

# Financial Services: Property and Casualty Insurance

# CNA Financial Corp (NYSE: CNA) November 13, 2023

Current Price: \$39.44 Target Price: \$52 - \$55

# **Recommendation: BUY**

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# **Investment Thesis**

We recommend a **BUY** rating for CNA Financial Corporation. We believe that the current market conditions make for great potential growth in both premiums and investment income. Despite a decline in performance in 2022, we believe that a BUY rating would be fitting, as the company's current performance trends paired with the stronger economic performance have improved the lookout for 2023 performance.

#### **Thesis Drivers:**

- <u>Premium Growth:</u> The overall increase in demand for insurance policies has allowed for insurance companies to increase their premium rates. We estimate an average annual growth rate of 3.33% over the next 6 years. Given these conditions, paired with continued technological advances allowing for more accurate risk management, we believe that premium growth will provide great financial success.
- <u>Investment Income Growth:</u> The current market conditions provide a positive outlook for fixed maturity securities, which makes up a large portion of CNA's investment assets. The high bond rates have increased overall assets which have in turn increased the economic profit of the company. These positive trends lend well to our Economic Profit model, showing a higher expected price in the coming years.

#### Thesis Risks:

- <u>Continued Rate Fluctuations:</u> The current economic climate is still recovering from the impacts of the COVID-19 pandemic. Because of this, the rates impacting performance of CNA's investment assets are subject to change, particularly inflation and interest rates. This could negatively impact our model's growth rate, which would impact the overall profitability of this holding.
- Operating Cost Increases: Inflation rates continue to rise, increasing the overall cost of underwriting for CNA. In addition to increased underwriting costs, the costs of implementing new technology for these risk management processes continues to increase. These operating costs are expected to increase at an average rate of 3.7% every year.

## **Company Overview**

CNA Financial Corporation is a property and casualty insurance company based in Chicago, IL. CNA's reach extends to commercial businesses throughout the United States, Canada, and Europe, offering a broad suite of insurance products and services to businesses of all sizes. The company prides itself on its sound financial foundation and focuses on underwriting and risk management to ensure the financial and market success of the organization. Founded in 1897, the company has established itself by offering services to address the needs and risks of their consumers' industries. CNA is also dedicated to improving communities by volunteering, providing support, and practicing sustainability to improve the lives of others.

## **Price Projections:**

Target Price:	\$52 - \$55
DCF/EP Model:	\$55.06
DDM Model:	\$54.88
Relative Valuation AVG:	\$53.64

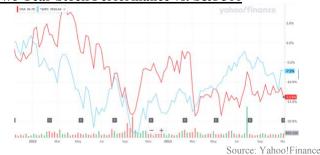
#### **Key Statistics:**

52-Week Range	\$36.17 - \$45.42
Market Capitalization	\$10.553 B
Shares Outstanding	270.9 M
Beta Value	0.55
Cost of Equity	7.16%
P/E Ratio	11.99x

#### **Financial Ratios and Metrics:**

EPS (2022)	\$3.29
Revenue (2022)	\$11.879 B
ROA	1.80%
ROE	9.38%
Dividend Yield	4.16%
Combined Ratio	93.9%
Renewal Rate	86%

#### Two Year Stock Performance vs. S&P500



## **Company Analysis:**

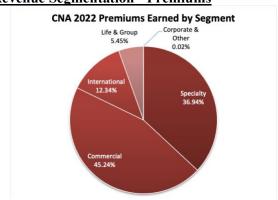
## **Executive Summary**

CNA Financial Corporation is one of the largest commercial property and casualty insurance firms based in the United States. The company was established over 125 years ago and has built up a long history of success within their respective industry. With a strategic vision to maintain a top quartile position in property and casualty underwriting, CNA focuses on adeptly managing risks associated with natural catastrophes and climate change<sup>i</sup>. Our analysis underscores the company's robust enterprise capital model, tailored to mitigate potential catastrophic event costs. Beyond financial prudence, CNA exemplifies corporate social responsibility, reinforcing its reliability in the insurance landscape. Based on a long history of success, we analysts see CNA Financial Corporation as a great investment opportunity, poised for sustained growth and long-term success in the dynamic insurance market.

## **Company Description**

CNA Financial Corporation is a subsidiary of Loews Corporation, another insurance company. CNA specializes in property and casualty insurance across many different industries. They excel in specializing their products based on the risks of each industry to provide the best offerings for their customersii CNA's main property and casualty segments are Specialty, Commercial, and International, but they additionally have some business within Life & Group and Corporate segments. The company offers an array of products across the United States, with the International segment of the company providing services for Canada and Europe. Their main offerings include liability coverage, workers' compensation, property and casualty coverage for natural disasters, and more iii

## **Revenue Segmentation - Premiums**



Source: CNA Financial 2022 10-K

#### **Specialty**

CNA's Specialty division offers management and professional liability coverage, surety bonds, and warranty solutions. Management & Professional Liability caters to various professional firms, including healthcare, architects, and law firms. The Surety segment provides bonds across all 50 states, while Warranty and Alternative Risks offer extended service contracts for vehicles and consumer goods. These services are distributed through brokers, independent agencies, and managing general underwriters.

In 2022, the Specialty segment experienced an \$81 million increase in net written premiums, driven by an increase in overall retention. The segment was also able to decrease its combined ratio by 0.1 in 2022, which was the effect of the improvement in the loss rate by 0.7 and offset of the increase in expense ratio of 0.5. As mentioned in the technological advances section [4], the use of new technology in underwriting processes can provide a more accurate portrayal of risk, and is therefore something that CNA has chosen to invest in. This extra investment has increased underwriting expenses which increased the overall expense ratio. From 2021 to 2022, there was a decrease in catastrophe losses from \$12 million to \$2 million. The segment experienced a decrease in core income of \$36 million due to lower investment income returns from limited partnerships and common stock results.

#### Commercial

The Commercial division collaborates with brokers and agents to provide a diverse range of property and casualty insurance products, focusing on small businesses, construction, middle markets, and other commercial sectors. Their portfolio includes standard and excess property, marine, and boiler and machinery coverages. In casualty insurance, CNA offers workers' compensation, general and product liability, commercial auto, umbrella, and excess and surplus coverages, along with specialized loss-sensitive insurance programs. The company also provides total risk management services, addressing the unique needs of the expansive commercial insurance marketplace.

In 2022, the Commercial segment experienced an increase in net written premiums, mainly driven by a 4% increase in their retention, as well as a 20% increase in new business. From 2021, the net written premiums increased by \$598 million, including a one-time written premium catch-up from a previous period. The segment also experienced a decrease in catastrophe losses, decreasing from \$358 million in 2021 to \$222 million, which drove overall core income

to increase year-over-year. In addition to their increase in premiums, they were also able to reduce their segment combined ratio by decreasing their expense ratio as well as their loss ratio. The decrease in CNA's loss ratio was due to this decrease in loss from catastrophes. The expense ratio was more favorable in 2022 due to higher net earned premiums and lower acquisition costs.

#### International

CNA's International division underwrites global property and casualty coverages through a diversified approach. This includes a branch operating in Canada, an extensive European business comprising insurance companies located in the United Kingdom and Luxembourg, and Hardy, CNA's syndicate at Lloyd's of London. This strategic international presence allows CNA to provide comprehensive insurance solutions on a global scale, leveraging regional expertise and a presence at Lloyd's, a renowned hub for the insurance market.

The International segment performed well in 2022, with an increase of net written premiums of \$63 million. This increase was driven by an increase in the retention rate combined with an increase in new business. CNA was able to improve their combined ratio for 2022 by 3%, mainly due to the decrease of their loss ratio of 2.2% and a decrease in the expense ratio of 0.8%. These changes were the result of lower acquisition costs as well as an overall decrease in the catastrophe losses from \$27 million in 2021 to \$23 million in 2022. The overall core income of the International segment increased by \$20 million from 2021 to 2022. As mentioned in the Specialty segment [1], core income changes were driven by lower investment income returns from limited partnerships and common stock results.

#### *Life & Group*

The Life & Group business encompasses CNA's runoff long-term care business and structured settlement obligations not funded by annuities for certain property and casualty claimants. Long-term care policies provide benefits for nursing homes, assisted living, and home health care, subject to daily and lifetime caps, with policyholders making periodic premium payments. CNA maintains claim and adjustment expense reserves for long-term care policies, reviewing them annually for sufficiency<sup>iv</sup>.

In 2022, the Life & Group segment's operating revenue decreased by \$181 million, mainly due to a large decrease in investment income. CNA

experienced a decrease in income from their investments in limited partnerships. The long-term care claim reserves showed a \$25 million favorable reduction in reserves, mainly driven by a release of reserves established during 2020 and 2021. There was also a change to the discount rate assumptions, which allowed for a favorable pretax reduction in reserves of \$5 million.

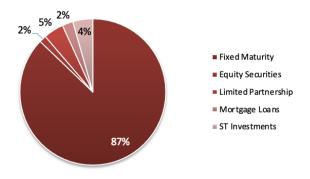
## Corporate & Other

The Corporate & Other Segment of CNA primarily includes corporate expenses, including interest on corporate debts and run-off from certain property and casualty business. These businesses include CNA Re, A&EP, legacy portfolio of EWC and legacy mass tort reserves.

