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Research Article

Understanding the Factors Behind Rising Insurance Costs in the USA (2021-2023): A White Paper

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ABSTRACT

The rising costs of insurance in the USA between 2021 and 2023 can be attributed to a combination of factors, in-cluding economic, environmental, regulatory, and technological changes. Here are some of the key factors contrib-uting to the increase in insurance costs during this period.

Keywords: Health Insurance, Life Insurance, Auto Insur- ance, Home Insurance, Property Insurance, Liability Insurance, Business Insurance, Travel Insurance, Premium, Claim, Policy, Policy Renewal, Risk Management, Health Insurance Marketplace, Risk Mitigation

Increased natural disasters: The USA experienced a significant increase in natural disasters, including hurricanes, wildfires, floods, and severe storms, during this time limit. These events resulted in higher insurance claims and payouts, leading to increased costs for insurance companies.

Climate change: Climate change has led to more fre- quent and severe weather events, which in turn have increased the risk and cost of insuring properties and assets. Insurance companies have had to adjust their pricing models to account for these changing climate patterns.

Pandemic-related costs: The COVID-19 pandemic had far-reaching economic impacts and affected insurance costs. Health insurers faced increased healthcare claims and uncertainties related to the pandemic, while business interruption claims added to the costs for commercial insurers.

Inflation: Rising inflation rates can impact insurance costs by increasing the cost of materials and labor needed for repairs and replacements covered by insurance policies. This can result in higher premiums.

Regulatory changes: Changes in insurance regulations at the state or federal level can influence insurance pricing. Regulatory changes can lead to increased compliance costs for insurers, which may be passed on to policyholders.

Low interest rates: Insurance companies often invest premiums to generate income. When interest rates are low, as they were during this period, insurers may struggle to earn sufficient returns on their investments, prompting them to raise premiums to maintain profitability.

Technological advances: While technology can improve risk assessment and claims processing, it also introduces new risks, such as cybersecurity threats. Insurers have had to invest in cybersecurity measures and adapt their pricing models to account for emerging risks.

Increased litigation: A rise in litigation and the size of insurance settlements can lead to higher liability insurance costs, particularly for businesses and professionals. High-profile lawsuits and large jury awards can influence insurers' perceptions of risk.

Supply chain disruptions: Disruptions in global supply chains, such as those caused by the pandemic, have led to increased costs for replacing damaged or stolen goods, impacting property and business insurance rates.

Social and demographic changes: Changing demo- graphics, such as an aging population, can affect health insurance costs. Additionally, shifts in social and behavioral trends may influence the frequency and severity of insurance claims.

Increased costs of healthcare: Rising healthcare costs, including the cost of medical treatments and prescription drugs, can lead to higher health insurance premiums.

Loss trends: Specific industries or regions may experience adverse loss trends, leading insurers to adjust pricing to account for these patterns.

Reinsurance costs: Insurance companies often purchase reinsurance to spread risk. Increases in reinsurance costs can impact on the overall cost of insurance.

It's important to note that the factors contributing to rising insurance costs can vary by type of insurance and geographic location. Insurance companies use complex models and data analysis to determine premiums, and these models are continuously updated to reflect changing risk factors. Consequently, the precise impact of these factors on insurance costs can differ from one policy to another.

1. Introduction

1.1. Background

In the United States, there are several types of insurance policies designed to cover various aspects of life and business. Here are some of the most common types of insurance in the USA:

Health Insurance: Health insurance provides coverage for medical expenses, including doctor visits, hospital stays, prescription drugs, and preventive care. It can be obtained through employer-sponsored plans, government programs like Medicare and Medicaid, or purchased individually on the private market.

Life Insurance: Life insurance pays a lump sum or regular payments to beneficiaries upon the insured person's death. It is often used to provide financial security for loved ones in case of the policyholder's passing.

Auto Insurance: Auto insurance is required in most states and provides coverage for damages and injuries resulting from car accidents. It typically includes liability coverage, collision coverage, and comprehensive coverage.

Homeowners Insurance: Homeowners insurance covers damage to a person's home and its contents caused by various perils, including fire, theft, vandalism, and natural disasters. Mortgage lenders often require homeowners' insurance.

