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EQUITY VALUATION OF AN INSURANCE COMPANY: INSIGHTS FROM *ZURICH INSURANCE GROUP*

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SEPTEMBER 2023

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EQUITY VALUATION OF AN INSURANCE COMPANY: INSIGHTS FROM ZURICH INSURANCE GROUP

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Abstract

Zurich Insurance Group is a Swiss insurance company founded 150 years ago and currently one of the most known insurers in the world present in more than 200 countries. The group is listed on SIX Swiss Exchange and has Life and non-Life insurance services with the two biggest segments being Property & Casualty and Life.
The present document consists of an Equity Research Report on the group and was drafted according with the guidelines from the CFA Institute.
Zurich's main valuation is performed through a Discounted Dividend Model (DDM) and complemented with a Residual Income Valuation as well as a Relative Valuation. These methods were chosen due to the industry's particularities.
This report issues a HOLD recommendation with a price target of CHF 434,38 with an upside potential of 5,02% with medium risk. All valuations are based on Zurich's performance from 2018 to 2022 and the forecasted period from 2023 to 2032.
The HOLD recommendation derives mainly from the group's early focus on sustainability, the recent gain in North America and Asia-Pacific's market share, the slow growth in EMEA and their strong resilience through pandemic years and the recent Ukraine-Russia conflict.
The medium risk is mainly justified by the industry's risk (natural and human-made catastrophes and their potential losses are unpredictable) and the group's ability to gain market share in underdeveloped regions and maintain their performance in developed regions.

JEL classification: G10; G22; G32; G34; G35.
Keywords: Zurich; Insurance; Equity Research; Valuation; Mergers & Acquisitions.

Resumo

O grupo Zurich Insurance é uma seguradora suíça fundada há 150 anos e atualmente uma das seguradoras mais conhecidas do mundo, presente em mais de 200 países. O grupo está listado na SIX Swiss Exchange e oferece serviços de seguros de vida e não-vida, sendo os 2 maiores segmentos Property & Casualty e Life.
O presente documento apresenta uma Equity Research do grupo e foi elaborado de acordo com as orientações do CFA Institute.
A avaliação principal da Zurich foi realizada através de um Modelo de Desconto de Dividendos e complementada com uma Avaliação de Rendimento Residual e Avaliação Relativa. Estes métodos foram escolhidos devido às particularidades deste setor.
Este relatório emite uma recomendação de HOLD com preço-alvo de CHF 434,38 com potencial de aumento de 5,02% com risco médio. Todas as avaliações foram baseadas no desempenho da Zurich de 2018 a 2022 e no período de previsão de 2023 a 2032.
A recomendação de compra dá-se principalmente do foco do grupo na sustentabilidade que já está presente há bastantes anos, do recente ganho significativo na participação de mercado da América do Norte e da Ásia-Pacífico, o crescimento lento na região EMEA e da resiliência do grupo durante os anos de pandemia e do recente conflito Ucrânia-Rússia.
O risco médio é justificado principalmente pelo risco da própria indústria (catástrofes naturais e provocadas pelo homem e as suas respetivas potenciais perdas são imprevisíveis) e pela capacidade do grupo de ganhar quota de mercado em regiões subdesenvolvidas e manter o seu desempenho em regiões desenvolvidas.

Classificação JEL: G10; G22; G32; G34; G35.
Palavras-Chave: Zurich; Equity Research; Seguradora; Avaliação de Empresas; Fusões e Aquisições.

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To my father, for all the memories I’ll always carry deeply with me.

To my friends, for all the fun and good times we had together but most importantly for growing up together with me and being there for me in my best and worst times.

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List of Abbreviations

APAC	Asia-Pacific
BC	Before Christ
Bn	Billion
CAGR	Compound Annual Growth Rate
CAPM	Capital Asset Pricing Model
CHF	Swiss Franc
CRP	Country Risk Premium
DDM	Dividend Discount Model
DPS	Dividend per Share
EBIT	Earnings before interest and taxes
EMEA	Europe, the Middle East and Africa
EPS	Earnings per Share
ESG	Environmental, social, and corporate governance
EUR	Euro
F	Forecast
GDP	Gross Domestic Product
GWP	Gross Written Premium
IMF	International Monetary Fund
Ke	Cost of Equity
M	Million
M&A	Mergers and Acquisitions
N.D.	Not Disclosed
ORSA	Own Risk and Solvency Assessment
P&C	Property & Casualty
P/E	Price to Earnings
P/S	Price to Sales
ROE	Return on Equity
SST	Swiss Solvency Test
US	United States
USD	United States Dollar
Y	Year

1. Research Snapshot

Price target is CHF 434,38 with an upside potential of 5,02% and medium risk. Our recommendation is to **HOLD** (Table 1 - Key Information)**.**
According to our analysis performed on Zurich Insurance Group we conclude that the group is slightly undervalued (Figure 1 **-** Price Performance 1Y).

The price target is reached through the **Dividend Discount Model** using a ten-year forecast period with a strong focus on the past five years of the group. We decided to use mainly the DDM as it is a suitable and reliable method to value financial institutions with a constant dividend pay-out ratio.

The valuation is complemented with a:

- **Residual Income valuation** (where the price target reached was CHF 441,73 with an upside potential of 6,80%). The valuation is performed using the forecasted net income attributable to shareholders, assumed cost of equity, forecasted equity and a persistent factor.

- **Multiples Valuation** (where the price target reached was CHF 435,18 with an upside potential of 5,22%). The chosen peers are MetLife, Chubb, AIG, and Generali because all these companies serve the same regions and offer the same services as Zurich and most importantly are all comparable in terms of size and ratios.

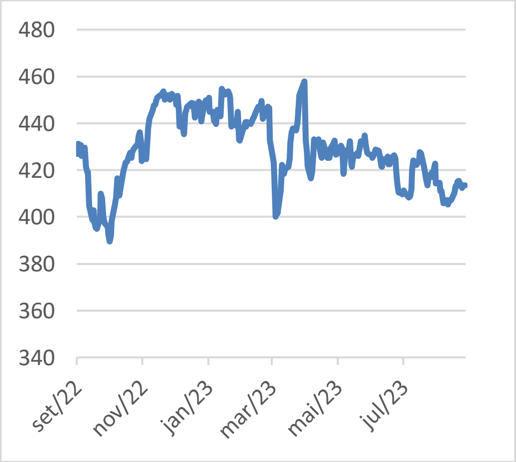
This investment is of medium risk because it depends on the ability of the group to gain market share in underdeveloped regions and keep its consistent performance in Europe, Middle East & Africa (EMEA) and North America.
On top of that, the insurance industry itself presents a considerable risk as natural and human-made catastrophes are unpredictable and can carry significant losses.

Table 1 - Key Information

Company	Zurich Insurance Group
Industry	Insurance
Headquarters	Zurich
# Shares	150 460 167
Closing Price 07-09-2023	CHF 413,60
Price Target DDM	CHF 434,38
Price Target Residual Income	CHF 441,73
Price Target Multiples	CHF 435,18
Recommendation	Hold

Source: Analyst

Figure 1 - Price Performance 1Y



Source: Company Data (in CHF)

2. Business Description

Company Description

Zurich Insurance Group Ltd is a Swiss multi-line insurer headquartered in Zurich, Switzerland. Founded in 1872 and headquartered in Zurich. The group is present in more than 210 countries with offices in multiple continents (Table 2 - Offices Location) and currently employs about 60 000 workers (Table 3 - Employees around the world). The group mission is to "Create a brighter future together."

North America counts for 39% of the total gross written premiums, Zurich is one of the leading commercial property and casualty insurance providers in the region with a Property & Casualty (P&C) gross written premium of USD 22.2 billion and a Life gross written premium of USD 1.6 billion in 2022 of which 3.9 billion were business operating profit.

South America (mainly Brazil, Mexico, Argentina, and Chile) represents 9% of the total gross written premium with a Property & Casualty gross written premium of USD 2.8 billion and a Life gross written premium of USD 2.5 billion and a business operating profit of USD 0.6 billion. South America, contrary to North America, has a stronger presence in Life insurance with just a USD 0.3 billion difference, this is mainly due to a cultural reason since Life insurance is popular in Latin America while P&C is not as common, and it's regarded to have less important than Life Insurance in those countries.

Europe, Middle East, and Africa (EMEA) is the region with the highest percentage of the total gross written premiums, 42%, coming mainly from Germany, Italy, Spain, Switzerland, and France. The gap between North America and EMEA is closing as the years pass, mainly because Zurich is gaining a stronger presence in North American while EMEA is growing at a more stable rate. The total gross written premium of the region equals USD 25.3 billion with a business operating profit of USD 2.4 billion.

Regarding the **Asian-Pacific** region (APAC), it represents 10% of the total gross written premiums and it has grown relatively fast compared to other regions stabilizing essentially from 2021 to 2022. The region is represented by the operations in Australia, Hong Kong, Indonesia, Japan, and Malaysia and, in 2022, had a business operating profit of USD 0.6 billion (same operating profit as in 2021). 2022's total premium by regions is shown in Figure 2 (- Weight of total premium in 2022 by region)

The group is well established in the market with a market capitalization of USD 66.5 as of December 2022 (11% increase compared to 2021) and a business operating profit of USD 6.5 (14% increase compared to 2021). With an impressive 265% Swiss Solvency Test (SST) ratio as of December 2022, and increasing year after year (212% SST in 2021). With an AA/stable rating according to Standard & Poor's financial strength rating, the company presents greats stability and performance overall. They are focusing on continuing to generate sustainable value for all stakeholders while improving the company's green impact on the World.

The main services provided are **Property & Casualty** (Insurance, services, and risk insights) and **Life** (Protection, savings, and investment solutions).
Property & Casualty is divided into different segments: Motor (19%), Property (39%), Liability (17%), Special lines (17%) and Worker injury (8%). In 2022, Property & Casualty recorded USD 43.3 billion Gross written premiums (more 8% than 2021) and a business operating profit of USD 3.6 billion (more 16% than 2021).
Life is also divided in: Protection (46%), Corporate Pension (6%), Unit-linked (19%) and Savings & Annuity (28%). In 2022, Life recorded gross written premiums of USD 25.9 of which, USD 2.0 billion were business operating profit (although there was a decrease of 9% in Life's gross written premiums, there was an increase of 11% in its' business operating profit).
The group is also a parent of Farmers Insurance Group which is an American Insurer group mainly for vehicles, homes, and small businesses, in 2022 Farmers Group, Inc. generated a total of USD 1.9 billion (increase of 19% compared to 2021). The group's gross and net

Table 2 - Offices Location

Zurich's offices around the world	
EMEA	
Switzerland	Zurich
Germany	Cologne
Spain	Madrid
Italy	Milan
Scotland	Glasgow
North America	
US	Chicago, New York
Latin America	
Chile	Santiago
Asia Pacific	
Malaysia	Kuala Lumpur
Japan	Tokyo
Australia	Sydney

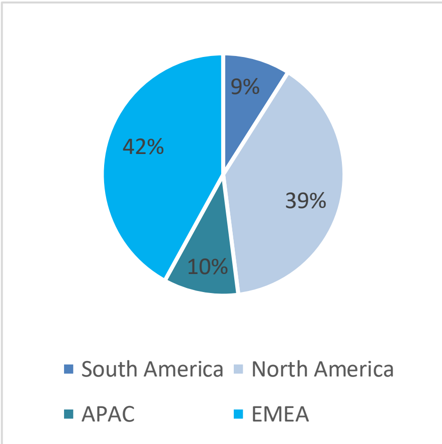
Source: Company Data

Table 3 - Employees around the world

Number of employees	
North America	19 800
EMEA	25 500
South America	7 200
Asia-Pacific	6 900

Source: Company Data

Figure 2 - Weight of total premium in 2022 by region



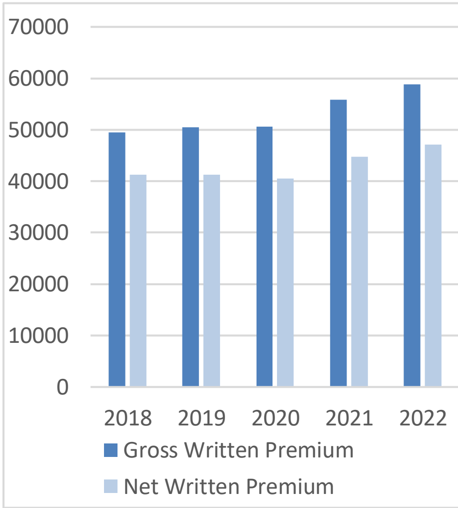
Source: Company Data

written premium has been steadily increasing over the years displaying a strong performance even in uncertain years (Figure 3 - Zurich's Gross & Net Written Premium).
Zurich was Ranked #106 in Forbes' Global 2000 list in 2023 and is listed on the SIX Swiss Exchange (ZURN).

History

Founded in 1872, originally as a Marine Reinsurer under the name "Versicherungs Verein" (Insurance Association in English). 3 years after its foundation, it moved to the field of accident insurance and changed its name to "Zurich Transport & Accident Insurance Limited", by the end of 1875, the group had offices in Germany, Austria, Denmark, Sweden, and Norway. Following a severe loss that had to be covered using capital reserves, the new CEO, Heinrich Müller, decided to quit immediately the marine business and Zurich started an important turnaround by focusing on casualty insurance, an year after the company's gross premium income achieved CHF 1 million for the first time.

Figure 3 - Zurich's Gross & Net Written Premium



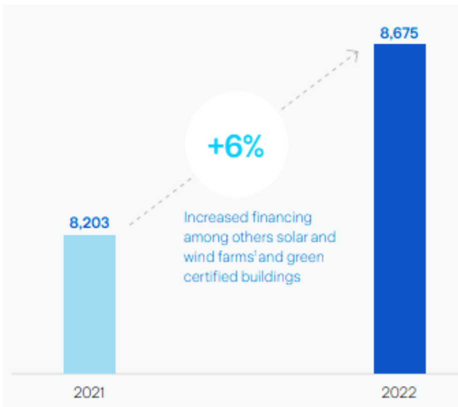
Source: Company Data (in USD thousands)

By 1885, Zurich was already present with new offices in 7 new countries (France, Netherlands, Belgium, Italy, Russia, Finland, and Spain). Fritz Meyer replaces Heinrich Müller as the CEO, remembered as "Reserves Meyer" due to his strong focus on establishing the group's financial strength, Meyer achieved in 1909, 150% in the ratio of reserves to premium for the first time. By this time, Zurich was already one of the "go to" insurers to a lot of important matters like insuring the Swiss army and insuring/dealing with a lot of disasters and catastrophes like a fire in a French textile factory, which resulted in 11 dead and 18 injured. Throughout the 20th century Zurich focused its growth strategy on buying and restructuring companies at a discount. Using this strategy and with more than 15 large acquisitions around the world, the group was present in 5 continents at the end of the 20th century. Having its entry done in Oceania through an acquisition of Commonwealth General Assurance Corporation in Australia, 1961. 4 years after, Zurich acquires Argentinian company Iguazù Compania de Seguros S.A and marks its entry in the South American continent. In 1973, the group enters the Asian market by acquiring minority interest of the Malayan Group, the largest Philippine insurer.

