0.73%	0.73%	0.73%	0.68%	0.65%	0.59%	0.57%	0.66%	0.69%	0.63%	0.63%	0.64%	0.62%	0.56%
Deferred acquisition costs	1.09%	1.09%	1.12%	1.11%	1.09%	1.11%	1.11%	1.32%	1.38%	1.38%	1.37%	1.37%	1.37%	1.38%
Deferred income taxes	1.16%	0.69%	0.24%	0.69%	0.33%	0.10%	0.21%	2.05%	1.57%	0.45%	0.44%	0.45%	0.45%	0.44%
Property and equipment at cost less accum	0.62%	0.56%	0.58%	0.57%	0.47%	0.39%	0.34%	0.37%	0.39%	0.25%	0.17%	0.14%	0.12%	0.11%
Goodwill	0.27%	0.26%	0.26%	0.26%	0.24%	0.23%	0.22%	0.24%	0.23%	0.22%	0.21%	0.20%	0.19%	0.19%
Deferred non-insurance warranty acquisition	0.00%	0.00%	0.37%	4.40%	4.69%	4.79%	5.22%	6.02%	5.66%	5.87%	6.09%	6.13%	6.14%	6.08%
Other assets	2.35%	1.95%	1.63%	2.11%	2.43%	2.54%	3.39%	3.73%	3.92%	3.93%	3.83%	3.77%	3.71%	3.66%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Liabilities														
Insurance reserves:														
Claim and claim adjustment expenses	41.17%	40.45%	38.90%	38.47%	35.83%	35.46%	36.28%	36.26%	36.01%	36.79%	36.69%	36.93%	37.96%	37.66%
Unearned premiums	6.67%	6.81%	7.12%	7.32%	7.56%	8.00%	8.65%	10.45%	10.71%	10.16%	10.37%	10.38%	10.35%	10.39%
Future policy benefits	18.44%	18.70%	19.76%	18.54%	20.31%	20.80%	19.86%	22.10%	21.57%	21.96%	21.73%	21.75%	21.71%	21.78%
Short term debt	0.64%	0.00%	0.27%	0.00%	0.00%	0.00%	0.00%	0.40%	0.85%	0.00%	0.72%	0.69%	0.00%	0.63%
Long term debt	4.01%	4.91%	4.79%	4.69%	4.42%	4.34%	4.17%	4.16%	3.83%	3.74%	3.70%	3.71%	3.70%	3.71%
Deferred non-insurance warranty revenue	0.00%	0.00%	1.72%	5.95%	6.23%	6.28%	6.76%	7.73%	7.25%	7.83%	8.06%	8.40%	8.73%	8.78%
Other liabilities includes due to loews corpor	7.71%	7.46%	5.80%	5.40%	5.49%	5.27%	5.07%	4.89%	4.48%	4.18%	3.80%	3.49%	3.20%	2.95%
Total liabilities	78.64%	78.33%	78.35%	80.37%	79.85%	80.15%	80.78%	85.99%	84.71%	84.67%	85.08%	85.34%	85.64%	85.88%
Commitments and contingencies														
Stockholders' Equity														
Common stock	5.15%	5.17%	5.05%	5.03%	4.76%	4.52%	4.35%	4.76%	4.49%	4.47%	4.32%	4.14%	3.97%	3.82%
Retained earnings	16.92%	16.94%	16.64%	16.23%	15.42%	14.18%	14.50%	15.30%	15.07%	15.07%	14.64%	14.42%	14.16%	13.96%
Accumulated other comprehensive income,	-0.57%	-0.31%	0.06%	-1.54%	0.08%	1.25%	0.48%	-5.90%	-4.13%	-4.03%	-3.83%	-3.68%	-3.52%	-3.39%
Treasury stock, at cost	-0.14%	-0.13%	-0.11%	-0.10%	-0.12%	-0.11%	-0.11%	-0.15%	-0.15%	-0.18%	-0.20%	-0.23%	-0.25%	-0.27%
Total stockholders' equity	21.36%	21.67%	21.65%	19.63%	20.15%	19.85%	19.22%	14.01%	15.29%	15.33%	14.92%	14.66%	14.36%	14.12%
Total liabilities and stockholders' equity	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Value Driver Estimation