2. Problem Statement

The insurance industry in the USA already faced several trends and challenges that contributed to the complexities of the market. These pre-existing trends and challenges include:

1. Increasing Healthcare Costs: The cost of healthcare in the United States had been steadily rising for years before 2021. This trend impacted health insurance premiums and led to higher healthcare-related expenses for both individuals and businesses.
2. Aging Population: The aging of the Baby Boomer generation had been putting pressure on retirement and long-term care insurance products. As more people approached retirement age, the demand for these policies increased.
3. Climate Change and Natural Disasters: Prior to 2021, the insurance industry had been grappling with the increasing fre- quency and severity of natural disasters, including hurricanes, wildfires, and floods. These events led to substantial insurance claims and losses.
4. Cybersecurity Risks: The growing threat of cyberattacks and data breaches posed challenges for the insurance industry. Insurers needed to develop new products and pricing models to address cybersecurity risks for businesses.
5. Regulatory Changes: The insurance industry had been subject to evolving regulations and compliance requirements at both the state and federal levels. Changes in regulations often required insurers to adapt their products and operations.
6. Technological Advancements: Advances in technology, such as the use of telematics in auto insurance or data analytics in risk assessment, were already influencing the industry and changing how insurers underwrote policies and assessed risk.
7. Health Insurance Marketplaces: The implementation of health insurance marketplaces under the Affordable Care Act (Obamacare) introduced new dynamics to the health insurance market. Insurers needed to navigate these marketplaces and adapt to changing regulations.
8. Customer Expectations: Increasingly, customers were demanding more personalized insurance products and services. Insurers were working to meet these demands through digital- ization and customer-centric approaches.
9. Sustainability and ESG (Environmental, Social, and Governance) Factors: Environmental and social responsibility considerations were becoming important for both insurers and customers. Insurers were evaluating how to incorporate sustainability and ESG criteria into their operations and product offerings.
10. Competition and Consolidation: The insurance industry has seen a mix of competition and consolidation. Some markets were highly competitive, leading to pressure on premium rates, while in other cases, consolidation among insurers impacted market dynamics.
11. Data Privacy Concerns: The increasing focus on data privacy and regulations like GDPR (General Data Protection Regulation) affected how insurers collected, stored, and used customer data.
12. Catastrophe Modeling: The development of more sophisticated catastrophe models was influencing how insurers assessed and priced risks associated with natural disasters and climate change.

These pre-existing trends and challenges set the stage for the insurance industry's response to the additional pressures and factors that emerged between 2021 and 2023, which contributed to the rising insurance costs during that period. Insurers had to adapt and innovate to address these ongoing challenges while navigating the new challenges presented by the changing environment.

3. Literature review

Inflation is a complex economic phenomenon influenced by numerous factors, and the causes of inflation between 2020 and 2023 can be attributed to a combination of both short-term and long-term factors. Pandemic-Related Supply Chain Disruptions

(Short-Term) due to COVID-19 pandemic disrupted global supply chains, causing shortages of key goods and materials. Factory shutdowns, transportation bottlenecks, and labor shortages led to supply constraints, driving up the prices of many products. Stimulus Spending (Short-Term) is in response to the economic impacts of the pandemic, governments worldwide, including the United States, implemented significant fiscal stimulus measures. These measures included direct payments to individuals, enhanced unemployment benefits, and financial support for businesses. While these measures helped individuals and businesses during the crisis, they also injected a substantial amount of money into the economy, potentially leading to increased demand for goods and services, which can drive up prices.

Monetary Policy (Short-Term) is due to Central banks, including the Federal Reserve in the United States, implemented accommodative monetary policies by lowering interest rates and engaging in large-scale asset purchases (quantitative easing) to stimulate economic recovery. While these policies were necessary to support economic growth, they also increased the money supply, which can contribute to inflationary pressures. Rising Energy Prices (Short-Term) because of the energy sector experienced volatility during this period, with fluctuations in oil and gas prices. Energy price increases can impact production costs across various industries and result in higher prices for consumers. Labor Market Dynamics (Short-Term) due to labor shortages and wage pressures emerged as significant factors during this period. Industries that rely heavily on low-wage workers, such as hospitality and retail, faced challenges in hiring and retaining employees. As a result, some employers raised wages to attract workers, which can lead to higher production costs and potential price increases. Global Supply Chain Shifts (Long-Term) due to even before the pandemic, there were ongoing shifts in global supply chains, with a focus on diversification and localization. The pandemic accelerated these trends as companies sought to reduce their reliance on a single source for critical inputs. These shifts can result in higher production costs in the short term. Expectations and Psychology (Short-Term) because of inflation can be influenced by public expectations. If individuals and businesses anticipate future price increases, they may adjust their behavior accordingly. This can lead to higher demand and price hikes as people rush to buy goods and services before prices rise further.

