

Munich Re talking about inflation and its impact on (re)insurance



Today's speaker

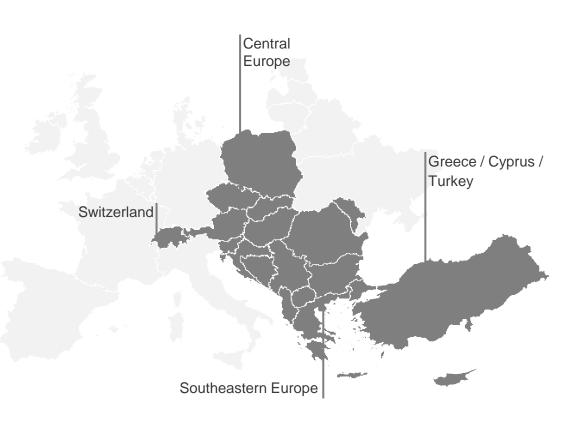




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- Casualty Underwriting experience of 15+ years in Europe and in the Asia-Pacific Africa region
- Joined Munich Re in 2006
- Master's degree in Business Administration and Economics of Universität der Bundeswehr München with focus on insurance management



Agenda



- Munich Re's three strategic pillars in Central Europe
- Global economic overview
- Impact of inflation on insurance:
 - ✓ Economic view
 - √ View per line of business
 - √ Focus on proportional and non-proportional reinsurance

Munich Re's three strategic pillars for Central Europe



Munich Re proposition

Partner at Risk +++ Secure business cases +++ sustainable financial solidity +++ venture and product building

EXCE Classical Reinsurance

Reinsurance

Providing capacity for customized and complex risks at efficient and speedy renewal processes

Capital- and Risk Advisory

Risk and Nat Cat modeling along with reinsurance structuring

Operational advisory

Consulting on process optimization by targeting complexity reduction and efficiency gains

Line of business services

Portfolio consulting along the operative insurance value chain, facultative services etc.

Grow Financial Solutions

Corporate finance management

Optimize financial and regulatory KPIs from a CFO perspective by customized reinsurance

Financial services

Support in capital, rating and solvency modelling

Financing structure

Optimize growth and seed financing; support in M&A transactions via reinsurance

Capital market solutions

Full servicing of insurance linked securities and other capital market vehicles

Invent Business Building

Product development

Re_Invent insurance with new scope of coverage or enabling technology

Insurance infrastructure

Re_Define the setup of regulatory models such as agents, MGA or insurers

Business Model Design

Re_Design the role of insurers, leveraging worldwide innovation labs and scouts

Risk Mitigation

Re_Assure Munich Re's engagement and sustainable success via risk taking



Global overview: High inflation, monetary tightening and geopolitics to shape the world economy in 2023

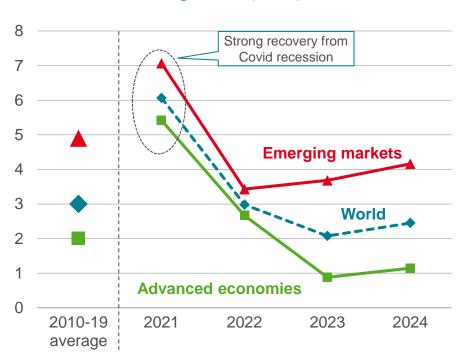


- Global economic conditions different from pre-COVID and pre-war times
- Global growth rather weak in 2023, largely driven by emerging markets
- Inflation will decline but remain challenging
- Central banks between inflation fighting, sustaining growth and limiting financial market stress
- Geopolitics will remain a dominant risk driver

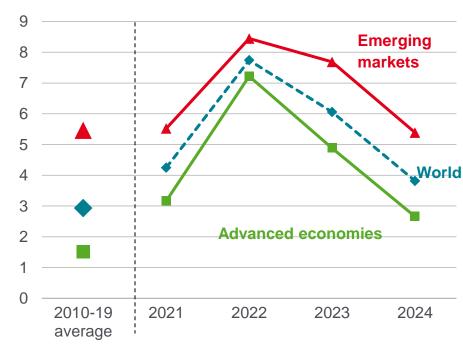
Overview: Weak global growth, moderate recovery in 2024 – inflation expected to ease, but to remain elevated compared to pre-2019



Annual real GDP growth (in %)



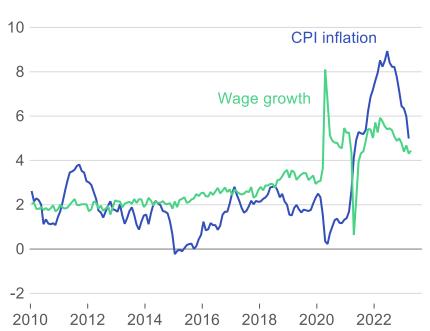
Annual CPI inflation (in %)



Wage growth has not kept pace with high inflation – lower real income as a drag on household consumption



