

**Social Inflation: Rising Tides in the Insurance Markets**

Noah E. Heim

Honors College, Indiana State University

GH 401: Honors Independent Study

Dr. Bierly

December 9, 2021

### **Abstract**

Social inflation, despite its relative recency, has been a strong concern for some of the largest insurance carriers in the world. With claims costs increasing across broad markets, especially in casualty markets, insurers are racing to find the reason why. Increased claims costs can result in a number of negative effects on both insurance carriers as well as insurance buyers. Social inflation seems to be a key driver of these increased costs. Doing a deep dive into the validity of this claim and studying some potential causes as well as markets in which social inflation is occurring has led to the discovery of some significant effects on the insurance marketplace as well as some potential solutions to help curb the problem and move past this issue.

*Keywords:* insurance, social inflation, insurance carrier, inflation, nuclear awards, soft markets, hard markets, casualty insurance

### **Social Inflation: Rising Tides in the Insurance Markets**

Inflation is an idea thrown around in business, economics, and finance quite frequently. It is heard in conference calls, leadership meetings, and year end reports for publicly traded companies. In our current time, with the recent massive government stimulus into the economy it is heard almost daily in business or on the news. But what is social inflation? Is this the same kind of inflation? First, to start with a definition of inflation, inflation is defined as the decrease in purchasing power of currency as time progresses. So, diving in further, this means that over time the average price of goods increases and therefore the consumer cannot purchase as much of a given good with the same amount of money (Fernando, 2021, para. 1). In this case the consumer's purchasing power has declined. It should also be noted that there is a concept known as deflation in which the purchasing power of the consumer increases. This, however, is not as closely related to social inflation (Fernando, 2021, para. 2).

Next, social inflation should be defined. Given that social inflation is a relatively new phenomenon there are several definitions that exist. One of the best, and most general definitions is, "social inflation refers to all ways in which insurers' claims costs rise over and above general economic inflation" (Dunsavage [2], 2021, para. 2). Similar to general economic inflation, which was referenced above, in which the price of goods in general increases, this definition takes the approach of defining social inflation as the general rise in overall claims *above* a normal level. The key word in this definition is "above". Claims costs for insurers are expected to rise every year, however, this rise should stay somewhat in line with the normal rise in costs due to inflation, which occurs each and every year. Another definition of social inflation is, "the term used to describe growth in liability risks and costs related to litigation trends" (Dunsavage [5], 2021, para. 1). This definition describes social inflation in an even more specific manor tying the

increased or expanded liability risk to litigation trends. This definition seems to point towards a potential cause, stating that the increased liability risk, which means that liability or responsibility is expanding, is something that could be potentially be a specific cause (Insuranceopedia, 2020, para. 1). Another definition that takes a similar approach defines social inflation as “steeply rising insurance rates due to social factors such as large jury awards and broader definition of liability” (Oh, 2021, pg. 2). This definition points to one of the same causes, broader or expanded liability. However, this definition also brings in another factor, “large jury awards”. This is a topic that needs some light shed on it regarding the discussion of social inflation. What is a large jury award? Oftentimes larger jury awards, the ones that drive social inflation are known as nuclear awards. Nuclear awards are jury verdicts or settlements that exceed a cumulative of \$10 million (Oh, 2021, pg. 2). These types of awards are often much bigger than just the case at hand. They have ripple effects not only within the insurance company and insured found at fault, but often times within the insurance industry as a whole in terms of underwriting philosophy and underwriting approach.

There are many potential issues that this phenomenon could cause, many of which are unknown due to the relative recency of social inflation. Given its recency, there are many puzzling issues around the idea of social inflation. One of which is, does social inflation really exist? This is a very concerning and puzzling question. Is all of the talk around increased jury awards anecdotal or is there hard evidence. Perhaps social inflation is just a shift to a harder insurance market. Insurance often rotates between hard and soft markets. In a soft market, insurance premiums are generally lower, there is increased competition, and capacity is high. However, during a hard market, premiums often increase, capacity lowers, and insurers are driven out of business (Kagan (1), 2021, para. 3). So, is the hard market driving insurers out,

leading those companies to look for and create a problem that doesn't really exist? All of these issues are puzzling and need to be explored further when it comes to social inflation. Could it also be that a positive expansion in science is opening up issues that have always existed, but perhaps now liability can be assigned to someone in particular? This is especially significant with different types of injuries and medial advancements. A presentation by Verisk states that traumatic brain injuries for example may be an evolving risk or injury (McCarthy & Hanson 2021, slide 5). With increases in scientific development, accurately placing liability will be an important issue going forward. If more injuries can be discovered and blamed on a party involved in the accident, the potential for increased liability expands dramatically.

Going past the potential puzzling causes and issues of social inflation, it is also important to look at how rising insurance rates could potentially affect the entire economy. Every company has some form of insurance, whether that is a primary general liability (GL), directors and officers, professional liability, transportation, cyber liability, or commercial auto policy, some form of insurance exists. These are only a few examples of potential policies that companies may have. Additionally, some policies are very expensive and could be a major line item on a company's budget. With increased claims cost, comes increased insurance prices. If every company is paying more for the same coverage, some companies will go out of business, raise prices of their goods, or decide not to get coverage they should have in place. All of these are very bad outcomes for not only the business owners but also the economy and consumers as a whole.

Although it is known that there is something occurring leading insurance professionals to coin the term social inflation, the validity of this concept as well as potential causes, or solutions are unknown. This report will do a deep dive into the concept of social inflation and look to

create some knowns out of the unknowns within this subject by answering the following questions one at a time.

The first question that needs to be further investigated in order to set up this report is, is there a case for social inflation based on data? This was a topic that was touched on earlier, but is the evidence for social inflation purely anecdotal, or is there hard facts and data that support the claim? Following the answer to this question, given that there is in fact hard evidence for the validity of social inflation, the nature of the cause of social inflation should be explored. What caused social inflation? If it can be determined that social inflation exists in the marketplace, knowing the cause will be extremely beneficial in solving the problem. This leads right into the next question. Are there certain insurance markets and geographical areas that drive social inflation or in which nuclear awards occur more frequently? Like the previous question, knowing which market, in terms of geography, that social inflation occurs in will be just as helpful as knowing which markets, in terms of the type of insurance product or product line. Next, after markets in which social inflation occurs have been examined, it will be important to know exactly what effect this has had on insurance companies and consumers playing in these markets. This can be answered by the question, what have the effects of social inflation been on insurance companies and consumers? In order to wrap up this report and really work to investigate social inflation as a whole, possible solutions to the problem need to be explored. This will be answered by the question, what are some viable solutions, if any, to social inflation?

Social inflation is a newer phenomenon in insurance that revolves around the idea that insurance claims costs are rising faster than the normal rate of inflation. Possible drivers of this are expanded liability and evolving litigation strategies. Given the recency of this topic there are a wide variety of puzzling issues surrounding social inflation. These issues are wide ranging, but

this report seeks to shed some light on them in terms of potential causes, markets of concern (both physical and product driven), effects on the economy, as well as potential solutions that could solve the problem.

