The inflation risks facing the insurance sector

And what insurers can do about it

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Strategic & Financial Analytics
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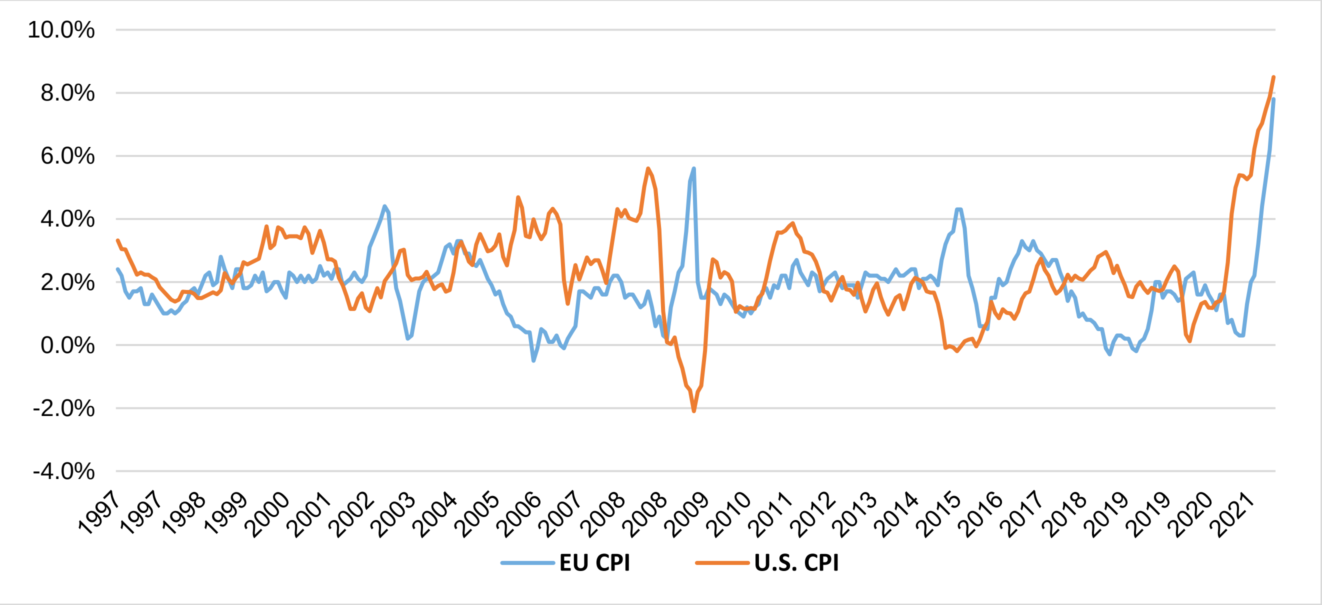
Summary

- The debate has moved on from whether inflation will spike to how long it will last. Financial markets have begun to price in more pernicious longer-lasting inflation.
- Looking across the major non-life lines of business, there is either evidence of inflation of underlying cost drivers today or an increased risk of inflation taking hold.
- Insurers *are* getting help from the asset side, but slowly and from a low base. The recent rise in investment yields should help earnings. Quite possibly, however, inflation-related impacts on the underwriting result, whether from the current or prior year accident years, could outstrip any benefits from higher investment yields.
- There are a number of steps insurers can take to mitigate their exposure to inflation risks. These include:
  - Reevaluating deductibles on the policies they write as well as attachments on their reinsurance programmes; generally, a lower reinsurance attachment will afford greater protection against inflation, but there are a number of additional subtleties to consider
  - Putting in place retrospective covers to protect against reserve deterioration
  - Clearly communicating to reinsurers how they are approaching inflation risk in their original portfolios
  - Considering structured solutions in order to reduce spend, if faced with higher reinsurance prices

Financial markets have begun to price in more pernicious longer-lasting inflation

There is no longer a debate about whether inflation will pick up. In most major economies a combination of accommodative monetary and fiscal policy, COVID-induced supply constraints and, more recently, a surge in energy costs have created an inflation spike. For example, annual CPI inflation in March reached 8.5% in the US and 7.8% in the EU, in both cases the highest readings recorded for over 25 years.

No longer a debate about whether inflation will spike[1]