After an abrupt drop in the group's share price, in 2002, Zurich made the radical decision to focus on providing solely insurance-based financial services and sold all its non-core businesses. Even during the 2008 crisis, the group kept delivering positive results and a solid investment return due to its discipline and focus on stability, being able to take advantage of opportunities that presented themselves in these harder times for most companies, acquiring multiple businesses to strengthen even more their position in the market. Since the early 2000s the group has strongly focused on its sustainable growth and taking corporate responsibility, marking his position in the market as one of the leading insurance brands, specifically in terms of sustainability. A few important measures the Group took that support this vision is the sponsorship Zurich provided in 2020 to help reforest Brazil's Atlantic Forest and the donations made to Ukraine during the conflicts that started early 2022.

Strategy and Future Goals

Figure 4 – Climate solution investments



Source: Company Data

The group continues to focus its strategy with the concept of contributing to a "greener world" (Figure 4 – Climate solution investments). Zurich created the first carbon-neutral equity fund which has approximately an 85% reduction in carbon footprint compared to traditional investments strategies. The group has been focusing on improving its Environmental, social, and corporate governance (ESG).

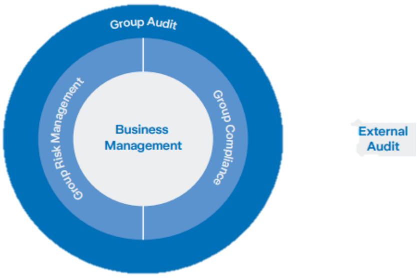
Zurich aspires to be one of the most responsible and impactful groups in the world, it's currently targeting net-zero emissions by 2050 and investing in carbon removal technology to achieve net-zero in their operations possibly by 2030. The group is consistently focused on entering newer and greener projects. In 2020, Zurich Forest project was launched to support reforestation and biodiversity restoration in Brazil. The group is always looking to improve its' impact over the next years by making a greener future one of their top priorities in their strategy.

Obviously, besides focusing in helping create "a greener world", Zurich still has a strong focus on success over the long term and building a strong and solid financial position and a balanced portfolio with the goal of continuing to be a trusted brand due to excellent skills and expertise of their employees. The long-term strategy is focused on the customers, simplification, and innovation. In the short term, 2023-2025, Zurich has the following targets:

- Business Operating Profit After Tax Return on Equity > 20%
- Compound organic earnings per share growth = 8%
- SST Ratio > 160%
- Cumulative cash remittances > USD 13.5 billion

3. Management and ESG

Figure 5 - Three Lines of Defense



Source: Company Data

Business Model
With the goal of delivering benefits to the stakeholders, Zurich starts by:

- **Serving customers and curate a well-established ecosystem**
  Expanding services and solutions available to customers through direct and indirect channels and having a strong global partner network.

- **Understanding and underwriting risks**
  Decades of experience backed with a wealth of data gives the group the ability to properly assess and quantify risks of all complexities enabling the group to give fair prices, appropriate and custom solutions to the customer.

- **Managing reserves**
  Properly calculating insurance liabilities and having a reserving process supported by strong governance.

- **Investing**
  Having a strong position of income from invested premiums, policy fees and depositions to be able to pay claims reliably.

- **Managing claims**
  Being able to fulfill commitments is the most important tasks of the Group. Proving a strong support system to help customers understand, mitigate, and potentially prevent future losses.

Figure 6 - MSCI ESG Ratings

Source: MSCI

Governance Structure
Zurich uses "three lines of defense" model (Figure 5 - Three Lines of Defense). The first line is the Business Management, the second line is the Group Risk Management and Group Compliance and finally the third line is the Group audit. The model seeks to identify, assess, own, manage and monitor risk closely by running through Zurich's governance structure. Since the model divides its risk management in specific roles, it creates clear accountability, responsibility while also improving the communication within the group and building an efficient risk management operation. All these benefits are only obtained if the group is able to maintain a good communication and proper planning within the whole team and through all the three lines which can be difficult to maintain constantly. The group seems to have figured out the formula to make this model work as it as been solidly managing the risk and complying with regulation over the years.

Dividend Policy
Zurich has and intends to maintain an attractive dividend policy with a target pay-out ratio of 75%.

ESG
Zurich is a constituent of the MSCI ESG Select Leader Index and received an ESG rating of "AAA", the highest possible score (Figure 6 - MSCI ESG Ratings). The rating was upgraded in 2022 from "AA" to "AAA". According to Dow Jones Sustainability Indices, Zurich is in the top 1% in the insurance industry group, FTSE4Good gave Zurich an ESG rating of 4.2 out of 5.

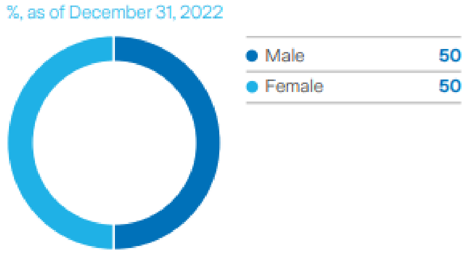
Environment
As mentioned before, Zurich has a strong focus on becoming as “green” as possible. The group has a department solely focused on Sustainability. Linda Freiner, Group Head of Sustainability, ensures that sustainability is integrated all the way from developing strategy to overseeing implementation and reporting on progress. The group is consistently looking for ways to implement sustainable practices, these are the main highlights from recent years:

- In 2022, the group reported USD 566 million of revenues from sustainability solutions.
- The group was able to reduce 12% in financed corporate CO2 emissions compared to 2019.
- 3,2 million metric tons of CO2 was avoided, in 2022, through climate-related impact investments and there was a total of USD 8.7 billion invested in climate solutions.
- 73% reduction in CO2 emissions from the group’s operations in 2021.
- Helping restore an ecosystem in Brazil’s Atlantic Forest.

Social
MSCI noted the group has strong human capital practices and Forbes recognized the group as an employer of choice. With a 29% ratio of females in senior management, a 71% internal hire ratio, a 45% increase of women in senior roles at Zurich UK and more than USD 33 million spent on training for employees, Zurich has a very strong focus to empower and support its employees.

Governance
The board of directors holds the ultimate decision-making authority for the group, and they are focused mainly to deliver strategic priorities with a very strong focus on ESG integration while meeting the stakeholders’ needs. The Board is well diversified in terms of gender (Figure 7 - Board of Directors Gender %), nationality and background skills/experience as the group believes diversity is a major key to success (Figure 8 - Board of Directors background skills).

Figure 7 - Board of Directors Gender %



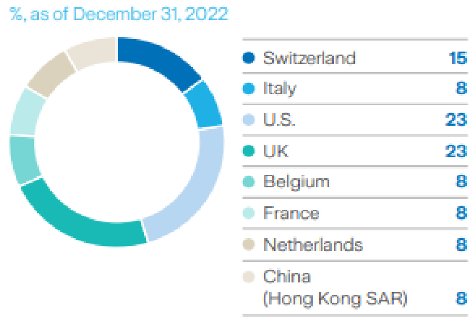
Source: Company Data

Figure 8 - Board of Directors background skills

Source: Company Data

The Executive Committee is focused on the delivery of results while ensuring that Zurich remains ready for the future and its challenges. The Italian Mario Greco is the current CEO since 2016. Like the Board of Directors, the Executive Committee is focused on diversity, having members of eight nationalities (Figure 9 – Executive Committee’s Nationalities) and multiple backgrounds.

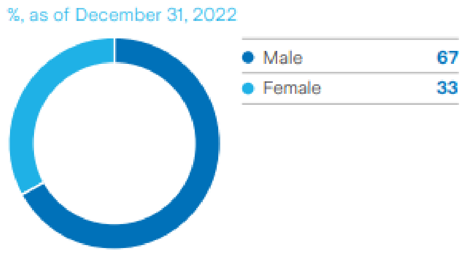
Figure 9 – Executive Committee’s Nationalities



Source: Company Data

As of December 31, 2022: the Board had a 50% female representation, had members of 6 different nationalities, an age range from 52 to 74 and an average length of tenure of 5.7 years; the Executive Committee had a 33% female representation (Figure 10 – Executive Committee Gender %), an average length of tenure of 5.2 years and 8 different nationalities.

Figure 10 – Executive Committee Gender %



Source: Company Data

The groups’ remuneration system and rules are evaluated annually by the Remuneration Committee to provide a fair and competitive remuneration opportunity. The current remuneration structure defines that the director’s remuneration is 100% fixed while the group CEO, the executive committee and all other employees has their remuneration as a mix percentage of fixed remuneration, short-term incentives, and long-term incentives.

Sustainability
Zurich is currently “operating” on their three sustainability pillars:

- 1.5ºC Future: Net-Zero in investments and operations; review of oil and gas transition plans; 71,5% of managed procurement spend is with suppliers that meet the key expectations of supplier code of conduct.
- Confidence in digital society: Data commitment rolled out to more than 90% of business and AI assurance framework has end of 2023 as implementation target.
- Work Sustainability: 26 hours of learning per employee in 2022 (3-hour increase compared with 2021), internal hire rate of 71% and females share in senior management roles of 29% (7% increase since 2017).

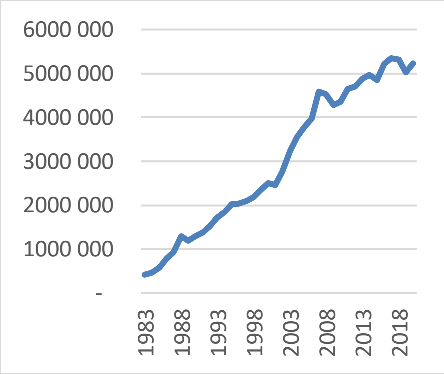
4. Industry Overview and Competitive Positioning

History of the Insurance Industry

The concept of preventing and spreading risk is very ancient, so it's safe to assume insurance has been around for as long as we can remember. The earliest insurance known was back in 1750 before Christ (BC). A ship's cargo could be pledged in exchange of a loan. In case the ship arrived safely there was a repayment of the loan, otherwise, if the ship was lost at sea, then there would be no repayment.

Since then, the industry has evolved a lot into modern problems and risks more relevant in nowadays society. Today the industry is mainly driven by the Life and Property & Casualty segment and grew 108% globally from 2000 to 2020 and 20% globally from 2010 to 2020 (Figure 11 - Historical Gross Insurance Premium).

Figure 11 - Historical Gross Insurance Premium



Source: OECD (in USD Millions)

Macroeconomic Indicators

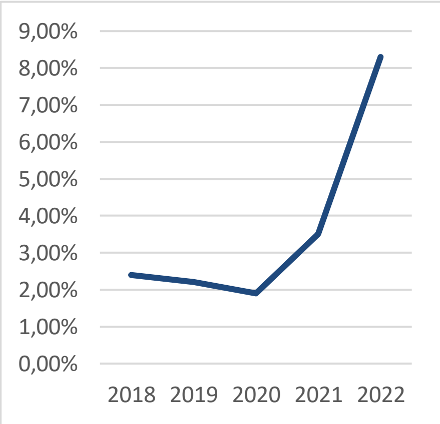
After years of recovery the 2008 Great Recession and stabilizing the macroeconomic indicators, these past few years, the covid-19 pandemic and the rising conflicts between Russia and Ukraine, have created a volatile and uncertain global economy.

Due to these events, there was a decrease in Global Growth and insanely high inflation rates were reached (Figure 12 - Historical Inflation growth). As a result, Central Banks were forced to increase interest rates to tighten monetary policy.

Global Gross Domestic Product (GDP) suffered a 3.1% decrease from 2019 to 2020 mainly due to Covid consequences but quickly recovered, and surprisingly, even during the conflicts between Russia and Ukraine, it has increased 6% from 2020 to 2021 and then slowed down to 3.1% from 2021 to 2022 (Figure 13 – Historical GDP Growth). The International Monetary Fund (IMF) projects that Global economy will continue to grow at an average rate of 3% (advanced economies are expected to slowly decrease GDP growth while developing economies will slightly increase).

The pandemic had a big impact on unemployment rate due to lay-offs and cut-offs, it went from 5,5% in 2019 (the lowest unemployment rate recorded since 1994) to 6.9% in 2020 (the highest unemployment rate from the past decades) which helps justify the decrease in the economic growth. In 2022, it decreased to 5.8% which is similar to the "before Covid-19" level.

Figure 12 - Historical Inflation growth

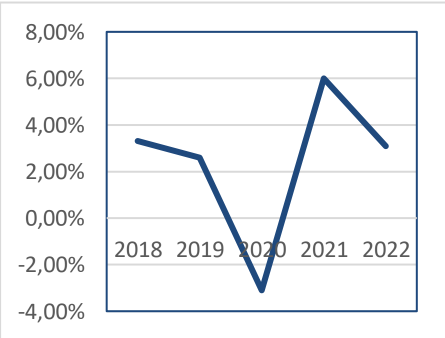


Source: World Bank

Insurance Industry in Europe

Europe recorded a Compound Annual Growth Rate (CAGR) of 2,75% in the Life segment and 6,01% in the non-life segment from 2017 to 2021. Life has a considerably lower CAGR because of its already considerate presence in Europe compared to the non-Life segment (mainly P&C) due to Life being essentially used for long-term saving by all major European countries. Nowadays, Europe's insurers pay out EUR 2.8 billion a day in claims and benefits.

Figure 13 – Historical GDP Growth



Source: World Bank

Insurance Industry in the United States

In the United States there is a noticeable difference between the premiums in the non-life segment than in the life segment with the non-life segment being a lot more relevant. United States showed a percentual change in the P&C segment of 61% from 2013 to 2022, while only showing a 24,7% increase in the Life segment. According to Global Data, it's expected that the American Insurance Industry will reach a total of USD 3 trillion Gross Written Premiums by 2027.

Insurance Industry in China & India

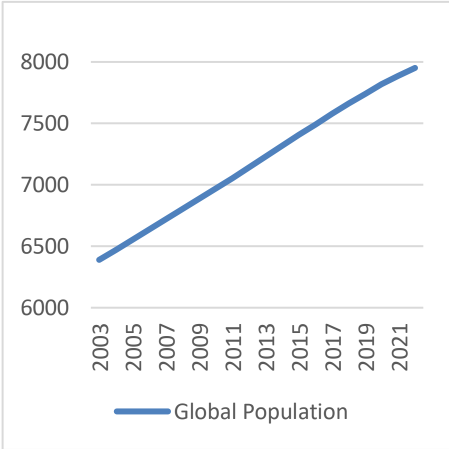
Due to the lack of information in the emerging market related to the insurance industry, using these 2 economies together represent an accurate proxy to analyze the emerging market as a whole. From 2015 to 2018, they contributed 36% of the total growth in insurance premiums. From 2017 until 2021, there was an increase in the demand for insurance which resulted in an increase in the CAGR of both countries (3,84% for China and 4,74% for India).

As the two most populated countries in the World, it's clear to see that the market still has a ton of potential to grow and so it's projected that the Asian-Pacific region will represent a total of 42% of worldwide premiums just by 2029 with China's share being 20%.

World Population

As global population keeps increasing (Figure 14 - Global Population) and is expected to keep growing, the United Nations projected that total population would reach 9 billion by 2030 and around 9.8 billion by mid-2050. East Asia & Pacific, despite being the region with the largest population, is also the region with the highest population growth rate which represents an important potential opportunity for insurance companies (Figure 15 - Population by regions). Although the global population keeps increasing, the percentual increase per year has been slowly decreasing since 1971. This increase leaves room for insurance companies to keep growing as their "costumer base" will also keep growing. It's important to notice that most population growth is not from developed countries but is, instead, from developing nations which have been over the years less appealed to insurance due to cultural beliefs and less knowledge about the matter. In recent years, this has been proved to be changing as developing economies, as mentioned before, have been seeing higher numbers in terms of total and percentual "insured" population.