### **Research Questions**

Given the complexity and recency of social inflation these questions have been designed to take a ground up approach to exploring the idea of social inflation. For this reason, the main focus at the beginning is to approach the validity of social inflation, explore that data behind it, and determine how real the issue is. From there, the topic can be explored further and potential strategies to solve the issue can be brainstormed.

### **The Data**

In August of 2017 a tractor-trailer semi ran a red light and struck an SUV. The driver of the SUV and her son had significant injuries, including traumatic brain damage. The daughter of the driver, although not seriously physically injured, suffered from post-traumatic stress disorder after seeing her mother and brother suffer significant, lasting injuries. In 2019, this case settled for a nuclear verdict of just over \$70 million with awards included for both past pain and suffering as well as future pain suffering on the basis that the company negligently entrusted the truck to its driver. In 2014 a driver making a U-turn caused the driver of another oncoming vehicle to swerve in order to avoid colliding with the vehicle making a U-turn. This evasive maneuver caused the oncoming vehicle to crash into a parked semi, killing the driver of the car. After a suit from the deceased driver's family, it was found that the semi was parked illegally and therefore at fault. A \$30 million dollar verdict was handed down in 2019, split between the driver completing the U-turn and the company owning the parked semi (Travelers, 2021, para. 2,4) One of the largest settlements of all time occurred after a 2014 crash in which a 7-year-old

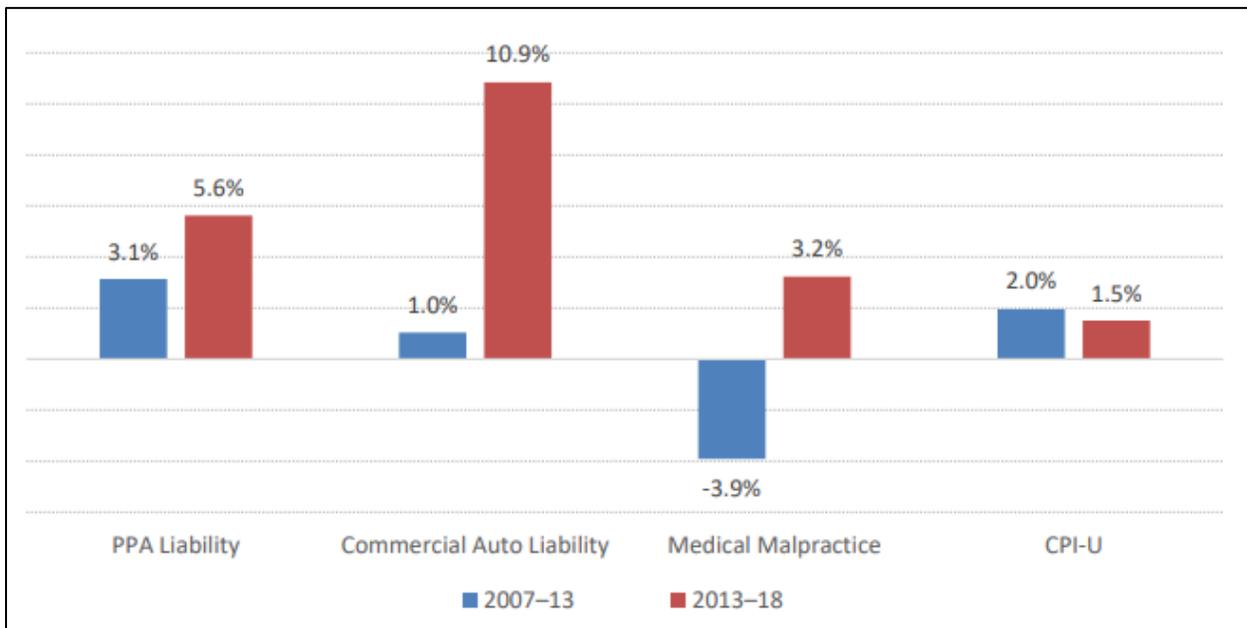
was killed, and a 12-year-old was paralyzed. The incident involved a tractor trailer semi from Werner Enterprises. In this accident, the driver of the pickup truck carrying the injured individuals lost control on the opposite side of the interstate, crossed the median, and spun into the path of the semi. An award of over \$90 million was granted to the injured parties on the basis that the semi should have pulled off the road due to icy conditions (CCJ Staff, 2021, para. 1-4).

These are all examples of massive nuclear awards in recent years, examples that are often used to make a case for social inflation. However, these are examples of anecdotal evidence. The cases, although tragic, and good examples of large verdicts, could just be one off occurrences and not evidence of widespread trends. So, is there a case for social inflation based on data?

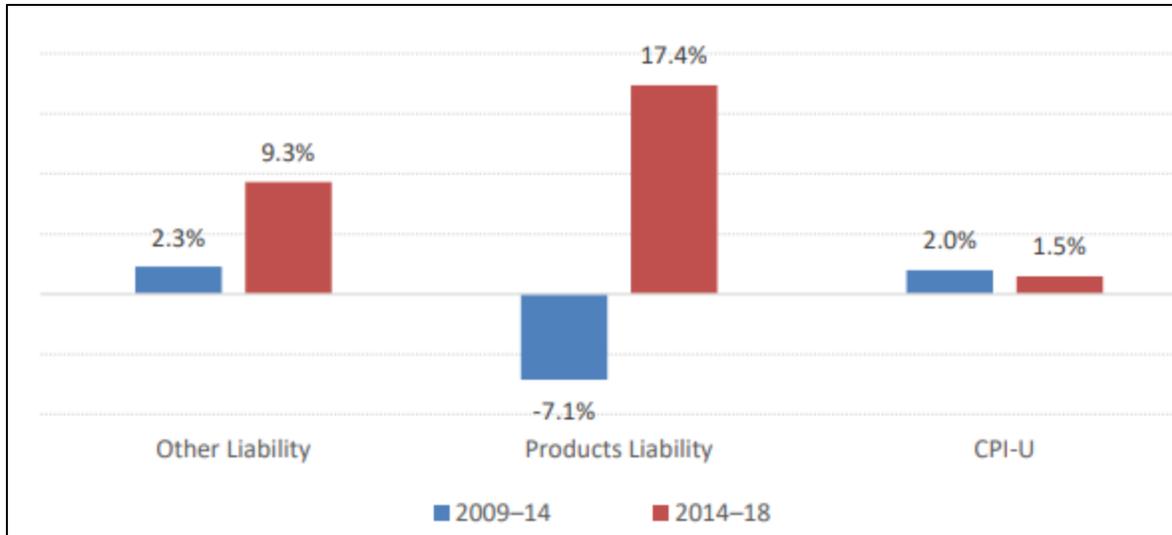
One piece of data that can be analyzed in order to answer this question is how often the term “social inflation” is used in the industry. A study done by SwissRe, analyzed exactly this idea. The study looked into the number unique conference calls among the largest insurers in which the word or term “social inflation” was brought up. The result of this study found that social inflation was brought up in virtually no conference calls up until 2017. The number of times social inflation was mentioned grew to 29 in 2018 and was used in 80 calls in 2019 (Oh, 2021, pg. 2). This is roughly a 275% increase year over year from 2018 to 2019. These metric sheds light on the fact that social inflation is a growing concern for many of the largest insurance companies. If the topic social inflation is being discussed on conference calls this would lead to an inference that it is a real issue. However, this still does not mean that statistically the problem is occurring with 100% certainty.