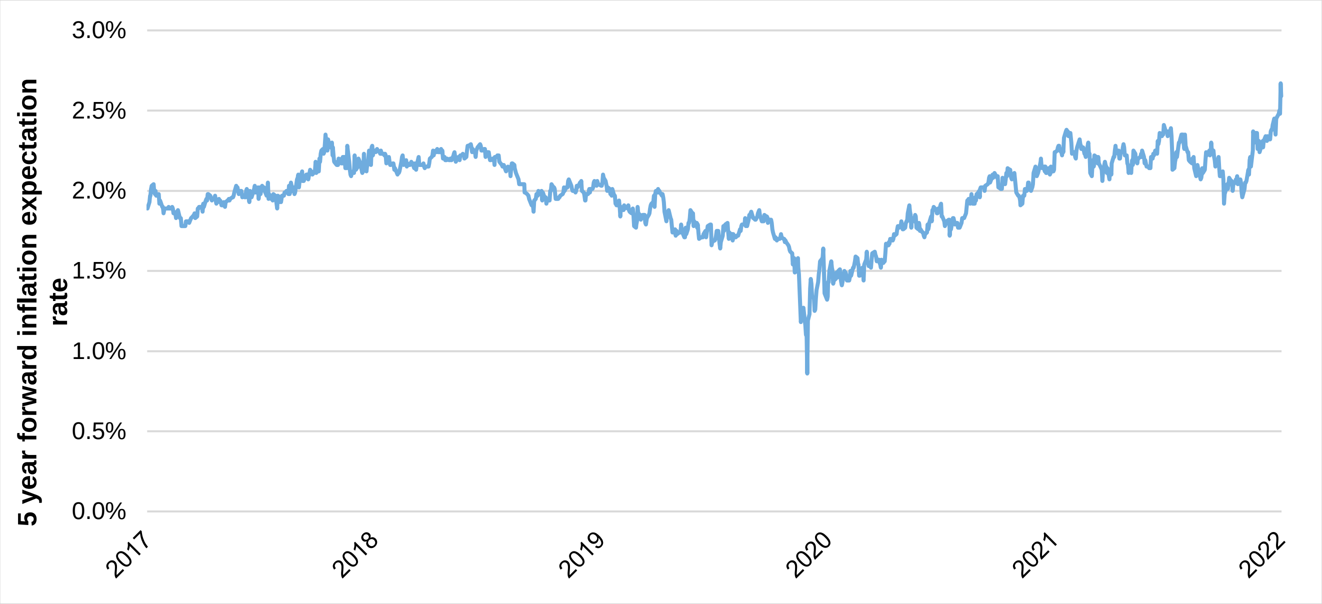


Rather, today's debate is whether inflation will be temporary or long-lasting. Until recently, financial markets for the most part were pricing in the former. Concern over more pernicious inflation, however, is becoming visible in markets. This can be seen from the implied 5-year, 5-year forward inflation expectation rate (ie expected inflation

[1] Source: Capital IQ

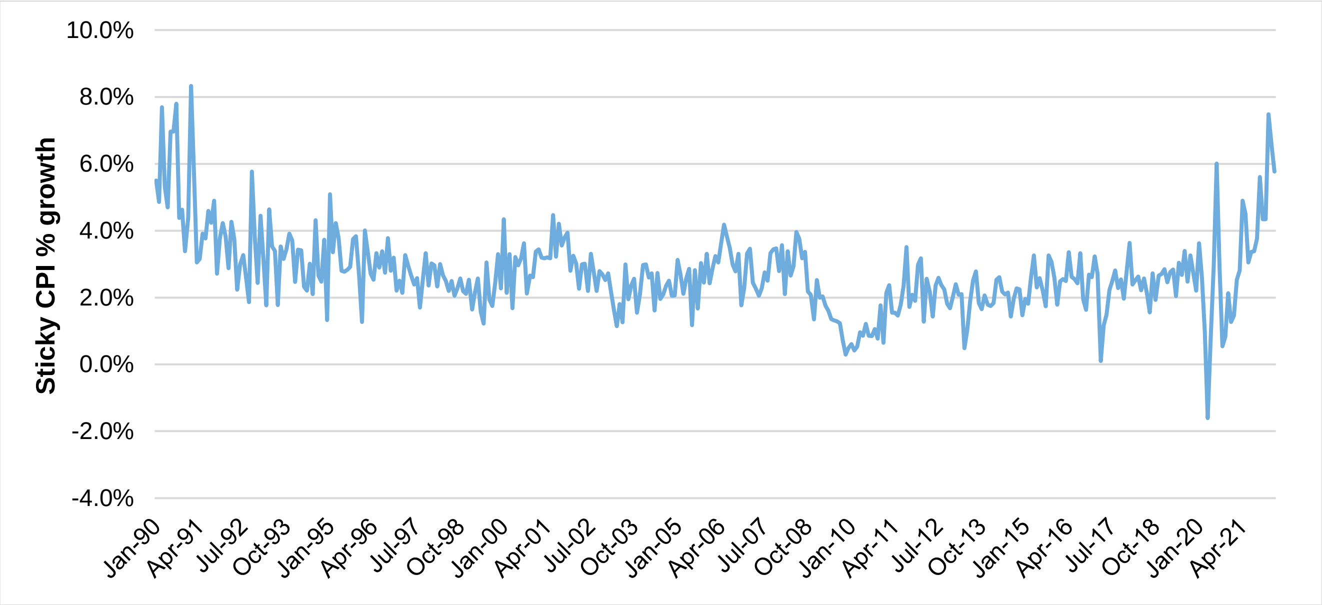
over the five-year period that begins five years from today). This had been in a rough range of 2.0-2.5% (with a brief dip at the start of the pandemic in early 2020) but has moved up steeply in the past few weeks.