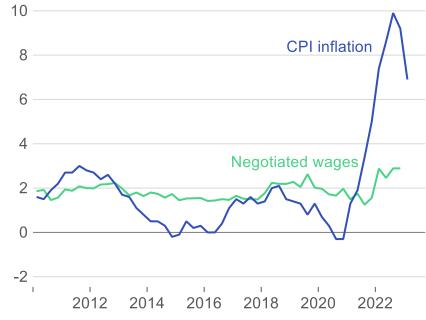
USA: Wage* & CPI inflation (y/y, in %)



Source: Federal Reserve Bank of Atlanta, BLS (03/2023)

*Average hourly earnings of all employees, total private sector

Euro area: Wage & CPI inflation (y/y, in %)

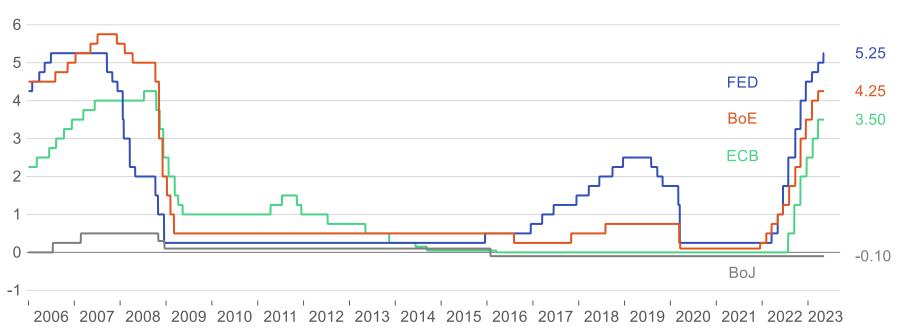


Source: ECB (2023 Q1)

Strong central bank tightening across (most) central banks will have macroeconomic effects... and could lead to recession



Central banks' key interest rates (in %)

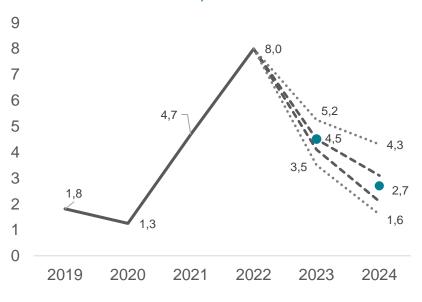


Source: ECB, Fed, BoE, BOJ (08/05/2023)

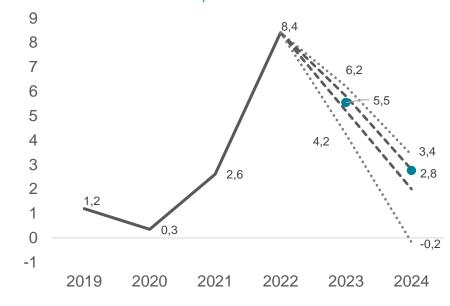
Broad-based consensus still expecting headline inflation in US and Eurozone to come down – but forecast uncertainty remains high



USA: CPI inflation (in %) – baseline, Consensus forecasts, risk scenarios



Euro area: CPI inflation (in %) – baseline, Consensus forecasts, risk scenarios



Historical ---- Mean of Consensus forecasts +/- 1 standard deviation ······· Range of plausible risk scenario forecasts

MR Economic Research

Higher inflation usually results in higher sums insured but consumers and businesses face spending limitations – especially in recessions



Impact of higher inflation on insurance demand
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Impact of higher inflation on insurance supply

Positive Negative Positive Negative Sums insured: higher Inflation **erodes purchasing** If inflation results in higher Casualty insurance: vields: more risk appetite prices for cars and property. power of consumers -> reduced risk appetite for higher cost of living -> need lower demand for nonfor savings-type life longer-tail business for higher policy limits in essential insurance products products as higher interest Mark-to-market losses on P&C and life protection rates expand the viable Premium increases to fixed-income securities products products range reflect inflation (losses and could lower risk capital Inflation shock? Heightened costs) -> lower demand for capacity risk perception and non-essential insurance awareness If inflation episode results in slower economic growth or If inflation results in higher vields: savings-type life recession -> less demand policies more attractive Inflation erodes the value of Households' portfolio shifts future nominal pay-outs: from financial to real assets: fixed-benefits life products positive for non-life but less attractive negative for life insurance

Impact on new and open claims: Inflationary shocks on shorttail, longtail suffering from higher future level



	Heads of damage	Payments	Reserves
Short-tail lines of business e.g., Fire, Engineering, Nat Cat, MOD	 Loss inflation affecting overall portfolio losses Impact of inflationary spike early visible in severity development 	 Higher one-off inflationary impact on attritional losses due to timely pay-out Rate changes on primary market can off-set inflationary pressure 	Inflationary increase on new/open claims impacting the portfolio profitability significantly.
Long-tail lines of business e.g., MTPL, GTPL, Decennial	 XL loss inflation driven by large loss claims components Impact of inflationary spike unfolding over years 	 Inflation accumulates until point of payment Even small loss inflation increases can have significant impact over time 	 Inflationary impact on new/open claims increases severity and frequency → adverse loss development for old contract years likely The longer the development, the higher the prediction uncertainty
Conclusion	Individual heads of damages are impacted by different inflationary effects → assessment of short/mid/long-term inflation is necessary.	 Short-tail business is mainly affected by recent inflationary spike (e.g., property damage) Long-term business additionally needs to consider midto long term increases (e.g., bodily injury) 	Adjustments in reserving approach and changes in inflation assumptions are impacting the loss developments/forecasts.