In the beginning of this report one of the definitions of social inflation, the simplest one, was “social inflation refers to all ways in ways in which insurers’ claims costs rise over and above general economic inflation”. So, following this definition, if the consumer price index

(CPI), which is a general measure of inflation, could be compared to incurred losses (claims costs) for insurance carriers, a clearer picture would start to take place as to whether or not social inflation was actually occurring. In researching the topic, a publishing was found from The Institutes, a risk and insurance knowledge group, that analyzed a report from the NAIC (National Association of Insurance Commissioners), in which this exact comparison was made. The comparison breaks out incurred losses based on segments of the insurance market showing the annualized increase in incurred losses for private passenger auto (PPA) liability, commercial auto liability, medical malpractice, product liability, and other liability, then compares this data to the annualized increase in the CPI for certain date ranges. The data is separated into PPA, commercial auto liability, medical malpractice in one group and product liability as well as other liability in the other group due to slight differences in the date ranges. The findings are shown below:



(The Institutes. Annualized Change in Incurred Losses, 2013-18, Compared With 2007-13, CPI-U, 2020. Web. The Institutes. Oct. 2, 2021.



(The Institutes. Annualized Change in Incurred Losses, 2014-18, Compared With 2009-14, CPI-U, 2020. Web. The Institutes. Oct. 2, 2021.

For the blue time periods in each model the total incurred losses are on pace, slightly, above, or significantly below the CPI number (The Institutes, 2020, pg. 4-5). This would indicate, based off the definition of social inflation above that no social inflation is occurring. However, during the more recent, red, time period, the rate at which incurred losses are increasing for all markets shown is significantly above the 1.5% CPI annualized increase. This is especially evident in products liability and commercial auto liability with annualized increases of 17.4% and 10.9% respectively, compared to the 1.5% annualized increase in CPI. The slowest increasing market, medical malpractice, is still over two times higher than the CPI over the same time period (The Institutes, 2020, pg. 4-5). Based on this data, and the definition of social inflation shared above, it would appear evident that social inflation has been occurring in recent years, especially in these given markets.

### Causes

Now that it is known, based on evidence and the definition, that social inflation does in fact exist in the marketplace, what caused social inflation? One of the main topics that comes to the surface when researching social inflation and its causes is a change in sentiment towards

corporations among juries. One study found that from 2000-2019 public confidence in “big business” has decreased significantly. The percentage of people that responded to the survey indicating “very little” confidence in big business grew from 22 to 32 percent while the percentage of people who responded with a “great confidence /quite a lot” of confidence decreased from 29 to 23 percent (The Institutes, 2020, pg. 6-7). There could be any number of reasons for this. Many have pointed towards the 2007-2009 financial crisis in which the Dow declined 54% to its low in March of 2009 (DiLallo, 2021, para. 15). This decline in the stock market and U.S. economy was mainly brought to light by the fall of two large investment banks/security firms in 2008. This led to the bailout of many “big businesses” in the United States by the U.S. government (Singh, 2021, para. 18-24). Undoubtedly, the poor U.S. economy and bailout of big business did not help the sentiment in America towards such corporations. Another potential reason for this change in sentiment could be income inequality in the United States. The share of aggregate income held by low-income households in the United States from 1970 to 2018 fell from 10% to 9%. This alone is not an extremely dramatic or eye-popping stat, however, the share of aggregate income held by upper income households has increased from 29% to 48% in that same time period (The Institutes, 2020, pg. 5). The portion of income going to lower income households is decreasing at the same time that the portion of income going to higher income households is increasing. This overtime could lead to feelings of low confidence in big business, especially when it comes to protecting the consumer or everyday person.

Despite this evidence for a change in sentiment, there seems to be little or at least mixed evidence that this has been the major cause for social inflation (Oh, 2021, pg. 6). That being said, what could the possible causes for social inflation be, if not a change in sentiment?

One possible cause that is being pointed to is litigation funding. So, what is litigation funding? Litigation funding, also known sometimes as litigation financing, is “the provision of capital to a claimholder or law firm in exchange for a portion of the proceeds from litigation or arbitration” (Lake Whillans, 2018, para. 1). In simpler terms, litigation funding is when a third party assumes some or all of the cost of a lawsuit. In doing this, the party assuming the costs gains an agreed upon percentage of the settlement if the case is won and is essentially “investing” in a lawsuit (Dunsavage (3), 2021, para. 1). In these cases, the attorney’s representing the case are paid directly off of the size of the settlement. The bigger the settlement the more they are paid. Obviously, this incentivizes the attorneys to pursue larger and larger settlements as it directly correlates to their income. A study done in Australia has shown that litigation funding is correlated with increases in litigation and court caseloads. Since litigation funding lowers the cost for individuals to bring their cases to the courtroom, it leads to social inflation because the larger the supply of court cases, the higher the chance of a nuclear award occurring. One study showed that the percentage of law firms that are using litigation funding or are taking on cases through litigation funding grew 36% from 2013 to 2017. (Oh, 2021, pg. 48). This is one of the contributory factors to the almost 200% increase in the use of commercial litigation funding from 2012 to 2018 that one study found (Chung, 2019, para. 3). Litigation funding as a whole increases the litigious nature of our society by shifting the costs of a lawsuit off of the party bringing the lawsuit to court. Despite this perhaps unintended consequence of litigation funding, it should be stressed that litigation funding was intended to be and can be a force for good in the U.S. economy and across the world. Litigation funding allows those who lack the financial resources to take a case to court to do so without consequence in the case of a lost case (Lake Whillans, 2018, para. 3). The ability for parties to take their cases to court

without the worry of burdens from the cost of litigation in the event the case is lost plays a major factor in leveling the legal playing field for many Americans. If a lower income individual or smaller company has a case to bring to court, with perhaps 50-50 chances of winning, but they were significantly harmed in the action that occurred, they may be forced to not push for damages if they are worried about losing the case. Losing the case would put them in a worse financial situation than what they are currently in. However, if the individuals or small company can bring their case to court without the worry of costs associated with losing, it levels the playing field for lower income households. However, it seems that this has been taken advantage of in recent years. This can be explained by the shift in users of litigation funding. Since the inception of the idea, it has been utilized by those without sufficient funds to pay for litigation. However, in more recent years there has been a shift of users to larger companies that use litigation funding not because they can't afford a lawsuit, but because it allows them to generate litigation income without any risk of expenses (Chung, 2019, para. 3). This seems to be a misuse of the system and something that litigation funding was never intended to be used for. Perhaps one way to solve this issue would be to limit the use of litigation funding to companies and/or individuals with lower than a certain threshold of assets.

