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Viewpoint

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ASSET MANAGEMENT | WHITE PAPER

Risk Matters

An ongoing series examining current investment risks for insurers and how modeling can help develop holistic enterprise solutions.

Inflation for P&C Insurers: Managing Risks to Both Sides of the Balance Sheet

"Inflation is as violent as a mugger, as frightening as an armed robber and as deadly as a hit man." - Ronald Reagan

By: Matt Reilly, Managing Director, Institutional Solutions and Yazeed Abu-Sa'a, Director, Institutional Solutions

The increase in inflation - 7% in 2021 - has captured many headlines and market expectations suggest inflation rates are likely to remain higher over the near term. The U.S. Federal Reserve and others are working at containing the aforementioned menace of inflation. In the meantime, for property and casualty (P&C) insurers, building strategies to counter this concern requires an understanding of the magnitude of the inflation they are dealing with and the potential impact on both sides of their balance sheets, a complex task Conning thinks can be aided significantly through risk modeling.

Insurers can be hurt in many ways by inflation. Inflation impacts the real (adjusted for inflation) values of the portfolio, income and returns. The impact on liabilities can be more complex, and it can have greater effect on insurers with longer tail risk.

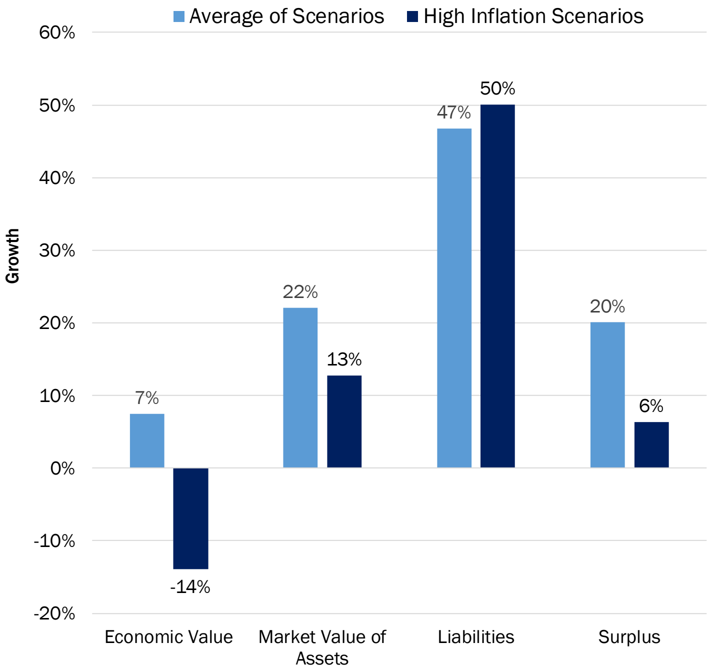
As inflation is not a static event, analysis is complex and the impact on individual insurers will be dependent on company-specific factors. Conning believes modeling of the various possibilities is critical to help insurers better develop strategies to manage inflationary risk, both at the investment-portfolio and enterprise level.

Inflation Impact on Insurance Operations

To better understand the impact of inflation on liabilities, it may help to separate the impact into those for current and future losses and the impact on prior losses and reserves.

In higher inflationary environments, expenses for insurance operations and claims increase more than expected, resulting in lower income in the current period. This can be mitigated somewhat as insurance carriers reprice their policies for higher expenses and claims costs. For prior losses, both known and unknown, insurance companies carry reserves and as future prices rise, the amount reserved for these losses might be inadequate. This could result in a decrease in redundant reserves or, in worse cases, require additional reserves for prior period losses.

Figure 1 Cumulative Three-Year Impact Across Key Variables[1]



Prepared by Conning, Inc. Source: Conning Inc.'s ADVISE® Enterprise Risk Modeler and GEMS® Economic Scenario Generator.

The liability impacts are further compounded by the types of risks insurers are covering, so for simplicity's sake, we segment P&C insurers into two buckets: short-tail lines, such as personal lines, and longer-tail lines, such as workers compensation, medical professional liability and other liability coverage.

For personal lines, such as personal auto, claims are known and estimated relatively accurately in a short period of time. The payouts on these claims also tend to be shorter in duration, resulting in lower risk to underestimating reserves for losses. Liability lines have longer payout periods, sometimes extending decades, and might not be known or settled for years after they occur. The increased length of payouts and uncertainty over future claims exposes the business to meaningfully higher risk of underestimating current claims, and in an inflationary environment these impacts can be exacerbated.