In 2022, the Corporate & Other segment experienced an increase of \$4 million in investment income at compared to 2021's investment income of \$15 million. Despite this increase, the segment also experienced an increase in other expenses, bringing core income to a loss of \$183 million, a decrease from 2021 core income loss of \$204 million. Core results declined but were partly offset by favorable factors related to the A&EP Loss Portfolio Transfer (LPT) and the recognition of a \$12 million loss from the legacy excess workers' compensation loss portfolio transfer (EWC LPT) in the prior period. The application of retroactive reinsurance accounting resulted in a \$3 million benefit in 2022, compared to a \$25 million charge in 2021, with no economic impact. While this segment did incur a loss, this is to be expected because of the nature of the segment, and the decrease in the total core loss is favorable

#### **Revenue Segmentation – Investment Income**

#### **CNA 2022 Investment Assets Weights**



Source: CNA Financial 2022 10-K

Another driver of CNA's revenues, as well as insurance companies overall, is investment income.

Insurance companies use excess funds from premiums to reinvest cash for another source of revenue. CNA has investment income streams from 5 asset classes: fixed maturity securities, equity securities, limited partnership investments, mortgage loans, and short-term investments. For this analysis, we included the weights of the investment assets as they drive a large portion of our balance sheet and will further explain the trends in investment income and asset values.

#### Fixed Maturity Securities

These securities make up the largest portion of CNA's investment assets, accounting for about 87% of their portfolio. The company's fixed maturity securities consist of corporate and other bonds, states, municipalities, and political subdivisions, asset backed residential and mortgage assets, and U.S. treasury and foreign government bonds. In 2022, this investment class experienced a decrease in total asset holding, but an increase in investment income. The overall return of these investments increased due to rising interest rates in 2022, with the yield of a U.S. Treasury bond reaching almost 5% - up from the sub-2% rates in 2021vi. With rates continuing to climb, we expect fixed maturity securities to continue to provide great returns for CNA.

#### Equity Securities

Level 1 securities include publicly traded securities valued using quoted market prices. Level 2 securities are primarily valued using pricing for similar securities, recently executed transactions and other pricing models utilizing market observable inputs. Level 3 securities are primarily priced using broker/dealer quotes and internal models with some inputs that are not market observable.

CNA -	2022	2021
Equity	Value	Value
Securities	(millions)	(millions)
Level 1	669	924
Level 2	435	721
Level 3	35	29
Total	1,139	1,674

Source: CNA Financial 2022vii

These securities suffered due to the rising interest rates causing many investors to shift to bonds instead of equities. The increased rates also caused investors to see the value of future earnings as less attractive. CNA's equity securities experienced a decrease of \$535 million, mainly driven by losses on Level 1 and Level 2 securities viii. This decrease in value contributes to the overall decrease in investment income of \$60 million from 2021 to 2022.

#### Limited Partnerships

In addition, CNA invests a portion of its assets in limited partnerships and common stock which are subject to greater market volatility than its fixed maturity investments. Limited partnership investments generally provide a lower level of liquidity than fixed maturity or equity investments, which may also limit CNA's ability to withdraw funds from these investments.

Limited partnerships accounted for \$1,926 million on the balance sheet in 2022, up from \$1,859 in 2021. Despite this increase, these investments had a net investment income loss on the balance sheet. This is due to a couple of the larger partnerships losing more than CNA invested. Because of the market conditions throughout 2022, limited partnerships struggled due to a decrease in overall investments caused by an increase in borrowing rates [5-6]. Because many of these partnerships are more illiquid, there is also a decrease in recognizable gains.

#### Mortgage Loans

An additional investment asset for CNA is commercial mortgage loans. Mortgage loans at this organization are reported at the unpaid principal balance, adjusted for unamortized fees and an allowance for expected credit losses. The allowance for expected credit losses is determined by assessing the credit quality of pools of mortgage loans, considering debt service coverage ratios (DSCR) and loan-to-value (LTV) ratios. DSCR evaluates a property's net operating income in relation to its debt service payments, while LTV compares the loan's unpaid principal balance to the estimated fair value of the property collateral.

For 2022, mortgage loans decreased slightly from \$61 million to \$54 million. This can be attributed to the increase in mortgage loan rates, which drove down the value of mortgage assets. Despite this decrease in investment income, the overall asset value held in mortgage loans increased from \$973 million in 2021 to \$1,040 in 2022. We believe that this was driven by an increase in credit losses as well as an increase in lower-yield loans to the portfolio due to the increase in mortgage rates.

#### Short-Term Investments

The short-term investment income for 2022 increased slightly from 2021, with a net loss of \$54 million in 2021 to a net loss of \$47 million in 2022. In addition to the net loss, the asset values decreased from \$2,081 million in 2021 to \$1,910 in 2022. Because short-term investments tend to be more volatile and sensitive to market conditions, we believe that CNA was expected to endure a loss in this area due to a shift to more stable

investments with lower risks. By having less value placed in this asset class, we think that CNA was able to avoid some losses that could have been incurred if they sustained the 2021 value level, which would explain the overall increase in investment income (decrease in loss).

## **Industry Analysis:**

#### **Industry Description**

The property and casualty insurance industry supplies coverage for loss or damage of real property such as auto and home insurance, professional liabilities, and other risks. This industry is tightly regulated by the National Association of Insurance Commissioners (NAIC). The industry is also highly competitive; four top companies hold nearly a fourth of the market with strong competition from smaller insurers. The property and casualty insurance industry generates revenue by charging insurance premiums and reinvesting premium excess into interest-bearing securities.

From 2018 to 2023, revenue in the property and casualty industry increased at a compound annual growth rate (CAGR) of 1.8%, with total industry revenue at \$888.0 billion. However, revenue growth for 2023 has been lower than the previous 5 years at 0.7%, likely caused by changes in interest rates and a related decrease in both motor vehicle registrations and the homeownership rate. While many industries were negatively impacted by the Covid-19 pandemic in 2020, the property and casualty industry's revenue and growth remained stable. In addition to revenue growth, over the past five years total profit for the industry has grown 3.8%, profit margins have grown 1.2% for a current average of 13.1%, and profit per business has grown 3.6%.ix



Property, Casualty and Direct Insurance Source: IBISWorld

The property and casualty insurance industry is highly competitive. The four largest players in the industry –

State Farm Mutual, Berkshire Hathaway, Allstate Corp, and Liberty Mutual – hold approximately 23% of market share. The main differentiator between firms in this industry is the coverage options, including homeowner's, condo, renter's, co-op, liability, pet, and auto insurance. Quality of service, including ease of claim filing and service interactions with employees can be an important factor as well. Companies can also distinguish themselves through marketing and brand awareness, such as with Liberty Mutual's commercial jingle. ix

Top 10 Writers Of Property/Casualty Insurance By Direct Premiums Written, 2022

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Rank	Group/company	Direct premiums written (1)	Market share (2)
1	State Farm	\$78,643,121	9.2%
2	Berkshire Hathaway Inc.	55,930,316	6.6
3	Progressive Corp.	52,326,628	6.1
4	Allstate Corp.	45,512,585	5.3
5	Liberty Mutual	43,876,546	5.1
6	Travelers Companies Inc.	34,273,833	4.0
7	Chubb Ltd.	29,266,847	3.4
В	USAA Insurance Group	26,828,296	3.1
9	Farmers Insurance Group of Companies	26,416,672	3.1
10	Nationwide Mutual Group	20,306,711	2.4

Before reinsurance transactions, includes state funds
 Based on U.S. total, includes territories.

Source: NAIC data, sourced from S&P Global Market Intelligence, Insurance Information Institute.

## **Industry Trends**

The property and casualty insurance industry is experiencing several changes driven by technological improvements, changing customer expectations surrounding personalization and data privacy, and climate change. Industry leaders will need to adapt to these trends and expectations to meet consumer needs and remain financially successful in the coming years.

#### Technological Advancements

Advancements in technology, particularly artificial intelligence (AI) and machine learning, provide an opportunity for both increased computing accuracy and wage cost reductions. AI can be used to determine appropriate premium pricing, analyze claims, enhance personalized consumer services, and more accurately predict risk. However, insurance companies should carefully screen machine learning conclusions for racial, gender, and other bias to avoid unlawful discrimination.xi The adoption of technological advancements could also be seen as a threat for an already savvy company, such as CNA. The utilization of artificial intelligence has the potential to become more effective than CNA's current processes, which could put them at a competitive disadvantagexii.

#### Customer Experience

Increasing use of digital technology shapes consumer expectations in the property and casualty insurance industry. Seventy-one percent of consumers expect a personalized experience, and seventy-six percent become frustrated when this experience is not available. Industry leaders should invest in interactive online platforms and ensure personalization in consumer interactions. xiii

#### Data Privacy

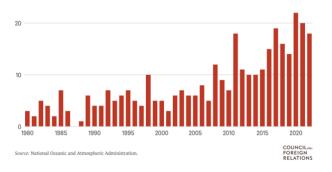
Property and casualty insurance providers necessarily collect personal data from their customers, such as age, income, home and car value, social security number, and other financial information. Due to an increased use of artificial intelligence and data mining, consumers have become more concerned about the use of their personal data. Seventy-five percent of consumers state that they are in favor of greater government regulation for personal information. Industry leaders should strive for transparency and limit use of consumer data without a clear purpose or benefit.xiv

## Climate Change

Climate changes such as global warming have a direct impact on the property and casualty insurance industry as claims related to natural disasters such as hurricanes, floods, and wildfires increase in frequency and severity. Insurers will need to account for increasing disaster losses in their underwriting, which may include increasing premiums in order to meet target loss ratios in future years.<sup>xv</sup>

#### Billion-Dollar Disasters Are Becoming More Common

 $Number of \ disasters \ affecting \ the \ United \ States \ that \ caused \ \$1 \ billion \ or \ more \ in \ damage \ disasters \ affecting \ the \ United \ States \ that \ caused \ \$1 \ billion \ or \ more \ in \ damage \ disasters \ disasters$ 



#### **Peer Comparisons**

#### Financial Metrics

Our group has identified American Financial Group (AFG), American International Group (AIG), Assurant Inc. (AIZ), Hartford Financial Services Group (HIG), and Old Republic International Corp (ORI) as the most comparable peer companies to CNA. We chose to compare the combined ratio, price-to-book ratio, operating margin, five-year revenue growth rates, and S&P debt ratings of each of these firms in 2022. xvi

	Combined	Price/Book	Operating	5-Year Revenue	S&P Debt
	Ratio	Ratio	Margin	Growth Rate	Rating
AFG	87.2%	2.29	13.79%	1.46%	BBB+
AIG	91.9%	1.14	14.74%	3.20%	BBB+
AIZ	98.35%	1.91	7.34%	10.83%	BBB
HIG	94.6%	1.68	12.74%	5.56%	BBB+
ORI	91%	1.32	16.05%	6.60%	BBB+
CNA	88.6%	1.23	11.42%	4.99%	A-

Source: Finviz

#### Combined Ratio

The combined ratio is an essential measure of an insurance company's underwriting competency and profit on premiums charged. A combined ratio greater than 100% indicates that a company is paying out more in claims than it is charging in premiums (an operating loss); lower ratios indicate an operating profit. CNA's combined ratio is 88.6%, the second lowest in its peer group, which indicates that CNA and AFG bring in the highest profit per premium. This demonstrates CNA's underwriting proficiency and is an indicator of good financial health. Conversely, AIZ has the highest combined ratio at 98.35.

