Please note: This letter has been prepared for the website. Square brackets show where this letter may differ slightly, along with formatting from those versions sent directly to firms.

Bank of England

Prudential Regulation Authority

Nylesh Shah
Chief Actuary for General Insurance
Co-Head of Division, General Insurance Risk Specialists,
nylesh.shah@bankofengland.co.uk

20 October 2022

Dear Chief Actuaries of general insurance firms and Lloyd's Managing Agents regulated by the PRA

Insights from PRA thematic review of general insurance reserving and capital modelling

We are writing to share insights from our recent thematic review across the general insurance sector focusing on the effect of claims inflation on general insurance claims. By claims inflation we are referring to the increase in the cost over time to settle general insurance claims. We have observed examples of good practice across a selection of insurance firms, from across the London market, as well as retail and commercial insurers. We expect high claims inflation to affect every general insurance firm, although the nature of the impact will vary depending upon the firm's business model and risk profile. The impact of a persistent spike in claims inflation may result in a material deterioration of solvency coverage for some firms unless mitigating actions are taken.

In summary, our review has identified a number of observations relating to how claims inflation differs by line of business and geography. In particular, there is uncertainty in the severity and duration of claims inflation expected, and there may also be a lag before it materialises. This has given rise to additional uncertainty around future claim settlement costs which will need to be considered in business planning, reserving, and

risk management. Technical provisions must[1] be calculated based upon up-to-date, credible information and realistic assumptions. Therefore, claims inflation should be robustly considered. Also, we expect firms to ensure the risk of further claims inflation is appropriately allowed for in the internal model Solvency Capital Requirement (SCR) calculations[2] and where the Standard Formula is used to calculate the firm's SCR, that it remains appropriate.[3]

We trust this will be useful as your firm prepares for its year-end reserving exercise, capital and business planning for 2023. We would encourage you to assess the extent to which the points raised below are relevant to your business, how they are being addressed and to share the letter with the Board and other key stakeholders. As part of our 2022 year-end reserve adequacy supervisory work, we may ask you to explain how you have considered the key findings set out below.

Key findings and observations for good practice

We have grouped our feedback into five key areas of good practice that we have observed. Further sector specific and detailed observations are set out in the Annex.

1. **Consider how inflation is manifesting in your firm's claims, and how this may change over time.** Claims inflation is already evident within the settled claim data for firms writing motor and property insurance. Firms with exposure to casualty lines in the US, Australia and some other countries have been observing social inflation in their claim settlements for a number of years.

   - Good practice includes considering the different types and drivers of inflation relevant for the business (eg wage, car parts, court settlements, medical, etc.) separately as appropriate.

   - We would encourage firms that have not yet seen a material uptick in claims inflation to remain alert to emerging trends. This is particularly important for firms that have less sight of their future claims. Higher claims inflation may persist for longer than expected where there is a lag between increases in costs passing through to claim settlement costs.

---

1 PRA Rulebook Technical Provisions 3.1: https://www.prarulebook.co.uk/rulebook/Content/Part/212661/08-09-2022.

2 PRA Rulebook Internal Models 11.6: https://www.prarulebook.co.uk/rulebook/Content/Part/212824/16-09-2022

3 PRA Rulebook Conditions Governing Business - Risk Management 3.8 2c: https://www.prarulebook.co.uk/rulebook/Content/Chapter/212972/08-09-2022#212998

- To assess and monitor the effect of claims inflation in a book of business, more prepared firms are monitoring the drivers of claims inflation (including social inflation) against reserving, pricing and business plan assumptions. It is helpful to explicitly consider claims inflation trends when projecting future claims settlements.

2. **Assess the appropriateness of existing reserving techniques in the current inflationary environment.** There may be a lack of corporate memory of working in an environment where claims inflation is high. Historical data is unlikely to contain data on high inflation and therefore parameters or assumptions will be based on highly uncertain forward looking expert judgements.