Inflation will affect different business lines in different ways. Using personal automobile as an example for a short-tail insurance, the business will be sensitive to inflation in the future costs of vehicles and as well as medical costs resulting from injuries. Workers' compensation insurance, as a proxy for a long-tail line of business, will not be as sensitive to the changing prices of automobiles but will be impacted by changes in wages, medical expenses and other related costs.

Bringing together the possible risks of the asset side and the liability side, insurance carriers can experience meaningfully adverse consequences to enterprise metrics such as net income, surplus or value.

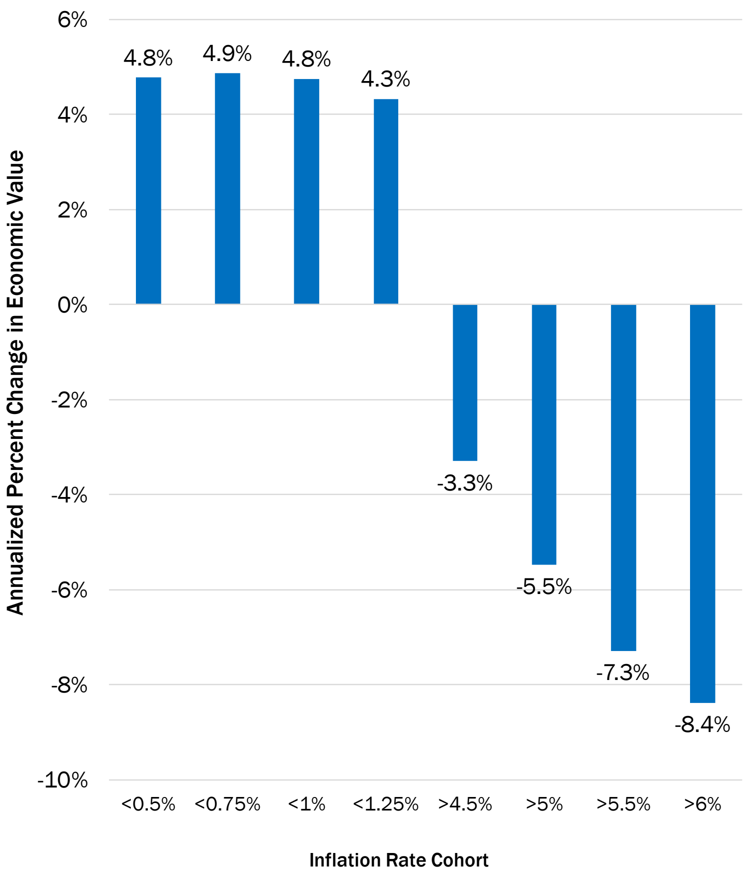
Commercial Lines Example

Utilizing Conning's proprietary modeling software, we show the impact of inflation on a commercial lines carrier in Figures 1 and 2. The magnitude of these metrics will vary meaningfully based on a specific company's growth trajectory, mix of business, underwriting results and balance sheet leverage. We use economic value as a measure of valuation, which reflects the market value of assets minus the discounted value of liabilities plus the value of future operations.

In the example, our simulation period is three years. Economic value of the organization has gone from growing 7% over the period to losing 14% in a higher inflationary environment. Investment growth is muted in the higher inflation environments while liabilities grow at a faster rate due to higher claims cost. This all results in lower growth of surplus. It is worth noting that surplus in both sets of scenarios is higher than economic value, mainly due to the smoothing effects of statutory accounting on the balance sheet.

Figure 2 focuses on economic value, with scenarios grouped by their annualized rate of inflation over our simulation period. The relationship between lower-than-expected inflation and higher economic values is meaningful but not nearly of the same magnitude as the negative impacts of higher inflation. In scenarios with inflation in excess of 6%, economic value decreased by 8% a year![2]

Figure 2 Annualized Change in Economic Value by Inflation Cohorts



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Inflation's Varied Impact on Asset Classes

How can an insurance company prepare its portfolio for inflationary shocks? In short, no one size fits all.