#### Price-to-Book Ratio

Price-to-Book (P/B) Ratio is a measure of a company's stock value relative to the company's overall equity book value. Generally, for the insurance industry, lower P/B values signify that a stock may be undervalued, while higher P/B values signify that a stock may be overvalued. CNA has the second lowest P/B ratio at 1.23, indicating that the company's stock is likely undervalued. Our complete financial analysis of the company also supports that the stock is likely undervalued and justifies our "buy" recommendation for CNA. On the opposite side, AFG has the highest P/B ratio at 2.29 – the only peer company with a P/B ratio above 2.

## Operating Margin

Operating margin measures the percentage of sales a company retains as net income after operating expenses. Higher operating margins indicate more efficient company operations and lower operating costs compared to the rest of the peer group. In this metric, CNA's operating margin is approximately 1.5% lower than the peer group average at 11.42%. This indicates that CNA may have higher operating costs or lower operating efficiency than the rest of its peer group.

## Five-Year Revenue Growth Rate

The five-year revenue growth rate indicates the five-year average sales gain or loss relative to the previous year. Companies with higher revenue growth rates are increasing their sales and also generally profits at a faster rate than competitors. The average growth rate for the property and casualty insurance industry over the past five year was 1.8%. CNA's five-year revenue growth rate was nearly triple that of the overall industry at 4.99%; relative to the rest of its peer group CNA's revenue growth is very close to the average. This indicates that CNA's revenue growth is excellent relative to the property and casualty insurance industry as a whole and satisfactory as compared to the peer group.

#### S&P Debt Rating

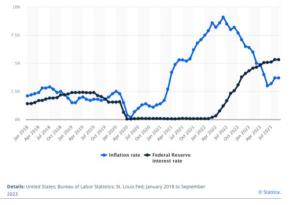
Standard and Poor's (S&P) issues a debt rating from AAA+, indicating the highest confidence that a debt provider will not default, to DDD-, indicating extreme risk of default. With a debt rating of A-, CNA has the highest S&P rating of its peer group, indicating that the company is the least risky provider of debt and unlikely to default on long or short-term debt obligations. Conversely, AIZ received the lowest rating of the peer companies with a rating of BBB. Having the highest S&P debt rating shows confidence in CNA's financial strength and outlook.

# **Economic Analysis:**

## **Inflation**

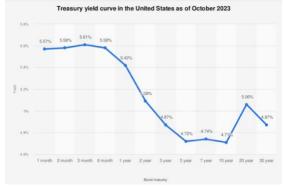
Inflation is an important economic factor for the property and casualty industry because inflation levels determine investment gains relative to the time value of money and appropriate premium charges. Considering the current economic climate, inflation peaked in June 2022 at 9.1% and has come down to 3.9% as of September 2023. (Inflation is measured as change in the consumer price index.) Given the federal target of a 2% inflation rate, current inflation is still double the target and will directly affect the Federal Funds interest rate in the coming years. \*xvii\*

Looking ahead, we predict that over the next 2-3 years the inflation level will decrease to the federal target of 2%. Current inflation levels have caused property and casualty insurers to increase their premiums and make a smaller investment income relative to inflation. Our group predicts that over the next 2-3 years as inflation decreases, insurance companies will begin to lower their insurance premium growth rates and make a greater relative return on investment.xviii



#### **Interest Rates**

Interest rates are intrinsically tied to inflation and have risen sharply over the past year, with the current Federal Funds interest rate set at 5.25% - 5.5%. The 2023 interest rate yield curve shows 10-year treasuries at 4.71%, 15-year treasuries at 5.06%, and 30-year treasuries at 4.87%. Short-term yield rates are higher than long-term yield rates, indicating a market consensus that interest rates will drop in future years. Interest rates impact the property and casualty insurance industry in a myriad of ways – first, rates impact bond portfolio yields; second, the average expense per claim changes with the market value of property repair and liability defense; third, it impacts the cost of borrowing to finance projects. xix



Source: Statistaxx

Our group predicts that over the next 2-3 years, the federal government will slowly lower interest rates. As interest rates and the cost of borrowing decrease, property and casualty insurance firms will be able to borrow at a lesser cost, encouraging investing and

expansion. For consumers, the drop in interest rates will lead to an increase in home purchases and increased premium income from mortgage insurance for insurers. However, a decrease in interest rate would also decrease investment income from debt securities. \*xxi\*

## **Housing Market**

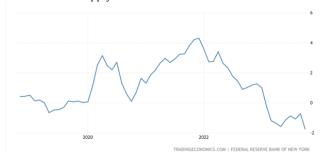
The property and casualty insurance industry is directly affected by the housing market, as increases in home prices cause both an increase in insurance premiums and insurance payouts. In periods of high housing costs, as we see currently with a 7.79% mortgage interest rate as of October 2023, more lenders buy private mortgage insurance as they cannot afford a 20% loan down payment. However, due to the COVID-19 pandemic, many home repair insurance claims have become more expensive due to increased demand and supply chain delays. xxii

Over the next 2-3 years, our group predicts that housing prices will mirror inflation and rise around 5% (assuming inflation decreases to the yearly federal target of 2%). However, we predict that mortgage interest rates will fall with the federal funds rate, leading to a decrease in private mortgage insurance needs, an increase in home buying, and a decrease in average monthly mortgage spending. Depending on the degree to which home buying increases vs. the reduction in private mortgage insurance needs, this could increase or decrease operating income for property and casualty insurers.

#### **Supply Chain**

The final economic factor our group has identified as important to the property and casualty insurance industry is supply chain efficiency. Beginning in 2020 with the Covid-19 pandemic, property and casualty insurers have dealt with supply chain bottlenecks and delays. This increases the time needed to settle and the costs associated with claims; insurers have had to raise premiums to cover these increased claim costs. xxiii

Global Supply Chain Pressure Index 2018-2023



Our group predicts that over the next 2 - 3 years, supply chain restrictions will continue to improve and converge on a pressure index of zero. The Global Supply Chain Pressure Index (GSCPI) has already decreased to below pre-pandemic levels, indicating that supply chain difficulties and pressures are decreasing. With this decrease in supply chain issues, the property and casualty insurance industry should expect decreases in claim fulfillment costs and wait times.\*

## **Capital Market Outlook**

Overall, the capital market outlook for the property and casualty insurance industry is positive. Our predicted decrease in inflation to the federal target of 2% over the next few years will result in greater relative investment returns for insurance providers. Predicted decreases in interest rates will result in a lower cost of borrowing and an increase in predicted home buying. Increased home buying will, in turn, increase the need for mortgage insurance from property and casualty insurers and increase premium revenue. Supply chains are predicted to continue improving as any ongoing bottlenecks are resolved as we move away from Covid-19 related supply chain difficulties.

Most companies have been hit hard by fluctuations in interest and inflation rates over the past 3 to 4 years. The property and casualty industry is uniquely suited to perform relatively better than other companies during periods of fluctuation due to multiple revenue sources; namely, both insurance premium income and investment income. In periods of high inflation, insurance providers can charge higher premiums and bring in greater premium revenue. In periods of lower inflation and high interest rates, insurers can take advantage of higher treasury and investment yields. The makes property and casualty insurers an excellent current investment choice.

# Valuation Analysis:

#### Revenue Breakdown

#### Net Earned Premiums

Net Earned Premiums made up 73% of CNA's total operating revenue in 2022. Earned premiums are broken into five categories based on the type of insurance – specialty, commercial, international, life & group, and corporate & other – with the specialty and commercial categories providing the largest sources of premium income.

To forecast premium revenue from 2023 to 2028, we used a 5-year moving average with minor 0.01% -0.04% adjustments for outliers, such as in 2019 when international premiums increased 800%. Based on our projections, the specialty, commercial, international lines have positive growth rates, corporate & other insurance premiums are forecasted with no growth rate, and life & group premiums are forecasted to decrease over the next five years by a total of 16.97%. This is consistent with current economic trends, as consumers who are struggling to pay for necessities generally do invest in life insurance. If actual earnings in the life & group segment are consistent with our projections, CNA may need to consider dropping the segment to ensure continuing profitability.

Overall, total net premiums are expected to increase by 22% over the next five years for a total earned premium of 10.55b in 2028. Our group feels that this growth is reasonable based on CNA's past performance. To understand how differences in premium growth due to changing economic conditions may impact our model, we have included growth in the specialty and commercial segments as part of our sensitivity analysis [10].