   - Inflation-adjusted reserving techniques are no longer widely used and firms may wish to consider re-introducing them into the suite of analysis performed. Explicit inflation adjustment techniques can help capture inflationary trends. Explicit allowance for claims inflation enables better monitoring, benchmarking and actual versus expected analysis to be performed.

   - Some firms only consider claims inflation over the following one-year and several firms focus only on current year reserving. We would encourage all firms, especially those with longer-tail lines, to consider whether long-term assumptions should be adjusted, the extent to which prior year reserves are exposed to inflation and if there is any potential impact on the risk margin.[4]

   - It is important that firms writing inward non-proportional reinsurance and excess layers have sight of claims approaching the attachment point. Exposure-based techniques can be used to assess the potential gearing effect where exposure to inflation is non-linear.

   The Institute and Faculty of Actuaries have also issued a risk alert[5] on the impact of high inflation on actuarial practice. This has highlighted similar points to those mentioned above.

3. **Maintain feedback loops between claims, reserving, capital modelling and underwriting/pricing functions.** When there is uncertainty around the extent of claims inflation, it is important that communication and feedback between functions are clear and frequent to enable firms to react quickly and allow for

4 Technical Provisions - Prudential Regulation Authority (prarulebook.co.uk) **Paragraph 4.1: https://www.prarulebook.co.uk/rulebook/Content/Part/212661/08-09-2022**

5 The impact of high inflation on actuarial practice: **risk-alert-inflation-20220831.pdf (actuaries.org.uk): https://actuaries.org.uk/media/mcbbhtpr/risk-alert-inflation-20220831.pdf**

emerging trends in their respective functions.

- Until such time that there is data to support expert judgements we would encourage firms to consider the uncertainty of the judgements when selecting the parameters in setting reserves. Good practice is to regularly review the appropriateness of the assumptions as inflationary pressures feed through to claim settlement costs. Many firms have set up cross-functional bodies to review assumptions. Differences in assumptions between functions may be appropriate but need to be clearly understood and reviewed.

- We noted in our meetings with firms that in many cases the reserving functions stated they had not seen any effect of inflation in their figures to date. However, claims functions were acutely aware of the impact of inflation being seen in their case estimates and claim settlements. We encourage firms to make use of this ‘early’ information from claims to help determine an appropriate best estimate claim provision and premium provision.

4. **Consider whether the uncertainty around claims inflation has been adequately allowed for in the capital requirement.** This relates to capturing the tail downside risk pertaining to both the level and duration of elevated claims inflation. The modelling of inflation should be commensurate with the firm’s risk profile and exposure to different inflation sources.

- There are a range of approaches to capture material inflation drivers in internal models, either explicitly, implicitly or in a combination of the two. It is good practice for the parametrisation to reflect up-to-date market conditions and forward-looking trends. This involves timely updates of Economic Scenario Generators (ESGs) and regular reviews of implicit parameters such as claim volatility and line of business correlation parameters. Similarly any parameters modelling inflation shocks explicitly require regular updates to remain relevant and appropriate.

- We point to the importance of validation to make sure claims inflation risk is adequately modelled and its materiality well understood by the business. In particular, third-party ESG results should[6] be included in the scope of validation. As a minimum, firms typically review the validation tests conducted by ESG providers to make sure they are in line with their own risk profile and view of risk.

[6] As per Solvency Capital Requirement - Internal Models - Prudential Regulation Authority: **Chapters 16 External Models and Data: https://www.prarulebook.co.uk/rulebook/Content/Part/212824/08-09-2022**

- In addition to the business as usual validation cycle, we have observed firms conducting proactive ad-hoc validation in response to material new developments or significant new emerging trends.

5. **Ensure that risk management systems continue to be effective.**[7] Risk management should be sufficiently agile and responsive to ensure quick identification of inflationary trends and appropriate capture throughout the business. As set out in supervisory statement (SS) 4/18,[8] foreseeable adverse scenarios should be taken into account when considering the maintenance of capital resources in line with insurers' risk appetite.

   - Good practice tends to include holistic views of risk across different functions, and have contingency plans and management actions in place to deal with adverse scenarios. This may involve various risk management tools such as reinsurance, investment strategies and capital management.