Financial markets are getting more concerned that inflation is becoming persistent[2]



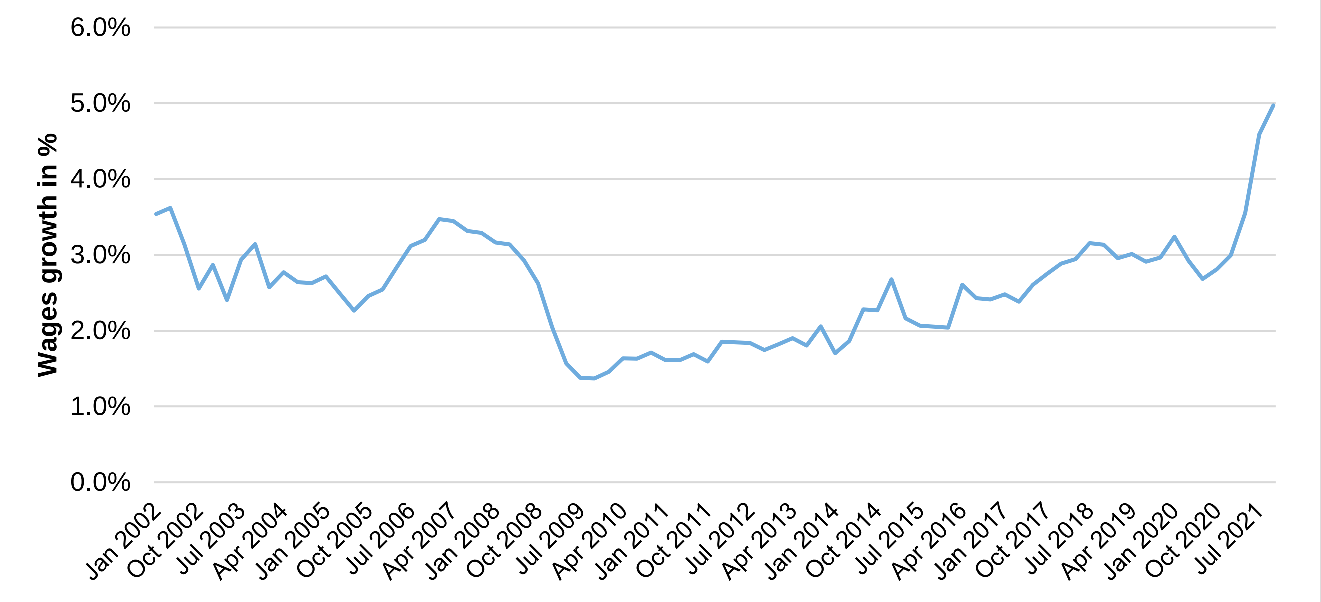
This is in tandem with inflation starting to seep into stickier parts of the economy. The Atlanta Fed maintains a 'Sticky-Price CPI' index, designed to measure inflation in areas of the economy where prices adjust more slowly. As the graph below shows, this currently measures 5.8%, at the high end of its historical range. Inflation is also beginning to seep into wages, increasing the risk of a longer-lasting wage-price spiral.

Inflation is seeping into stickier parts of the economy[3]



[2] Source: Federal Reserve Bank of St. Louis, 5-Year, 5-Year Forward Inflation Expectation Rate
[3] Source: Federal Reserve Bank of Atlanta, Sticky Price CPI.

US wage inflation is also picking up – a sign of stickiness[4]



Insurers are getting help from the asset side, but slowly and from a low base

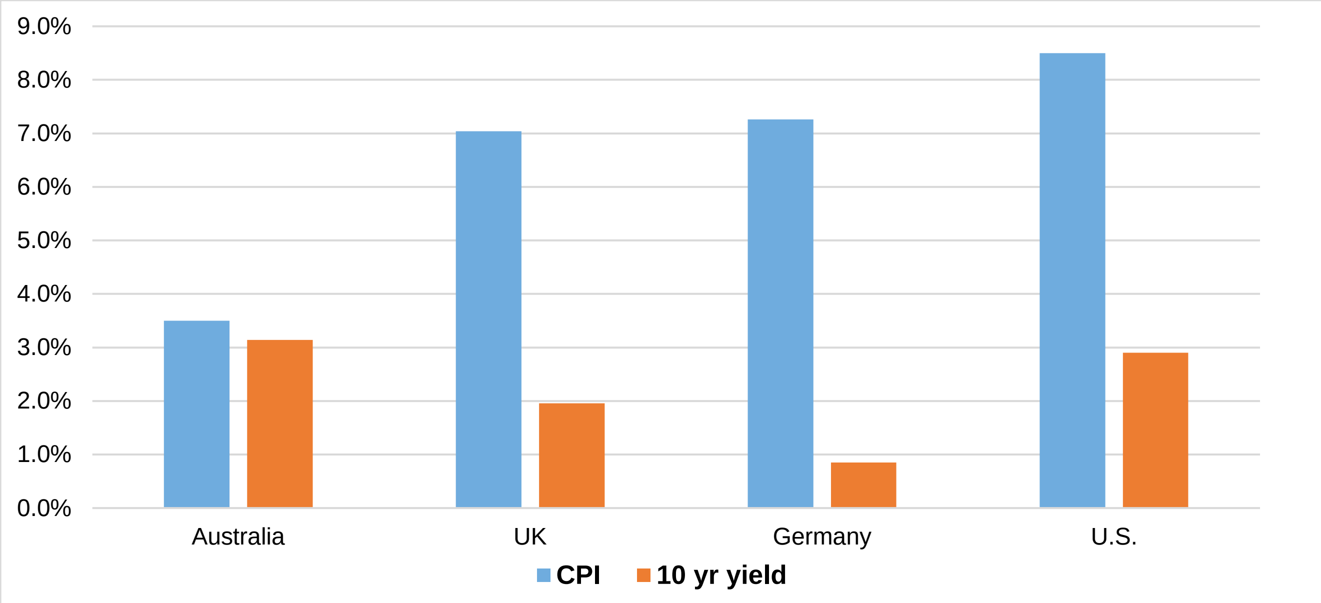
In response to all these inflationary pressures, investment yields globally *have* been moving up. So, if insurers are facing risks in terms of current and prior year underwriting results, at least some help is on its way in terms of better investment income.