#### Investment Income

CNA earns 14% of their net revenue from investment income. The company maintains a diversified portfolio, with investments in fixed maturity securities, equity securities, limited partnership investments, mortgage loans, trading portfolios, and other sources. The vast majority of revenue in this segment (99% in 2022) comes from fixed maturity securities. For this reason, our revenue forecasts will be extremely sensitive to changes in interest rates and the yield curve for U.S. treasuries and other investment-grade bonds.

To forecast investment income, our group used a 5-year moving average, with adjustments for outliers – for example, we did not include the 964% limited partnership growth from 2019 in our moving average to avoid an illogically high growth rate. From 2023-2028 we predict positive growth in equity securities, mortgage loans, and other investment income; a 12% total decline in limited partnership investments, and a slight 3.41% total decline in fixed maturity securities. We believe that these predictions are accurate given our economic forecast. Particularly, we think a decline in fixed maturity securities as bond investment returns decrease is likely, but not a source of financial concern given a corresponding increase in premium revenue.

#### Non-Insurance Warranty Revenue

Non-insurance warranty revenue made up 14% of CNA's total earned revenue in 2022xxv. This revenue is generated from warranties that cover mechanical breakdowns for vehicle and consumer goods owners. This is reported net of any earned premiums related to the warranty contract. Using a 5-year moving average, we forecasted a 36% growth in warranty revenue from 2023-2028. This is consistent with CNA's past performance. One possible reason for the significant growth in this segment would be that it didn't appear as a revenue item until 2018, and allocations to this category have increased drastically since its introduction.

#### **Total Claims & Policyholder's Benefits**

## Insurance Claims & Policyholder's Benefits

The majority of CNA's operating expenses (57% as of 2022) are contained within insurance claim and policyholder's benefits expenses. Our group forecasted this expense as a year-over-year average percentage of revenue to account for differences in premium volume. These expenses are predicted to grow 22% from 2023-2028. This forecast would be heavily impacted by changes in average claim expenses due to inflation and any supply chain transportation difficulties. Our current projection is consistent with our 2 to 3-year inflation forecast and assumes that supply chain difficulties due to COVID-19 have been resolved and will not return.

#### Amortization of Deferred Acquisition Costs

Amortization costs account for 14% of operating expenses as of 2022. To model these expenses, our group used a similar method to our insurance claim expense with a year-over-year average based on the percentage of net revenue. Based on these projections, we predict that this expense will increase by 22% from 2023-2028.

#### Non-Insurance Warranty Expense

Lastly, we modeled non-insurance warranty expense from 2023-2028. We created these projections by taking a year-over-year average of the percentage of non-insurance warranty revenue. As non-insurance warranty revenue had the highest projected revenue growth, warranty expenses have the highest projected expense growth with a predicted total growth of 36% over the next 6 years.

#### **Model Valuations**

## Cost of Equity

Cost of equity is extremely important to insurance firm evaluation to properly discount cash flows. To estimate CNA's cost of equity, we employed the CAPM. First, we used the current return on a 30-year U.S. treasury bond to approximate a risk-free rate of 4.48%. Next, we averaged a combination of quarterly, monthly, weekly, and daily raw beta estimations over 1, 2, and 5 year time horizons to arrive at a beta value of 0.55. Lastly, for the equity risk premium, we used an implied equity risk premium valued by the trailing 12-month cash yield of the S&P 500 Indexxxvi. Our final calculated cost of equity was 7.16%. As the cost of equity is sensitive to changes in interest rates and we expect a drop in interest rates over the next 2 to 3 years. we also included this variable in our sensitivity analysis.

Discounted Cash Flow & Economic Profit Analysis

## Share Price: \$55.06

Our group used both the discounted cash flow (DCF) and economic profit (EP) valuation methods to determine CNA's implied share price.

In the DCF model, we began by calculating free cash flow to equity (FCFE) based on net income, change in total assets, and change in total liabilities. Next, we discounted the FCFE for 2023-2027 by our predicted cost of equity and found the continuing value for 2027 at a continuing growth rate of 2.50%. The continuing return on equity growth (CV ROE) was calculated as net income divided by beginning stockholder's equity. We then summed the discounted cash flows to find CNA's value of operating assets. As a non-operating adjustment, we subtracted employee stock options from operating asset value to find the value of equity. We then calculated the intrinsic stock value as of the end of 2022 by dividing the value of equity by shares outstanding. To make the stock price current as of 11/13/2023, we made a partial-year adjustment that resulted in a final implied stock price of \$55.06.

In the EP model, we began by similarly discounting our yearly economic profit values from 2023 – 2027 and estimating a 2027 continuing value using the cost of equity and CV ROE. We added these discounted values together to approximate the total present value of economic profit, then added total economic profit to 2022 invested capital to find the value of operating assets. We then subtracted employee stock options

from this value to find a final value of equity and divided the value of equity by total shares outstanding to find implied stock price as of 2022 year end. We then applied the same partial-year adjustment as in the DCF model to find a final implied stock price of \$55.06

**Dividend Discount Model** 

#### Share Price: \$54.88

Our group also employed the dividend discount model as an additional share price valuation method. As CNA pays a variable dividend each year, this model was important as an additional measure of share price with more weight given to dividend values.

First, we forecasted CNA's future dividends as a five-year moving average percentage of net income. We then found the price-to-earnings (P/E) ratio for the continuing value year to forecast a 2027 stock price of \$58.16. Next, we discounted the future stock price and projected dividends from 2023-2027 and added these discounted cash flows together to come up with an intrinsic stock value as of the end of 2022. Finally, we applied a partial-year adjustment for a final implied stock price of \$54.88. Our dividend discount model price and DCF/EP price differed by only 0.33%, which affirms the consistency of our model.

## Relative Valuation

For our relative valuation analysis, we examined the same five peer companies discussed in our peer comparison - American Financial Group (AFG), American International Group (AIG), Assurant Inc. (AIZ), Hartford Financial Services Group (HIG), and Old Republic International Corp (ORI). We calculated an average 2023 EPS of \$6.52 for these peer companies as opposed to CNA's \$3.12 EPS projectionxxvii. We also calculated the average P/E ratio for the peer companies as 10.18 in 2023 and 9.14 in 2024. CNA had the highest forecasted P/E ratios of the peer group of 12.6 and 12.3 in 2023 and 2024 respectively. Additionally, we calculated an average peer price/book (P/B) ratio of 1.41 and tangible P/B ratio of 1.50, as opposed to CNA's P/B ratio of 1.21 and tangible P/B of 1.22. We determined a final implied relative stock value range of \$29 - \$49. Due to large differences in total and book equity values across this peer group, we believe that our dividend discount and DCF/EP models are more consistent with CNA's true implied share price.

## **Sensitivity Analysis:**

#### **Overview**

To test the impact of changes in our model on the intrinsic stock price calculated in our DCF and EP models, we created the following six sensitivity tables. We have highlighted in yellow the vertical and horizontal rows that correspond to the actual values we used in our valuation.

#### Beta vs. Risk-Free Rate

In this sensitivity table, we modeled the impact of varying the risk-free rate and beta on the intrinsic stock price. Our beta estimate has a significant impact on stock price due to changes in cost of equity. The risk-free rate is specifically important to model in the property and casualty industry to understand how changing treasury interest rates will impact stock valuation. Our sensitivity table for these variables shows that as the beta – and therefore, the cost of equity – increases, intrinsic stock price falls. The risk-free rate also has an inverse relationship with stock price, indicating that rising long-term treasury rates would decrease CNA's intrinsic stock value.

#### Cost of Equity vs. CV ROE

For our second sensitivity analysis table, we examined the impact of the cost of equity and the continuing value of return on equity (CV ROE) on intrinsic stock price. Increases in the cost of equity increase the discount factor used to estimate present value of cash flows which results in decreasing intrinsic stock value. CV ROE is positively correlated with intrinsic stock value, as higher CV ROE values indicate increased profitability and net income relative to total equity. For CNA, rising interest rates that increase the overall cost of equity will negatively impact share price, and improvements in ROE will positively impact share price.

## CV Specialty Premium Growth vs. CF Commercial Premium Growth

The next variables we tested in our sensitivity tables were the continuing values of both specialty premium growth and commercial premium growth. In the property and casualty insurance industry, adequate premium growth is essential to ensure that insurance companies continue to turn a profit in periods of high inflation. At the variation we tested for both variables (+0.3%/-0.3%), neither variable had a significant

impact on intrinsic stock value. We felt that this sensitivity table was still important to our analysis because specialty and commercial premiums made up 82% of total premium revenue and 60% of CNA's overall revenue in 2022.

#### Equity Risk Premium vs. CV EPS

Next, we examined the impact of equity risk premium and continuing value of earnings per share (CV EPS) on intrinsic stock value. Increased equity risk premium rates have a small negative effect on intrinsic stock value. This is due to an overall increase in the cost of equity and discount rates, as higher discount rates result in lower present value of cash flows. Increasing the CV EPS has a strong positive effect on intrinsic stock price. This indicates that changes in CV EPS would have a significant effect on our valuation, as a \$0.10 increase in EPS results in \$1.20 increase in stock value.

## Marginal Tax Rate vs. Forward Dividend Yield

Our next sensitivity table modeled the impact of marginal tax rate and forward dividend yields on intrinsic stock value. As expected, higher marginal tax rates result in lower after-tax income and therefore, decrease intrinsic stock value. The forward dividend yield affects our partial-year adjustment to intrinsic stock value; higher dividend yields slightly lower intrinsic stock value. CNA pays a varied dividend each quarter so our group chose to clearly model differences in forward yield may impact stock price.