Figure 14 - Global Population



Source: World Bank (million)

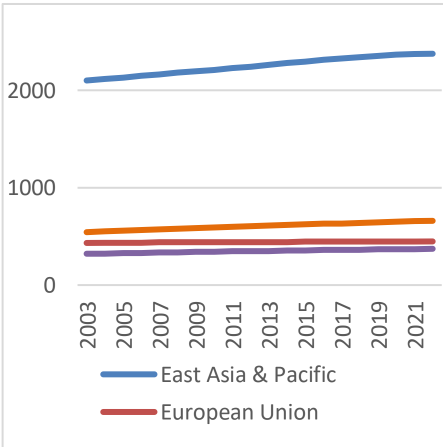
Solvency II

Solvency II is a prudential regime that sets requirements applicable to all insurance companies based in Europe to ensure the adequate protection of all customers and assesses the solvency of these companies through quantitative and qualitative measures. It was enforced in January 2016.

It's built on a 3-pillar structure:

- Pillar 1: Quantitative Requirements (assets & liabilities valuation, capital requirements, etc.)
- Pillar 2: Qualitative Requirements (includes governance and risk management and Own Risk & Solvency Assessment [ORSA])
- Pillar 3: Reporting and Disclosure

Figure 15 - Population by regions



Source: World Bank (million)

Demand Drivers

Legal Requirements and Economic Outlook: Insurance has an important role to provide safety and protection for individuals and companies that need to mitigate risk and that without insurance services, if an incident occurred, they wouldn't be able to properly deal with it. In today's world more than ever, there are many risks to be protected (all the way from a "simple" phone accident to "life" accident), some of them even are obliged by law, motor, and property for example. Adding to the already mentioned needs of today's world, we also have the current economic uncertainty, surging prices and unforeseen events that make individuals want to be "insured" now more than ever as insurance companies help turn unexpected large costs into manageable smaller payments.

Aging Population & GDP Growth: As the world's population age continues to increase as well as the GDP per capita, health insurance and retirement pensions are becoming more popular as years go by as it helps the needs of backup reserves when difficult economic and financial conditions emerge.

Product modernization: As the world and its technology continue to evolve, so does the need for new insurance services that match the newly created products, for example, recently pet insurance is becoming more popular as the percentage popular that owns a pet is increasing. Cybersecurity is also becoming way more relevant as in this new digital era, cyberattacks have become a big issue to be dealt with.

Supply Drivers

Costs for claims coverage services: The main influences on supply for insurers are the costs implied in each claim and the specific cost to fix it. These costs are related to health care entities, car repair shops, property repair, construction and other specific procedures related to the insured product. The prices must be continuously adjusted and updated as a lot of economic indicators (interest rates, inflation, etc.) can fluctuate and affect the expenses of such services so if the price isn't updated it will harm the financials and profitability of insurance companies. The price needs to be adjusted whether these economic indicators go up or down. If expenses become cheaper, insurance companies need to adjust in a way to provide a fair price compared to the prices in the market and not become considerably more expensive compared to competitors. If expenses become more expensive, insurance companies need to quickly adjust so that irregular losses don't occur.

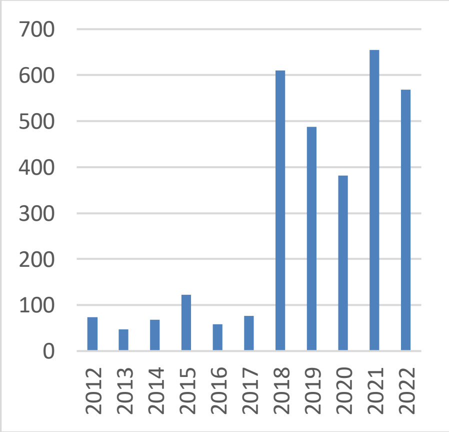
Distribution Channels: The services provided by insurance companies are distributed through different methods, mainly through agencies, brokers, partnerships, financial advisors, and direct contact with customers.

Mergers & Acquisitions

As mentioned previously in the History of Zurich, the group did numerous Mergers & Acquisitions (M&A) throughout the years. It's a very common procedure in the insurance industry and most leading companies got to where they are through M&As that enable them to increase their market share by increasing their demographic presence, increasing network, increasing, and improving their services and "know-how".

M&A deals increased 33,3% from 2016 to 2021 (Figure 16 - Value of M&A insurance deals). From 2021 to 2022, total transactions fell from 869 in 2021 to 638 in 2021 with an overall volume decrease of 69% (from USD 57,5 billion to USD 17,7 billion), this is mainly due to highly uncertain conditions in the global economy from the conflicts between Russia and Ukraine and accelerating inflation.

Figure 16 - Value of M&A insurance deals



Source: Statista (in USD Bn)

Trends

Digital Era: With technology evolving at an abrupt rate and insurance services becoming more and more digital, including their distribution channels, has created a lot more exposure to customers which has drastically increased the levels of demand. InsurTechs are becoming more and more relevant as technology keeps gaining importance in today's world, it refers to technological innovations created to improve the efficiency of insurance companies.

Global awareness of risk

The access to information is becoming easier and easier with all the access we have to social media, journals, television, news which has led to population being way more aware of personal risks of all types (health, life, motor, pensions) which has resulted in a significant growth in demand. A recent example of this is the Covid-19 pandemic which caused a lot of awareness for health/life insurance and created new opportunities for insurance companies.

Sustainability

Recently, sustainability became a key "ingredient" for a company's long-term success. Adopting sustainable practices and integrating sustainability into each insurance company's core functions is becoming crucial to set themselves apart from other companies. Companies are imposing greener goals and seeking out greener opportunities to overcome today's challenges without compromising tomorrow. The overall focus is becoming not only on the company itself and its costumer but also on all people and the whole planet. This is mainly done through greener investments, addressing global environmental issues, and aiming for inclusivity and transparency.

Apart from those measures, insurance companies are also limiting or even completely stopping the business done with segments that are highly pollutant and adjusting their portfolio investments to greener options.

Competitive Positioning – Peers Analysis

To properly decide the adequate peers, we compared multiple companies using factors such as market cap, revenues, assets, employees, customers, solvency ratio, combined ratio, country/continent of headquarters, services offered, and regions where said services are offered. While being aware that 2 companies are never equal or even similar and having all these factors in consideration, it's safe to assume that the following group of peers is appropriate: **Generali, Chubb, MetLife, and AIG** (Table 4 - Peer's revenue in 2022).

Table 4 - Peer's revenue in 2022

Company	Revenues 2022 (USD Billion)
Zurich 🇨🇭	41,43
AIG 🇺🇸	56,54
MetLife 🇺🇸	69,90
Generali 🇮🇹	76,76
Chubb 🇺🇸	43,12

Source: Companies' annual reports

There are other companies that could arguably be considered but were cut out mainly due to size difference and/or having a strong focus in reinsurance (e.g., AEGON, AXA, Allianz, Munich Re, AVIVA, etc.)

All the chosen companies operate in EMEA, Latin America, North America and APAC and offer very similar services (P&C insurance, Health & Life insurance, Savings insurance, Asset Management and Business insurance). The Combined Ratio of the peers' ranges from 87,60% to 94,60% while the Solvency Ratio ranges from 177% to 283%. It is required by the European Insurance and Occupational Pensions Authority that the solvency ratio is at least 150%.

Porters 5 Forces

Suppliers' Bargaining Power (HIGH 4): Suppliers can easily pressure insurance companies through the raise of prices, lowering quality or tightening control. In the past, with the main distribution channels being agents and brokers, they had the "power" to influence policyholders onto specific services and specific insurance companies. With the digitalization of the modern world, insurance companies now have more means to reach customers directly and minimize the bargaining power of suppliers.

Buyers' Bargaining Power (HIGH 4): Large corporate customers that pay millions of dollars in premiums have always had considerable bargaining power and still do considering their enormous side and their importance and significance to the insurance company. Recently, individual customers have been gaining relevance and bargaining power mainly due to the digitalization of services and the exponential growth of social media. This allowed modern buyers to be more demanding towards personalized services and care for the premiums paid.

Threat of Substitutes (VERY LOW 1): Historically, insurance companies have never dealt with a relevant substitute. In the future, the InsurTech movement might innovate insurance products towards being more digital, more accessible, and more customized and in the end become more attractive, especially towards a younger audience.

Competition between Suppliers (HIGH 4): There is little to no product differentiation in the industry because product creation comes mainly from external risks. The price of such products is also extremely regulated so the main way for companies to distinguish themselves comes from the quality of the policyholder services provided. This means that companies need to innovate their distribution channels in order to improve customer satisfaction and build their loyalty. All these factors lead to intense competition in the industry.

Threat of New Entrants (MEDIUM 3): Even though the insurance industry is highly regulated and presents high difficulty to capture a notable market share which causes a significant barrier for new entrants, there is also a rising trend of the InsurTech movement which is leaving "open space" for new entrants to take if the current market competitors don't innovate and join/adapt to this movement. Since insurance companies can adapt to InsurTech, so can the technology companies adapt to InsurTech, so the big techs are also present a relevant threat (e.g., Amazon, Google, Tesla) as if they decide to innovate and take part of this movement, with their current size and brand loyalty we could see a huge movement from clients to their insurance products. It's not as likely that technology companies will enter the insurance market as it is more difficult and not as relevant for them while insurance companies will have to adapt their products technologically (Figure 17 - Porters 5 Forces).

Figure 17 - Porters 5 Forces

Source: Author Analysis

SWOT Analysis

Figure 18 - SWOT Analysis

Strengths	Weaknesses
- Strong global presence and financial position - Excellent ESG ratings and measures - Swiss Solvency Test ratio of 265% - Attractive and stable dividend policy of 75%	- European and North America represent 81% of total revenues - Lower investments in Information and Communication Technology than the sector's average
Opportunities	**Threats**
- Invest in new digital technology and emerge as innovator in the market - Do market research about InsurTechs and potentially invest to become one - Rise in demand as access to information and awareness for risk increases - Emerging markets and gain significant market share in the regions (mainly APAC and Latin America)	- New InsurTech entrants - Cyberattacks - Catastrophes (natural and human-caused) - Exposure to currency fluctuations due to global presence - Competition - Fluctuating interest rates - Freelancing (majority of gig economy doesn't oblige insurance which can result in huge losses as it keeps becoming more popular)

Source: Author Analysis

5. Investment Summary

Valuation

Zurich has a HOLD recommendation with a Price Target of CHF 434,38 with an upside potential of 5,02% compared to its Closing Price September 07, 2023, of CHF 413,60 (Table 5 - Valuation Summary). The main valuation is done using the Dividend Discount Model (DDM). It is complemented with a Residual Income Valuation (where the Price Target reached was CHF 441,73 and an upside of 6,80%) and a Multiples Valuation using the 4 main peers, MetLife, Chubb, AIG, and Generali (where the Price Target reached was CHF 435,18 suggesting a potential increase of 5,22 % and another Multiples Valuation using more companies in the sector that also have similarities with Zurich although not as relevant as the 4 main peers where the Price Target reached was 464,18 indicating a upside potential of 12,23%). With all valuations pointing towards a potential increase, we strongly believe both the DDM and Residual Income Valuation represent a more accurate and in-depth valuation for the group, and both indicate a higher potential increase and that the group is slightly undervalued. The undervaluation of the group derives mainly from:

- The group's slight underperformance in 2022 which was due mainly to world instability and Ukraine-Russian conflicts.
- Its' early strong focus on sustainability which is proving to be a strong point for the group as years go by.
- Significant gain in North America's and APAC's market share with potential to be even bigger.

Table 5 - Valuation Summary

Date	07-09-2023
Closing Price	CHF 413,60
Shares Outstanding	150 460 167
Price Target DDM	CHF 434,38
Price Target Residual Income	CHF 441,73
Price Target Multiples Valuation	CHF 435,18
Recommendation	HOLD
Upside Potential	5,02%
Investment Risk	MEDIUM

Source: Author Analysis

Company Overview

The group is mainly focused on its sustainability goals and performance all around the world. With a stable market share in EMEA and a growing market share in North America, APAC and Latin America the group's premiums have been increasing. Zurich's 75% pay-out dividend policy is one of the groups' strong points as they've been repeatedly able to perform and deliver it.

Investment Risk

We consider this investment to be of medium risk considering that it depends on its ability to gain market share in underdeveloped regions in terms of insurance and keep performing in EMEA and North America. Besides this, the insurance industry itself always presents risk as natural and human-made catastrophes are unpredictable and so is its respective potential loss.

6. Valuation

The valuation of Zurich's Insurance Group is done through the **Dividend Discount Model** complemented with a **Residual Income** and **Multiples Valuation.**

DDM Valuation

Through the DDM Valuation we've reached a price target of CHF 434,38 with an upside potential of 5,02% compared to a closing price of CHF 413,60 on September 07, 2023 (Table 6 - DDM Price Target). With the price reached we can conclude that Zurich is slightly undervalued.

Table 6 - DDM Price Target

Pay-Out Ratio	75%
Close Price 07-09-23	CHF 413,60
Price Target DDM	CHF 434,38
Upside Potential	5,02%

Source: Author Analysis

To do the DDM Valuation, we compute the Net Income attributable to Shareholders, the cost of equity and used a pay-out ratio to forecast the dividends (Appendix 13). We decided to use the DDM because it is a suitable and reliable method to value financial institutions with a constant dividend pay-out ratio and stable growth as is the case with Zurich's group. We consider a 10-year period forecasted (2023-2032) complemented with the respective terminal value.

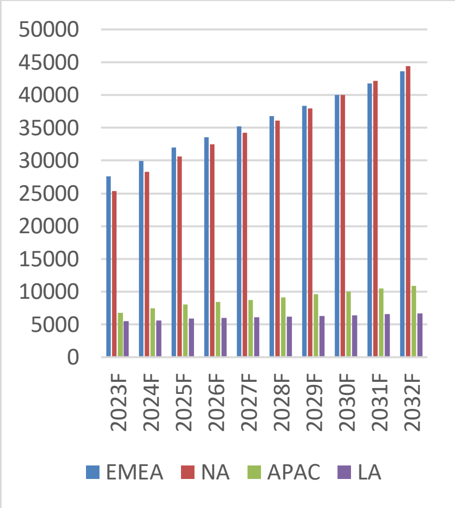
DDM was calculated according to the following formula:

Target Price DDM = Sum of the Present Value of Future Dividends + Present Value of Terminal Value

Forecast Assumptions

The DDM model is most sensitive to the following variables:

Figure 19 - Forecasted GWP by region



Source: Author Analysis (in USD thousands)

<u>Gross Written Premiums (GWP) and Policy Fees:</u> To forecast GWP we divide it by regions (EMEA, North America, Asia Pacific, and Latin America) and divide the regions by Property & Casualty and Life sector (Appendix 8). The respective growth of each region and sector was forecasted using its' past relation with historical GDP Growth having in consideration World Events happening mainly in 2019-2022 (Covid Pandemic, unstable inflation scenario and Russia-Ukraine conflicts). Also considering Zurich's expectance to keep growing its market share across the world and mainly take advantage of the opportunity to keep growing in the Asian market in the next few years (Appendix 9). This led to an overall growth of 65% from 2022 to 2031 with most of that growth happening in the next 4 to 5 years (Figure 19 - Forecasted GWP by region). We also compared the values obtained with Damodaran's expected growth in Revenues for the next 2 years of the sector.