Quite possibly, however, inflation-related impacts on the underwriting result, whether from the current or prior year accident years, could outstrip any benefits from higher investment yields. There are three specific caveats.

First, investment yields are getting better from a very low base. Interest rate moves to date, particularly on longer-dated bonds, have been much less pronounced than inflation. Across a sampling of major economies, ten-year government bond yields currently stand well below inflation rates.

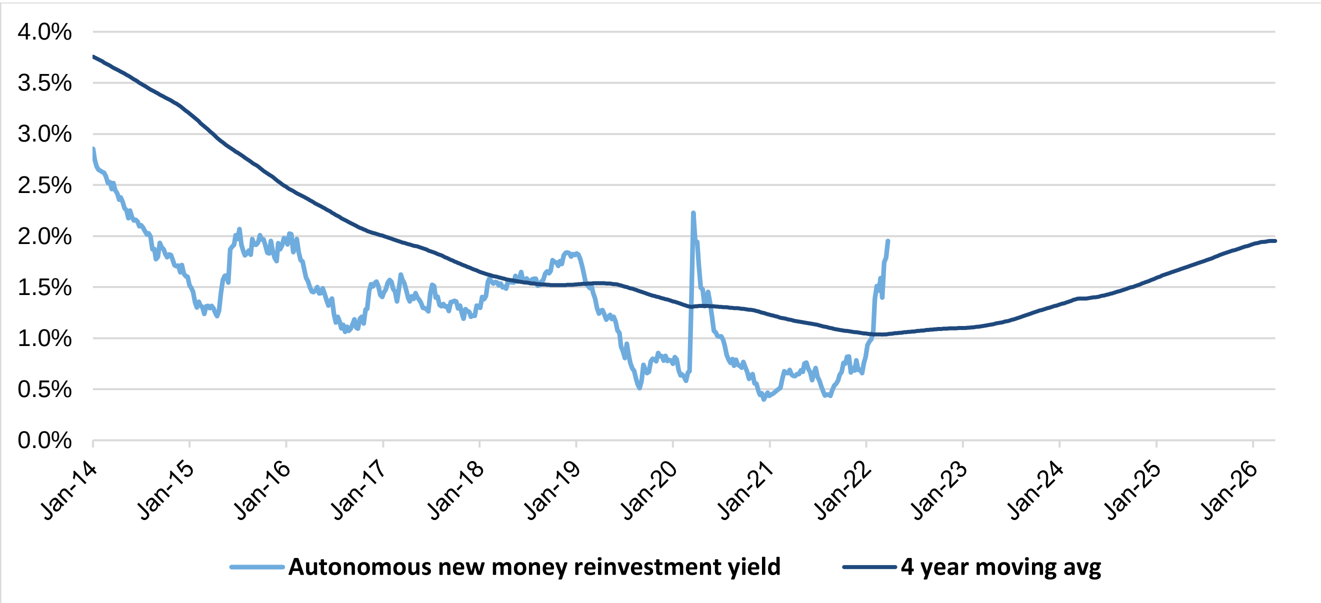
[4] Source: Federal Reserve Bank of Saint Louis, Employment Cost Index: Total compensation for Private industry workers in All industries and occupations.

Inflation has spiked, bond yields haven't[5]



Secondly, the recent pick-up in yields will take time to work its way into insurers' overall investment portfolios. A rough rule of thumb is that a non-life insurer's investment portfolio will turn over every four years, and so the 'booked' yield flowing through the insurer's profit and loss account will be roughly the four-year moving average of where new money yields have been. In the graph below we have used a new money yield calculated by Autonomous Research[6] and superimposed a four-year moving average. For the sake of simplicity, the average for 2022+ assumes that the new money yield stays at today's 1.95%. As a result, our analysis suggests that booked investment yields will have only increased 10 basis points by YE2022.

The recent improvement in yields will take some time to work their way into earnings[7]



[5] Latest CPI and current 10 year government bond yield. Source: Capital IQ
[6] Autonomous Research calculates a new money reinvestment yield for the typical European insurer (an amalgam of life and non-life insurers). As of the end of March this stood at 1.95%, which is the sum of an average government bond yield of 0.73% and an uplift for credit spreads of 1.22%. This likely overstates the new money yield for non-life companies, however, as they tend to own shorter-duration bonds and take less credit risk than life insurers.
[7] Source: Autonomous Research and Gallagher Re

Thirdly, while higher risk-free interest rates are helpful for earnings and ROEs, they also raise insurers' cost of capital. For a typical non-life insurer, ROE might be 3:1 geared to the risk-free rate – ie a 1.0 percentage point increase in rates would take ROE up by 3.0 percentage points. But it would also take the cost of capital up by 1.0 percentage points.