# <u>Pre-Tax Cost of Debt vs. CV ROI Fixed Maturity Securities</u>

Our final sensitivity table examined the impact of pretax cost of debt and the continuing value return on investment (CV ROI) of fixed maturity securities on intrinsic stock price. The pre-tax cost of debt impacts CNA's yearly interest expense and net income; therefore, increases in the pre-tax cost of debt negatively impact share price. Higher CV ROI or investment returns are associated with higher implied share prices due to increases in net revenue. Currently, the average cost of debt is high due to high interest rates; based on this sensitivity analysis we would expect our share price to increase as interest rates are lowered.

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## **Important Disclaimer**

This report was created by students enrolled in the Applied Equity Valuation (FIN:4250) 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.

Revenue Decomposition

(in millions)

(in millions)									
Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Net Earned Premiums									
Specialty	\$ 2,883 \$	3,076 \$	3,203 \$	3,216 \$	3,259 \$	3,334 \$	3,400 \$	3,435 \$	3,444
Commercial	3,323	3,552	3,923	3,782	3,838	3,879	3,967	4,059	4,139
International	940	1,057	1,070	1,370	1,501	1,694	1,913	2,216	2,566
Life & Group	504	491	473	461	448	435	422	410	398
Corporate & Other	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
Total Earned Premiums	7,649	8,175	8,667 \$	8,828 \$	9,046 \$	9,341 \$	9,701 \$	10,119 \$	10,546
Investment Income:									
Fixed Maturity Securities	1,728	1,707	1,787	1,767	1,746	1,741	1,741	1,734	1,792
Equity Securities	65	83	23	31	43	62	92	142	223
Limited Partnership Investments	121	362	(12)	(12)	(12)	(11)	(12)	(12)	(11)
Mortgage Loans	57	61	54	62	69	75	83	90	100
Trading Portfolio	18	9	4	9	10	10	8	8	9
Other Investment Income	10	1	21	22	24	27	29	30	26
Investment Expense	(63)	(64)	(72)	(64)	(65)	(66)	(66)	(67)	(65)
Net Investment Income	1,936	2,159	1,805	1,814	1,816	1,839	1,875	1,925	2,074
Non-Insurance Warranty Revenue	1,252	1,430	1,574	1,733	1,855	1,940	2,019	2,040	2,144
Other Revenues	26	24	32	33	29	29	29	30	30
Net Investment Gains (Losses)	(54)	120	(199)	(50)	(3)	(13)	(8)	(14)	(24)
Total Operating Revenue	10,809	11,908	11,879	12,357	12.744	13,135	13,617	14.101	14,770
Specialty Commercial	3.97% 5.09%	6.69% 6.89%	4.13% 10.44%	0.41% -3.61%	1.34% 1.50%	2.31% 1.06%	1.98% 2.26%	1.03% 2.33%	0.25% 1.98%
International	-3.49%	12.45%	1.23%	28.07%	9.56%	12.83%	12.92%	15.85%	15.79%
Life & Group	-3.08%	-2.58%	-3.67%	-2.58%	-2.76%	-2.93%	-2.90%	-2.97%	-2.83%
Corporate & Other	0.00%	0.00%	100.00%	-50.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Earned Premiums Growth Rate:	2.98%	6.88%	6.02%	1.85%	2.47%	3.27%	3.85%	4.31%	4.22%
Investment Income:									
Fixed Maturity Securities	-4.90%	-1.22%	4.69%	-1.15%	-1.14%	-0.28%	-0.02%	-0.41%	-0.41%
Equity Securities	-23.53%	27.69%	-72.29%	35.74%	39.32%	43.25%	47.57%	54.00%	57.40%
Limited Partnership Investments	-36.32%	199.17%	-103.31%	2.66%	-5.90%	-1.92%	5.09%	-1.96%	-5.90%
Mortgage Loans	11.76%	7.02%	-11.48%	14.01%	11.88%	9.59%	9.90%	8.47%	11.02%
Other Investment Income	-74.36%	-90.00%	2000.00%	4.03%	10.96%	9.95%	9.20%	2.29%	-12.24%
Total Operating Revenue Growth Rate:	0.28%	10.17%	-0.24%	4.02%	3.13%	3.07%	3.66%	3.56%	4.74%
Asset Investments:									
Fixed maturity securities at fair value	44,631	44,380	37,627	39,112	40,253	41,088	42,762	44,321	45,815
Equity securities at fair value	992	1,035	674	752	793	841	890	924	961
Limited partnership investments	1,619	1,859	1,926	1,928	1,872	1,796	1,777	1,768	1,775
Mortgage loans	1,068	973	1,040	1,093	1,157	1,232	1,319	1,438	1,773
Short term investments	1,983 50,293	2,081	1,910	1,940 44,824	1,998 46,073	2,044 47,002	2,143	2,278	2,397 52,497
Return on Invested Assets:	50,293	50,328	43,177	44,824	40,073	47,002	48,891	50,729	52,497
Fixed maturity securities at fair value	5.74%	-0.56%	-15.22%	3.95%	2.92%	2.07%	4.07%	3.65%	3.37%
•									
Equity securities at fair value	14.68%	4.33%	-34.88%	11.54%	5.45%	6.13%	5.80%	3.80%	4.02%
Limited partnership investments	-7.59%	14.82%	3.60%	0.11%	-2.93%	-4.02%	-1.10%	-0.51%	0.44%
Mortgage loans	7.44%	-8.90%	6.89%	5.08%	5.92%	6.43%	7.05%	9.03%	7.74%
Short term investments	2.96%	4.94%	-8.22%	1.56%	2.99%	2.33%	4.81%	6.33%	5.20%

Income Statement

(in millions)

(III IIIIII olis)									
Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Revenues		<u> </u>							
Net earned premiums	\$ 7,649 \$	8,175 \$	8,667 \$	8,828 \$	9,046 \$	9,341 \$	9,701 \$	10,119 \$	10,546
Net investment income	1,935	2,159	1,805	1,814	1,816	1,839	1,875	1,925	2,074
Net investment gains (losses)	(54)	120	(199)	(50)	(3)	(13)	(8)	(14)	(24)
Non-insurance warranty revenue	1,252	1,430	1,574 \$	1,733 \$	1,855 \$	1,940 \$	2,019 \$	2,040 \$	2,144
Other revenues	26	24	32 \$	33 \$	29 \$	29 \$	29 \$	30 \$	30
Total revenues	10,808	11,908	11,879	12,357	12,744	13,135	13,617	14,101	14,770
Claims, Benefits and Expenses									
Insurance claims & policyholders' benefits	6,170	6,349	6,386	6,504	6,665	6,883	7,148	7,456	7,771
Amortization of deferred acquisition costs	1,410	1,443	1,490	1,518	1,555	1,606	1,668	1,740	1,813
Non-insurance warranty expense	1,159	1,328	1,471	1,619	1,734	1,813	1,887	1,907	2,003
Other operating expenses	1,126	1,191	1,339	1,393	1,436	1,481	1,535	1,590	1,665
Interest	122	113	112	145	141	162	138	169	174
Total claims, benefits & expenses	9,987	10,424	10,798	11,179	11,531	11,944	12,375	12,861	13,426
Income (loss) before income tax	821	1,484	1,081	1,178	1,212	1,192	1,242	1,240	1,343
Income tax expense (benefit)	(131)	(282)	187	330	339	334	348	347	376
Income (loss) from continuing operations	0	0	0	0	0	0	0	0	0
Income (loss) from discontinued operations, net of tax	0	0	0	0	0	0	0	0	0
Net income (loss)	690	1,202	894	848	873	858	894	893	967
Basic Earnings Per Share									
Net earnings (loss) per share - basic	2.54	4.42	3.29	3.12	3.20	3.14	3.27	3.27	3.54
Year End Shares Outstanding		271.36	270.90	272.34	273.33	273.28	273.21	273.09	272.95
Weighted Average Shares Outstanding - Basic	271.65	271.95	271.73	271.62	272.84	273.31	273.25	273.15	273.02
Dividend Per Share	3.50	2.28	3.61	2.95	3.03	2.97	3.09	3.09	3.35
Total Dividends	950	621	982	802	826	811	846	844	915

Balance Sheet

(in millions)