It is important to note that the causes of inflation are interconnected, and their impact can vary over time. Inflation is also influenced by the specific economic conditions of a country and its monetary and fiscal policies. Central banks and governments often monitor and respond to inflation to maintain price stability and economic growth.

4. Methodology

Data used in this research was sourced from the annual report of the National Association of Insurance Commissioners between 2019 and 2022.

NAIC collects data from a considerable number of insurance companies to ensure that the analysis is representative of the industry.

Financial Regulatory Services Division, 2022 Annual Results.

4.1. Measurement of key variables

The measurement of key variables in the insurance industry is critical for assessing the financial health of insurance companies, understanding market trends, and making informed decisions. Some of the key variables and metrics commonly used in the insurance industry include:

Premiums written represent the total revenue generated by an insurance company from policies issued during a specific period. It includes premiums from new policies and policy renewals.

Premiums earned represent the portion of premiums that have been recognized as revenue because the insurance coverage has been provided during a specific period.

Losses incurred represent the total value of claims paid or expected to be paid by the insurance company due to covered events. This includes claims already reported and reserves for future claims.

The loss ratio is calculated as the ratio of losses incurred to premiums earned. It is used to assess the profitability and underwriting performance of an insurance company. A lower loss ratio indicates more profitable underwriting.

The expense ratio is the ratio of underwriting expenses (e.g., administrative and marketing expenses) to premiums earned. It measures the efficiency of an insurance company's operations.

The combined ratio is the sum of the loss ratio and the expense ratio. It provides a comprehensive view of an insurer's underwriting and operational performance. A combined ratio above 100% indicates an underwriting loss.

Net investment income is the income generated from the investment of the insurance company's assets, such as bonds, stocks, and real estate.

Policyholder surplus represents the difference between an insurance company's assets and its liabilities. It is a measure of the company's financial strength and capacity to absorb losses.

Insurance companies set aside reserves to cover future claims that have been incurred but not yet paid. Reserves ensure that the insurer has adequate funds to meet its obligations.

Return on Equity (ROE) measures the profitability of an insurance company by comparing its net income to its shareholders' equity. It is an indicator of how effectively the company is using its capital.

Market share is the percentage of total premiums or policies in a particular insurance market that is held by a specific company. It reflects the company's position relative to competitors.

Solvency ratios assess the financial stability and ability of an insurer to meet its long-term obligations. Common solvency ratios include the Solvency II ratio and the Risk-Based Capital (RBC) ratio.

Loss Development Triangles are the matrices that track the development of insurance losses over time, showing how initial loss estimates change as claims are settled. They are used for reserving and risk assessment.

Customer Retention Rate measures the percentage of policyholders who renew their insurance policies. High retention rates are typically seen as positive indicators.

Claims Frequency and Severity measure how often claims are filed (frequency) and the average cost of each claim (severity).

Lapse Rate represents the percentage of policyholders who allow their insurance policies to expire without renewing them.

Underwriting Risk assesses the likelihood that an insurance company will incur losses due to inadequate pricing or insufficient reserves.

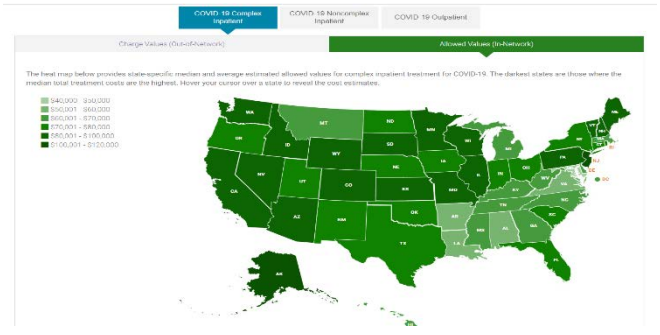
These are just some of the key variables and metrics used to assess the performance and financial health of insurance companies. Insurance industry professionals and regulators analyze these variables to make informed decisions, monitor market trends, and ensure the stability of the insurance market. The specific metrics used may vary depending on the type of insurance (e.g., life insurance, property, and casualty insurance) and the regulatory environment.

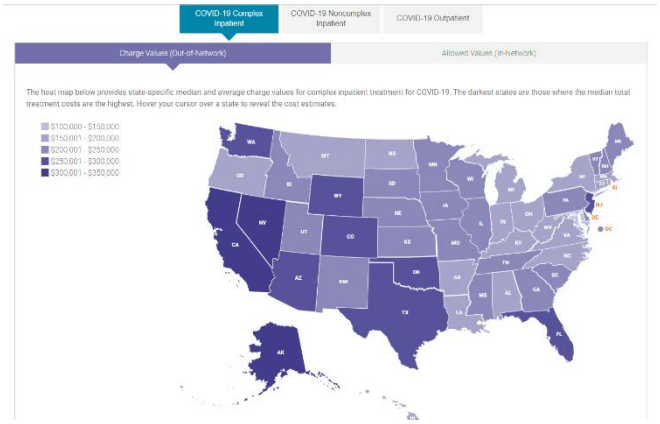
Figure 1
Net Income & Profit Margin

The following were different statistics showing the increase in insurance cost post covid.