Fiscal Years Ending Dec. 31	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2	028E(CV)
Net Income:	\$ 859	\$ 899	\$ 813	\$ 1,000	\$ 690	\$ 1,184	\$ 682	\$ 1,205	\$ 1,045	\$ 1,081	\$ 1,142	\$ 1,187	\$	1,210
Beg. TSE	11,756	11,969	12,244	11,217	12,215	12,707	12,809	8,548	9,893	10,160	10,415	10,652		10,901
Free Cash Flow to Equity (FCFE):														
Net Income	\$ 859	\$ 899	\$ 813	\$ 1,000	\$ 690	\$ 1,184	\$ 682	\$ 1,205	\$ 1,045	\$ 1,081	\$ 1,142	\$ 1,187	\$	1,210
Change in Total Assets	(188)	(1,334)	(585)	(3,460)	(3,414)	(2,613)	5,639	(3,711)	(1,547)	(3,531)	(2,897)	(3,240)		(2,963)
Change in Total Liabilities	 (25)	1,059	1,612	2,462	2,922	2,511	(1,378)	2,366	1,280	3,275	2,660	2,991		2,727
FCFE	\$ 646	\$ 624	\$ 1,840	\$ 2	\$ 198	\$ 1,082	\$ 4,943	\$ (140)	\$ 778	\$ 825	\$ 905	\$ 939	\$	973
Return on Equity (ROE):														
Net Income	\$ 859	\$ 899	\$ 813	\$ 1,000	\$ 690	\$ 1,184	\$ 682	\$ 1,205	\$ 1,045	\$ 1,081	\$ 1,142	\$ 1,187	\$	1,210
Beginning TSE	 11,756	11,969	12,244	11,217	12,215	12,707	12,809	8,548	9,893	10,160	10,415	10,652		10,901
ROE	7.31%	7.51%	6.64%	8.92%	5.65%	9.32%	5.32%	14.10%	10.56%	10.64%	10.97%	11.15%		11.10%
Equity Economic Profit (EEP):														
Beginning TSE	11,756	11,969	12,244	11,217	12,215	12,707	12,809	8,548	9,893	10,160	10,415	10,652		10,901
x (ROE- RE)	 -0.34%	-0.14%	-1.01%	1.27%	-2.00%	1.67%	-2.32%	6.45%	2.91%	2.99%	3.32%	 3.50%		3.45%
EEP	(40.06)	(16.35)	(123.38)	142.16	(244.16)	212.21	(297.59)	551.28	288.09	303.55	345.54	372.73		376.07

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:

Risk-Free Rate Beta	4.60% 0.71
Equity Risk Premium	4.33%
Cost of Equity	7.65%

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

Key Inputs:					
CV Growth of Net Income	1.88%				
CV Year ROE	11.10%				
Cost of Equity	7.65%				
Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E
DCF Model:					
Free Cash Flow (FCFE)	778.1	824.7	905.2	938.6	973.3
Continuing Value (CV)					17,425.1
PV of FCFE	722.8	711.7	725.7	699.0	12,976.5
Value of Operating Assets:	15,835.7				
Non-Operating Adjustments					
ESOP	-21.1				
Value of Equity	15,814.6				
Shares Outstanding Intrinsic Value of Last FYE	272.4 \$ 58.07				
Implied Price as of Today	\$ 58.69				
implied Frice as of Today	\$ 58.05				
EP Model:					
Economic Profit (EP)	288.1	303.5	345.5	372.7	376.1
Continuing Value (CV)					6,524.1
PV of EEP	267.6	262.0	277.0	277.6	4,858.5
Total PV of EEP	5,942.7				
Invested Capital (last FYE)	9,893.0				
Value of Operating Assets:	15,835.7				
Non-Operating Adjustments					
ESOP	-21.1				
Value of Equity	15,814.6				
Shares Outstanding	272.4				
Intrinsic Value of Last FYE	\$ 58.07				
Implied Price as of Today	\$ 58.69				