Inflation potentially impacts all major classes of non-life insurance

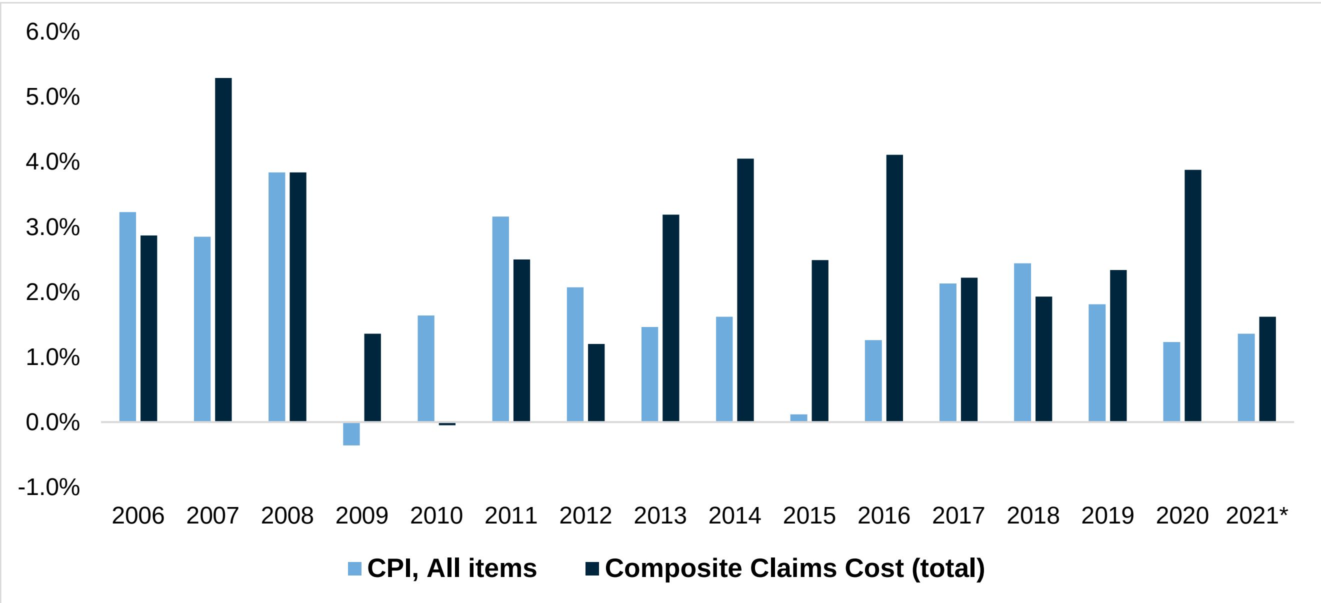
With inflation being pervasive in most major economies at present, there is a material degree of read-across to non-life claims severity.

This is on top of any pressures coming from social inflation. which reflects changes in attitudes toward litigation, changes in jury attitudes, new theories of liability or the push toward larger settlements driven by large punitive damage awards.

A P&C insurer's claim settlements are directly affected by economic factors such as trends in the cost to replace damaged property, the cost of repair parts, the cost of medical services and drugs, salaries and wages. In economic terms, claim costs for loss and loss adjustment expenses are the cost of production for the insurer. An insurer's major claim costs include physician services and other medical expenses; hospital care and rehabilitation; lost time and wages; automobiles, including repairs and parts; building materials and construction labor; and personal effects. The components for loss adjustment expenses are those incurred by insurance companies in settling claims (e.g., legal fees, and other legal and court costs).

Analysis of the annual changes in the Willis Towers Watson Claim Cost Index, as illustrated in the chart below, shows that the composite insurance inflation rate outpaces the general inflation rate nearly every year. This index does *not* measure changes in the frequency of claims nor social inflation.

Relationship between US CPI and Claims Cost Indices[8]