<u>Insurance benefits and losses, gross of reinsurance</u> is forecasted using its past average weight related to Gross Written Premiums and Policy Fees and using that average rate on the forecasted values.

<u>Net Investment result on unit-linked contracts</u> is assumed to go up 10% each year on average. This is mainly due to Zurich's strong focus on improving its investments over the next few years and building reliable income from it. It's been relatively unstable in previous years with an average of 90% growth rate in the past 5 years. We assume more conservative values, not only because of the events happening in the world today, but also because it's an unrealistic growth rate. The group has values of 500% and also -140% which don't represent stable and sustainable values for the future so we concluded a more conservative and stable approach would be more adequate. The starting forecasted value of 2023 is the average value of the past 5 years.

<u>Liabilities for Insurance Contracts</u> are forecasted using the multiplier related to total gross written premiums of the past year. Even though it's expected by some that liabilities related to insurance contracts in the future will increase, this has been a "statement" for the past years and it's still not accurate. The multiplier has been stable and even decreased in 2021 and 2022 hence why we used the multiplier of that year with adjustments made year to year (Appendix 11).

<u>Pay-out ratio</u> is expected to remain at 75% in future years as announced by the group.

Cost of equity (Ke) is used to discount future dividends. To calculate the cost of equity we use the Capital Asset Pricing Model (CAPM)

Table 7 - Cost of Equity

Risk-Free Rate	2,59%
Zurich's Levered Beta	0,65
Industry's Levered Beta	1,23
Market Risk Premium	7.10%
Cost of Equity	11,32%

Source: Author Analysis

Ke = Risk-Free rate + Levered Beta * Market Risk Premium

The risk-free rate used is an average of the 10-Year Government bond yields of Switzerland and Germany for a total of 65% of the rate and the remaining 35% using the US 10-Year Government bonds totaling a rate of 2,59% (Bloomberg, 2023).

The Levered Beta used isn't Zurich's levered beta of the past 5 years as we considered it was best to use an average levered beta of the insurance industry (*by Damoradan*) because the group's beta will likely tend towards the beta of the industry over the years which gives us a more realistic value, 1,23.

The Market Risk Premium used is an average of the Market Risk Premiums of every country (*by Damodaran*) the group is present in considering its average weight in 2021's gross written premiums (39% US, 9% Latin America, 42% EMEA, 10% Asian Pacific).

All Ke assumptions are specified in Appendix 12 and table 7 (- Cost of Equity).

Multiples Valuation

Another valuation considered to complement the recommendation is the Multiples Valuation (Appendix 15). With this valuation we reach a final price target of CHF 435,18 with a potential drop of 5,22 % (Table 8 - Multiples Valuation Price Target).

Table 8 - Multiples Valuation Price Target

P/E Price Target	CHF 455,13
P/S Price Target	CHF 415,23
Close Price 07-09-23	CHF 413,60
Multiples Valuation Price Target	CHF 435,18 *(+5,22%)*

Source: Author Analysis

It's important to remark that all companies, even in the same industry, have different structures, sizes, strategies and thus are very different from each other. The peers used for the multiple's valuation were MetLife, Chubb, AIG, and Generali. All these companies offer the same services as Zurich, and they all serve the same regions and are also comparable in terms of size and ratios (Table 9 - Peers Analysis).

The ratios and indicators used to compare and choose peers besides services offered and respective regions were Revenues, Assets, Liabilities, Employees, Customers, Solvency Ratio and Property and Casualty Combined Ratio.

Table 9 - Peers Analysis

In USD	Zurich	Generali	MetLife	Chubb	AIG
Headquarters	*Switzerland*	*Italy*	*US*	*US*	*US*
Revenues 2022 (Bn)	41,43	76,76	69,90	43,12	56,54
Assets 2022 (Bn)	377,78	519,05	666,61	199,12	526,63
Liabilities 2022 (Bn)	349,87	500,91	639,32	148,58	484,40
Employees 2022	59400	82000	45000	34000	26200
Customers 2022 (M)	>55	68	100	*N.D.*	*N.D.*
Solvency Ratio 2022	265%	228%	283%	177%	*N.D.*
Services					
Property & Casualty Insurance	✓	✓	✓	✓	✓
Health Insurance	✓	✓	✓	✓	✓
Life Insurance	✓	✓	✓	✓	✓

Savings	√	√	√	√	√
Banking	X	X	X	X	X
Asset Management	√	√	√	√	√
Business Insurance	√	√	√	√	√
Profitability Indicators					
P&C Combined Ratio 2022	94,30%	93,20%	N.D.	87,60%	91,90%
Regions					
EMEA	√	√	√	√	√
Latin America	√	√	√	√	√
North America	√	√	√	√	√
APAC	√	√	√	√	√
Notes				*Stronger focus in reinsurance & US based*	*US based*

Source: Author Analysis & Companies data

Using more companies that are not as similar to Zurich as the peers previously mentioned but also have relevant similarities (AXA, Allianz, Generali, Chubb, MetLife, AIG, Swiss Life Holding AG and Swiss RE) to get a better industry proxy, the price achieved was CHF 464,18 which leads to an upside of 12,23%.

Residual Income

The residual income valuation is also used as a complement. The price reached was CHF 441,73 with an upside potential of 6,80% compared to a closing price of CHF 413,60 on September 07, 2023 (Table 10 - Residual Income Valuation Price Target). Which supports the DDM Valuation conclusion that Zurich's group is undervalued. The valuation is performed by using the forecasted net income attributable to shareholders, the cost of equity, forecasted equity and a persistent factor (Appendix 14). With these we are able to calculate the residual income and the respective terminal value that allows us to calculate the value of the company and its stock price. The persistent factor assumed is 0,70 as the insurance industry has a relatively high ROE and a strong policyholder retention. The residual income valuation is similar to the DDM valuation, the main difference being that the DDM valuation uses future dividend payment to evaluate the company while the residual income valuation uses future residual earnings:

Table 10 - Residual Income Valuation Price Target

Growth Rate	6,06%
Close Price 07-09-23	CHF 413,60
Price Target Residual Income	CHF 441,73
Persistent Factor	0,70
Upside Potential	6,80%

Source: Author Analysis

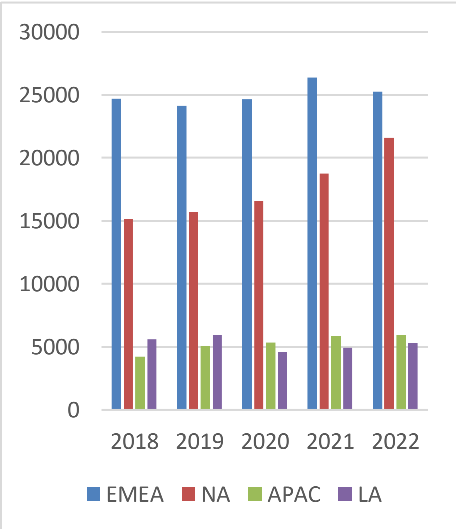
Target Price using Residual Income = Sum of Present Value of Future Residual Earnings + Present Value of Terminal Value

7. Financial Analysis

Gross Written Premiums by region

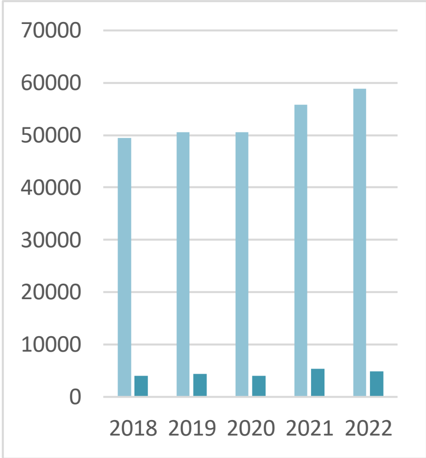
Regarding Gross Written Premiums by region, we see an increase of 2,27% from 2018 to 2022 in EMEA, an increase of 42,95% in North America, an increase of 39,98% in APAC and a decrease of 4,95% in Latin America (Figure 20 - Historical GWP by region). The low increase in EMEA can be explained to the fact that this is the major region from the group and the one already closer to maturity in addiction to it being severely affected by the conflicts between Ukraine and Russia. This is where the majority of the group's revenues come from, and it's expected to keep increasing but at a slower and steadier rate. The group is exploring a market share gain in both NA and APAC as we can see from the respective growth rates, the APAC market is way less saturated which allows the group to have a higher

Figure 20 - Historical GWP by region



Source: Author Analysis & Company data (in USD thousands) growth rate compared to NA. Latin America is a big incognita as of now mainly because of cultural differences and a struggling economy hence why the growth rate has been negative over the past years. It's important to note that 2019-2022 were years marked by instability and filled with uncertainty but even then, only EMEA presented a small negative -2,25% change in 2019 and -4,18% in 2022 and the only negative change besides that was in Latin America in 2020 (-23,05%).

Figure 21 - Historical Net Margin (GWP and Net Income)

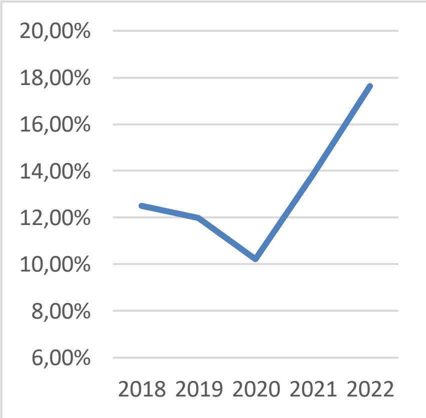


Source: Author Analysis & Company data (in USD thousands)

Net Margin (Net Income/Gross Written Premiums)

It's important to understand if the increase in gross written premiums also leads to an increase in net income because an increase in GWP doesn't necessarily mean that the company is improving if it doesn't translate to an increase in net income. From 2018 to 2022, even with recent uncertainties, the group managed to consistently increase gross written premiums yearly. The same can't be said regarding net income, it has consistently grown around 21% on average per year over the past 6 years if we exclude 2020 and 2022. 2020 saw a decrease of 7% mainly due to the rise of the covid pandemic that led to a rise in insurance losses and 2022 saw a decrease of 9,29% mainly due to the conflicts between Ukraine and Russia. Despite that, the net margin has been consistently increasing, except in 2020 and 2022 where it saw a small decrease of 7,17% and 14,02%, respectively when compared to the prior year (Figure 21 - Historical Net Margin).

Figure 22 - Historical Return on Equity



Source: Author Analysis & Company data

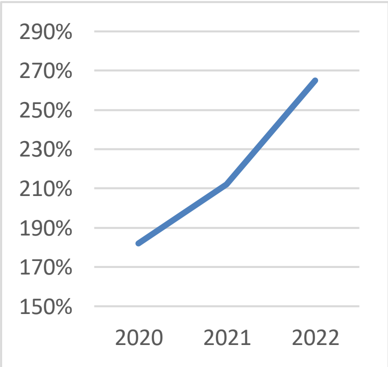
Return on Equity

The group's Return on Equity (ROE) has presented stable results from 2018 to 2022 showing an increase of 41%. It has not been consistently increasing year to year but, again, the results were impacted by the uncertainties lived in the world during 2020 until 2022. Mainly 2020, where ROE decreased 14,80%. It rapidly recovered in 2021 and 2022 with an increase of 35,56% and 27,29%, respectively (Figure 22 - Historical Return on Equity). We predict a decrease of ROE of 11,32 % in 2023 mainly due to the economy's recovery from covid and also due to inflation. After that, mainly due to Zurich's strategy and the overall growth of the insurance industry, I expect ROE to increase slowly and steadily at an average rate of 2,33% reaching 19,24% in 2023 (Appendix 7).

Dividend Policy

The group's dividend policy is very attractive to investors and consistently distributes stable and growing dividends. The group has a pay-out ratio of 75% and has declared that it'll stay at 75% in the foreseeable future.

Figure 23 - Zurich's SST Ratio



Source: Author Analysis & Company data

Solvency

The Swiss Solvency Test ratio (SST) is a complex ratio that evaluates available and required capital based on the valuation of the group's assets and liabilities while also paying attention to what's happening and what can eventually happen in the financial markets, credit risks and underwriting. The group's goal has been to continuously have an SST ratio higher than 160%. From 2020 until 2022, the group's ratio went from 182% to 265% (Figure 23 - Zurich's SST Ratio) meaning the group has a notable financial strength and a solid look regarding their long-term continuity.

8. Investment Risks

Market Risks

Macroeconomics (MR1)

Expectations that the world economy will slow down after reaching pre-covid levels. Tensions between Ukraine and Russia and the threat of war affecting mainly Europe but also the entire world economy, will also affect the group who has 42% of the revenues coming from European services. It's possible that in the future, there will be no threat of war, and the world might keep expanding with positive Macroeconomic trends, surpassing pre-covid numbers but it's a very present risk in the world we live in.

Increase in Interest Rates (MR2)

Changes in interest rates can affect the group negatively because the group has a considerable portfolio of fixed income instruments. Existing bonds usually devaluate with high interest rates since new bonds generate higher yields. On top of that the rise in interest rates might also devalue certain assets such as equity instruments or real estate.

Exchange Rates (MR3)

In the uncertainty the world is nowadays related to almost every subject, including economics and exchange rates, and considering the group is very exposed to innumerous exchanges rates across the globe since a large percentage of revenues come from countries with a different currency than Swiss Franc and Euro.

Operational Risks

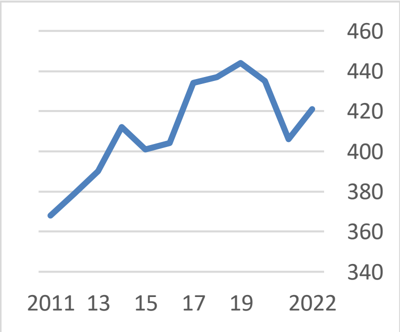
Rising prices of services insured (OR1)

Whether it is due to the very high level of inflation we are currently living in or any other reason that makes prices go up in the services the group insures, it'll cause costs and claims paid to increase by a considerable margin. This will cause premiums to be more expensive and might cause a decrease in demand.

Sustainability & Green World (OR2)

The world is changing and in need of "help". The "green world" issue is coming to stay and is becoming more and more relevant day-by-day. Countries and companies are taking action in making the world healthier to avoid "future" consequences. The problem is, we're already in that "future" and facing severe consequences. This has caused the temperature to change, natural catastrophes to increase and weather to significantly change for the worse. We're already seeing a huge increase in catastrophes (Figure 24 - Total natural catastrophes) which is causing a lot of damage not only to property but also people, which means, there are a lot more claims that need to be paid.

Figure 24 - Total natural catastrophes



Source: Statista

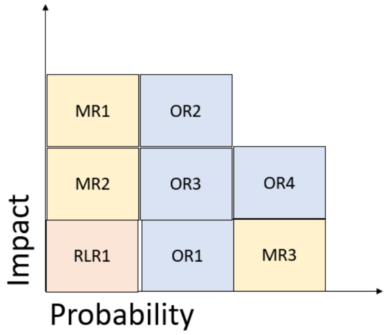
Insurtechs (OR3)

As the world continues to evolve and becomes a digital world, so will the insurance sector. There are already companies focused on both technology and insurance called "Insurtechs". They use technological innovations designed to make their insurance model and process way more efficient. This will crucially increase competitiveness and the group will be forced to properly adapt and innovate.