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

Fiscal Years Ending	2024E	2025E	2026E	2027E	2028E
EPS	\$ 3.85	\$ 3.96	\$ 4.18	\$ 4.34	\$ 4.42
Key Assumptions					
CV growth of EPS	1.88%				
CV Year ROE	11.10%				
Cost of Equity	7.65%				
Future Cash Flows					
P/E Multiple (CV Year)					14.4
EPS (CV Year)					\$ 4.42
Future Stock Price					\$ 63.71
Dividends Per Share	2.99	3.10	3.22	3.34	
Discounted Cash Flows	2.78	2.68	2.58	2.49	47.44
Intrinsic Value as of Last FYE	\$ 57.97				
Implied Price as of Today	\$ 58.59				

Relative Valuation Models

Ticker	Company	Price	EPS 2024E	EPS 2025E	P/E 24	P/E 25	BV Equity	Tangible BV Equity	P/B	Tangible P/B
CINF	Cincinnati Financial Cor	\$123.29	\$6.34	\$7.00	19.45	17.61	77.06	76.67	1.60	1.61
ORI	Old Republic Internatior	\$30.55	\$2.70	\$2.85	11.31	10.72	23.03	22.39	1.33	1.36
MKL	Markel Group	\$1,428.60	\$115.04	\$127.92	12.42	11.17	1087.99	764.89	1.31	1.87
AIG	American International	\$78.34	\$6.76	\$7.69	11.59	10.19	65.13	64.60	1.20	1.21
FAF	First American Financial	\$59.83	\$4.20	\$5.41	14.25	11.06	47.02	28.50	1.27	2.10
				Average	13.80	12.15			1.34	1.63
CNA	CNA Financial Corporati	\$45.39	\$3.85	\$3.96	11.8	11.5	36.52	35.98	1.24	1.26
Implied	Relative Value:									
P/E (E	EPS24)	:	\$ 53.08							
P/E (E	PS25)		\$ 48.10							
PEG (I	EPS24)		\$ 53.08							
PEG (I	EPS25)		\$ 48.10							
Р/В			\$ 49.04							
P/Tan	ngible BV		\$ 58.66							
Average	e		\$ 51.68							