*2021 numbers are preliminary

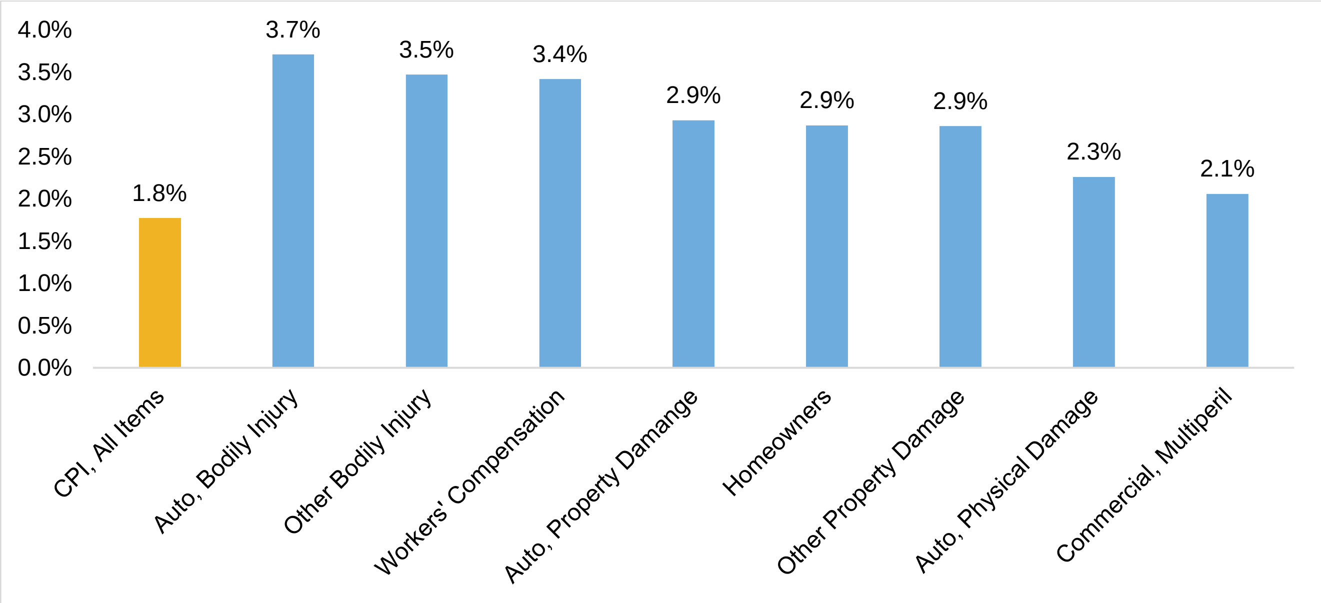
The Willis Towers Watson Claim Cost Index is calculated from a variety of sources (e.g., the Consumer Price Index [CPI] and the Producer Price Index [PPI]) that reflect insurance costs. The Index can be used as an indicator of the rate of change in claim severity. For example, insurance companies purchase auto mechanic

[8] Source: Willis Towers Watson.

services for auto physical damage coverage. As the hourly wage of auto mechanics increases, the cost for auto physical damage insurance coverage increases.

By breaking the claims cost index down into its parts, we can see the recent average annual trends for several major coverages. They all show increases above the CPI:

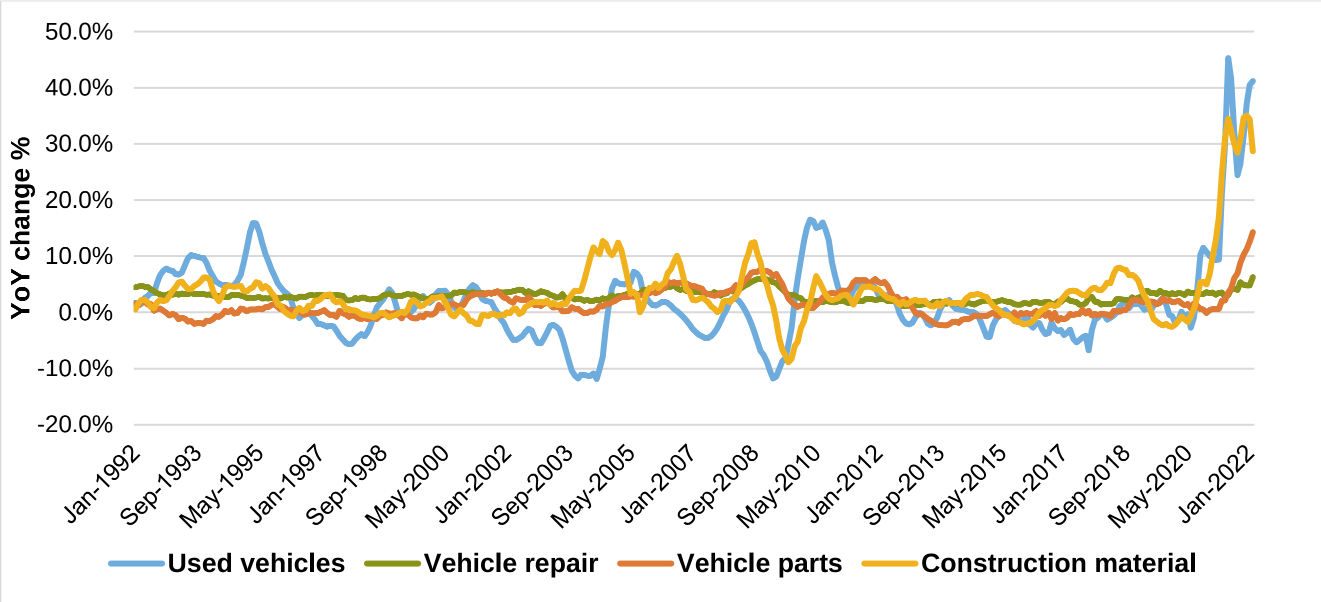
Average Annual Increase (2015 -2020)[9]



Looking at more recent data we can see that some of the most important inputs into short-tail claims costs are in fact seeing steep inflation at present. One of the most obvious examples is used car prices in the US, which reached an inflation rate of 41% in February. The vehicle repair and vehicle parts components of CPI are also seeing increases, as is construction materials. Inputs to longer-tail claims costs also include wages and healthcare costs where, as noted above, inflation is beginning to take hold (at least in wages).