--> For Health care policies, increased risk perception is the major reason, since most of the health insurance members utilized the health treatment which is affected by COVID-19 treatment.

--> As per FAIR Health Data analysis, the following images show the range of health care cost in USA In-Network & Out-of-Network treatment.





--> During COVID 19 as all the business shutdowns, school closures and most of the people received the official orders to stay at home, due to the mentioned reasons most of the cars are not in road, insurance companies took the unusual step of returning the portion of premiums to the policy holders.

But this refund is part of their profits from that year, eventually to recover that loss insurance companies started increasing the prices.

https://www.nbcdfw.com/news/coronavirus/top-auto-insurers-offering-consumers-refunds-during-covid-19-crisis/2351283/

Insurance Company Name	Percentage of amount refund	Number of Months
AllState	15	2
American Family Insurance	10	8
Farmers Insurance	25,15	2
Geico	15	6
The Hartford	15	3
Liberty Mutual	15	2
Nationwide	15	2
Progressive Insurance	20	2

--> Distinct reasons behind the Mortgage insurance cost.

- Due to pandemic, people are getting the opportunity to stay at home and work remotely, this makes people moved to the places where they can live cheaply and spend less of cost-of-living expenses.
- This creates a lot of demand to buy new homes and due to shortage of supply home prices are rocket priced.
- On average, after COVID in a lot of cities home prices were up more than 50 percent. The average price increase annually used to be 5 percent.
- Due to high home prices, lenders have high risk due to high mortgage. Finally, that makes impact on the insurance cost.

4.2. May 2022 to May 2023

State	Average original premium	Average renewal premium	Average premium increase ($)	Average premium increase (%)
Alabama	$1,513	$1,885	$372	25%
Arizona	$826	$1,038	$211	26%
Arkansas	$1,363	$1,670	$307	23%
California	$1,104	$1,221	$117	11%
Colorado	$1,558	$2,031	$473	30%
Connecticut	$1,452	$1,672	$220	15%
District of Columbia	$560	$660	$100	18%
Florida	$1,406	$1,896	$489	35%
Georgia	$1,430	$1,737	$308	22%
Idaho	$615	$804	$189	31%
Illinois	$1,052	$1,308	$256	24%
Indiana	$1,159	$1,402	$243	21%
Iowa	$1,080	$1,319	$238	22%
Kansas	$1,541	$1,816	$275	18%
Kentucky	$1,266	$1,492	$226	18%
Louisiana	$1,473	$1,876	$403	27%
Maine	$775	$875	$100	13%
Maryland	$1,092	$1,306	$214	20%
Massachusetts	$1,054	$1,217	$163	15%
Michigan	$1,102	$1,334	$232	21%
Minnesota	$1,534	$1,862	$328	21%
Mississippi	$1,647	$2,005	$358	22%
Missouri	$1,396	$1,687	$291	21%
Montana	$1,035	$1,245	$210	20%
Nebraska	$1,511	$1,887	$376	25%
Nevada	$725	$814	$89	12%

New Hampshire	$853	$976	$123	14%
New Jersey	$962	$1,105	$143	15%
New Mexico	$1,027	$1,255	$228	22%
New York	$843	$936	$93	11%
North Carolina	$1,114	$1,330	$217	19%
Ohio	$943	$1,152	$209	22%
Oklahoma	$2,013	$2,549	$536	27%
Oregon	$591	$708	$117	20%
Pennsylvania	$960	$1,147	$187	19%
Rhode Island	$1,602	$1,907	$305	19%
South Carolina	$1,280	$1,558	$278	22%
South Dakota	$1,185	$1,513	$328	28%
Tennessee	$1,127	$1,352	$225	20%
Texas	$1,683	$2,141	$458	27%
Utah	$697	$858	$161	23%
Vermont	$762	$836	$74	10%
Virginia	$911	$1,109	$198	22%
Washington	$876	$1,063	$187	21%
Wisconsin	$834	$956	$122	15%

Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is used.

U.S. inflation rate for 2022 was 8.00%, a 3.3% increase from 2021.