Digital Threats (OR4)

As mentioned before, we are and will continue to evolve into a digital world. This also means dealing with the new digital threats. Cybersecurity will be a huge concern for most companies (including the group) so even though it is a huge market opportunity it is also a concern the group needs to have. As we've seen in today's world a cyber-attack can cost millions in a matter of seconds.

Figure 25 - Risk Matrix



Source: Author Analysis

Regulatory and Legal Risks

Change of obligations or increase of taxes (RLR1)

The change of obligations might cause lower gross written premiums due to a decrease in demand. Since there are certain insurance services that are obliged by law in the majority of countries, a change in that law would cause demand to drastically decrease. On the other side, the increase of restrictions might affect the group. Whether it is certain restrictions regarding the environment or putting a certain limit on the companies/sectors the group is allowed to work with. An increase in taxes would also negatively affect the group's performance for obvious reasons.

Sensitivity Analysis

Zurich's performance has been very stable over the years. That has been proved by the strong results independently of factors of a big scale happening in the world and outside of the group. The group's stock is less volatile than 75% of SIX Swiss Exchange stocks. Nonetheless, we performed a sensitivity analysis to determine the Price Target volatility to changes on two key assumptions: beta, and terminal growth. We considered a 1% change in between terminal growths and a 0,05 in between betas.

Figure 26 - Sensitivity Analysis

		Growth Rate						
		3,06%	4,06%	5,06%	**6,06%**	7,06%	8,06%	9,06%
Beta	1,08	378,30	418,34	473,79	555,69	688,86	943,42	1 624,31
	1,13	357,49	392,55	440,24	508,91	616,27	807,87	1 246,87
	1,18	338,58	369,44	410,76	468,93	556,90	705,47	1 010,11
	1,23	321,34	348,64	384,66	434,38	507,45	625,37	847,72
	1,28	305,56	329,81	361,39	404,23	465,63	561,03	729,43
	1,33	291,06	312,69	340,52	377,68	429,80	508,20	639,41
	1,38	277,70	297,06	321,70	354,14	398,77	464,05	568,62

Source: Author Analysis

Figure 27 - Sensitivity Analysis showing percentual change

		Growth Rate						
		3,06%	4,06%	5,06%	**6,06%**	7,06%	8,06%	9,06%
Beta	1,08	-8,53%	1,15%	14,55%	34,35%	66,55%	128,10%	292,73%
	1,13	-13,57%	-5,09%	6,44%	23,04%	49,00%	95,33%	201,47%
	1,18	-18,14%	-10,68%	-0,69%	13,38%	34,65%	70,57%	144,22%
	1,23	-22,31%	-15,71%	-7,00%	5,02%	22,69%	51,20%	104,96%
	1,28	-26,12%	-20,26%	-12,62%	-2,27%	12,58%	35,64%	76,36%
	1,33	-29,63%	-24,40%	-17,67%	-8,68%	3,92%	22,87%	54,60%
	1,38	-32,86%	-28,18%	-22,22%	-14,38%	-3,58%	12,20%	37,48%

Source: Author Analysis

Zurich is aiming to have a compound growth in Earnings-per-Share (EPS) of at least 8% per year, with the valuation performed we reached a compound growth in EPS of 5,43% which is more conservative than the group's goal but, in our view, seems more reasonable, reachable, and mainly sustainable in the long term. If the group is able to achieve its goal, the upside potential of its stock will be considerably more attractive. Using a DDM valuation with the group's goal of a compound growth rate of 8%, we'd have a price target of CHF 596,62 which represents a potential upside of 44,25% (Appendix 16).

Appendices

Appendix 1 - Balance Sheet

(In USD Millions, as of December 31)	2017	2018	2019	2020	2021	2022
ASSETS						
Cash and cash equivalents	**8 228**	8 649	7 880	11 106	8 698	7 560
Total Group Investments	194 084	182 647	193 312	210 398	190 959	140 625
Equity Securities	17 787	16 220	18 296	19 493	18 578	13 130
Debt Securities	148 261	139 870	147 507	161 710	145 084	103 664
Investment Property	12 238	12 351	13 261	14 749	14 070	14 798
Mortgage loans	7 047	6 556	5 935	5 783	6 106	5 497
Other loans	8 730	7 614	8 274	8 620	7 053	3 444
Investments in associates and joint ventures	21	36	39	43	68	92
Investments for unit-linked contracts	120 699	109 294	126 211	135 058	142 470	121 989
Total Investments	**314 782**	**291 940**	**319 523**	**345 456**	**333 429**	**262 614**
Reinsurers' share of liabilities for insurance contracts	20 918	21 197	22 752	25 523	25 680	25 667
Deposits made under reinsurance contracts	1 269	883	726	503	444	960
Deferred policy acquisition costs	18 663	19 541	19 207	20 021	20 446	20 711
Deferred origination costs	460	419	400	426	441	431
Receivables and other assets	18 195	18 225	19 357	20 362	19 951	21 768
Deferred tax assets	1 076	1 125	1 151	1 314	1 198	2 179
Assets held for sale	29 371	24 124	2 087	2 538	11 626	22 152
Property and equipment	961	1 037	2 635	2 705	2 436	2 225
Attorney-in-fact contracts	1 025	1 025	1 025	1 025	2 650	2 650
Goodwill	2 353	2 634	3 610	4 089	4 344	4 420
Other intangible assets	4 762	4 542	4 333	4 230	4 484	4 445
TOTAL ASSETS	422 065	395 342	404 688	439 299	435 826	377 782
LIABILITIES						
Liabilities for investment contracts	55 627	51 439	61 761	69 507	68 855	57 456
Deposits received under ceded reinsurance contracts	512	612	994	910	970	857
Deferred front-end fees	5 429	5 177	5 173	5 372	5 124	4 560
Liabilities for insurance contracts	263 805	249 208	264 140	283 497	272 707	229 755
Obligations to repurchase securities	1 394	1 316	977	784	1 381	1 069
Other liabilities	15 993	14 321	16 567	17 992	16 009	18 017
Deferred tax liabilities	4 357	3 915	4 533	5 136	5 151	2 889
Liabilities held for sale	29 271	25 539	1 996	2 477	11 351	21 295
Senior debt	3 846	5 237	5 148	5 470	5 327	5 071
Subordinated debt	6 938	6 775	6 852	8 306	9 782	8 899
TOTAL LIABILITIES	387 172	363 540	368 139	399 453	396 656	349 868
EQUITY						
Share Capital	11	11	11	11	11	11
Additional paid-in capital	1 162	1 180	1 235	1 438	1 449	1 158
Net unrealized gains/(losses) on available-for-sale investme	3 078	649	3 985	5 701	3 670	- 6 980
Cash flow hedges	410	363	454	526	411	134
Cumulative foreign currency translation adjustment	- 8 762	- 9 676	- 9 553	- 8 698	- 9 633	- 10 824
Revaluation reserve	228	211	223	284	265	272
Retained earnings	36 936	37 452	38 649	39 016	41 707	42 863
Shareholders' equity	33 062	30 189	35 004	38 278	37 881	26 634
Non-controlling interests	1 831	1 613	1 545	1 568	1 289	1 279
TOTAL EQUITY	34 893	31 802	36 549	39 846	39 170	27 914
TOTAL LIABILITIES AND EQUITY	422 065	395 342	404 688	439 299	435 826	377 782

Appendix 2 - Income Statement

(In USD Millions, as of December 31)	2017	2018	2019	2020	2021	2022
Revenues						
Gross written premiums	46 685	47 038	48 056	48 221	53 185	56 118
Policy fees	2 429	2 447	2 469	2 334	2 592	2 730
Gross written premiums and policy fees	49 114	49 485	50 525	50 555	55 777	58 848
Less premiums ceded to reinsurers	- 7 977	- 8 255	- 9 274	- 9 988	- 10 970	- 11 747
Net written premiums and policy fees	41 136	41 230	41 251	40 567	44 806	47 101
Net change in reserves for unearned premiums	- 79	- 224	- 949	- 623	- 1 776	- 2 569
Net earned premiums and policy fees	41 057	41 006	40 302	39 944	43 031	44 532
Farmers management fees and other related revenues	2 892	3 204	3 780	3 703	4 265	4 490
Net investment income on Group investments	5 215	5 387	5 298	4 903	5 047	5 084
Net capital gains/(losses) and impairments on Group investments	2 034	901	2 093	2 047	2 038	- 951
Net investment result on Group investments	7 249	6 288	7 391	6 950	7 085	4 133
Net investment result on unit-linked investments	11 664	- 4 374	19 485	7 389	14 388	- 12 405
Net gains/(losses) on divestment of businesses	- 84	- 24	- 295	57	- 185	- 288
Other income	1 184	1 080	1 129	957	1 283	1 286
Total revenues	63 962	47 180	71 792	59 001	69 867	41 750
Benefits, losses and expenses						
Insurance benefits and losses, gross of reinsurance	34 894	33 483	33 620	35 899	34 470	34 576
Less ceded insurance benefits and losses	- 6 252	- 5 837	- 6 051	- 8 158	- 6 186	- 6 372
Insurance benefits and losses, net of reinsurance	28 643	27 646	27 570	27 741	28 284	28 204
Policyholder dividends and participation in profits, net of reinsurance	12 984	- 2 736	20 582	8 325	15 195	- 11 791
Underwriting and policy acquisitions costs, net of reinsurance	9 039	8 565	8 529	8 555	9 213	9 873
Administrative and other operating expense	7 212	7 761	8 020	8 006	8 794	8 665
Interest expense on debt	411	402	401	399	469	434
Interest credited to policyholders and other interest	546	433	590	581	591	403
Total benefits, losses and expenses	58 835	42 071	65 692	53 606	62 546	35 787
Net income before income taxes	5 125	5 110	6 100	5 395	7 321	5 962
of which: Attributable to non-controlling interests	459	400	356	339	332	457
Income tax (expense)/benefit	- 1 816	- 1 134	- 1 716	- 1 323	- 1 895	- 1 040
attributable to policyholders	- 171	183	- 365	- 46	- 275	239
attributable to shareholders	- 1 645	- 1 317	- 1 351	- 1 277	- 1 621	- 1 279
of which: Attributable to non-controlling interests	- 154	- 139	- 119	- 102	- 109	- 137
Net income after taxes	**3 309**	**3 976**	**4 384**	**4 071**	**5 425**	**4 923**
attributable to non-controlling interests	305	261	237	238	223	319
attributable to shareholder	3 004	3 716	4 147	3 834	5 202	4 603
in USD						
Basic earnings per share	20,02	25,10	28,01	25,85	34,99	31,01
Diluted earnings per share	19,90	24,83	27,69	25,56	34,66	30,77
in CHF						
Basic earnings per share	19,71	24,55	27,84	24,24	31,98	29,59
Diluted earnings per share	19,58	24,28	27,51	23,98	31,68	29,36

Appendix 3 - Cash Flow Statement

(In USD Millions, as of December 31)	2017	2018	2019	2020	2021	2022
Cash flows from operating activities						
Net income attributable to shareholders	3 004	3 716	4 147	3 834	5 202	4 603
Adjustments for						
Net (gains)/losses on divestment of businesses	84	24	295	-57	185	288
(Income)/expense from equity method accounted investments	-3	-1	-3	-3	4	4
Depreciation, amortization and impairments of fixed and intangible assets	936	898	967	911	849	804
Other non-cash items	519	128	248	558	-374	-125
Underwriting activities:	14 255	-8 726	19 597	8 029	16 033	-10 693
Liabilities for insurance contracts, gross	7 093	-1 547	11 073	7 594	9 485	-3 206
Reinsurers' share of liabilities for insurance contracts	-1 543	-744	-2 423	-2 105	-336	-234
Liabilities for investment contracts	7 760	-5 424	11 159	3 047	7 676	-5 720
Deferred policy acquisition costs	308	-1 506	-761	-627	-889	-886
Deferred origination costs	15	19	18	1	-38	-22
Deposits made under assumed reinsurance contracts	705	365	154	206	56	-521
Deposits received under ceded reinsurance contracts	-83	110	377	-87	79	-104
Investments:	-13 807	9 752	-20 390	-7 893	-17 857	12 307
Net capital (gains)/losses on total investments and impairments	-12 201	5 274	-20 006	-8 264	-14 918	14 609
Net change in derivatives	-229	-7	-347	42	432	-477
Net change in money market investments	-1 528	563	-584	-572	728	90
Sales and maturities						
Debt securities	71 794	62 303	54 248	47 775	42 492	51 589
Equity securities	52 590	65 915	61 018	57 137	53 695	53 190
Other	7 502	7 093	7 369	6 100	9 489	7 517
Purchases						
Debt securities	-71 521	-61 496	-56 272	-48 527	-48 958	-54 925
Equity securities	-53 753	-64 091	-59 392	-56 741	-51 580	-51 407
Other	-6 459	-5 801	-6 423	-4 842	-9 211	-7 879
Net changes in sale and repurchase agreements	24	-19	-361	-248	615	-266
Movements in receivables and payables	581	-1 103	718	609	-2 059	-2 055
Net changes in other operational assets and liabilities	-77	-294	-636	50	-75	644
Deferred income tax, net	-311	15	302	-89	646	-434
Net cash provided by/(used in) operating activities	5 207	4 388	4 884	5 701	3 167	5 079

Cash flows from investing activities						
Additions to tangible and intangible assets	-530	-1 152	-752	-552	-576	-572
Disposals of tangible and intangible assets	29	292	114	60	155	54
(Acquisitions)/disposals of equity method accounted investments, net	3	-17	-5	12	-38	-
Acquisitions of companies, net of cash acquired	-578	-465	-1 672	-26	-2 446	-328
Divestments of companies, net of cash divested	220	-13	108	8	16	155
Dividends from equity method accounted investments	1	1	1	1	2	-
Net cash provided by/(used in) investing activities	-856	-1 352	-2 206	-496	-2 886	-691
Cash flows from financing activities						
Dividends paid	-2 891	**-3 015**	-3 036	-3 232	-3 534	-3 767
Issuance of share capital	53	2				
Net movement in treasury shares	18	-957	-101	-241	-455	-770
Issuance of debt		3 079	1 398	2 015	2 664	2 551
Repayment of debt	-1 049	-1 566	-1 367	-1 024	-740	-3 067
Lease principal repayments			-196	-217	-227	-220
Net cash provided by/(used in) financing activities	-3 868	-2 457	-3 302	-2 672	-2 292	-5 273
Foreign currency translation effects on cash and cash equivalents	420	-319	41	666	-386	-290
Change in cash and cash equivalents	902	260	-583	3 199	-2 396	-1 174
Cash and cash equivalents as of January 1	7 948	8 850	9 110	8 527	11 726	9 330
Total cash and cash equivalents as of December 31	**8 850**	**9 110**	**8 527**	**11 726**	**9 330**	**8 155**
of which: Cash and cash equivalents	8 228	8 649	7 880	11 106	8 698	7 560
of which: Unit-linked	622	461	647	620	632	596
Other supplementary cash flow disclosures						
Other interest income received	4 783	4 851	4 830	4 479	4 676	4 927
Dividend income received	1 710	1 993	1 764	1 367	1 737	1 439
Other interest expense paid	-936	-883	-907	-928	-955	-890
Income taxes paid	-1 589	-1 598	-1 534	-1 406	-1 486	-1 469
Cash and cash equivalents						
Cash at bank and in hand	7 993	8 535	7 989	10 949	8 663	7 119
Cash equivalents	857	575	537	777	667	1 036
Total	**8 850**	**9 110**	**8 526**	**11 726**	**9 330**	**8 155**