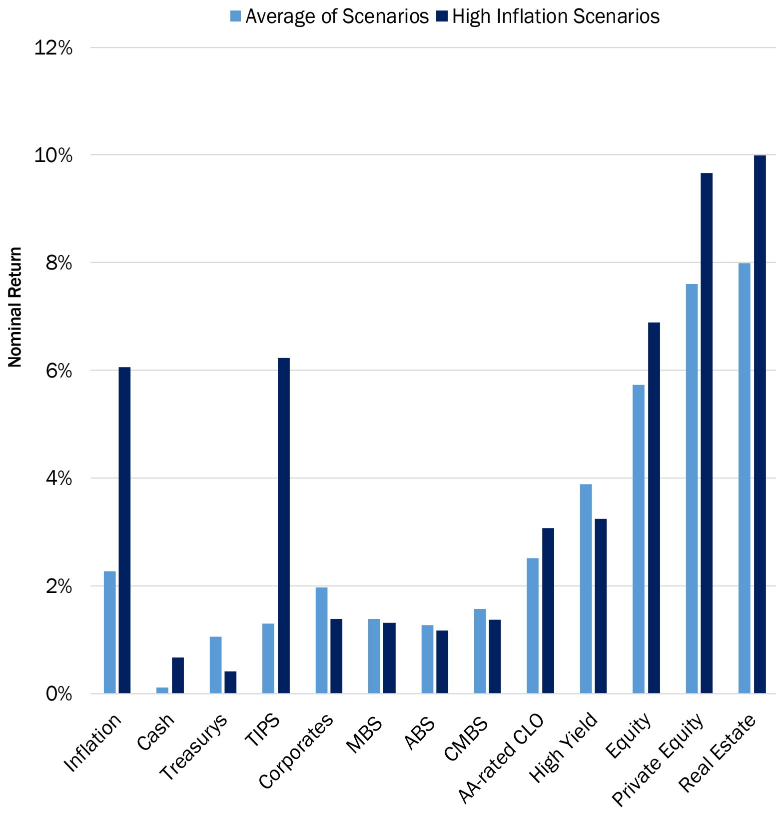
Increasing the amount of liquidity by increasing allocations to cash and shorter maturity securities might mitigate the impact of higher inflationary scenarios in terms of absolute losses. The price decrease on these securities is less than that of longer maturity securities and reinvestment yields would increase as inflation causes higher rates. Treasury Inflation-Protected Securities (TIPS), which provide an inflation adjustment, are another obvious hedge to higher inflation. In terms of hedging liability inflation risk, TIPS do provide a specific challenge: their price is adjusted based on CPI which might not accurately reflect the inflation risk of specific business lines.[3] However, both solutions fall short in scenarios without higher inflation due to their income and total return give-up relative to other investments.

Figure 3 provides context in terms of the broad array of projected nominal (not adjusted for inflation) returns from Conning's capital market assumptions developed utilizing the firm's GEMS® economic scenario generator. It becomes clear in this example that not all investments are created equal.

In higher inflation scenarios, returns for most fixed income sectors decrease; the exceptions are cash, TIPS and collateralized loan obligations (CLOs). CLOs benefit from the floating coupon which improves nominal returns of that sector as rates rise. Investments with a growth component - equities, real estate and private equity - all provide higher nominal returns in the higher inflationary scenarios as they are able to increase prices with higher levels of inflation.

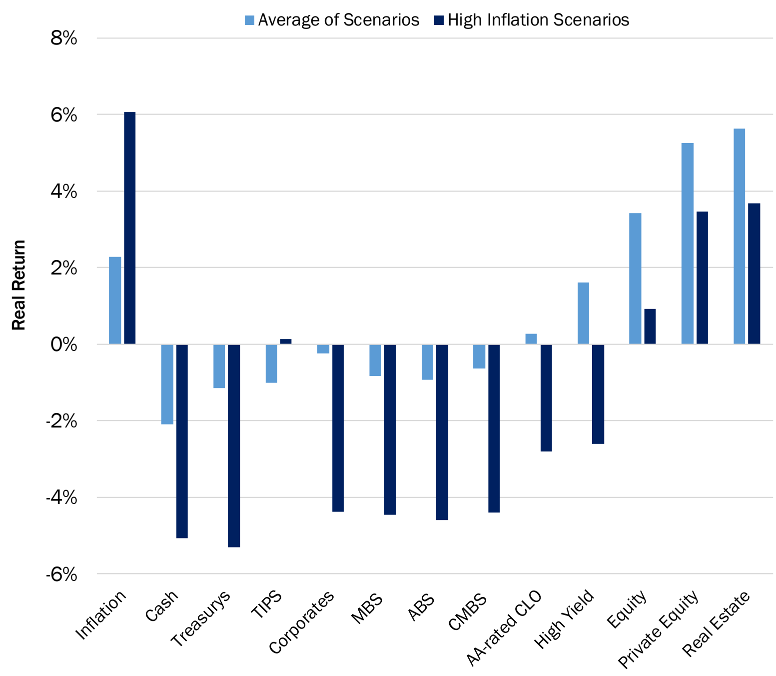
Figure 4 provides a look at the same investments over the same time period but focuses on real returns (adjusted for inflation). All investments, excluding TIPS which provide a meager positive real return, fare worse in the higher inflation scenarios. Those investments that initially had larger real returns, such as equities, tended to maintain their advantage but the magnitude of shifts in returns varied. While CLOs fare better than their fixed coupon peers, the change in returns varies. Equity exposures and real estate, while also negatively affected, fared better than non-TIPS fixed income sectors as they are able to adjust pricing with higher rates of inflation.