[9] Source: Willis Towers Watson

Inflation is impacting drivers of short-tail claim costs[10]



So, looking across the major non-life lines of business, there is either evidence of inflation today or an increased risk of inflation taking hold:

- **Property lines:** Cost of construction materials and wages have increased. The latter is important as approximately 50% of homeowners claims cost is labour. However other than the short-term impact, property insurers should be able to feed back any observed inflationary impact into their pricing models.
- **Motor physical damage:** Second-hand car prices have risen dramatically in many countries, although this is also a mitigant in the form of higher salvage prices. Many countries have also seen inflation in spare parts and garage labour. As with property, insurers should be able to feed back any observed inflationary impact into their pricing models relatively quickly. Many motor insurers are also starting to see underlying inflationary pressure from the increasing complexity and sophistication of new vehicles (for example electric vehicles) where the cost of repair for a given incident may be rising faster than any regular measure of inflation.
- **Motor bodily injury:** No noticeable impacts to date, but claims are correlated in part to other parts of the economy where inflation is beginning to take hold, eg wages. In countries where a prescribed interest rate is used to calculate the present value of longer duration annuity-type payments, the interest rate may increase (hence reducing discounted liabilities) if inflation is persistent but this will likely lag behind the inflationary impact on the underlying claim severity.
- **Casualty lines:** No evidence yet of an increase in losses due to economic inflation, but casualty lines will be significantly geared to any persistency of inflation. A mitigant is that for some casualty lines such as workers' compensation / employers' liability, premiums are linked to wages.

Longer-tail lines of business are clearly more sensitive to inflation, given that inflationary impacts will cumulate year over year. The simple graph below illustrates. If inflation runs 1% higher than allowed for in booked reserves, then the ultimate liability will be 5% higher than booked reserves for a claim with a five-year duration. It will be 10% higher if the duration is ten years. These figures become 28% and 63% if excess inflation is 5%. This simple example assumes that excess inflation runs for the entire duration of the liability. Temporary inflation would have a reduced impact. For example, two years of 5% excess inflation would add 10% to reserves.

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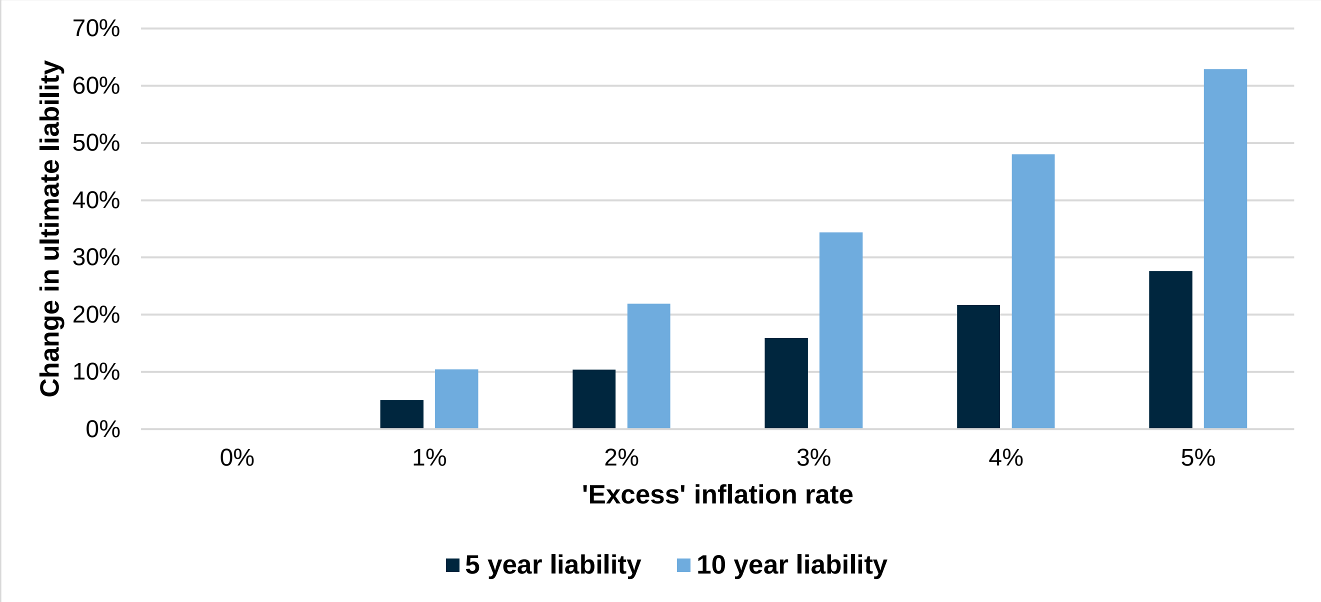
[10] Source: Federal Reserve Bank of St. Louis, Consumer price index for All urban consumers: Used car and trucks, Motor vehicle parts, Vehicle maintenance and repair, construction material