Appendix 4 - Forecasted Balance Sheet

(In USD Millions, as of December 31)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
ASSETS										
Cash and cash equivalents	7 292	7 490	7 734	7 898	7 995	7 985	7 867	7 632	7 276	6 794
Total Group Investments	149 120	153 083	157 276	161 660	166 459	171 689	177 481	183 836	190 786	198 365
Equity Securities	11 379	9 725	8 219	6 899	5 795	4 929	4 316	3 966	3 887	4 082
Debt Securities	107 146	110 773	114 544	118 458	122 513	126 709	131 044	135 517	140 128	144 875
Investment Property	15 507	16 250	17 028	17 843	18 698	19 594	20 532	21 516	22 546	23 626
Mortgage loans	6 841	7 392	7 891	8 301	8 707	9 103	9 533	9 988	10 466	10 967
Other loans	8 124	8 777	9 370	9 857	10 340	10 809	11 321	11 860	12 428	13 024
Investments in associates and joint ventures	124	167	224	302	406	546	735	989	1 331	1 791
Investments for unit-linked contracts	110 573	114 873	119 710	125 097	137 607	151 367	166 504	183 154	201 470	221 617
Total Investments	259 693	267 956	276 986	286 757	304 066	323 057	343 985	366 991	392 256	419 982
Reinsurers' share of liabilities for insurance contracts	26 955	28 309	29 730	31 222	32 789	34 435	36 164	37 979	39 886	41 888
Deposits made under reinsurance contracts	751	790	823	839	856	873	890	908	926	945
Deferred policy acquisition costs	21 240	21 782	22 338	22 908	23 492	24 092	24 707	25 338	25 984	26 647
Deferred origination costs	442	454	465	477	490	502	515	529	542	556
Receivables and other assets	25 733	27 803	29 682	31 224	32 752	34 239	35 860	37 569	39 367	41 254
Deferred tax assets	1 359	1 402	1 449	1 500	1 591	1 690	1 799	1 920	2 052	2 197
Assets held for sale	10 254	21 574	10 676	10 889	11 107	11 329	23 112	11 556	11 787	12 023
Property and equipment	2 456	2 731	3 061	3 458	3 935	4 513	5 215	6 070	7 118	8 347
Attorney-in-fact contracts	2 650	2 650	2 650	2 650	2 650	2 650	2 650	2 650	2 650	2 650
Goodwill	5 064	5 803	6 648	7 618	8 728	10 000	11 458	13 128	15 042	17 235
Other intangible assets	3 726	4 037	4 381	4 763	5 303	5 916	6 614	7 409	8 315	9 348
TOTAL ASSETS	**367 615**	**392 779**	**396 623**	**412 203**	**435 754**	**461 282**	**500 836**	**519 678**	**553 202**	**589 866**
LIABILITIES										
Liabilities for investment contracts	51 730	53 376	55 175	57 121	60 569	64 352	68 521	73 103	78 136	83 659
Deposits received under ceded reinsurance contracts	725	748	773	801	849	902	960	1 025	1 095	1 173
Deferred front-end fees	4 870	5 123	5 334	5 441	5 550	5 661	5 774	5 890	6 007	6 127
Liabilities for insurance contracts	223 625	243 713	242 447	253 257	270 318	288 803	320 748	331 384	356 032	383 104
Obligations to repurchase securities	1 142	1 201	1 251	1 276	1 301	1 327	1 354	1 381	1 408	1 436
Other liabilities	17 709	18 630	19 397	19 785	20 180	20 584	20 996	21 416	21 844	22 281
Deferred tax liabilities	4 637	4 960	5 242	5 459	5 669	5 867	6 084	6 310	6 546	6 791
Liabilities held for sale	9 911	10 426	10 856	11 073	11 294	11 520	11 750	11 985	12 225	12 470
Senior debt	6 148	6 304	6 480	6 675	6 889	7 121	7 371	7 639	7 925	8 229
Subordinated debt	9 979	10 233	10 518	10 835	11 182	11 558	11 964	12 400	12 864	13 357
Total Debt	16 127	16 537	16 998	17 510	18 071	18 679	19 335	20 039	20 789	21 587
TOTAL LIABILITIES	**330 475**	**354 714**	**357 473**	**371 722**	**393 801**	**417 696**	**455 522**	**472 531**	**504 083**	**538 627**
EQUITY										
Share Capital	11	11	11	11	11	11	11	11	11	11
Additional paid-in capital	1 147	1 136	1 125	1 114	1 103	1 093	1 082	1 072	1 062	1 051
Net unrealized gains/(losses) on available-for-sale investme	1 501	1 579	1 644	1 676	1 710	1 744	1 779	1 815	1 851	1 888
Cash flow hedges	403	424	442	451	460	469	478	488	497	507
Cumulative foreign currency translation adjustment	- 12 163	- 13 142	- 14 030	- 14 759	- 15 481	- 16 184	- 16 950	- 17 758	- 18 608	- 19 500
Revaluation reserve	225	240	243	252	267	282	306	318	338	361
Retained earnings	44 553	46 318	48 174	50 141	52 231	54 455	56 823	59 345	62 033	64 902
Shareholders' equity	35 676	36 566	37 608	38 887	40 300	41 870	43 530	45 290	47 185	49 221
Non-controlling interests	1 463	1 499	1 542	1 595	1 652	1 717	1 785	1 857	1 935	2 018
TOTAL EQUITY	**37 139**	**38 066**	**39 150**	**40 481**	**41 953**	**43 587**	**45 314**	**47 147**	**49 119**	**51 239**
TOTAL LIABILITIES AND EQUITY	**367 615**	**392 779**	**396 623**	**412 203**	**435 754**	**461 282**	**500 836**	**519 678**	**553 202**	**589 866**

Appendix 5 - Forecasted Income Statement

(In USD Millions, as of December 31)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Revenues										
Gross written premiums and policy fees	65 258	71 287	76 595	80 684	84 649	88 397	92 512	96 838	101 366	106 083
Less premiums ceded to reinsurers	- 12 324	- 13 462	- 14 465	- 15 237	- 15 986	- 16 693	- 17 471	- 18 288	- 19 143	- 20 033
Net written premiums and policy fees	52 935	57 825	62 131	65 447	68 663	71 703	75 042	78 551	82 224	86 050
Net change in reserves for unearned premiums	- 2 930	- 3 249	- 3 544	- 3 789	- 4 035	- 4 276	- 4 543	- 4 826	- 5 128	- 5 447
Net earned premiums and policy fees	50 004	54 575	58 587	61 658	64 629	67 427	70 499	73 725	77 096	80 603
Farmers management fees and other related revenues	4 899	5 304	5 702	6 092	6 471	6 836	7 188	7 523	7 842	8 145
Net investment income on Group investments	5 015	4 959	4 917	4 887	4 869	4 864	4 871	4 890	4 921	4 965
Net capital gains/(losses) and impairments on Group investments	1 200	1 187	1 177	1 169	1 165	1 164	1 166	1 170	1 178	1 188
Net investment result on Group investments	6 215	6 146	6 093	6 056	6 034	6 028	6 036	6 060	6 099	6 153
Net investment result on unit-linked investments	4 897	5 386	5 925	6 517	7 169	7 886	8 675	9 542	10 496	11 546
Net gains/(losses) on divestment of businesses	- 157	- 165	- 172	- 175	- 179	- 182	- 186	- 190	- 194	- 198
Other income	1 150	1 152	1 155	1 158	1 160	1 163	1 166	1 169	1 171	1 174
Total revenues	67 007	72 399	77 291	81 306	85 285	89 158	93 377	97 828	102 511	107 423
Benefits, losses and expenses										
Insurance benefits and losses, gross of reinsurance	41 671	45 520	48 910	51 520	54 052	56 445	59 074	61 836	64 727	67 739
Less ceded insurance benefits and losses	- 8 209	- 8 967	- 9 635	- 10 149	- 10 648	- 11 120	- 11 637	- 12 182	- 12 751	- 13 345
Insurance benefits and losses, net of reinsurance	33 462	36 553	39 274	41 371	43 404	45 326	47 436	49 654	51 976	54 395
Policyholder dividends and participation in profits, net of reinsurance	3 910	3 988	4 068	4 149	4 232	4 317	4 403	4 491	4 581	4 672
Underwriting and policy acquisitions costs, net of reinsurance	10 924	11 933	12 821	13 506	14 169	14 797	15 486	16 210	16 968	17 757
Administrative and other operating expense	9 988	10 792	11 521	12 120	12 713	13 290	13 919	14 583	15 281	16 013
Interest expense on debt	490	502	516	532	549	567	587	608	631	655
Interest credited to policyholders and other interest	629	688	739	778	816	853	892	934	978	1 023
Total benefits, losses and expenses	59 402	64 455	68 940	72 455	75 884	79 149	82 723	86 480	90 414	94 516
Net income before income taxes	7 605	7 944	8 351	8 851	9 401	10 009	10 654	11 348	12 097	12 908
of which: Attributable to non-controlling interests	469	489	515	545	579	617	656	699	745	795
Income tax (expense)/benefit	- 1 797	- 1 877	- 1 974	- 2 092	- 2 222	- 2 366	- 2 518	- 2 682	- 2 859	- 3 051
attributable to policyholders	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 1	- 1
attributable to shareholders	- 1 797	- 1 877	- 1 973	- 2 092	- 2 222	- 2 365	- 2 518	- 2 682	- 2 859	- 3 050
of which: Attributable to non-controlling interests	- 151	- 158	- 166	- 176	- 187	- 199	- 211	- 225	- 240	- 256
Effective income tax	1 797	1 877	1 974	2 092	2 222	2 366	2 518	2 682	2 859	3 051
Net income after taxes	**5 807**	**6 066**	**6 377**	**6 759**	**7 179**	**7 643**	**8 136**	**8 666**	**9 238**	**9 857**
attributable to non-controlling interests	318	332	349	370	393	418	445	474	505	539
attributable to shareholder	5 490	5 734	6 029	6 390	6 787	7 225	7 691	8 192	8 733	9 318

Appendix 6 - Forecasted Cash Flow Statement

(In USD Millions, as of December 31)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Cash flows from operating activities										
Net income attributable to shareholders	5 490	5 734	6 029	6 390	6 787	7 225	7 691	8 192	8 733	9 318
Adjustments for										
Net (gains)/losses on divestment of businesses	157	165	172	175	179	182	186	190	194	198
(Income)/expense from equity method accounted investments	0	0	0	0	0	0	0	0	0	0
Depreciation, amortization and impairments of fixed and intangible asset:	1 063	1 149	1 227	1 290	1 354	1 415	1 482	1 553	1 627	1 705
Other non-cash items	98	105	113	118	124	130	136	142	149	156
Underwriting activities:	3 678	4 006	4 297	4 525	4 747	4 959	5 191	5 435	5 690	5 957
Liabilities for insurance contracts, gross	4 803	5 247	5 638	5 938	6 230	6 506	6 809	7 127	7 461	7 808
Reinsurers' share of liabilities for insurance contracts	-1 123	-1 227	-1 318	-1 389	-1 457	-1 522	-1 592	-1 667	-1 745	-1 826
Liabilities for investment contracts	871	941	1 004	1 056	1 108	1 158	1 213	1 271	1 332	1 396
Deferred policy acquisition costs	-954	-1 042	-1 119	-1 179	-1 237	-1 292	-1 352	-1 415	-1 481	-1 550
Deferred origination costs	-5	-6	-6	-7	-7	-7	-7	-8	-8	-9
Deposits made under assumed reinsurance contracts	23	25	26	28	29	30	32	33	35	36
Deposits received under ceded reinsurance contracts	64	69	73	77	81	85	89	93	97	102
Investments:	-3 933	-4 011	-4 289	-4 626	-4 935	-5 267	-5 615	-5 975	-6 343	-6 716
	-255	-5	8	-101	-188	-308	-424	-540	-652	-759
Net capital (gains)/losses on total investments and impairments	-2 858	-2 802	-2 747	-2 693	-2 640	-2 588	-2 538	-2 488	-2 439	-2 391
Net change in derivatives	-71	-1	-1	-1	-2	-2	-2	-3	-4	-4
Net change in money market investments	45	82	41	-21	-25	-30	-35	-43	-51	-61
Sales and maturities										
Debt securities	51 317	51 046	50 777	50 510	50 243	49 979	49 715	49 453	49 192	48 933
Equity securities	50 430	47 879	45 517	43 328	41 297	39 409	37 652	36 016	34 490	33 065
Other	7 514	7 514	7 514	7 514	7 514	7 514	7 514	7 514	7 514	7 514
Purchases										
Debt securities	-54 799	-54 674	-54 548	-54 423	-54 299	-54 174	-54 050	-53 926	-53 803	-53 679
Equity securities	-48 679	-46 225	-44 011	-42 009	-40 193	-38 543	-37 039	-35 667	-34 411	-33 260
Other	-6 831	-6 831	-6 831	-6 831	-6 831	-6 831	-6 831	-6 831	-6 831	-6 831
Net changes in sale and repurchase agreements	175	175	175	175	175	175	175	175	175	175
Movements in receivables and payables	-778	-778	-778	-778	-778	-778	-778	-778	-778	-778
Net changes in other operational assets and liabilities	-62	206	206	206	206	206	206	206	206	206
Deferred income tax, net	92	96	101	107	113	121	129	137	146	156
Net cash provided by/(used in) operating activities	5 979	6 848	7 252	7 582	7 972	8 368	8 802	9 277	9 799	10 377
Cash flows from investing activities										
Additions to tangible and intangible assets	-721	-793	-872	-959	-1 055	-1 161	-1 277	-1 405	-1 545	-1 700
Disposals of tangible and intangible assets	126	139	153	168	185	204	224	246	271	298
(Acquisitions)/disposals of equity method accounted investments, net	-10	0	10	20	30	40	50	60	70	80
Acquisitions of companies, net of cash acquired	-987	-1 037	-1 089	-1 143	-1 200	-1 260	-1 323	-1 389	-1 459	-1 532
Divestments of companies, net of cash divested	-163	-171	-179	-188	-198	-208	-218	-229	-240	-252
Dividends from equity method accounted investments	1	1	1	2	-	1	1	1	2	-
Net cash provided by/(used in) investing activities	-1 753	-1 860	-1 976	-2 100	-2 238	-2 384	-2 543	-2 715	-2 901	-3 105
Cash flows from financing activities										
Dividends paid	-4 117	-4 301	-4 521	-4 792	-5 090	-5 419	-5 768	-6 144	-6 549	-6 988
Issuance of share capital		4,7								
Net movement in treasury shares	-505	-555	-611	-672	-739	-813	-894	-984	-1 082	-1 190
Issuance of debt	2 157	2 251	2 350	2 453	2 560	2 672	2 789	2 911	3 039	3 172
Repayment of debt	-1 842	-1 888	-1 941	-2 000	-2 064	-2 133	-2 208	-2 288	-2 374	-2 465
Lease principal repayments	-222	-223	-225	-227	-229	-230	-232	-234	-236	-237
Net cash provided by/(used in) financing activities	-4 528	-4 712	-4 948	-5 238	-5 561	-5 923	-6 313	-6 739	-7 202	-7 709
Foreign currency translation effects on cash and cash equivalents	-62	-65	-67	-69	-70	-72	-73	-74	-76	-77
Change in cash and cash equivalents	-364	211	260	176	103	-10	-127	-251	-380	-515
Cash and cash equivalents as of January 1	8 155	7 791	8 003	8 263	8 439	8 542	8 532	8 405	8 154	7 774
Total cash and cash equivalents as of December 31	**7 791**	**8 003**	**8 263**	**8 439**	**8 542**	**8 532**	**8 405**	**8 154**	**7 774**	**7 258**
of which: Cash and cash equivalents	7 292	7 490	7 734	7 898	7 995	7 985	7 867	7 632	7 276	6 794
of which: Unit-linked	499	512	529	540	547	546	538	522	498	465