One final potential cause of social inflation is limitations or revisions to tort reform. To start, tort reform's main goal is to reduce the cost of torts for parties being sued. This helps the party being sued (often corporations) and hurts the parties bringing the case to court (often individuals). This is done in three main ways, 1) making it more difficult to file a lawsuit, 2) making more difficult to obtain a jury trial in civil cases, and 3) placing limits on the amount of money that can be recovered in lawsuits (HG.org, n.d., para. 3). These objectives are achieved in a several ways, but two main ways that contribute to the success of tort reform are a restriction in

legal theories that can be used to support plaintiff's claims or capping the dollar amount of damages that can be awarded (American Academy of Actuaries, 2009, para. 1). Obviously, based on these definitions and explanations of tort reform, this concept would reduce the claims costs faced by insurance companies. If it is harder to bring suits to case and damages are capped, then there will be less claims and the claims will be for lower amounts.

However, caps on damages, especially non-economic damages (pain and suffering) have faced extreme opposition from trial lawyers. In fact, in eight states the supreme courts have overturned tort reforms that cap non-economic damages (The Institutes, 2020, pg. 8). Additionally, only nine states have caps on non-economic damages and five out of the remaining 41 have prohibited such caps from being put into place (Oh, 2021, pg. 48). The limited nature of these caps impacts social inflation because often a large portion of the awards in a lawsuit are for non-economic damages (pain and suffering). If the largest portion of the awards can be capped, social inflation could be reduced by bringing down claims' costs for cases in which pain and suffering accounts for a large portion of the award. Given that they are uncapped in most states, this is where the largest driver of social inflation could potentially come from.

### **Markets: Products and Geography**

Knowing the causes of social inflation is a great resource for potentially solving the problem. However, knowing the product lines as well as geographic areas in which social inflation occurs the most could help bring to light some possible solutions to the problem in a more targeted manner. That said, are there certain insurance markets and geographical areas that drive social inflation or in which nuclear awards occur more frequently?

In terms of insurance markets that are more susceptible to social inflation, many broad markets are affected, but it should be noted that commercial liability markets are often the most

affected over property markets (EPIC Brokers, 2021, para. 2). This seems to be because in these markets there are often injuries to individuals as opposed to property risk where this is not the case in most situations. In property insurance markets, usually a building or some other type of asset is damaged and then the insurance pays to replace the building or bring it back to its pre-loss condition. However, in commercial liability, usually someone is injured due to an act of negligence by another party. Someone is “at fault” in these cases. The sheer nature of that fact leads them to be more vulnerable to social inflation due to the causes that were outlined above. When another party is injured there is likely to be a large settlement, partially due to the sentiment change that was discussed and the anti-corporate attitude shift in America. When a large corporation goes to court facing an individual that they injured the award is very frequently of a substantial amount, especially if it is a jury trial. These cases are seen as big guy vs little guy and can settle for nuclear awards. This only contributes to the lawyer’s desire to take the case using litigation funding as the lure of a large award draws them in.

Having narrowed it down to commercial liability, which markets within this segment are hit the hardest? Based upon the graphs shared earlier from The Institutes, it seems that commercial auto liability and products liability are the two hardest hit segments from social inflation. From 2013-2018 commercial auto liability had an annualized increase in incurred losses of 10.9%, well above both the CPI of 1.5% for that same time period and the increase for commercial auto from 2007-2013 which was only 1.0% (The Institutes, 2020, pg. 4). Going further, in 2019, the American Transportation Research Institute (ATRI) ranked the “impact of large verdicts on the trucking industry” as one its top listed priorities to research, again signaling that commercial auto liability is one of the hardest hit segments of the insurance market (Murray, Williams, & Speltz, 2020, pg. 9).

Additionally, a market perhaps hit harder than commercial auto was products liability. Using the same graphs that were shared earlier it is shown that from 2014-2018 the annualized increase in incurred losses for the product liability insurance market was 17.4% compared to the 1.5% average annualized CPI during that same time period (The Institutes, 2020, pg. 4).

Both of these lines of insurance are ones in which people are often injured, in some cases very severely, at no fault of their own. Following these injuries, a legal battle ensues in which an individual takes on a corporation. They have the positive of the big guy vs. little guy affect and the ability to win the emotions of potential jurors with their injuries. This could be a contributory factor in the rising incurred losses. Other notable segments of the insurance market in which social inflation has had a large impact is the private passenger auto liability, medical malpractice liability, and security liability markets. One article notes that due to the rise in mass shootings and other similar events the demand for private security has increased. Along with this increased demand for private security guards comes increased risk for these companies. Private security firms can be held liable in these situations and end up settling for very large amounts. This is, however, a sector in which it is unclear whether increased mass shootings, increased demand for security, or social inflation is the driving force behind large losses (Brownyard, 2021, para. 2,7,10).

In addition to these markets in which the effects of social inflation have been heightened there are also some geographical areas in which social inflation is more prevalent. The American Tort Reform Foundation has published an annual paper in recent years titled “Judicial Hellholes” in which geographic areas that social inflation and other factors contributing to large legal costs for defendants are present. In the 2021 version of the report, the top three “Judicial Hellholes” were the 1) Philadelphia Court of Common Pleas & The Supreme Court of Pennsylvania, 2) New

York City, and 3) California (American Tort Reform Foundation, 2021, pg. 1). These areas are not singled out for their role in social inflation specifically but mainly because they are more litigious environments, which can contribute to social inflation.

So, the first “Judicial Hellhole”, the Philadelphia Court of Common Pleas & The Supreme Court of Pennsylvania. This court has a reputation for excessive verdicts and an “open door” policy to out of state plaintiffs. Part of the reason for this is a low standard set for expert evidence. The Supreme Court of Pennsylvania is quoted saying “Trial courts may not question the merits of the expert’s scientific theories, techniques, or conclusions, and it is no part of the trial court’s function to assess whether it considers those theories, techniques and/or conclusions to be accurate or reliable based upon the available facts and data” (American Tort Reform Foundation, 2021, pg. 5,7). These low standards of expert evidence open up the door to experts who are not qualified to give their opinion on cases to do so.

The #2 ranked “Judicial Hellhole” in the United States was listed as New York City. One of the listed causes for this is directly tied to social inflation, nuclear verdicts. New York City is beginning to see a problem with a surge in nuclear verdicts in a multitude of cases regarding liability suits. The report cites the reason for this as improper tactics used by lawyers that inflame and mislead jurors to lead them to believe that the amounts awarded in nuclear verdicts are normal and ordinary amounts. Specific language like “big corporations” and “hired guns” are used when speaking with juries about defendants, encouraging them to “send a message” so that these kinds of accidents won’t happen again (American Tort Reform Foundation, 2021, pg. 12). These tactics are specifically related to one of the potential causes discussed earlier, a change in sentiment among Americans in regard to larger corporations. Additionally, the report also brings in another of the potential causes that was discussed earlier, litigation funding. The report states

that “New York City has been at the epicenter of the huge surge in litigation financing that has occurred over the past decade” (American Tort Reform Foundation, 2021, pg. 15).