Impact per class of business: Inflationary impacts deviate by loss components



- Profitability depending on new mobility behaviour, competition and especially spare part & repair cost inflation
- Bodily Injury losses expected to increase, but lagging behind
- No automatic adjustments of premiums





- Profitability depending on future level of construction cost inflation (costs of material & labour)
- Automatic adjustments of premiums in some private segments (however, lagging behind)

- Increases in severity expected
- Some automatic premium adjustments in commercial segment due to increased volumes (however, lagging behind)



GTPL



- Profitability of CAR/EAR depending on construction cost inflation with higher uncertainty due to longer development
- Profitability of MB depending on spare part & repair cost inflation and availability of new machines

- Limited effect due to fixed sums
- Only supplementary costs dependant on inflation



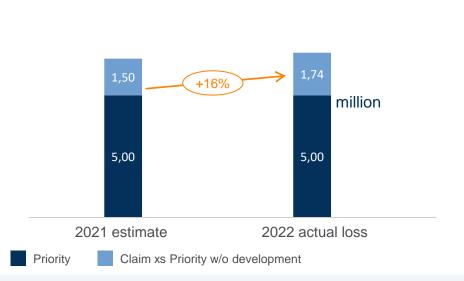


Nat Cat

- Profitability depending on future level of repair and construction cost inflation (depending on the peril more weight on labour costs than on material costs)
- Automatic adjustments of sums insured in some private segments (however, lagging behind)

Non-Proportional Reinsurance: Layer effect is increasing the reinsurers' claims burden over-proportionally





Explanation on the basis of one exemplary loss

- Excess of Loss
- Priority 5 Mio. Euro
- Claim 2022 estimated with 2.5% inflation (2021 assumption): EUR 6.5m
- Inflation in 2022: + 3,75% to the previous assumed 2,5%, i.e. 6.25% altogether
- Claim ends up at EUR 6.74m

- Increase of Reinsurance claims burden
- One-off increase considering the one-off inflation \rightarrow **16%**
- The actual impact in the Reinsurance treaty is subject to the level of Priority as well as the Frequency and Severity

Non-Proportional Reinsurance: Index Clauses do not completely level out the impact of inflation



Status quo

1

Index Clauses are distributing the inflation between the Insurer and Reinsurer by increasing the Priority and Limit subject to a pre-defined Index (e.g., Consumer Price Index/ Wages Index).

2

If the actual Inflation is higher than previously assumed, the Reinsurer's need is not fully covered. (The effect of an Index clause is modelled in the Reinsurance Pricing based on the prognosis of the pre-defined Index).

3

The actual impact of an increased inflation effect is subject to the level of priority and the amount of the claim payment.

Outlook



The Index Clause does not level out the effect of increasing Inflation, but distributes it to a certain extent between the Insurer and Reinsurer.



Increased inflation expectation leads to a higher reinsurance risk premium.

Impact on the (re)insurance industry: Effects on reinsurance highly dependent on measures taken up by primary market





High uncertainty in forecasts increases result volatility



- Inflationary peak continues longer than anticipated by many experts
- Trickle-down effects (e.g., wage-price spiral) still unfolding and partly unforeseeable
- Future inflation assumptions contain large margin of error due to economic and political uncertainty
- Higher deviations between the developments of different indices than previously observed

Primary market responses influence RI considerations



- Rate changes can counteract future inflationary pressure
- Adjustments of policy conditions can reflect changed market environment (e.g., deductibles, sums insured and limits)
- Increase of open claims reserves
- Application of average clause in Property claims

Reinsurance claims inflation dependant on treaty type



- Proportional business directly dependent on primary market result
- Non-proportional business: generally higher impact of inflationary effects

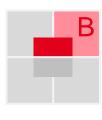
Looking beyond 2023: Are we heading for a new global economic order?





More macroeconomic volatility?

- Relative stability since global financial and Eurozone crisis
- 2020: Corona crisis, 2022: Ukraine war
- Lots of future drivers to consider



Changing inflation environment?

- Highest inflation in 40-50 years
- Cyclical vs. structural drivers at work
- Implications for central banks and financial markets



Lasting geopolitical shifts?

- China vs. US overarching topic
- Geopolitical "block building" a distinct possibility
- Outlook for tackling of common global challenges (e.g. climate change)?



More resilience / less globalisation?

- Corona: fragility of globalised world
- Supply chains not yet fully recovered
- Efficiency in global value chains vs. higher resilience with "near shoring"



Thank you! Dziękuję bardzo!



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