Appendix 7 - Relevant Ratios and Indicators

	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
% Change in Gross Written Premiums & Policy Fees	10,89%	9,24%	7,45%	5,34%	4,91%	4,43%	4,66%	4,68%	4,68%	4,65%
% Change in Net Income	17,99%	4,46%	5,13%	5,99%	6,22%	6,46%	6,45%	6,51%	6,60%	6,70%
Return on Equity	15,64%	15,94%	16,29%	16,70%	17,11%	17,54%	17,95%	18,38%	18,81%	19,24%
		1,91%	2,22%	2,50%	2,49%	2,47%	2,39%	2,37%	2,32%	2,29%
Net Income	5 807	6 066	6 377	6 759	7 179	7 643	8 136	8 666	9 238	9 857
Gross Written Premium & Policy Fees	64 245	70 483	75 621	80 177	84 401	88 515	92 562	96 879	101 429	106 196
Net Margin compared to GWP	9,04%	8,61%	8,43%	8,43%	8,51%	8,64%	8,79%	8,95%	9,11%	9,28%
Net Margin compared to Total Revenues	8,67%	8,38%	8,25%	8,31%	8,42%	8,57%	8,71%	8,86%	9,01%	9,18%
Forecasted GDP	3,00%	3,00%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%

	2018	2019	2020	2021	2022
Net Margin compared to GWP	8,03%	8,68%	8,05%	9,73%	8,36%
Increase in GWP		2,10%	0,06%	10,33%	5,51%
Increase in Net Income		10,26%	-7,12%	33,25%	-9,29%
Return on Equity	12,50%	11,99%	10,22%	13,85%	17,63%
Gross Written Premium	49485	50525	50555	55777	58848
Net Written Premium	41230	41251	40567	44806	47101
GDP	3,30%	2,60%	-3,10%	6,00%	3,10%
Population Growth	1,06%	1,04%	1,03%	0,90%	0,76%
Inflation	2,40%	2,20%	1,90%	3,50%	8,30%
Net Income	3976	4384	4072	5426	4922

Appendix 8 - Annual growth of gross premium per region, Short-Term Targets and Strategy

	2017	2018	2019	2020	2021	2022
Zurich's % Change of Gross Written Premium and Policy Fees	-	2,10%	0,06%	10,33%	5,51%	10,89%
Life	-	2,75%	-7,85%	0,24%	-7,36%	8,59%
Property & Casualty	-	2,93%	3,92%	12,97%	7,78%	11,40%
Annual global growth of gross premiums *Source:OECD Global Insurance Statistics*						
Global Life	3,70%	2,50%	4,70%	-3%	7,30%	-4,50%
Global Property & Casualty	2%	3,50%	3,60%	0,60%	1,70%	5,80%
EMEA Gross Written Premiums and Policy Fees	-	-	-2,25%	2,07%	6,97%	-4,18%
EMEA Property & Casualty	-	-	-0,29%	8,80%	12,66%	-0,22%
EMEA Life	-	-	-5,09%	-8,14%	-3,26%	-12,49%
North America Gross Written Premiums and Policy Fees	-	-	3,71%	5,46%	13,51%	15,15%
NA Property & Casualty	-	-	3,45%	5,34%	13,69%	15,37%
NA Life	-	-	13,27%	9,54%	7,52%	7,73%
Asia Pacific Gross Written Premiums and Policy Fees	-	-	20,01%	4,52%	9,54%	1,87%
APAC Property & Casualty	-	-	6,02%	-3,43%	10,15%	7,51%
APAC Life	-	-	49,02%	16,25%	8,79%	-5,12%
Latin America Gross Written Premiums and Policy Fees	-	-	6,26%	-23,05%	7,89%	7,74%
LA Property & Casualty	-	-	6,18%	-19,92%	12,61%	9,85%
LA Life	-	-	6,33%	-25,98%	3,09%	5,40%

Targets 2023-2025
BOPAT ROE in excess of 20% by 2025
Swiss Solvency Test Ratio above 160%
Net Cash Remittances above 13.5 bn USD
Unchanged dividend policy - payout of around 75%
Compound growth in EPS of at least 8% per annum

Strategy
Grow Property & Casualty margins
Grow profits in Life business
Maintain mid-single-digit growth rates in Farmers' revenues
Strong focus on innovating to meet customers' needs starting in 2020
Digitalizing agent channel
Improve group's investments

Appendix 9 - Income Statement Assumptions

	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Global Inflation	2,20%	2,40%	2,20%	1,90%	3,50%	8,30%	6,80%	5,20%	4,12%	2,00%	2,00%	2,00%	2,00%	2,00%	2,00%	2,00%

Using historic values from World Bank data and forecasted values of 2023 and 2024 from International Monetary Fund forecast. 2025 value is calculated through the average decreasement of 2023 and 2024. 2026+ is 2% as it is the fed target.

	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Pay-out ratio							75%	75%	75%	75%	75%	75%	75%	75%	75%	75%

Target pay-out in Zurich's strategy and is planned to remain unchanged in future years.

	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Global GDP						3,50%	3,00%	3,00%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%	3,10%

2023 and 2024 values taken from International Monetary Fund forecast. For 2024+ Global GDP, I decided to forecast as 3,1% because from 1970 to 2021 and also from 2000 to 2021 Global GDP growth averaged 3,6%. Being slightly more conservative considering today's world state.

INCOME STATEMENT ASSUMPTIONS

EMEA Gross Written Premiums and Policy Fees	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Property & Casualty							3,00%	3,20%	3,20%	3,20%	3,20%	2,50%	2,50%	2,50%	2,50%	2,50%
Life							1%	1,90%	1,90%	1,90%	1,90%	1,90%	1,90%	1,90%	1,90%	1,90%

EMEA's P&C tends to be slightly higher than the GDP Growth, except in 2019 which was an irregularity mainly due to Covid. In 2020, 2021 and 2022 (after starting the strong focus on innovating costumers' needs) it changed 12,66%, -0,22% and 6,8% respectively which I don't expect it to be a sustainable growth rate. While before 2019, it grew hand-to-hand with the GDP Growth, slightly higher as mentioned before. Knowing this I forecasted a growth of 3% in 2023, dropping to half considering 2022's value, and 3,2%, almost matching the forecasted GDP growth until 2028 achieving maturity and 2,5% in the following years.

EMEA's Life growth rate has been negative since 2018, independent of negative or positive, high or low absolute values of GDP Growth showing that the group has difficulties regarding EMEA's Life sector. It is one of the goals of the group to improve Life's profit, and EMEA plays a huge part in it so an attempt to grow EMEA's Life is expected, although I expected this growth to be slow. Considering this I forecasted a value of 1% growth in 2023 and from then on a growth rate of 1,9% (1,3% lower than GDP Growth).

North America Gross Written Premiums and Policy Fees	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Property & Casualty						6,40%	10,00%	6%	4%	4%	3,30%	3,30%	3,30%	3,30%	3,30%	3,30%
Life							6,19%	6,19%	5,57%	2,33%	2,33%	2,33%	2,33%	2,33%	2,33%	2,33%

Zurich has been investing in **NA's P&C** having generous growth rate the past 2 years, even in Covid times. It's expected that the group can't maintain this growth for long and that it'll stabilize in the long-term to a rate more similar to the GDP Growth. Considering this I forecasted a growth rate of 10% in 2023, decreasing 40% to 6% in 2024 and then a more stable growth rate of 4% until 2026 when it will stabilize to a growth rate of 3,3%.

The group has also heavily invested in increasing their market share in **NA's Life** which is obvious by just looking at the recent growth rates. They've been decreasing as it is impossible to maintain double digits growth rates and it's expected to keep decreasing until it's stable when compared to GDP Growth rate, even then I still expected the next few years to have a rate above the GDP Growth rate.

Asia Pacific Gross Written Premiums and Policy Fees	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Property & Casualty						7,51%	5,01%	4,00%	3,10%	3,10%	2,48%	2,48%	2,48%	2,48%	2,48%	2,48%
Life						18,52%	9,26%	6,17%	3,09%	2,31%	2,31%	2,31%	2,31%	2,31%	2,31%	2,31%

Zurich has been heavily focusing on expanding in the Asian market as the opportunities are endless, the group has mentioned it recently even after having considerably high rates in the past years. For **APAC's P&C** I expect the future near years to keep having higher rates until it stabilizes. The main focus isn't in the P&C sector so it's not expected huge rates, just a continuation of the trend that's been happening until it stabilizes.

On the other hand, **APAC's Life** has endless possibilities and it's been growing at an enormous rate and it's expected that the group will keep looking to keep these growth rates for the next few years. Although, again, it isn't a sustainable growth rate in the long-term.

Latin America Gross Written Premiums and Policy Fees	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Property & Casualty						-3,65%	-2,92%	-2,34%	-0,38%	-0,45%	-0,54%	-0,65%	-0,78%	-0,94%	-0,94%	-0,94%
Life						-5,52%	-3,68%	-1,84%	-0,55%	0,45%	0,49%	0,54%	0,60%	0,66%	0,72%	0,79%

With this we have the following growth in Revenues

(In USD Millions, as of December 31)	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Gross written premiums and policy fees	49114	49485	50525	50555	55777	58 848	65 258	71 287	76 595	80 684	84 649	88 397	92 512	96 838	101 366	106 083
% change of gross written premium and policy fees		0,76%	2,10%	0,06%	10,33%	5,51%	10,89%	9,24%	7,45%	5,34%	4,91%	4,43%	4,66%	4,68%	4,68%	4,65%
Damoradan's Expected Growth in Revenues next 2 years (January 2023)						***17,00%***										

Although both in **LA'S P&C and Life** there's a huge market to be explored, it is also a highly volatile and risky market to invest in. The culture is very strong and prevents an easy penetration while also creating a lot of issues when something unexpected happens (pandemic, natural catastrophe, riots, etc.) so I don't expect this market to be successful or even grow in the near future. It's possible that in the long-term it stabilizes and is able to grow close to the GDP growth but it's not something the group should rely on even if they invest and look to gain market share in the region.

Group Reinsurance Gross Written Premiums and Policy Fees has constantly been growing at a steady rate when considered as percentage of total gross written premiums so that's the assumption used.

Others (Eliminations, Farmers, Group Functions and Non-Core Businesses) has been decreasing (with the exception of 2022, which saw an increase while the amount was still negative), even reaching negative results even with the attempts of the group to reestructure its functions and non-core businesses and maintaining single-digit growth rates in Farmers' revenues and improve its profitability. So the assumption used is that it'll stay negative and is calculated considering an average of the past 4 years.
Premiums ceded to reinsurers was forecasted using it's average weight as % of Gross Written Premiums and Policy Fees of the past 5 years.

Net change in reserves for unearned premiums was forecasted using it's weight as % of Gross Written Premiums and Policy Fees. It has been consistently decreasing or stale the past few years so I considered a 1,5% decrease every year.

Farmers management fees and other related revenues was forecasted using the average growth rate of the past 4 years for 2022, and decreasing 10% per year.

Net investment income on Group investments was forecasted using the average growth rate of the past 4 years for 2022, and increasing 0,25% per year in the following years.
Net capital gains/(losses) and impairments on Group investments was forecasted using the the average weighted percentage of the past 5 years compared to Net Investment Income on Group investments.

Net investment result on unit-linked investments is assumed to go up 10% each year on average. This is mainly due to Zurich's strong focus on improving its investments over the next few years and building a stable income from it. It's been relatively unstable in previous year with an average of 90% growth rate in the past 5 years so I assumed a 10% yearly increase. Even though it seems way too conservative because these past years have been unstable as well. These past 5 years have growth values of 500% but also -140% which don't represent stable and sustainable values for the future. The starting value for 2023 is the average value for the past 5 years.

Net gains/(losses) on divestment of businesses was forecasted using the average of the past 5 years adjusted with forecasted inflation.
Other income was forecasted using the the growth of 2022 and starting with the forecasted value for 2023 of 1150 (average of the past 5 years)

Insurance benefits and losses, gross of reinsurance was forecasted using its average weighted percentage of the past 3 years when compared to Gross Written Premiums and Policy Fees.
Less ceded insurance benefits and losses was forecasted using it's average weighted percentage of the past 3 years when compared to Insurance benefits and losses, gross of reinsurance
Policyholder dividends and participation in profits, net of reinsurance was forecasted using the average values of the past 3 years for 2023 and a growth rate of 2% in the foreseeable future.

Underwriting and policy acquisitions costs, net of reinsurance was forecasted using its average weighted percentage of the past 3 years related to Gross Written Premiums and Policy Fees
Administrative and other operating expense was forecasted using its average weighted percentaged of the past 5 years related to Total Revenues.
Interest expense on debt was forecasted using the average cost of debt of the past 3 years multiplied by total debt.
Interest credited to policyholders and other interest was forecasted using its average weighted percentange of the past 3 years related to Gross Written Premiums and Policy Fees
Effective income tax was forecasted using the average % of income tax in the past 5 years.

Appendix 10 - Statement of Cash Flow Assumptions

STATEMENT OF CASH FLOW ASSUMPTIONS

Depreciation, amortization and impairments of fixed and intangible assets was forecasted using the average weighted percentage related to total revenues of the last 5 years as a size indicator

Other non-cash items was forecasted using the average weighted percentage related to total revenues of the last 5 years

Liabilities for insurance contracts, gross was forecasted using the average weighted percentage of the last 5 years related to gross written premiums and policy fees.

Reinsurers' share of liabilities for insurance contracts was forecasted using the average weighted percentage related to total gross written premium and policy fees of the last 3 years.

Liabilities for investment contracts was forecasted using the average weighted percentage related to total of the past 5 years.

Deferred policy acquisitions costs and Deposits made under assumed reinsurance contracts were forecasted using the average weighted percentage related to total gross written premium and policy fees of the past 3 years. (Excluding 2018 as it don't belong in the pattern)

Deferred origination costs and deposits receives under ceded reinsurance contracts were forecasted using the average weighted percentage related to total revenues of the past 5 years.

Net capital (gains)/losses on total investments and impairments is assumed to steadily increase 2% each year until it finally brings stable positive returns to the Group. This is due to the groups strategy on focusing on improving their investments in the foreseeable future.

Net change in money market investments and net change in derivatives are assumed to drop in 2022 due to World Events and steadily go up to positive returns over the years growing at a steady rate.

Debt securities were forecasted using the average growth rate of the past 3 years.

Equity securities were forecasted using the average growth rate of the past 4 years as they've been steadily decreasing. I've made the assumption that it'll increase its' growth rate 2,5% yearly becoming less and less negative over the years, mainly due to 2022 having a considerable increase in the average growth rate.

Others are assumed to stay around the average of the values they took in the past 5 years as they've been dropping and increasing over the years independent of results, revenue growth or macroeconomics changes.

Debt securities are assumed to keep slightly dropping as they've been in the past. In most recent years they actually had positive growth rates but using the average of the past 3 years we still have a negative growth rate of 0,23% which is the value used.