To round out the top three, the report lists California as the #3 “Judicial Hellhole” in the United States. One of the top issues related to the placement of California at #3 on the list is California’s Proposition 65 law. The law, enacted in 1986, forces business to place warning labels on products that contain even trace amounts of nearly 1000 chemicals placed on a list of potential chemicals that cause cancer. This creates an incentive for attorneys and consumers in California to sue based on this law if they feel that a warning label is improperly placed or not placed where one should have been (American Tort Reform Foundation, 2021, pg. 17). This type of law could be a direct cause of the increase in social inflation among product liability insurance. These cases, in which a company was sued for their product causing cancer and not being labeled appropriately would fall under product liability and thus could be a leading factor in social inflation among this insurance market in California.

In addition to these “Judicial Hellholes” the following is a chart that pertains specifically to commercial auto liability that could help shed some light on geographic areas in which social inflation is happening at a faster pace. The graph below shows the sum of all awards over \$20 million for commercial auto liability by state over certain time periods. When comparing the aggregate amount of awards and the total number of fatal trucking accidents, this data points to Washington, Georgia, New York, and Texas as the worst geographic areas specifically for commercial auto liability. All of these states have an average award settlement of over \$100,000

per fatal accident with Georgia and Washington notching just over \$200,000 per fatal accident (Oh, 2021, pg. 15).

Table 4: Trends in Commercial Auto Liability Awards: Total Sum by State

Year State	2001-2005	2006-2010	2011-2015	2016-2019	Fatal Truck Crashes
Alabama	49				1548
Arizona		37.7	30.6		1129
California	220.9	236.1	327.8	301.8	4388
Colorado				26.6	876
Connecticut				23	327
Florida	69.5	148.3	27.6	209.6	3590
Georgia		74.6	65.2	524.5	2563
Illinois	122.7	115.4	57.2	89.3	1839
Indiana		20	32.5		1710
Kansas		23.5			937
Kentucky	27				1315
Louisiana		53.4	146	30.4	1282
Michigan		22.6			1279
Minnesota				28.8	876
Missouri	52	81.3			1530
New Jersey	23.5	31.2			924
New Mexico			224	40.5	700
New York	30.3	181.3	42.3	231.1	1692
Ohio			42.4	27	1988
Oklahoma		62.7			1514
Oregon				26.5	651
Pennsylvania			32		2285
Texas	184.2	285.1	462.5	810	6654
Virginia	60		66.7		1251
Washington		30.2		160.1	691

This table reports the sum of verdicts / settlements greater than \$20 million in each state from 2001 to 2019. States without any during the time period are omitted. The units are in \$ millions. The number of fatal motor vehicle crashes involving a large truck from 2004 to 2019 for each state is also reported. (Data Source: VerdictSearch, United States Department of Transportation)

(Oh, Trends in Commercial Auto Liability Awards: Total Sum by State, 2021)

The exact geographic areas in which social inflation occurs varies by insurance market and can be hard to pin down. However, as outlined, an overall more litigious environment can contribute to social inflation broadly among certain geographic areas and given the probability of commercial auto liability to produce fatalities, data is easier and more accurately tracked than some of the other insurance products in which social inflation is occurring.

## Effects

What have the effects of social inflation been on insurance companies and consumers?

The main effects that social inflation have had on insurers have been increased expenses leading to increased insurance prices, companies on both the insurance and consumer side leaving the marketplace, and reduced capacity as well as more exclusions.

The first effect, increased insurance prices from social inflation is one that affects the consumers almost as much, if not more than the actual insurance companies. According to a study done by Sangmin Oh, on insurance prices, he found that social inflation has a material difference on insurance rates, especially in the states in which the legal system favored plaintiffs (Oh, 2021, pg. 33-37). So, how exactly does this occur? In order to understand how social inflation raises insurance rates some basic insurance ratios need to be understood. The first is loss ratio. A company's loss ratio can be measured by dividing the total incurred losses by the total premium collected. The goal is for this number to be well below 100% since it does not account for regular business expense. This is where the combined ratio comes in. The combined ratio divides a company's total incurred losses plus expenses (including dividend payouts) by incurred losses. If the combined ratio is below 100% then an insurance company is profitable. This means that the company brought in more money than what was paid out in losses. However, a company can still be profitable with a combined ratio over 100% (Barone, 2021, para. 2, 5-6). This is where the operating ratio comes in. This is a much better measure of an insurer's operating profitability because it includes investment income. The ratio is the insurer's pre-tax profitability taking into account for investment income (IRMI, n.d., para.1). For example, if an insurance company earns \$1,000,000 in premiums, has \$400,000 in incurred losses, \$650,000 in operating expenses, and

\$100,000 in investment income, their operating income would be \$50,000 giving them an operating ratio of 95%, despite the technical loss that is shown with combined ratio given that without the investment income the company would have incurred a \$50,000 loss.

Now, going back to the reason these ratios were brought into the conversation, if incurred losses, the foundation of these ratios increases due to social inflation insurers' loss ratios increase and they have less profitability. From a 30,000 ft view there are three ways an insurance company can become profitable when unprofitable in this situation. One is decrease expenses which may be difficult to do if they are already running lean. The second option is to increase investment income which is very hard to do and will only happen if the markets return better than expected results which is far from guaranteed. So, the third and most likely change the insurance company will make to remain profitable is to increase insurance rates to bring in more premium. An article from business insurance states that "increases tend to be passed along to consumers" when it comes to rate hikes (Dunsavage (4), 2021, para. 2). These rate increases can eventually contribute to a hardening insurance market.

The next effect social inflation can have on insurance companies and consumers is forced exits of the marketplace. A related study done by Sangmin Oh found that a majority of insurance companies have chosen to raise rates over leaving the market, however, with a large enough increase in costs due to social inflation insurers could begin leaving the marketplace (Oh, 2021, pg. 37-41). The result of an insurance company leaving the marketplace is less carriers for brokers and agents to place the consumer's interest. Through the use of simple economics, it can be determined that this will result in even higher premiums for the consumer due to decreased supply. However, perhaps the more likely scenario is consumers leaving the market due to increased costs.

In an article from the Wall Street Journal, it is outlined how this could occur, specifically in the trucking industry. The article states that underwriters have been increasing costs for liability coverage to recoup losses from nuclear payouts with some trucking companies being hit with double digit rate increases. The article goes on to relay that some smaller trucking operations have gone out of business recently citing insurance as a factor in their shut down (Smith, 2020, para. 2-3). Neither outcome, an insurance company leaving the marketplace or a consumer going out of business is a good outcome for the U.S. economy as a whole.

The third affect of social inflation is reduced capacity and more exclusions. One of the reasons for this is longtail claim development. What is long tail claim development? This is the nature of a claim to carry a long settlement period and is extremely prevalent in liability insurance. This is because of the nature of liability insurance claims to often involve large sums of money, lengthy court cases, and more in-depth investigation (Kagan (2), 2021, para. 2, 4). In an article on Insurance Business America, Bethan Moorcraft states, “for casualty underwriters, keeping on top of social inflation is challenging because not only do they have claims occurring in the present, but they also have to factor in issues that have been lingering or developing for a long time” (Moorcraft, 2020, para. 7). These long tail claims are reducing capacity for many insurance companies. This means they can’t write as much insurance.