Key Management Ratios

Fiscal Years Ending Dec. 31	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E
Liquidity Ratios:													
Current ratio (CA/CL)	0.20	0.20	0.20	0.19	0.19	0.22	0.22	0.22	0.21	0.21	0.20	0.20	0.20
Quick ratio (Cash+Marketable Securities+Receivables)/Curr	0.23	0.22	0.23	0.23	0.23	0.25	0.26	0.25	0.25	0.25	0.24	0.24	0.24
Cash ratio	0.007	0.010	0.008	0.006	0.010	0.012	0.011	0.008	0.004	0.012	0.006	0.004	0.004
Asset-Management Ratios:													
Asset Turnover	0.17	0.17	0.18	0.18	0.17	0.18	0.19	0.21	0.21	0.21	0.21	0.21	0.21
Premium Receivables Turnover	0.81	0.78	0.79	0.78	0.76	0.74	0.71	0.72	0.74	0.76	0.76	0.76	0.76
Receivables Turnover	1.41	1.46	1.50	1.62	1.53	1.42	1.39	1.50	1.58	1.59	1.60	1.61	1.59
Financial Leverage Ratios:													
Debt-to-Equity Ratio	0.23	0.24	0.22	0.24	0.23	0.22	0.22	0.35	0.25	0.30	0.31	0.26	0.31
Debt-to-Asset Ratio	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04
Asset-to-Equity Ratio	4.70	4.73	4.67	5.40	5.24	5.24	4.76	7.57	6.70	6.87	6.98	7.13	7.24
Profitability Ratios:													
Return on Equity (NI/Beg TSE)	7.31%	7.51%	6.64%	8.92%	5.65%	9.32%	5.32%	14.10%	10.56%	10.64%	10.97%	11.15%	11.10%
Return on Assets (NI/Avg Total Assets)	1.56%	1.61%	1.43%	1.70%	1.11%	1.81%	1.07%	1.92%	1.60%	1.59%	1.60%	1.60%	1.56%
Net profit (Net income/net sales)	9.17%	9.42%	8.02%	9.29%	6.38%	9.94%	5.74%	9.06%	7.48%	7.38%	7.43%	7.39%	7.31%
Payout Policy Ratios:													
Dividend Payout Ratio (Dividend/EPS)	94.34%	93.37%	110.37%	92.39%	137.01%	52.06%	143.43%	64.86%	77.72%	78.37%	77.12%	76.99%	78.44%
Payout Ratio	94.64%	93.66%	110.21%	95.20%	140.29%	53.97%	149.71%	67.30%	69.59%	83.57%	83.78%	82.18%	81.97%
Retention Ratio	5.36%	6.34%	-10.21%	4.80%	-40.29%	46.03%	-49.71%	32.70%	30.41%	16.43%	16.22%	17.82%	18.03%

Sensitivity Tables

					Beta								CV Fixed N	laturity Ass	et Growth
	58.69	0.56	0.61	0.66	0.71	0.76	0.81	0.86		58.69	3.70%	3.80%	3.90%	4.00%	4.10%
ERP	3.88%	69.60	66.91	64.43	62.13	59.98	57.97	56.10	CV ST Investment Asse	3.90%	58.53	58.58	58.63	58.69	58.74
	4.03%	68.42	65.73	63.24	60.94	58.79	56.79	54.92	nt /	4.10%	58.53	58.58	58.63	58.69	58.74
	4.18%	67.28	64.59	62.10	59.79	57.65	55.66	53.80	mei	4.30%	58.53	58.58	58.64	58.69	58.74
	4.33%	66.18	63.48	60.99	58.69	56.55	54.57	52.72	est	4.50%	58.53	58.59	58.64	58.69	58.74
	4.48%	65.12	62.41	59.92	57.63	55.50	53.52	51.68	<u>c</u>	4.70%	58.54	58.59	58.64	58.69	58.74
	4.63%	64.08	61.38	58.89	56.60	54.48	52.51	50.68	ST	4.90%	58.54	58.59	58.64	58.69	58.74
	4.78%	63.09	60.38	57.90	55.61	53.50	51.54	49.72	S	5.10%	58.54	58.59	58.64	58.69	58.75
					Beta								Insurance	e Claims CV	Expense
	58.69	0.56	0.61	0.66	0.71	0.76	0.81	0.86		58.69	-70.00%	-71.00%	-72.00%	-73.00%	-74.00% -
	4.15%	72.60	69.36	66.40	63.69	61.18	58.87	56.72	(pe	-16.75%	72.91	69.12	65.32	61.53	57.74
te	4.30%	70.33	67.29	64.50	61.93	59.56	57.36	55.32	Amortization CV Expe	-17.00%	71.96	68.17	64.38	60.59	56.79
Risk-Free Rate	4.45%	68.19	65.33	62.70	60.27	58.02	55.93	53.99	د د	-17.25%	71.01	67.22	63.43	59.64	55.85
	4.60%	66.18	63.48	60.99	58.69	56.55	54.57	52.72	itio	-17.50%	70.06	66.27	62.48	58.69	54.90
	4.75%	64.29	61.73	59.38	57.19	55.16	53.27	51.51	tiza	-17.75%	69.12	65.32	61.53	57.74	53.95
Ri	4.90%	62.50	60.08	57.85	55.77	53.84	52.03	50.35	nor	-18.00%	68.17	64.38	60.59	56.79	53.00
	5.05%	60.80	58.51	56.39	54.42	52.58	50.85	49.24	Ar	-18.25%	67.22	63.43	59.64	55.85	52.05
					CV ROE				_				CV Fixed	Maturity S	ecurities
ſ	58.69	10.65%	10.80%	10.95%	11.10%	11.25%	11.40%	11.55%		58.69	3.70%	3.80%	3.90%	4.00%	4.10%
	7.20%	63.20	63.36	63.51	63.66	63.80	63.94	64.08	hir	3.70%	54.22	55.63	57.03	58.43	59.83
~	7.35%	61.46	61.61	61.76	61.90	62.04	62.18	62.31	lers	3.80%	54.31	55.71	57.11	58.52	59.92
it.	7.50%	59.81	59.96	60.10	60.24	60.38	60.51	60.64	artr	3.90%	54.40	55.80	57.20	58.60	60.01
Cost of Equity	7.65%	58.25	58.39	58.53	58.67	58.80	58.93	59.05	Limited Partnership	4.00%	54.48	55.89	57.29	58.69	60.09
sto	7.80%	56.77	56.91	57.04	57.17	57.30	57.42	57.54	lite	4.10%	54.57	55.97	57.37	58.78	60.18
8	7.95%	55.36	55.49	55.63	55.75	55.88	56.00	56.11	Lin	4.20%	54.66	56.06	57.46	58.86	60.26
I	8.10%	54.02	54.15	54.28	54.40	54.52	54.64	54.75	5	4.30%	54.74	56.14	57.55	58.95	60.35
	0.1070	0-4-02	04.10	54.20	34.40	04.02	34.04	34.73	-						