(in millions)				 							
Fiscal Years Ending Dec. 31	2020	2021	2022	2023E		2024E	2025E	2026E	2027E	20	028E (CV)
Investments											
Fixed maturity securities at fair value	\$ 44,631	\$ 44,380	\$ 37,627	\$ 39,112	\$ 4	40,253	\$ 41,088	\$ 42,762	\$ 44,321	\$	45,815
Equity securities at fair value	992	1,035	674	752		793	841	890	924		961
Limited partnership investments	1,619	1,859	1,926	1,928		1,872	1,796	1,777	1,768		1,775
Mortgage loans	1,068	973	1,040	1,093		1,157	1,232	1,319	1,438		1,549
Other Investment Income	1,983	2,081	1,910	1,940		1,998	2,044	2,143	2,278		2,397
Total Investments	50,293	50,328	43,177	44,824	4	46,073	47,002	48,891	50,729		52,497
Cash	419	536	475	596		600	357	454	280		264
Reinsurance receivables	4,457	5,463	5,416	5,516		5,653	5,837	6,062	6,323		6,590
Insurance receivables	2,607	2,945	3,158	3,217		3,296	3,404	3,535	3,687		3,843
Accrued investment income	380	377	402	359		359	364	371	381		410
Deferred acquisition costs	708	737	806	709		724	737	743	744		731
Deferred income taxes	66	142	1,178	258		265	261	272	271		294
Property & equipment at cost	252	226	226	278		275	275	275	275		275
Goodwill	148	148	144	144		144	144	144	144		144
Deferred non-insurance warranty acquisition expense	3,068	3,476	3,671	4,041		4,326	4,524	4,708	4,759		5,000
Other assets	1,628	2,261	2,274	2,287		2,369	2,489	2,665	2,854		3,056
Separate account business	0	0	0	0		0	0	0	0		0
Total assets	64,026	66,639	60,927	62,229	(	64,085	65,394	68,120	70,447		73,104
Liabilities											
Claim & claim adjustment expenses	22,706	24,174	25,099	25,984	2	26,626	27,495	28,554	29,785		31,042
Unearned premiums	5,119	5,761	6,374	6,492		6,653	6,870	7,134	7,442		7,756
Future policy benefits	13,318	13,236	10,151	10,339	:	10,595	10,941	11,362	11,852		12,352
Policyholders' funds	0	0	0	0		0	0	0	0		0
Short term debt	0	0	243	243		550	0	500	500		500
Long term debt	2,776	2,779	2,538	2,469		2,558	2,650	2,758	2,856		2,989
Deferred non-insurance warranty revenue	4,023	4,503	4,714	5,189		5,556	5,809	6,046	6,111		6,420
Other liabilities	3,377	3,377	2,983	2,635		2,619	2,655	2,745	2,838		2,934
Separate account business	0	0	0	0		0	0	0	0		0
Total Liabilities	51,319	53,830	52,102	53,351	į	55,155	56,420	59,100	61,383		63,993
Stockholders' Equity											
Common Equity	2,894	2,898	2,903	2,910		2,915	2,915	2,915	2,915		2,915
Retained earnings (accumulated deficit)	9,081	9,663	9,572	9,618		9,665	9,712	9,760	9,809		9,861
Accumulated other comprehensive income (loss)	803	320	(3,557)	(3,557)		(3,557)	(3,557)	(3,557)	(3,557)		(3,557)
Treasury stock	71	72	93	93		94	96	99	103		108
Notes receivable for the issuance of common stock	0	0	0	0		0	0	0	0		0
Total stockholders' equity	12,707	12,809	8,825	8,878		8,929	8,974	9,020	9,064		9,111
Total Liabilities and Stockholders' Equity	 64,026	 66,639	 60,927	 62,229		64,085	 65,394	 68,120	 70,447	_	73,104

Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cash Flows from Operating Activities										
Net Income	\$ 937 \$	691	\$ 479 \$	859 \$	899 \$	813 \$	1,000	\$ 690 \$	1,202	894
Adjustments to reconcile net income to cash							,		, - ,	
flows provided by operating activities										
Loss on sale of subsidiaries	-	251	-	-	-	-	-	-	-	-
Deferred income tax (benefit) expense	77	3	(150)	136	168	(20)	(46)	(49)	47	(34)
Trading portfolio activity	(10)	16	7	(9)	9	-	(16)	(5)	20	6
Net investment losses (gains)	(31)	(60)	67	(50)	(93)	52	(29)	54	(120)	199
Equity method investees	(323)	83	195	238	84	330	11	(8)	(127)	250
Net amortization of investments	(24)	3	17	(27)	(40)	(70)	(89)	(67)	(81)	(129)
Depreciation and amortization	101	83	84	77	88	79	68	60	54	51
Changes in:										
Receivables, net	44	731	82	(130)	92	(229)	137	(409)	(1,358)	(226)
Accrued investment income	(9) -		(1)	(3)	(4)	19	(3)	16	3	(29)
Deferred acquisition costs	2	44	311	(8)	(24)	(6)	(26)	(43)	(30)	(79)
Insurances reserves	(68)	(363)	241	237	22	482	358	1,681	2,463	1,791
Other assets	(27)	(48)	(79)	(95)	(158)	-	-	-	-	-
Other liabilities	525	(48)	126	162	173	-	-	-	-	-
Other, net	10	54	(2)	29	38	(223)	(225)	(145)	(76)	(192)
Total adjustments	267	749	908	557	355	-	-	-	-	-
Net cash flows provided by operating activities	1,204	1,440	1,387	1,416	1,254	1,227	1,140	1,775	1,997	2,502
Cash Flows from Investing Activities	, -	,	,	,	,	,	,	, -	,	,
Dispositions:										
Fixed maturity securities - sales	6,869	4,914	4,390	5,328	5,438	8,408	5,842	5,904	3,816	5,909
Fixed maturity securities - maturities, calls, and	3,271	3,983	4,095	3,219	3,641	2,370	2,997	3,760	4,464	2,358
Equity securities	103	31	57	81	46	89	214	355	316	509
Limited partnerships	108	167	174	290	192	343	479	373	246	138
Mortgage loans	22	57	26	207	26	128	143	74	190	125
Purchases:	-									
Fixed maturity securities	(11,197)	(9,365)	(8,675)	(9,827)	(9,065)	(10,785)	(8,661)	(10,269)	(9,307)	(9,821)
Equity securities	(77)	(67)	(62)	-	(166)	(258)	(186)	(452)	(304)	(294)
Limited partnerships	(223)	(271)	(188)	(252)	(171)	(419)	(198)	(224)	(440)	(337)
Mortgage Ioans	(129)	(137)	(123)	(120)	(274)	(128)	(298)	(172)	(95)	(200)
Changes in other investments	(22)	15	4	7	(3)	(12)	(11)	(8)	(6)	8
Change in short term investments	425	(388)	34	258	(6)	168	(535)	(39)	(83)	155
Purchase of Hardy	-	-	-	-	-	-	-	-	-	-
Purchases of property and equipment	(91)	(71)	(125)	(146)	(102)	(99)	(26)	(23)	(26)	(52)
Disposals of property and equipment	-	198	-	107	-	-	-	-	-	-
Other dispositions	32	-	-	-	-	-	-	-	-	-
Other, net	11	16	21	2	20	18	15	16	1	(10)
Net cash flows used by investing activities	(898)	(918)	(372)	(846)	(424)	(177)	(225)	(705)	(1,228)	(1,512)
Cash Flows from Financing Activities										
Dividends paid to common stockholders	(216)	(541)	(811)	(813)	(842)	(896)	(929)	(950)	(621)	(982)
Proceeds from the issuance of debt	0	546	-	498	496	-	496	495	-	-
Repayment of debt	(13)	(549)	-	(358)	(391)	(180)	(520)	(419)	-	-
Purchase of treasury stock	-	-	-	-	-	-	(23)	(18)	(18)	(39)
Other, net	(35)	25	4	-	(18)	(9)	(12)	(10)	(9)	(11)
Net cash flows used by financing activities	(264)	(519)	(807)	(673)	(755)	(1,085)	(988)	(902)	(648)	(1,032)
Effect of foreign exchange rate changes on cash	(3)	(8)	(11)	(13)	9	(10)	5	9	(4)	(19)
Net change in cash	39	(5)	197	(116)	84	(45)	(68)	177	117	(61)
Cash, beginning of year	156	195	190	387	271	355	310	242	419	536
Cash, end of period	195	190	387	271	355	310	242	419	536	475
, r							-	-		-

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Cash Flows from Operating Activities						
Net Income	\$ 848 \$	873 \$	858 \$	894 \$	893	\$ 967
Cash Flows from Operating Activities						
Amortization						
Reinsurance Receivables	(100)	(136)	(185)	(225)	(261)	(267)
Insurance Receivables, Gross	(59)	(79)	(108)	(131)	(152)	(156)
Deferred Income Taxes	920	(7)	5	(11)	0	(23)
Other Assets	(13)	(82)	(120)	(176)	(189)	(202)
Claim & Claim Adjustment Expenses	885	642	870	1,059	1,231	1,257
Unearned premiums	118	160	217	265	308	314
Future policy benefits	188	255	346	421	490	500
Deferred non-insurance warranty revenue	475	367	254	236	65	310
Other liabilities	(348)	(16)	36	90	93	96
Change in Operating Revenues	2,914	1,976	2,173	2,422	2,477	2,797
Cash Flows from Investing Activities						
Fixed Maturity Securities at Fair Value	(1,485)	(1,142)	(835)	(1,674)	(1,559)	(1,494)
Equity Securities at fair value	(78)	(41)	(49)	(49)	(34)	(37)
Limited Partnership Investments	(2)	56	75	20	9	(8)
Mortgage Loans	(53)	(65)	(74)	(87)	(119)	(111)
Other Invested Assets	(30)	(58)	(47)	(98)	(136)	(119)
Accrued Investments	43	(0)	(4)	(7)	(10)	(29)
Property & Equipment	(52)	3	0	0	0	0
Deferred Non-Insurance Warranty Acquisition Expense	(370)	(286)	(198)	(184)	(50)	(241)
Deferred Acquisition Costs	97	(15)	(12)	(6)	(1)	12
Change in Investing Activities	\$ (1,929) \$	(1,547) \$	(1,144) \$	(2,086) \$	(1,900)	(2,027)
Cash Flows from Financing Activities						
Total Dividends	(802)	(826)	(811)	(846)	(844)	(915)
Short Term Debt	0	307	(550)	500	0	0
Long Term Debt	(69)	89	91	109	97	133
Treasury Stock (Share Repurchases)	(0)	(1)	(2)	(3)	(4)	(5)
Common Equity	7	5	0	0	0	0
Change in Financing Activities	\$ (864) \$	(426) \$	(1,272) \$	(239) \$	(751)	(787)
Net Change in Cash	121	3	(242)	97	(174)	(16)
Cash, Beginning of Year	475	596	600	357	454	280
Cash, End of Period	\$ 596 \$	600 \$	357 \$	454 \$	280	264