Insurance companies have capacity requirements they are bound by law to follow. To start, underwriting capacity is the maximum liability that an insurance company will take on from underwriting activities. This liability is capped in order to protect the consumer from an insurance company becoming insolvent (Liberto, 2021, para. 1, 6). So, longtail claims reduce this capacity because underwriters have more liability taken on as claims pile up and are responsible for claims in the present as well as past. In order to combat this unknown, the

solution is often to reduce capacity in the present so that less liability is taken on in the future. This can be done through decreased limits, or even sub-limits. Often, sub-limits are put into place for higher risk exposures like punitive damages (for general liability) or sexual abuse (for directors' and officers' coverage). These types of high-risk exposures may also be excluded in times of reduced capacity (Great American Insurance Group, 2021, para. 9). Obviously, neither of these "solutions" are good for the consumer, especially if the high-risk exposure is the specific reason, they are purchasing an insurance policy, which is often the case.

Social inflation is simultaneously contributing to increased prices, market exits from both insurers and consumers, and reduced capacity in the liability insurance markets. These are all significant issues that need to be solved or at least curbed as social inflation continues to increase. So, what are some solutions to this issue?

### **Solutions**

The facts have been presented, the causes have been explored more in depth, geographic and market landscape has been laid out, and some of the effects have been covered. So, now the most important question, what are some viable solutions, if any, to social inflation?

There are several potential solutions on both the insurance company and consumer side of the situation. The first is having a sound risk management practice. Great American Insurance states in a 2021 paper on social inflation that "a sound risk management program can help a policyholder mitigate or prevent losses" (Great American Insurance Group, 2021, para. 11). This is a solution that can be promoted by both the insurance companies and their customers because it is a two-pronged solution. Insurance companies can do a better job of offering risk management to their customers and then following along those same lines, customers need to be accepting of the risk management ideas being offered to them to implement in their business.

Risk management can appear in many different ways but the most common forms of risk management are avoidance (completely avoiding a situation and thus a risk), retention (accepting the risk as something that can't be changed and implementing ways to retain it), sharing (spreading the risk out, i.e. group life, health, or disability insurance), transferring (purchasing insurance or reinsurance), and last but perhaps most important, loss prevention and reduction (implementing strategies to help prevent losses as well as reduce the inevitable ones that do occur) (Yu, 2021, para. 2, 5-7, 9). By implementing some or all of these practices, insurance companies and customers could combat potential losses and perhaps lesson the risk associated with those that occur, thus decreasing the potential of social inflation to occur before the case or claim even gets to the court room.

Another potential solution to social inflation is the use of AI and technology in our everyday lives. As mentioned earlier, one of the worst industries for social inflation is the trucking and commercial transportation industry. This is a segment of the market that could benefit dramatically from the implementation of technology. For example, trucks could implement things like sensors, GPS, computer vision, radar, and lidar to make trucks “more aware of their surroundings”. Telematics could also be implemented to be more aware of the driver's actions and driving style (Kelley et al, 2018, page 375). This could help insurers price risks more accurately and perhaps lower the costs of insurance if commercial transportation companies can prove that they are effectively using this kind of technology. These innovations would also undoubtedly decrease accidents and traffic deaths as AI has a much quicker response time than the average human. The same journal by Kelly (et al) suggests the idea of another form of AI and states that “autonomous vehicles can redefine the kind of motor insurance required, limit accidents, and reduce the overall need for insurance” (Kelly et al, 2018, pg. 375). How can

autonomous vehicles change the insurance landscape? Autonomous vehicles could potentially alter who needs coverage in a driving situation. For example, if a driver A strikes the side of driver B's car after driver A ran a stop sign, then driver A is at fault and liable for any damage or injury caused. This is why drivers need insurance coverage, they can be found negligent or "at fault" for an accident. However, in the same situation, if driver A would have been riding in an autonomous vehicle, and the sensors on the autonomous vehicle misinterpreted or altogether missed the stop sign, then the manufacturer of the sensor or autonomous vehicle would be at fault. This completely shifts who needs insurance in a motor vehicle situation and moves the transportation risk to more of a products liability risk.

A third solution to social inflation could be increased public policy awareness and debate to promote legislative change. During the causes section it was discussed how litigation funding, limitations on tort reform, and other legislative efforts have contributed to social inflation. One of the ways that social inflation could be curbed is bringing these issues to light via public policy debate. One article states, that this could "further level the playing field between plaintiffs and defendants" (Dunsavage (2), 2021, para. 10). This, however, is a double-edged sword and an area that needs to be approached with all of the effects, both 2<sup>nd</sup> and 3<sup>rd</sup> order as well as immediate effects, thought of and considered. There is a fine balance between ensuring that social inflation does not occur but also making sure plaintiffs who are wrongly injured are fairly compensated.

One last potential solution is innovation from underwriters and other insurance professionals. One of these potential solutions is parametric insurance (Walker, 2021, para. 14). Parametric insurance is a type of insurance that quickens the payout in the event of a loss by paying out regardless of damage based on criteria such as wind speed or earthquake magnitude

in the covered area (Dunsavage (1), 2020, para. 4). For example, if a windstorm goes through a select county and wind speeds reach more than a set speed, perhaps 100 mph, then the insurance would pay out, even if no damage occurred to the covered property. This eliminates the need for lengthy court battles, insurance adjusters, and reduces claims costs as a whole (Dunsavage (1), 2020, para. 4). This is just one of the ways that underwriters could use innovative strategies to help mitigate the risk from social inflation.

In order to limit the damage from social inflation, underwriters will need to push the limits of their previous thought and explore territories that haven't been looked into before. Underwriters and insurance professionals have a tough but challenging task on their hands, but one that when approached with the right lens and correct mindset can be solved.

### **Conclusion**

Going back to the beginning of this research paper, exploring the validity of social inflation was one of the key purposes of the research. Throughout this paper and exploration of the research questions, some of the unknowns have been turned to knowns and many of the puzzling questions about this phenomenon have been looked in to. Throughout this paper it was important to find some of the potential causes, markets in which social inflation occurred, as well as its effects on the economy. Past that, working towards finding a solution was and will be key in moving past this issue.

The first research question that was explored was, is social inflation real based on data? Using the definition, "social inflation refers to all ways in which insurers' claims costs rise over and above general economic inflation", combined with data from the Institutes, it seems that without a doubt, social inflation is in fact a real issue (Dunsavage [2], 2021, para. 2). This is especially true in certain markets. The rate at which incurred losses are increasing for all

markets, shown in the data from the Institutes, is significantly above the 1.5% CPI annualized increase. This is especially evident in products liability and commercial auto liability with annualized increases of 17.4% and 10.9% respectively, compared to the 1.5% annualized increase in CPI. The slowest increasing market, medical malpractice, is still over two times higher than the CPI over the same time period (The Institutes, 2020, pg. 4-5).