Equity securities were forecasted using the average growth rate of the past 4 years as they've been steadily decreasing. The growth rate, however, is becoming less and less negative. So I considered a increase of 5% yearly in the growth rate, leaving us with a growth rate still negative even in 2032 but leaning towards 0 as years go by.

Others are assumed to stay around the average of the values they took in the past 5 years as they've been dropping and increasing over the years independent of results, revenue growth or macroeconomics changes.

Net changes in sale and repurchase agreements, movements in receivables and payables, net changes in other operational assets and liabilities were forecasted using the average values of the past 2 years.

Deferred income tax, net was forecasted using the weighted average percentage of net income attributed to shareholders of the past 5 years.

Additions to tangible and intangible assets and **acquisitions of companies** were forecasted for 2023 using the average of the values of the past 5 years. For the following years, as the group grows, so does the addition by 10% each year.

Disposals of tangible and intangible assets and **divestment of companies** were forecasted by using the average % of the past years of disposals compared to additions/acquisitions.

Issuance of Debt was forecasted using the average debt issued the past 5 years for 2023 and the following years using the growth rate of debt issued from 2018 to 2022 on the value obtained for 2023 since as the group grows so does its need for debt for new investments/needs.

Repayment of Debt was forecasted using the % of debt paid per year in the previous years compared to total debt.

Appendix 11 - Balance Sheet Assumptions

BALANCE SHEET ASSUMPTIONS

ASSETS

Investments in associates and joint ventures was forecasted using the average growth rate of the past 3 years.

Investments for unit-linked contracts was forecasted using the forecasted net result on investments for unit-linked contracts in the Income Statement and dividing the net result by the average % of net result compared to total investments from the previous 4 years. For 2023 we used 85% of the average and it increases 5% until it reaches the true average value. This is mainly because of uncertain results in the past, 2018 and 2022 were negative while the rest were positive.

Mortgage loans and Other loans were forecasted using it's average % relative weight compared to total revenues.

Investment Property was forecasted using the average growth rate of the past 5 years.

Reinsurers' share of liabilities for insurance contracts was forecasted using the average growth rate of the past 5 years, although it has been decreasing over the years it's expected that the group can manage better for the future and return to positive growth rate.

Deposits made under reinsurance contracts has been steadily decreasing at an average rate of 25% except in 2022. For 2023 we assumed the average value of the past years, and for future years the value stayed the same but adjusted to the forecasted inflation.

Deferred policy acquisition costs and origination costs were forecasted using the average growth rate of the past 4 years.

Receivables and other assets was forecasted using it's average weighted % of total revenues of the past 3 years because the group doesn't comment on any strategy regarding Receivables and it doesn't show any pattern in recent years but its' values are always between 27-39% except in 2022 where it reached 52%.

Deferred tax assets were forecasted using the average % of total investments of the past 3 years.

Assets held for sale is volatile because the group signed multiple big deals in 2017, 2018 and 2021. In 2021 the group had agreements signed to sell Zurich International Life Limited, Zurich Investments Life and Zurich Insurance Spain. These types of deals won't be happening regularly year after year so ignoring 2017 and using 2 years with big deals and 2 years with not so relevant deals we used the average of the past 4 years to forecast adjusted for inflation. From 5 to 5 years I've assumed a 100% increase in the original value related to a new acquisition by the Group as it is one of their main strategies

Property and equipment was forecasted using the 30% of its average growth rate over the past years. The 30% will grow 2,5% each year.

Attorney-in-fact contracts has gone up by a lot in 2021 due to additions and acquisitions of the business Farmers. The group has reported that they intend to maintain Farmers constant as it is for the next few years so it's expect to not change.

Goodwill was forecasted using the average growth rate of the past years.

Other intangible assets was forecasted using the its average % of total investment from the past 5 years with a 5% increase each year.

LIABILITIES

Liabilities for investment contracts was forecasted using the its average % of total investment from the past 5 years.

Deposits received under ceded reinsurance contracts was forecasted using the its average % compared to liabilities for investment contracts.

Liabilities for insurance contracts were forecasted using the multiplier related to total gross written premium of the past year. Even though it's expected by some to have more liabilities related to insurance contracts in the future years that's been a "statement" for a few years and the multiplier has remained relatively stable and even significantly decreased in 2021 and 2022 hence why I used that multiplier with certain adjustments year to year.

Obligations to repurchase securities and deferred front-end fees were forecasted using the average value of the past 5 years, inflation adjusted.

Other liabilities

Deferred tax liabilities was forecasted through the % of total revenue. The value of 2022 and showing a decrease of 1% each year in % of total revenue yearly.

Liabilities held for sale are also volatile so we used the average of the past 5 years but adjusted yearly according to the forecasted inflation.

EQUITY

Additional paid-in capital was forecasted using the average growth rate of the past 4 years.

Net unrealized gains/(losses) on available-for-sale investments and Cash flow hedges were forecasted using the average value of the past 5 years, inflation adjusted.

Revaluation reserve is used with the purpose of maintaining a reserve account tied to certain assets, we used the average % of total assets to forecast.

Non-controlling interests was forecasted using it's average % compared to total shareholders' equity of the past 3 years.

Appendix 12 - Cost of Equity Assumption

We'll use **Capital Asset Pricing Model (CAPM)** to estimate the **Cost of Equity (Ke)**

*Ke = Risk free rate + Beta * (Market Rate of Return - Risk Free Rate) or Ke = Risk free rate + Beta * (Market Risk Premium)*

Zurich's Levered Beta (5Y Monthly)	0,65
Average Levered Beta of Insurance Industry *by Damodaran*	**1,23**

- We'll use the average levered beta of the Insurance Industry because over the years is likely that the group's beta will tend to reach values closer to the industry's average beta.

10Y Government Bond Yields - Values taken from Bloomberg (24-08-2023)

North America - 35% of total gross written premium comes from North America (mainly US)	
US	4,20%
Latin America - 9% of total gross written premium comes from Latin America, mainly Brazil, Mexico	
Brazil	11,09%
Mexico	9,21%
Average	10,15%
EMEA - 46% of total gross written premium comes from EMEA, mainly Germany, Italy, Spain, France and Switzerland	
Germany	2,50%
France	3,03%
Italy	4,16%
Spain	3,53%
Switzerland	0,94%
Average	2,83%
Asia Pacific - 10% of total gross written premium comes from APAC, mainly Australia, Hong Kong, Indonesia, Japan and Malaysia	
Japan	0,64%
Australia	4,11%

For the risk free rate we'll use an average between Switzerland's and Germany's risk free rate.

Rf rate	**2,59%**

Market Risk Premium *by Damodaran*

North America - 39% of total gross written premium comes from North America (mainly US)	
US	5,94%
Latin America - 9% of total gross written premium comes from Latin America, mainly Brazil, Mexico	
Brazil	11,13%
Mexico	9,23%
Average	10,18%
EMEA - 42% of total gross written premium comes from EMEA, mainly Germany, Italy, Spain, France and Switzerland	
Germany	5,94%
France	6,79%
Italy	9,73%
Spain	8,70%
Switzerland	5,94%
Average	0,0742
Asia Pacific - 10% of total gross written premium comes from APAC, mainly Australia, Hong Kong, Indonesia, Japan and Malaysia	
Japan	7,16%
Australia	5,94%
Hong Kong	6,97%
Indonesia	9,23%
Malaysia	8,01%
Average	7,46%

Market Risk Premium	**7,10%**
Ke	**11,32%**

Appendix 13 - DDM Valuation

Dividend Discount Model is one of the most, if not the most, reliable model for most insurance companies seen as they have a constant dividend pay-out ratio, a stable beta over time close to 0.8, stable growth and a goal of a certain dividend % growth.

# Outstanding shares December 2022	150 460 167
Pay-out ratio	75%
Cost of Equity (Ke)	11,32%
Average Growth Rate	6,05686117024850000%
Compound EPS Growth Rate	**5,43%**
Beta	1,23

			1	2	3	4	5	6	7	8	
	1	2	3	4	5	6	7	8	9	10	
in USD	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	Terminal Value
Net income attributable to Shareholders	**5 489 792 729**	**5 734 490 803**	**6 028 596 921**	**6 389 538 688**	**6 786 676 948**	**7 225 270 602**	**7 691 092 622**	**8 192 095 192**	**8 732 600 641**	**9 317 811 619**	
Earnings per Share (EPS)	36,49	38,11	40,07	42,47	45,11	48,02	51,12	54,45	58,04	61,93	
Dividend per Share (DPS)	27,37	28,58	30,05	31,85	33,83	36,02	38,34	40,84	43,53	46,45	
Growth rate		*4,46%*	*5,13%*	*5,99%*	*6,22%*	*6,46%*	*6,45%*	*6,51%*	*6,60%*	*6,70%*	
Present Value (PV)	**24,58**	**23,07**	**21,79**	**20,74**	**19,79**	**18,93**	**18,10**	**17,32**	**16,59**	**336,59**	*936,77*

STOCK PRICE USING DDM	**469,85**	*USD*	
31-12-2022 USD-CHF Rate	*1 USD =*	*0,9245*	*CHF*
Stock Price 31-12-2022	*442,30*	*CHF*	
Stock Price 07-09-2023	*413,60*	*CHF*	
STOCK PRICE IN CHF USING DDM	*434,38*		
Possible upside movement of:	5,02%		

Compound EPS Growth Rate	**5,43%**	**The group has a goal of reaching 8% Compound EPS Growth which I think is irrealistic and hard to reach. With the assumptions made in this Equity Research we've reached the value of a Compound EPS growth rate of 5,43% which is 2,57% below Zurich's goals.**

Appendix 14 - Residual Income Valuation

(In USD Millions, as of December 31)	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Net Income		5 807	6 066	6 377	6 759	7 179	7 643	8 136	8 666	9 238	9 857
Growth rate			*4,46%*	*5,13%*	*5,99%*	*6,22%*	*6,46%*	*6,45%*	*6,51%*	*6,60%*	*6,70%*
Equity	27913,0	37139,2	38065,8	39150,3	40481,3	41952,6	43586,7	45314,5	47147,0	49119,3	51238,8
Residual Income		2 648,95	1 863,82	2 070,10	2 329,20	2 598,71	2 896,20	3 204,07	3 538,55	3 902,97	4 298,87
PV		2 380	1 504	1 501	1 517	1 520	1 522	1 513	1 501	1 487	3 562
Terminal Value											86 702,66
											29 681,25
TOTAL		**2 380**	**1 504**	**1 501**	**1 517**	**1 520**	**1 522**	**1 513**	**1 501**	**1 487**	**33 243**

Cost of Equity	11,32%
Growth Rate	6,06%
Persistent Factor	0,7

Equity Value	71 718		
Shares outstanding *(in Millions)*	150,1		
31-12-2021 USD-CHF Rate	*1 USD =*	*0,9245*	*CHF*
Estimated price	477,80	*USD*	
Price 31-12-2022	**442,30**	*CHF*	
Price 07-09-2023	**413,60**	*CHF*	
Estimated price in CHF	**441,73**	*CHF*	
% Change	*6,80%*		

Appendix 15 - Multiples Valuation

	Zurich	AXA	Allianz	Generali	Chubb	MetLife	AIG	Swiss Life Holding AG	Swiss Re
Price 31-12-2022 *(CHF, EUR, EUR, EUR, USD, USD, USD, C*	442,30	26,06	200,90	16,61	220,60	72,37	63,24	476,80	86,48
Price USD 31-12-2022	478,42	27,95	215,49	17,82	220,60	72,37	63,24	515,74	93,54
Closing Price 07-09-2023	447,38	29,53	237,32	20,40	204,64	62,77	59,62	598,73	95,71
Assets in B USD 31-12-2022	377,78	747,29	1 095,68	556,74	199,12	666,61	526,63	236,18	184,61
Liabilities in B USD 31-12-2022	349,87	695,40	1 036,43	537,28	148,58	639,32	484,40	225,06	170,76
Outstanding shares in B 31-12-2022	0,150	2,30	0,41	3,10	0,42	0,81	0,79	0,03	0,32
Market Cap (B)	67,11	67,86	96,42	63,14	86,77	50,78	46,98	17,67	30,39
Sales *(USD, EUR, EUR, EUR, USD, USD, USD, CHF, CHF)*	41,430	93,08	114,30	76,76	43,12	69,90	56,54	21,27	46,04
Sales USD	41,430	99,84	122,60	82,33	43,12	69,90	56,54	23,01	49,80
Per-share book value	186,07	22,58	145,83	6,29	119,20	33,73	53,60	376,85	43,64
Net income in USD B 31-12-2022	4,60	6,49	6,62	2,91	5,31	2,35	10,25	1,57	0,47
Earnings per share (EPS)	30,69	2,83	16,29	0,94	12,53	2,91	13,00	53,10	1,49
Price to Earnings per share (P/E)	**14,58**	**10,45**	**14,57**	**21,68**	**16,33**	**21,57**	**4,58**	**11,28**	**64,38**
Price to Sales (P/S)	**16,20**	**6,80**	**7,86**	**7,67**	**20,12**	**7,27**	**8,31**	**7,68**	**6,10**

Zurich's group stock price using:	*% Change compared to real pr (if we include more players in the sector)*			
P/E Price Target	492,30	10,04%	632,31	41,34%
P/S Price Target	449,14	0,39%	371,87	-16,88%
Average	**470,72**	**5,22%**	**502,09**	**12,23%**
In CHF	*435,18*	***In CHF***	*464,18*	

31-12-2022 USD-CHF Rate	*1 USD =*	*0,9245*	*CHF*
31-12-2022 USD-EUR Rate	*1 USD =*	*0,9323*	*EUR*

= Comparable

Appendix 16 - DDM Valuation using Zurich's goal of 8% compound growth rate

Using Zurich's 8% target Compound EPS Growth Rate with all other variables constant we'd have the following results: 8%

	1	2	3	4	5	6	7	8	9	10	
in USD	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**	**2027F**	**2028F**	**2029F**	**2030F**	**2031F**	**Terminal Value**
Net income attributable to Shareholders	**5 489 792 729**	**5 734 490 803**	**6 028 596 921**	**6 389 538 688**	**6 786 676 948**	**7 225 270 602**	**7 691 092 622**	**8 192 095 192**	**8 732 600 641**	**9 317 811 619**	
Earnings per Share (EPS)	36,49	38,11	40,07	42,47	45,11	48,02	51,12	54,45	58,04	61,93	
Dividend per Share (DPS)	27,37	28,58	30,05	31,85	33,83	36,02	38,34	40,84	43,53	46,45	
Growth rate		*4,46%*	*5,13%*	*5,99%*	*6,22%*	*6,46%*	*6,45%*	*6,51%*	*6,60%*	*6,70%*	
Present Value (PV)	**24,58**	**23,07**	**21,79**	**20,74**	**19,79**	**18,93**	**18,10**	**17,32**	**16,59**	**533,86**	*1 513,04*

STOCK PRICE USING DDM WITH G = 8%	**645,34**	*USD*	
31-12-2022 USD-CHF Rate	*1 USD =*	*0,9245*	*CHF*
Stock Price 07-09-2023	*413,60*	*CHF*	
STOCK PRICE IN CHF USING DDM	*596,62*		
Possible upside movement of:	44,25%		

Which is an irrealistic result considering most assumptions I made. **With other assumptions**, not only related to revenues/EPS/DPS but also regarding Cost of Equity, **the 8% compound growth rate might be reachable.**

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Recommendation System

Level of Risk	SELL	REDUCE	HOLD/NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%