**CNA Financial Corporation** 

Common Size Income Statement

% of Assets

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Revenues									
Net earned premiums	11.95%	12.27%	14.23%	14.19%	14.12%	14.28%	14.24%	14.36%	14.43%
Net investment income	3.02%	3.24%	2.96%	2.92%	2.83%	2.81%	2.75%	2.73%	2.84%
Net investment gains (losses)	-0.08%	0.18%	-0.33%	-0.08%	0.00%	-0.02%	-0.01%	-0.02%	-0.03%
Non-insurance warranty revenue	1.96%	2.15%	2.58%	2.78%	2.89%	2.97%	2.96%	2.90%	2.93%
Other revenues	0.04%	0.04%	0.05%	0.05%	0.05%	0.04%	0.04%	0.04%	0.04%
Total revenues	16.88%	17.87%	19.50%	19.86%	19.89%	20.09%	19.99%	20.02%	20.20%
Claims, Benefits and Expenses									
Insurance claims & policyholders' bene	9.64%	9.53%	10.48%	10.45%	10.40%	10.53%	10.49%	10.58%	10.63%
Amortization of deferred acquisition co	2.20%	2.17%	2.45%	2.44%	2.43%	2.46%	2.45%	2.47%	2.48%
Non-insurance warranty expense	1.81%	1.99%	2.41%	2.60%	2.71%	2.77%	2.77%	2.71%	2.74%
Other operating expenses	1.76%	1.79%	2.20%	2.24%	2.24%	2.26%	2.25%	2.26%	2.28%
Interest	0.19%	0.17%	0.18%	0.23%	0.22%	0.25%	0.20%	0.24%	0.24%
Total claims, benefits & expenses	15.60%	15.64%	17.72%	17.96%	17.99%	18.26%	18.17%	18.26%	18.37%
Income (loss) before income tax	1.28%	2.23%	1.77%	1.89%	1.89%	1.82%	1.82%	1.76%	1.84%
Income tax expense (benefit)	-0.20%	-0.42%	0.31%	0.53%	0.53%	0.51%	0.51%	0.49%	0.51%
Income (loss) from continuing operatio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Income (loss) from discontinued opera	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income (loss)	1.08%	1.80%	1.47%	1.36%	1.36%	1.31%	1.31%	1.27%	1.32%

Common Size Balance Sheet

% of Assets

% of Assets									
Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Investments									
Fixed maturity securities at fair value	69.71%	66.60%	61.76%	62.85%	62.81%	62.83%	62.78%	62.91%	62.67%
Equity securities at fair value	1.55%	1.55%	1.11%	1.21%	1.24%	1.29%	1.31%	1.31%	1.31%
Limited partnership investments	2.53%	2.79%	3.16%	3.10%	2.92%	2.75%	2.61%	2.51%	2.43%
Mortgage loans	1.67%	1.46%	1.71%	1.76%	1.81%	1.88%	1.94%	2.04%	2.12%
Short term investments	3.10%	3.12%	3.13%	3.12%	3.12%	3.13%	3.15%	3.23%	3.28%
Total investments	78.55%	75.52%	70.87%	72.03%	71.89%	71.88%	71.77%	72.01%	71.81%
Cash	0.65%	0.80%	0.78%	0.96%	0.94%	0.55%	0.67%	0.40%	0.36%
Reinsurance receivables	6.96%	8.20%	8.89%	8.86%	8.82%	8.93%	8.90%	8.98%	9.01%
Insurance receivables	4.07%	4.42%	5.18%	5.17%	5.14%	5.20%	5.19%	5.23%	5.26%
Accrued investment income	0.59%	0.57%	0.66%	0.58%	0.56%	0.56%	0.54%	0.54%	0.56%
Deferred acquisition costs	1.11%	1.11%	1.32%	1.14%	1.13%	1.13%	1.09%	1.06%	1.00%
Deferred income taxes	0.10%	0.21%	1.93%	0.41%	0.41%	0.40%	0.40%	0.39%	0.40%
Property & equipment at cost	0.39%	0.34%	0.37%	0.45%	0.43%	0.42%	0.40%	0.39%	0.38%
Goodwill	0.23%	0.22%	0.24%	0.23%	0.22%	0.22%	0.21%	0.20%	0.20%
Deferred non-insurance warranty acqu	4.79%	5.22%	6.03%	6.49%	6.75%	6.92%	6.91%	6.75%	6.84%
Other assets	2.54%	3.39%	3.73%	3.68%	3.70%	3.81%	3.91%	4.05%	4.18%
Separate account business	0.00%	0.00%	0.00%	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%	100.00%
Liabilities									
Claim & claim adjustment expenses	35.46%	36.28%	41.20%	41.75%	41.55%	42.05%	41.92%	42.28%	42.46%
Unearned premiums	8.00%	8.65%	10.46%	10.43%	10.38%	10.51%	10.47%	10.56%	10.61%
Future policy benefits	20.80%	19.86%	16.66%	16.61%	16.53%	16.73%	16.68%	16.82%	16.90%
Policyholders' funds	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Short term debt	0.00%	0.00%	0.40%	0.39%	0.86%	0.00%	0.73%	0.71%	0.68%
Long term debt	4.34%	4.17%	4.17%	3.97%	3.99%	4.05%	4.05%	4.05%	4.09%
Deferred non-insurance warranty rever	6.28%	6.76%	7.74%	8.34%	8.67%	8.88%	8.88%	8.67%	8.78%
Other liabilities	5.27%	5.07%	4.90%	4.23%	4.09%	4.06%	4.03%	4.03%	4.01%
Separate account business	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total liabilities	80.15%	80.78%	85.52%	85.73%	86.07%	86.28%	86.76%	87.13%	87.54%
Stockholders' Equity									
Common Equity	5.06%	5.07%	5.08%	4.68%	4.55%	4.46%	4.28%	4.14%	3.99%
Retained earnings (accumulated defic	14.18%	14.50%	15.71%	15.46%	15.08%	14.85%	14.33%	13.92%	13.49%
Accumulated other comprehensive inc	1.25%	0.48%	-5.84%	-5.72%	-5.55%	-5.44%	-5.22%	-5.05%	-4.87%
Treasury stock	0.11%	0.11%	0.15%	0.15%	0.15%	0.15%	0.14%	0.15%	0.15%
Notes receivable for the issuance of co	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total stockholders' equity	19.85%	19.22%	14.48%	14.27%	13.93%	13.72%	13.24%	12.87%	12.46%
Total liabilities and stockholders' eq	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	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2	028E (CV)
Net Income:	690	1,202	894	848	873	858	894	893		967
Total Stockholders' Equity:	12,707	12,809	8,825	8,878	8,929	8,974	9,020	9,064		9,111
Total Assets	64,026	66,639	60,927	62,229	64,085	65,394	68,120	70,447		73,104
Total Liabilities	51,319	53,830	52,102	53,351	55,155	56,420	59,100	61,383		63,993
Free Cash Flow to Equity (FCFE):										
Net Income	690	1,202	894	848	873	858	894	893		967
Change in Total Assets	3,414	2,613	(5,712)	1,302	1,855	1,309	2,726	2,327		2,657
Change in Total Liabilities	2,922	2,511	(1,728)	1,249	1,804	1,265	2,680	2,283		2,610
FCFE	198	1,100	4,878	795	822	813	848	849		920
Return on Invested Capital (ROE):										
NI	690	1202	894	848	873	858	894	893		967
Beginning TSE	\$ 12,215	\$ 12,707	\$ 12,809	\$ 8,825	\$ 8,878	\$ 8,929	\$ 8,974	\$ 9,020	\$	9,064
ROE	5.65%	9.46%	6.98%	9.61%	9.83%	9.61%	9.96%	9.90%		10.67%
Equity Economic Profit (EEP):										
Beginning TSE	\$ 12,215	\$ 12,707	\$ 12,809	\$ 8,825	\$ 8,878	\$ 8,929	\$ 8,974	\$ 9,020	\$	9,064
x (ROE - RE)	-1.52%	2.30%	-0.18%	2.45%	2.67%	2.44%	2.80%	2.73%		3.50%
EEP	\$ (185.08)	\$ 291.67	\$ (23.64)	\$ 216.23	\$ 236.89	\$ 218.28	\$ 251.11	\$ 246.68	\$	317.69

Weighted Average Cost of Capital (WACC) Estimation

Cost	٥f	Fα	uitv	•
CUSL	UI	ιч	uity.	•

Cost of Equity	7.16%
Equity Risk Premium	4.88%
Beta	0.55
Risk-Free Rate	4.48%
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Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key	Inputs:
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CV Growth of NI	2.50%
CV Year ROE	10.67%
Cost of Equity	7.16%

Fiscal Years Ending Dec. 31	2023E	2024E	2025E	2026E	2027E	2028E (CV)
DCF Model:						
Net Income Continuing Value (CV)	795.4	821.6	813.3	848.1	848.8	919.7 \$ 15,875.49
PV of FCF	742.3	715.4	660.8	643.1	600.6	11232.7
Value of Operating Assets: Non-Operating Adjustments	14594.8					
-ESOP	-2.5					
Value of Equity	14592.3					
Shares Outstanding	271.9					
Intrinsic Value of Last FYE	\$ 53.66					
Implied Price as of Today	\$ 55.06					
EP Model:						
Economic Profit (EP)	216.2	236.9	218.3	251.1	246.7	317.7
Continuing Value (CV)						\$ 6,811.47
PV of EP	201.8	206.3	177.4	190.4	174.5	4819.4
Total PV of EP	5769.8					
Invested Capital (last FYE)	8825.0					
Value of Operating Assets:						
Non-Operating Adjustments	14594.8					
-ESOP	-2.5					
Value of Equity	14592.3					
Shares Outstanding	271.9					
Intrinsic Value of Last FYE	\$ 53.66					
Implied Price as of Today	\$ 55.06					