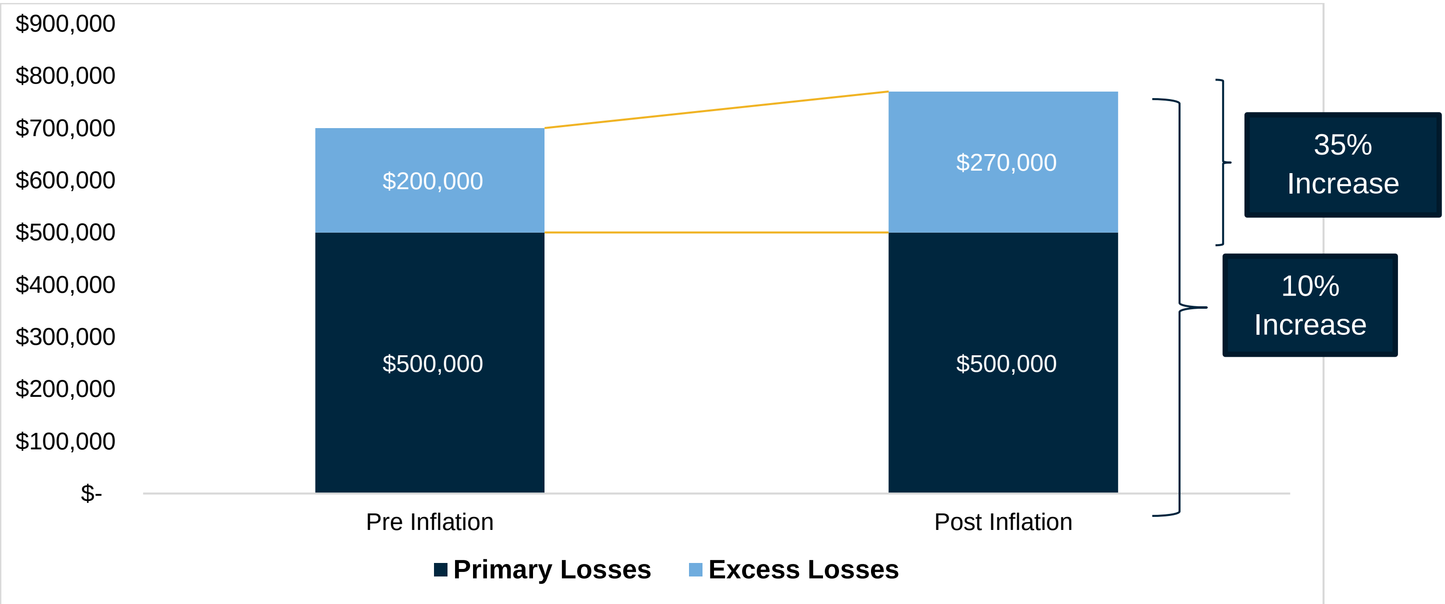
Excess inflation can cause significant damage to claim reserves[11]



The historic attachment points on insurers' excess of loss reinsurance programmes will also impact how geared they are to inflation. A higher attachment will leave more inflation risk with the insurer. (And it is similar for the deductibles on the insurer's original policies – a lower deductible puts more inflation risk onto the insurer.) Therefore, an insurer with higher historic attachment points should consider carefully the potential consequences of higher inflation on their reserves.

And it is not just the reserves which will be impacted. When considering attachment points going forward, insurers should also consider the effect of inflation on the excess layers, as illustrated in the chart below:

Inflation's Impact Excess Layers[12]



[11] Source: Gallagher Re
[12] Source: Gallagher Re

Issues insurers need to think about in mitigating their inflation risk

In light of these heightened inflation risks, there are a number of issues insurers should be considering in order to protect and mitigate their portfolios:

- **Reserve risk:** Should excess inflation remain persistent, then potential for adverse reserve development may be significant for longer-tailed lines of business. Going forward, reserve cover solutions (e.g. LPT/ADCs) may help manage the potential impact on future earnings, particularly to the extent reinsurance was underutilized in prior periods.
- **Attachment points/deductibles on underlying insurance policies:** Insurers should review how their policies respond to inflation. For example, moving to percentage deductibles could be a way of keeping the deductibles in line for growing sums insured. Also, where possible insurers should think about exposure rating policies using factors such as payroll, sales, and ensuring Total Insured Values (TIVs) are indexed/updated regularly which will help also lower need for 'manual' rate increases.
- **Attachment points on reinsurance treaties:** As discussed above, when evaluating where to set attachment points, especially on casualty treaties, insurers should be looking at how future inflation may impact loss severity. One area to consider in particular is how indexation clauses are used in the treaty. In the last few years with muted inflation, insurers may not have focused much on the indexation clause present in any of their reinsurance contracts. Many will have been on a franchise basis and the historically low inflation we have seen would not have triggered them. However, going forward it is quite possible these will be triggered and insurers need to model and understand how this may reduce the ability to transfer the inflationary trend into the excess layers.
- On shorter tail treaties, if faced with higher reinsurance prices, insurers can think about ways of **reducing the spend through structured solutions**, which are especially effective at the bottom end of the programs.
- **Understanding their own portfolio:** Buyers who can in a granular way explain how they are approaching inflationary risks in their original portfolios (pricing models, limit, original deductibles) are faring better when it comes to negotiating with reinsurers. This can also help prevent 'double counting' where reinsurers will add inflation into the insurer's figures unless they are persuaded that the insurers have adequately addressed inflation in their analysis.

How can we help?

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