Figure 3 Nominal Returns – Average Scenario versus High Inflation Scenarios



Prepared by Conning, Inc. Source: Conning Inc.'s GEMS® Economic Scenario Generator.

Figure 4 Real Returns – Average Scenario versus High Inflation Scenarios



Prepared by Conning, Inc. Source: Conning Inc.'s GEMS® Economic Scenario Generator.

Whether viewing nominal or real returns, sectors including TIPS, CLOs, equity and real estate can perform better than traditional fixed income sectors. However, this analysis cannot be the sole driving factor behind investment decisions. Allocations to higher-returning equities and alternatives provide more return but with additional economic and capital risk, and as such these allocations need to be addressed as part of the organization's risk tolerance. While TIPS can perform admirably in higher inflation scenarios, returns across most scenarios lag other fixed income sectors. In choosing a credit-free instrument, investors would have to assess the relative benefits of an inflation hedge or prospectively higher returns and risk premia in sectors like the corporate market.

Aside from analyzing one's options in the cash markets, there are options to hedge inflation in the other markets that we haven't explored here but believe are worth mentioning. Inflation swaps allow for market participants to transfer inflation risk. Investors can reduce their overall exposure to inflation, as measured by market indices, or increase it. Commodities have also proven to be a strong hedge for inflation as they are a key input for much economic activity. As prices rise on commodities, one would expect for prices to rise on the output.

Seeking a Customized, Balanced Solution

Inflation is an ever-present risk in the operations of an insurance company and is one of the biggest concerns in 2022. However, before a company can begin to think of mitigating a risk such as inflation, it must first understand the economic drivers (i.e., types of inflation) and magnitude of that risk. Effective comprehensive enterprise modeling can help companies understand how inflation will impact their operations, balance sheets and the resulting economic strength of their franchise.

As with any risk, it's important to strike a balance between the magnitude of inflation risk and the cost associated with a mitigation approach. While TIPS might provide the most natural hedge to inflationary scenarios for portfolios, the return and income give-up in normal environments can prove costly. Real assets and equities can provide a hedge but come with the added cost of consuming incremental capital. CLOs with their floating rate coupon may be the most effective investment-grade fixed income strategy to mitigate inflationary shocks while still providing a strong return stream in normalized conditions.

While all of these may be part of a solution for a resilient portfolio, none in isolation can replace a long-term successful strategy tested across a range of economic environments. As insurers look to combat the challenges of 2022, a thorough analysis of stressed market conditions and the associated range of outcomes is critical to ensuring their enterprise is prepared to achieve its goals across a range of environments.

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ABOUT CONNING

Conning (www.conning.com) is a leading investment management firm with a long history of serving the insurance industry. Conning supports institutional investors, including insurers and pension plans, with investment solutions, risk modeling software, and industry research. Founded in 1912, Conning has investment centers in Asia, Europe and North America.

Footnotes:

[1] Growth trends of the factors displayed are driven by factors including but not limited to premium growth, underwriting profitability, expense controls, etc. Figure 1 is meant to demonstrate the change in these measures for a relatively profitable and stable commercial lines carrier.

[2] The inflation scenarios broken by cohort are representative of our tail distributions, for both lower and higher levels of inflation. Scenarios in which inflation averaged less than 1% accounted for less than 1% of our scenarios. Scenarios accounting for inflation in excess of 5% accounted for 3% of scenarios.

[3] CPI is a broad measure of inflation which may prove a poor hedge for the inflationary component of insurance operations which might be more aligned with measures of inflation specific to property types, wages or medical costs.