Beyond this conclusion of fact, working to figure out the causes is key to solving the issue. It was found that a change in sentiment towards big business for a variety of reasons could be a potential contributing factor but there was mixed evidence at best that this change in sentiment was the sole driving factor of social inflation (Oh, 2021, pg. 6). A better cause to point to, one that has more hard evidence for increasing claims costs is litigation funding. Litigation funding, also known sometimes as litigation financing, is “the provision of capital to a claimholder or law firm in exchange for a portion of the proceeds from litigation or arbitration” (Lake Whillans, 2018, para. 1). In simpler terms, litigation funding is when a third party assumes some or all of the cost of a lawsuit. In doing this, the party assuming the costs gains an agreed upon percentage of the settlement if the case is won (Dunsavage (3), 2021, para. 1). This has increased dramatically in recent years and can contribute to social inflation in a variety of ways. One of the main links between the two concepts is the fact that it increases the litigious nature of society and pushes for more lawsuits because they can be pursued with little to no risk on the plaintiff’s part. Another potential cause is limitations or revisions to tort reform. To start, tort reform’s main goal is to reduce the cost of torts for parties being sued. This helps the party being sued (often corporations) and hurts the parties bringing the case to court (often individuals). This is done in three main ways, 1) making it more difficult to file a lawsuit, 2) making more difficult to obtain a jury trial in civil cases, and 3) placing limits on the amount of money that can be

recovered in lawsuits (HG.org, n.d., para. 3). This can force insurance companies to have to pay out claims more frequently and for larger amounts. In some cases, tort reform protects insurance companies from having to pay for losses beyond the scope of what is healthy for the insurance markets. With the limitation on tort reform insurance companies will undoubtedly have increased claims costs.

As discussed earlier, products liability and commercial auto liability seemed to be the two hardest hit markets for social inflation (The Institutes, 2020, pg. 4-5). This makes sense, as these are two fields in which liability is expanded, especially in terms of injuries to third parties. When people are injured at no fault of their own, it is more likely that nuclear awards will pay out, even more so when it is a long lasting, life altering injury. The ability for courts to control, to an extent, what happens in their individual jurisdictions also plays a factor in how awards are paid out. Through a report from the American Tort Reform Foundation, which lays out the toughest court systems on defendants, identified the Philadelphia Court of Common Pleas & The Supreme Court of Pennsylvania, New York City, and California as the top three most litigious environments for business (American Tort Reform Foundation, 2021, pg. 1).

Again, knowing that social inflation is real as well as what markets it occurs in is extremely important. But, perhaps more important is knowing the effects and potential solutions. The effects of social inflation are relatively straight forward. Social inflation can result in insurers and consumers leaving the marketplace, increased prices for insurance, and lastly, reduced capacity as well as increased exclusions in insurance policies (Dunsavage (4), 2021, para. 2), (Oh, 2021, pg. 37-41), (Liberto, 2021, para. 1, 6). In order to curb these effects, it is important to find solutions to the problem before it leaves lasting impacts on the insurance markets and economy. One of the best and easiest ways to approach this problem is through

increasing and improving risk management programs. This can help reduce losses and even stop them before they occur (Great American Insurance Group, 2021, para. 11). The next possible solution is increased use of AI and technology, especially in the hardest hit markets. This would be especially useful in the commercial auto liability market. Implementing AI and sensors that can react faster than a human driver could substantially reduce losses (Kelley et al, 2018, page 375). Additionally, increased public policy debate and change to litigation is also something that could be explored to help further level the playing field between plaintiffs and defendants. Last, but not least, a potential solution that has always been around, one that has pushed the human race through a countless number of trials and tribulations, is innovation. Innovation has spurred humans to overcome some of its toughest obstacles and this is no different. Underwriters and risk managers are going to have to get creative in how they deal with and protect against risk. One possible innovation that has been suggested is the use of parametric insurance (Walker, 2021, para. 14). Parametric insurance is a type of insurance that quickens the payout in the event of a loss by paying out regardless of damage based on criteria such as wind speed or earthquake magnitude in the covered area (Dunsavage (1), 2020, para. 4). Innovations like these will be the future of the insurance industry and could drive carriers as well as consumers past the issue of social inflation.

Social inflation broadly affects the insurance markets. It “lifts the tides” across the board for claims costs and thus pricing for insurance products. Social inflation is an issue that not only has a negative impact on the insurance industry but could also have a negative impact on the economy as a whole. Insurance is a vital part of running a business. It is key to have in place and to have in place correctly to protect both the entrepreneur and the business in general. Increased insurance expense could drive out businesses, especially smaller ones or start ups and increase

the barriers for entry to any line of work. Thus, social inflation has a broad ripple effect across the entire economy. It will be important for not only insurance professionals, but also businesspeople of all industries to understand this problem and contribute to finding a solution. Through cross collaboration and working together with people from all businesses the issue of social inflation can and will be figured out, solved, and moved past.

### Bibliography

- American Academy of Actuaries. (2009). *What is Tort Reform?*. Actuary.org. Retrieved October 30, 2021, from [https://www.actuary.org/sites/default/files/files/tort\\_fact\\_oct09.4.pdf/tort\\_fact\\_oct09.4.pdf](https://www.actuary.org/sites/default/files/files/tort_fact_oct09.4.pdf/tort_fact_oct09.4.pdf)
- American Tort Reform Foundation. (2021). *Judicial Hellholes*. ATRF. Retrieved October 4, 2021, from <https://www.judicialhellholes.org/reports/2020-2021-executive-summary/>
- Barone, A. (2021, May 31). Loss ratio vs. combined ratio: What's the difference? Investopedia. Retrieved November 1, 2021, from <https://www.investopedia.com/ask/answers/042315/what-difference-between-loss-ratio-and-combined-ratio.asp>.
- Brownyard, T. (2021, May 17). *Social Inflation and Increasing Demands Drive Hard Market for Security Industry*. Insurance Journal. Retrieved September 20, 2021, from <https://www.insurancejournal.com/magazines/mag-features/2021/05/17/613690.htm>.
- CCJ Staff. (2021, July 8). *Werner Enterprises says it will appeal \$90M verdict*. Commercial Carrier Journal. Retrieved October 19, 2021, from <https://www.ccjdigital.com/business/article/14936905/werner-enterprises-says-it-will-appeal-90m-verdict>.
- Chung, S. (2019, March 29). *Litigation funding comes of age: Trends and ethics*. Above the Law. Retrieved October 4, 2021, from <https://abovethelaw.com/2019/03/litigation-funding-comes-of-age-trends-and-ethics/>.
- Dunsavage, J. (1) (2020, December 14). Latest research and analysis. The trusted source of unique datadriven insights on insurance to inform and empower consumers. Retrieved

November 6, 2021, from <https://www.iii.org/insuranceindustryblog/rising-interest-seen-in-parametric-insurance/>.

Dunsavage, J. (2) (2021, January 25). *What is Social Inflation? What can insurers do about it?*

Insurance Information Institute. Retrieved October 2, 2021, from

<https://www.iii.org/insuranceindustryblog/what-is-social-inflation-what-can-insurersdo-about-it/>.