   - It is good practice to regularly review stress and scenario testing (SST) so that it reflects an appropriate range of plausible adverse outcomes based on up-to-date information. SST is a critical tool to help understand how increases in inflation could affect a firm's reserves, balance sheet, profit and loss or solvency position and therefore allow firms to pre-empt this and set up mitigating actions if adverse scenarios materialise.

   - It is good practice for consistent SST to be performed by both the capital modelling team and also as a tool used by the reserving team. In capital modelling the SST mostly targets extreme but conceivable adverse outcomes. In reserving the SST can be more focused on the plausible central range of expected outcomes, noting that it is logical to assume the range of expected outcomes will widen in times of greater volatility. SST is an important tool in both functions.

For Managing Agents operating in the Lloyd's Market we draw your attention to a letter on inflation[9] published by the Society of Lloyd's which should be read in conjunction with this letter. We encourage Managing Agents to consider these points when setting the reserves and calculating the capital requirements for syndicates.

We are continuing to monitor and review how firms are preparing for and allowing for claims inflation in their reserves, claims, capital requirements and underwriting/pricing.

---

7 Conditions Governing Business 3: **https://www.prarulebook.co.uk/rulebook/Content/Chapter/212972/04-10-2022**

8 May 2018: **https://www.bankofengland.co.uk/prudential-regulation/publication/2018/financial-management-and-planning-by-insurers-ss.**

9 Reserving Guidance Allowing for Inflation: **https://assets.lloyds.com/media/55a72787-8bca-4516-b508-c88fa0f05670/Reserving-Guidance-Allowing-for-Inflation.pdf**

We would encourage all firms to review our findings and consider how each of the points may impact their firm during the year-end reserving and capital assessment process.

Yours faithfully

Nylesh Shah, Chief Actuary for General Insurance, Co-Head of Division, General Insurance Risk Specialists

ANNEX: Additional observations from our reviews

This Annex sets out more detailed observations which we include to support the high-level messages in the main letter.

Observations relating to stress and scenario testing

- Where firms are relying on mitigating effects in stress and scenario tests, better scenarios will explicitly quantify following effects:
  - the effects of limits on layers in inward business;
  - the attachments of significant non-proportional reinsurance arrangements;
  - the gearing effect on excess layers or inward excess of loss reinsurance, some of which may not be currently triggered before the application of the stress; and
  - contractual limits on inward policies.

- Better scenarios covered a range of future claims inflation projections that were reasonably plausible and suitably adverse to cover a wide range of potential outcomes and over a sufficiently long time frame. Conversely, we have also often seen scenarios from firms that were required to be recalibrated to be more adverse within two or three months. Scenarios may also need to be updated to take into account the potential impact arising from changes in economic policy or changes in the economic outlook within countries in which exposures exist.

- Scenarios appear to be most helpful in improving understanding when they cover a wide range of economic variables that align with the drivers of claim settlement costs and expenses. Assessing the drivers of claims costs more granularly can provide a more meaningful projection of future claims payments specific to the risks and lines of business written by individual firms.

- Scenarios were more helpful when they included different durations of claims inflation being applied. This is to help understand the different effect of a short-term severe increase in claims inflation or a persistent claims inflation scenario.

  Good practice includes considering the possible effects of inflation on both assets and liabilities. Very few scenarios considered the impact on investment returns simultaneously with the effect on claims. Some firms included a scenario looking at high inflation along with low growth, although these scenarios usually only considered the asset side of the balance sheet. Considering both sides of the balance sheet together in a scenario can allow for a wider range of plausible outcomes to be modelled and greater understanding of the impact on the firm from the scenario.

Observations in relation to how headline inflation is feeding into claims experience

- The headline rate of inflation is based on changes in the consumer prices index (CPI). The index captures the price of a 'typical' basket of consumer goods and services. There is no direct link between CPI inflation and how inflation manifests itself in claim settlement costs. For example, claims may rise as a result of increased replacement vehicle costs due to parts taking longer to arrive. Or, for household insurers, claims might increase due to longer duration of alternative accommodation. These factors will all contribute to a claim cost but will not feed directly into CPI inflation.