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

Fiscal Years Ending Dec. 31		2023E	2024E	2025E	2026E	2027E	2028E
EPS	\$	3.12 \$	3.20 \$	3.14 \$	3.27 \$	3.27 \$	3.54
	Ų	J.12 Y	J.20 7	J.14 Y	J.27 Y	J.27 Y	3.54
Key Assumptions							
CV growth of EPS		2.50%					
CV Year ROE		10.67%					
Cost of Equity		7.16%					
Future Cash Flows							
P/E Multiple (CV Year)							16.42
EPS (CV Year)						\$	3.54
Future Stock Price						\$	58.16
Dividends Per Share		2.95	3.03	2.97	3.09	3.09	
Discounted Cash Flows		2.76	2.63	2.41	2.35	2.19 \$	41.15
_							
Intrinsic Value as of Last FYE	\$	53.49					
Implied Price as of Today	\$	54.88					

Relative Valuation Models

			EPS	EPS			BV	Tangible		Tangible
Ticker	Company	Price	2023E	2024E	P/E 23	P/E 24	Equity	<b>BV Equity</b>	P/B	P/B
AFG	American Financial Group	\$109.78	\$10.67	\$11.76	10.29	9.34	47.35	52.57	2.32	2.09
AIG	American International Group	\$63.82	\$6.66	\$7.60	9.58	8.40	83.38	87.83	0.77	0.73
AIZ	Assurant Inc.	\$148.71	\$12.61	\$14.08	11.79	10.56	104.70	84.98	1.42	1.75
HIG	Hartford Financial Services Group	\$73.97	\$8.16	\$9.75	9.06	7.59	59.00	45.87	1.25	1.61
ORI	Old Republic International Corp	\$26.94	\$2.74	\$2.74	9.83	9.83	21.25	20.66	1.27	1.30
			Α	verage	10.18	9.14			1.41	1.50
CNA	CNA Financial Corporation	\$39.44	\$3.12	\$3.20	12.6	12.3	32.58	32.43	1.21	1.22
•	Relative Value:									

P/E (EPS23)	\$ 31.81
P/E (EPS24)	\$ 29.25
P/B	\$ 45.78
P/Tangible BV	\$ 48.53

Key Management Ratios

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E (CV)
Liquidity Ratios:									
Current Ratio (Current Asset/Current Liability)	0.17	0.17	0.20	0.20	0.20	0.20	0.19	0.19	0.19
Quick Ratio ((Cash+Cash Equivalents)+Marketabe Securities+Receivables)/Current Liabilities	0.17	0.17	0.20	0.20	0.20	0.20	0.19	0.19	0.19
Cash Ratio (Cash/Current Liabilities)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Asset-Management Ratios:									
Asset Turnover Ratio (Revenue/Total Assets)	0.18	0.17	0.18	0.19	0.20	0.20	0.20	0.20	0.20
Fixed Asset Turnover Ratio (Revenue/PPE)	38.18	42.89	52.69	52.56	44.45	46.32	47.75	49.50	51.26
Receivables Turnover (Revenue/Total Receivables)	1.62	1.53	1.42	1.39	1.41	1.42	1.42	1.42	1.41
Financial Leverage Ratios:									
Debt-to-Equity Ratio (Total Debt/Total Equity)	0.22	0.22	0.22	0.32	0.31	0.35	0.30	0.36	0.37
Debt-to-Asset Ratio (Total Debt/Total Assets)	0.04	0.04	0.04	0.05	0.04	0.05	0.04	0.05	0.05
Asset-to-Equity Ratio (Total Assets/Total Equity	4.96	5.04	5.20	6.90	7.01	7.18	7.29	7.55	7.77
Profitability Ratios:									
Return on Equity (NI/Beg TSE)	8.19%	5.43%	9.38%	9.61%	9.83%	9.61%	9.96%	9.90%	10.67%
Return on Assets (Net Income/Total Assets)	1.65%	1.08%	1.80%	1.47%	1.36%	1.36%	1.31%	1.31%	1.27%
Net Profit Margin (Net Income/Net Sales)	9.29%	6.38%	10.09%	7.53%	6.87%	6.85%	6.53%	6.57%	6.00%
Payout Policy Ratios:									
Dividend Payout Ratio (Dividend/EPS)	92.90%	137.68%	51.66%	109.84%	94.58%	94.58%	94.58%	94.58%	94.58%
Total Payout Ratio ((Divs. + Repurchases)/NI)	94.20%	137.83%	51.75%	112.19%	94.61%	94.70%	94.79%	94.87%	95.06%
Retention Ratio (1 - Payout Ratio)	5.80%	-37.83%	48.25%	-12.19%	5.39%	5.30%	5.21%	5.13%	4.94%
Solvency Ratio:									
Equity Capital Ratio (TSE/Total Assets)	20.15%	19.85%	19.22%	14.48%	14.27%	13.93%	13.72%	13.24%	12.87%

Valuation of Options Granted under ESOP

Current Stock Price	\$39.44
Risk Free Rate	4.48%
Current Dividend Yield	9.16%
Annualized St. Dev. of Stock Returns	34.52%

		Average	Average	B-S	Value
Range of	Number	Exercise	Remaining	Option	of Options
<b>Outstanding Options</b>	of Shares	Price	Life (yrs)	Price	Granted
Range 1	2,465,752	5.00	1.70 \$	43.10 \$	106,273,911
Total	2,465,752 \$	5.00	1.70 \$	34.81 \$	106,273,911

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				Beta			
55.06	0.40	0.45	0.50	0.55	0.60	0.65	0.70
4.18%	69.55	65.43	61.79	58.56	55.68	53.08	50.73
4.28%	67.79	63.88	60.42	57.34	54.58	52.09	49.83
4.38%	66.13	62.42	59.12	56.17	53.53	51.14	48.96
4.48%	64.55	61.02	57.87	55.06	52.52	50.22	48.13
4.58%	63.05	59.69	56.68	53.98	51.55	49.34	47.33
4.68%	61.62	58.41	55.54	52.96	50.62	48.49	46.55
4.78%	60.26	57.20	54.45	51.97	49.72	47.68	45.80

CV EPS

	Equity RISK Premium									
	54.88	4.73%	4.78%	4.83%	4.88%	4.93%	4.98%	5.03%		
\$	3.09	50.29	50.02	49.75	49.49	49.23	48.97	48.71		
\$	3.19	51.50	51.23	50.95	50.68	50.41	50.14	49.88		
\$	3.29	52.72	52.43	52.15	51.87	51.59	51.32	51.05		
\$	3.39	53.94	53.64	53.35	53.06	52.78	52.49	52.22		
\$	3.49	55.16	54.85	54.55	54.25	53.96	53.67	53.38		
\$	3.59	56.37	56.06	55.75	55.45	55.14	54.85	54.55		
¢	3 69	57 59	57 27	56.95	56.64	56 33	56.02	55 72		

CV ROE

	Cost of Equity									
55.06	6.86%	6.96%	7.06%	7.16%	7.26%	7.36%	7.46%			
9.91%	54.83	53.68	52.59	51.54	50.54	49.58	48.65			
10.01%	55.34	54.18	53.08	52.02	51.01	50.03	49.10			
10.11%	55.84	54.68	53.56	52.49	51.47	50.49	49.55			
10.21%	56.35	55.17	54.04	52.97	51.93	50.94	50.00			
10.31%	56.84	55.66	54.52	53.43	52.39	51.40	50.44			
10.41%	57.34	56.14	55.00	53.90	52.85	51.85	50.88			
10.51%	57.83	56.63	55 47	54 37	53.31	52.29	51.32			

				Ma	arginal Tax Ra	ate		
	55.06	25.00%	26.00%	27.00%	28.00%	29.00%	30.00%	31.00%
-	3.86%	58.04	57.09	56.14	55.20	54.25	53.30	52.36
enc	3.96%	57.99	57.04	56.09	55.15	54.20	53.26	52.31
ivid	4.06%	57.94	56.99	56.05	55.10	54.16	53.21	52.27
Forward Dividend Yield	4.16%	57.89	56.94	56.00	55.06	54.11	53.17	52.22
war	4.26%	57.84	56.90	55.95	55.01	54.07	53.12	52.18
-or	4.36%	57.79	56.85	55.91	54.96	54.02	53.08	52.14
_	4.46%	57.74	56.80	55.86	54.92	53.98	53.03	52.09

#### CV Specialty Premium Growth

	54.88	2.95%	3.05%	3.15%	3.25%	3.35%	3.45%	3.55%
_	1.68%	54.90	54.90	54.90	54.89	54.89	54.89	54.89
ial wth	1.78%	54.90	54.90	54.89	54.89	54.89	54.88	54.88
mercial ı Growtl	1.88%	54.90	54.89	54.89	54.89	54.88	54.88	54.88
д Ш	1.98%	54.89	54.89	54.89	54.88	54.88	54.88	54.87
CV Comn Premium	2.08%	54.89	54.89	54.88	54.88	54.88	54.87	54.87
S E	2.18%	54.89	54.88	54.88	54.88	54.87	54.87	54.87
_	2.28%	54.88	54.88	54.88	54.87	54.87	54.87	54.86

CV ROI Fixed Maturity Securities

	Pre-Tax Cost of Debt							
55.06	4.90%	5.00%	5.10%	5.20%	5.30%	5.40%	5.50%	
3.07%	55.37	55.20	55.03	54.87	54.70	54.53	54.36	
3.17%	55.43	55.26	55.10	54.93	54.76	54.59	54.43	
3.27%	55.50	55.33	55.16	54.99	54.83	54.66	54.49	
3.37%	55.56	55.39	55.22	55.06	54.89	54.72	54.55	
3.47%	55.62	55.45	55.29	55.12	54.95	54.78	54.62	
3.57%	55.69	55.52	55.35	55.18	55.02	54.85	54.68	
3.67%	55.75	55.58	55.41	55.25	55.08	54.91	54.74	