Dunsavage, J. (3) (2021, July 21). *Litigation Funding and Social Inflation: What's the*

*Connection?* Insurance Information Institute. Retrieved October 3, 2021, from

<https://www.iii.org/insuranceindustryblog/litigation-fundingand-social-inflation-whats-the-connection/>

Dunsavage, J. (4) (2021, July 14). *Social Inflation: Eating the Elephant in the Room*. Insurance

Information Institute. Retrieved October 3, 2021, from

<https://www.iii.org/insuranceindustryblog/social-inflationeating-the-elephantin-the-room/>

Dunsavage, J. (5) (2021, June 2). *IRC Study: Social Inflation is Real, and it Hurts Consumers,*

*Businesses*. Insurance Information Institute. Retrieved October 3, 2021, from

<https://www.iii.org/insuranceindustryblog/social-inflationeating-the-elephantin-the-room/>

DiLallo, M. (2021, September 3). Biggest stock market crashes in history. The Motley Fool.

Retrieved October 24, 2021, from <https://www.fool.com/investing/stock-market/basics/crashes/>.

EPIC Brokers. (2021, January 25). *Social inflation: Defining and mitigating an emerging risk*.

EPIC Insurance Brokers & Consultants. Retrieved October 2, 2021, from

<https://epicbrokers.com/insights/social-inflation-defining-and-mitigating-an-emerging-risk/>.

Fernando, J. (2021, June 17). *What is inflation?* Investopedia. Retrieved October 19, 2021, from <https://www.investopedia.com/terms/i/inflation.asp>.

Great American Insurance Group. (2021). *Social inflation: How today's rising claim costs affect tomorrow's insurance premiums*. Great American Insurance Group. Retrieved October 4, 2021, from <https://www.greatamericaninsurancegroup.com/content-hub/news-details/social-inflation-how-today-s-rising-claim-costs-affect-tomorrow-s-insurance-premiums>.

HG.org. (n.d.). *What is Tort Reform?* Hg.org. Retrieved October 30, 2021, from <https://www.hg.org/legal-articles/what-is-tort-reform-35441>.

Insuranceopedia. (2020, September 15). *What is a liability risk? - definition from Insuranceopedia*. Insuranceopedia.com. Retrieved October 19, 2021, from <https://www.insuranceopedia.com/definition/5752/liability-risk#:~:text=Explains%20Liability%20Risk-,What%20Does%20Liability%20Risk%20Mean%3F,financial%20loss%20to%203rd%20parties>.

IRMI. (n.d.). *Overall operating ratio*. Overall Operating Ratio | Insurance Glossary Definition | IRMI.com. Retrieved November 1, 2021, from <https://www.irmi.com/term/insurance-definitions/overall-operating-ratio>.

Lake Whillans Capital Partners. (2018, November 24). *What is litigation finance: Lake Whillans Capital Partners*. LAKE WHILLANS. Retrieved October 30, 2021, from <https://lakewhillans.com/what-is-litigation-finance/#:~:text=What%20is%20Litigation%20Finance%3F%201%20The%20Basics.%20Litigation,5%20Process.%20...%206%20Choosing%20a%20Firm.%20>

- Liberto, D. (2021, August 20). *Underwriting capacity*. Investopedia. Retrieved November 1, 2021, from <https://www.investopedia.com/terms/u/underwriting-capacity.asp>.
- Kagan, J. (1) (2021, July 31). *Underwriting cycle*. Investopedia. Retrieved September 20, 2021, from <https://www.investopedia.com/terms/u/underwriting-cycle.asp>.
- Kagan, J. (2) (2021, June 28). *Long-tail liability*. Investopedia. Retrieved November 1, 2021, from <https://www.investopedia.com/terms/l/longtail-liability.asp>.
- Kelley, K. H., Fontanetta, L. M., Heintzman, M., & Pereira, N. (2018). *Artificial Intelligence: Implications for social inflation and insurance*. *Risk Management and Insurance Review*, 21(3), 373–387. Retrieved September 30, 2021, from <https://doi.org/10.1111/rmir.12111>
- McCarthy, T., Hanson, A. (2021, May 3). *Social Inflation and Its Potential Impacts on the P&C Industry* [PowerPoint slides]. Verisk. Retrieved October 3, 2021, from <https://www.verisk.com/insurance/insights/social-inflation/>
- Moorcraft, B. (2020, January 3). *What is social inflation, and why is it hurting insurance?* Insurance Business America. Retrieved September 20, 2021, from <https://www.insurancebusinessmag.com/us/news/breaking-news/what-is-social-inflation-and-why-is-it-hurting-insurance-195626.aspx>.
- Murray, D., Williams, N., & Speltz, E. (2020, June). *Understanding the impact of nuclear verdicts on the Trucking Industry*. Retrieved October 2, 2021, from <https://truckingresearch.org/wp-content/uploads/2020/06/ATRI-Understanding-the-Impact-of-Nuclear-Verdicts-on-the-Trucking-Industry-06-2020-2.pdf>.
- Oh, S. S. (2021). *Social inflation*. SSRN. Retrieved October 2, 2021, from [https://doi.org/https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3685667](https://doi.org/https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3685667)

- Singh, M. (2021, August 29). *The 2007-2008 financial crisis in Review*. Investopedia. Retrieved October 24, 2021, from <https://www.investopedia.com/articles/economics/09/financial-crisis-review.asp>.
- Smith, J. (2020, January 13). *Surging truck insurance rates hit freight operators*. The Wall Street Journal. Retrieved November 1, 2021, from <https://www.wsj.com/articles/surging-truck-insurance-rates-hit-freight-operators-11578934834>.
- The Institutes Risk & Insurance Knowledge Group. (2020, June). *Social Inflation: Evidence and Impact on Property-Casualty Insurance*. The Institutes. Retrieved October 2, 2021, from [https://www.insuranceresearch.org/sites/default/files/news\\_releases/IRCSocialInflation2020.pdf](https://www.insuranceresearch.org/sites/default/files/news_releases/IRCSocialInflation2020.pdf)
- Travelers. (2021). *Motor vehicle verdicts over \$25 million*. Motor Vehicle Verdicts over \$25 Million | Travelers Insurance. Retrieved October 19, 2021, from <https://www.travelers.com/business-insurance/commercial-umbrella/excess-liability/top100verdicts/vehicle-over-25-million>.
- Walker, K. (2021, May 25). *Insurers are in the grips of 'social inflation'*. Willis Towers Watson. Retrieved October 4, 2021, from <https://www.willistowerswatson.com/en-US/Insights/2021/05/insurers-are-in-the-grips-of-social-inflation>.
- Yu, J. (2021, June 29). *5 basic methods for Risk Management*. Investopedia. Retrieved November 6, 2021, from <https://www.investopedia.com/articles/investing-strategy/082816/methods-handling-risk-quick-guide.asp#:~:text=%205%20Basic%20Methods%20for%20Risk%20Management%20,through%20employer-based%20benefits%20that%20allow%20the...%20More%20>.