4.30%

58.84

58.84 58.84

58.85

58.85 58.85

58.85

-76.00%

50.16

49.21

48.26

47.31

46.37

45.42 44.47

4.30%

62.64

62.72

62.81

62.90 62.98

63.07

63.15

4.20%

58.79

58.79

58.79

58.79

58.79 58.80

58.80

-75.00%

53.95

53.00

52.05

51.11

50.16

49.21 48.26

4.20%

61.23

61.32

61.41

61.49

61.58

61.67

61.75

Valuation of Options Granted under ESOP

Current Stock Price	\$45.39
Risk Free Rate	4.60%
Current Dividend Yield	3.70%
Annualized St. Dev. of Stock Returns	26.01%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	2.63	41.40	1.80 \$	8.02 \$	21
Total	3\$	41.40	1.80 \$	10.03 \$	21

Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding

Number of Options Outstanding (shares):	3			
Average Time to Maturity (years):	1.80			
Expected Annual Number of Options Exercised:	 1			
Current Average Strike Price:	\$ 41.40			
Cost of Equity:	7.65%			
Current Stock Price:	\$45.39			

Fiscal Years Ending Dec. 31		2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Increase in Shares Outstanding:		1.46	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Strike Price:		41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40 \$	41.40
Increase in Common Stock Account:		60	48	-	-	-	-	-	-	-	-
Share Repurchases (\$)		0	0	0	0	0	0	0	0	0	0
Expected Price of Repurchased Shares:	\$	45.39 \$	47.18 \$	49.04 \$	50.98 \$	52.99 \$	55.08 \$	57.26 \$	59.51 \$	61.86 \$	64.31
Number of Shares Repurchased:		-	-	-	-	-	-	-	-	-	-
Shares Outstanding (beginning of the year)		271	272	274	274	274	274	274	274	274	274
Plus: Shares Issued Through ESOP		1	1	0	0	0	0	0	0	0	0
Less: Shares Repurchased in Treasury		-	-	-	-	-	-	-	-	-	-
Shares Outstanding (end of the year)		272	274	274	274	274	274	274	274	274	274