- The effect of inflation is different within each country and can even vary within different states or territorial areas of the same country. Good practice includes considering the effects of inflation within each geographical region separately where appropriate.

- Currency exchange rate movements and volatility may result in additional risks in terms of claim settlement costs and covering fixed expenses.

- The risks arising from claims inflation will be different for personal lines and commercial lines. One example is that in personal lines the risk of inflation in sums insured sits with the insurer. In commercial lines some of the risk of inflation in sums insured may sit with the policyholder. Some types of insurance may have exposure-based premiums (aviation, commercial property, marine cargo) so there is an inflation link in the pricing already. Where claims are short tailed this provides better protection against inflation, where claims take longer to settle the exposure based premiums provide much less protection against inflation following the date the policy premium was agreed. Where the premium due under an employers' liability policy is linked to turnover or the staff wage bill this may also be considered to be linked to inflation but due to the time taken to settle employers liability claims the protection provided by this link is likely to be weaker.

- Insurers often have fixed-price contracts with providers of services, eg hospitals (medical), vehicle repair networks (motor), construction firms (property) or legal services (defence legal fees are often agreed upfront). Therefore there can be delays before claims inflation appears in claim settlement costs.

- Casualty writers report seeing an uptick in economic inflation indices, however it is generally too early to see an inflationary effect on reserves. This is likely to be because it takes time for increases in the drivers of court awards to come through into court settlements. Firms may also have not fully updated claims inflation assumptions in reserving estimates. Some firms have been performing

forms of actual versus expected analysis and are yet to see an increase in settlements other than due to social inflation.

It is good practice to consider inflation assumptions separately within both claims and premium provisions. Where focus is primarily on incurred claims, this could be at the expense of looking at future claims.

Observations on the identification of future risks

- In lines of business where claims take longer to settle it often takes longer for increases in the cost of the drivers of the claims cost to feed through into claim settlement costs, eg parts of the claim may have already been settled, some of the claims costs may have already been incurred or it may take time for new court award precedents to be made. Therefore it can take longer for the effect of claims inflation to become apparent in the claim settlement costs. Many firms have therefore not reported significant increases in mid-year reserving estimates. Projections for future claims inflation remain volatile and there is an expectation from many firms that incurred but not reported (IBNR) and incurred but not yet reported (IBNER) reserving estimates will increase at year-end to reflect the increase in future claims inflation assumptions since last year end.

- Policyholder behaviour may change in the light of increased cost of living. Policyholders may purchase less cover to reduce cost rather than cancel. This may change a firm's claim profile and may also have an impact on the size of a firm's account and the ability to cover fixed expenses. Fraud may become increasingly prevalent in all lines of business and we note that some firms reported to us that they had seen an increase already in identified fraudulent activity. It may also become more difficult to increase premiums in already competitive markets.

- We have observed that some motor firms have begun changing assumptions around long-term discount rates (Ogden) in advance of the next official change in the personal injury discount rate.

- We are aware of rapidly changing market conditions in the reinsurance markets, in part as a result of high inflation, and would encourage firms to consider whether existing outward reinsurance assumptions remain appropriate in both technical provisions and capital modelling assumptions. It may be that coverage achieved this year may not be available next year or if it is available it may be at an increased cost. This could lead to firms retaining more of the risk which would need to be reflected in technical provisions and capital requirements.

- The effect of claims inflation on the underwriting cycle is currently uncertain. Some sectors of the general insurance market have been hardening. Some

market participants commented in discussions with the PRA that the recent spike in inflation has kept momentum up on rate increases and that casualty rates may have softened during 2022 if not for inflation.

- We have heard observations from market participants that firms that have fixed-price agreements with third-party claims handling functions appear to have less control over claim settlement costs. There is a risk that this effect may be exacerbated in a high claims inflation environment.