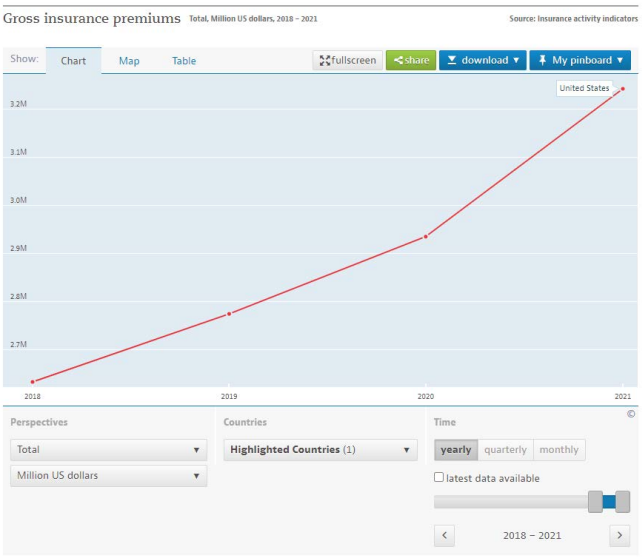
U.S. inflation rate for 2021 was 4.70%, a 3.46% increase from 2020.

U.S. inflation rate for 2020 was 1.23%, a 0.58% decline from 2019.

U.S. inflation rate for 2019 was 1.81%, a 0.63% decline from 2018.

Date	Inflation Rate (%)	Annual Change
12/31/1960	1.458	
12/31/1961	1.0707	-0.39
12/31/1962	1.1988	0.13
12/31/1963	1.2397	0.04
12/31/1964	1.2789	0.04
12/31/1965	1.5852	0.31
12/31/1966	3.0151	1.43
12/31/1967	2.7728	-0.24
12/31/1968	4.2718	1.5
12/31/1969	5.4624	1.19
12/31/1970	5.8383	0.38
12/31/1971	4.2928	-1.55
12/31/1972	3.2723	-1.02
12/31/1973	6.1778	2.91
12/31/1974	11.0548	4.88
12/31/1975	9.1431	-1.91
12/31/1976	5.7448	-3.4
12/31/1977	6.5017	0.76
12/31/1978	7.631	1.13
12/31/1979	11.2545	3.62
12/31/1980	13.5492	2.29
12/31/1981	10.3347	-3.21
12/31/1982	6.1314	-4.2
12/31/1983	3.2124	-2.92
12/31/1984	4.3005	1.09
12/31/1985	3.5456	-0.75
12/31/1986	1.898	-1.65
12/31/1987	3.6646	1.77
12/31/1988	4.0777	0.41
12/31/1989	4.827	0.75
12/31/1990	5.398	0.57
12/31/1991	4.235	-1.16
12/31/1992	3.0288	-1.21
12/31/1993	2.9517	-0.08
12/31/1994	2.6074	-0.34
12/31/1995	2.8054	0.2
12/31/1996	2.9312	0.13
12/31/1997	2.3377	-0.59
12/31/1998	1.5523	-0.79
12/31/1999	2.188	0.64
12/31/2000	3.3769	1.19
12/31/2001	2.8262	-0.55
12/31/2002	1.586	-1.24
12/31/2003	2.2701	0.68
12/31/2004	2.6772	0.41
12/31/2005	3.3927	0.72
12/31/2006	3.2259	-0.17
12/31/2007	2.8527	-0.37
12/31/2008	3.8391	0.99
12/31/2009	-0.3555	-4.19
12/31/2010	1.64	2
12/31/2011	3.1568	1.52
12/31/2012	2.0693	-1.09
12/31/2013	1.4648	-0.6
12/31/2014	1.6222	0.16
12/31/2015	0.1186	-1.5
12/31/2016	1.2616	1.14
12/31/2017	2.1301	0.87
12/31/2018	2.4426	0.31
12/31/2019	1.8122	-0.63
12/31/2020	1.2336	-0.58
12/31/2021	4.6979	3.46
12/31/2022	8.0028	3.3

4.3. Gross insurance price rate chart as per OECD Organization



5. Conclusion

Reasons behind the increase of insurance premiums is due to inflation, in recent years for inflation pandemic is the major factor. Because of the pandemic there was a lot of interruption in supply chain disruptions, economic impact, travel, and tourism hurdles.

Majorly because of supply chain issues there is a lot of demand for home build and thus there is an increase in home costs. Due to supply chain issues, a lot of labor shortages and all the goods prices increase causes major inflation.

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