

# 6th Webinar on Banking, Finance and Investments

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## Modelling the impact of pandemic risk on the economic series through Real World ESGs

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# Overview of recent macro-economic developments

## Overview of recent macro-economic developments

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Global markets continued to exhibit a high level of volatility in the second quarter of 2022 and many assets produced flat or negative returns over the quarter. Across most of the markets, nominal yields rose further as central banks tightened monetary policy and reduced stimulus. Credit spreads widened and several equity market fell, notably UK, US and Europe.

## United Kingdom (UK)

### We expect inflation to rise further and then fall back



Source : Bank of England website

High energy and goods prices have pushed inflation to 7% for second quarter of 2022

BoE expects inflation to rise to around 10% this year and the economy to slow

Interest rates increased to help inflation return to 2% target

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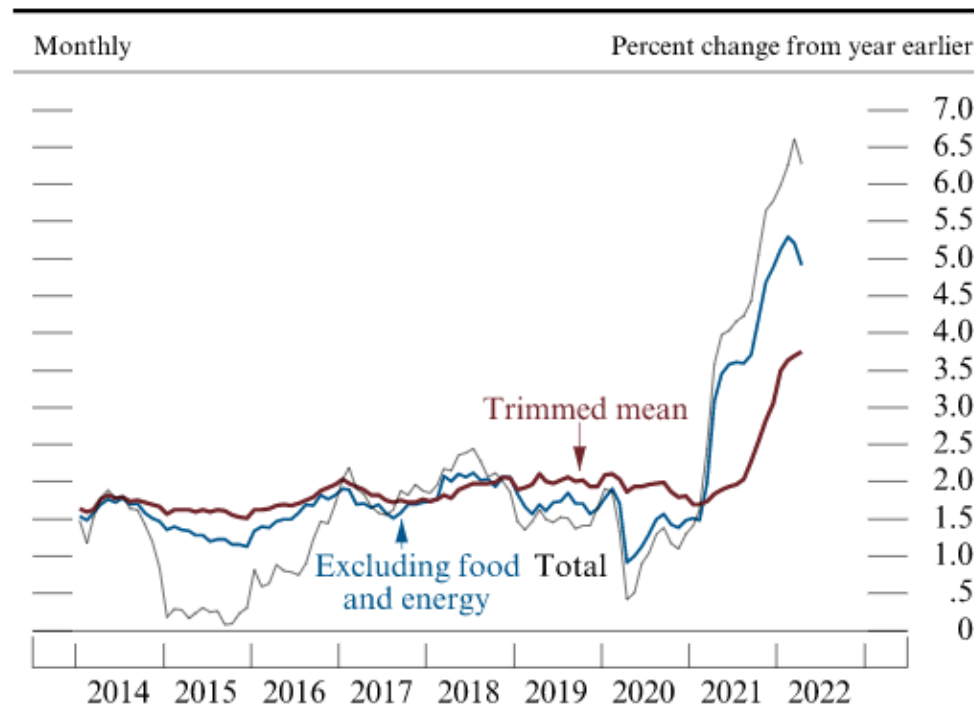
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## United States (US)

### 1. Change in the price index for personal consumption expenditures



NOTE: The data extend through April 2022.

SOURCE: For trimmed mean, Federal Reserve Bank of Dallas; for all else, Bureau of Economic Analysis; all via Haver Analytics.

Inflation continued to run high, well above FOMC's target of 2%

...reflecting further large increases in food and energy prices...

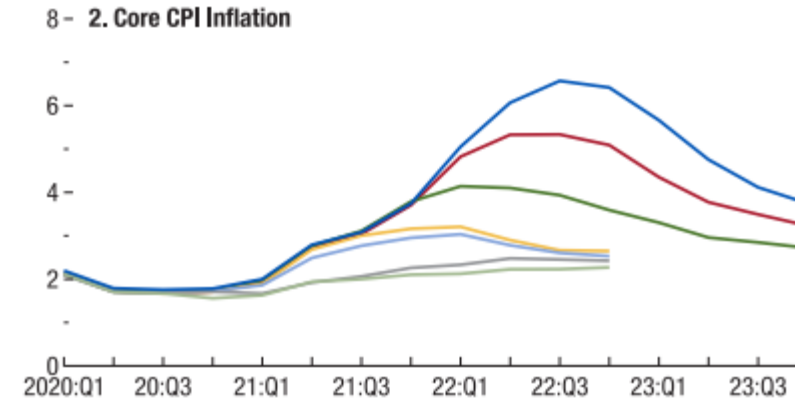
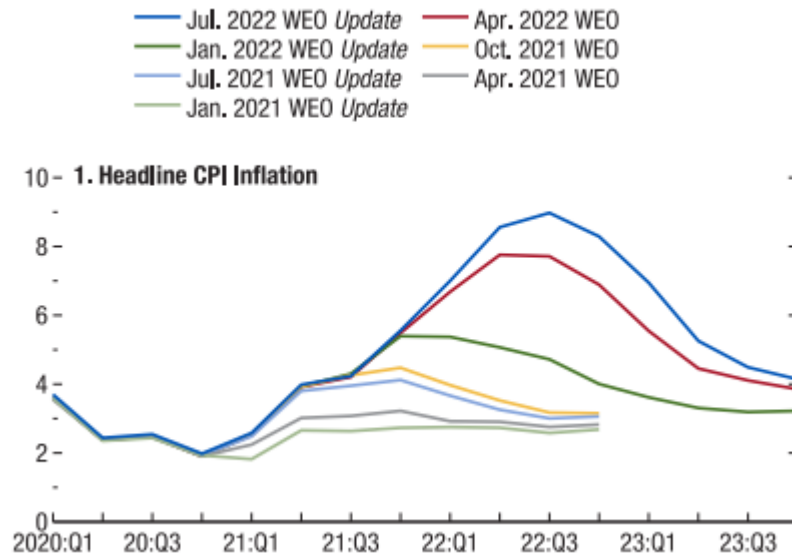
...which, in turn, partly reflected rising prices of commodities and imports

With commodity prices surging and foreign goods prices on the rise, import prices increased significantly

# Overview of recent macro-economic developments

World Economic Outlook Update, July 2022

## Global Inflation Forecasts: Serial Upside Surprises



Source: IMF staff calculations.

Note: Global inflation is a weighted average of individual countries' numbers using GDP valued at purchasing power parity as weights. WEO = World Economic Outlook.

World real GDP is estimated to have shrunk in the second quarter—the first contraction since 2020—owing to economic downturns in China and Russia

Higher inflation worldwide, especially in the United States and major European economies, triggering a sharp tightening in global financial conditions; a sharper-than-anticipated slowdown in China, reflecting COVID-19 outbreaks and lockdowns; and further negative cross-border effects from the war in Ukraine.

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# Impact on risk profile of insurance companies/banks



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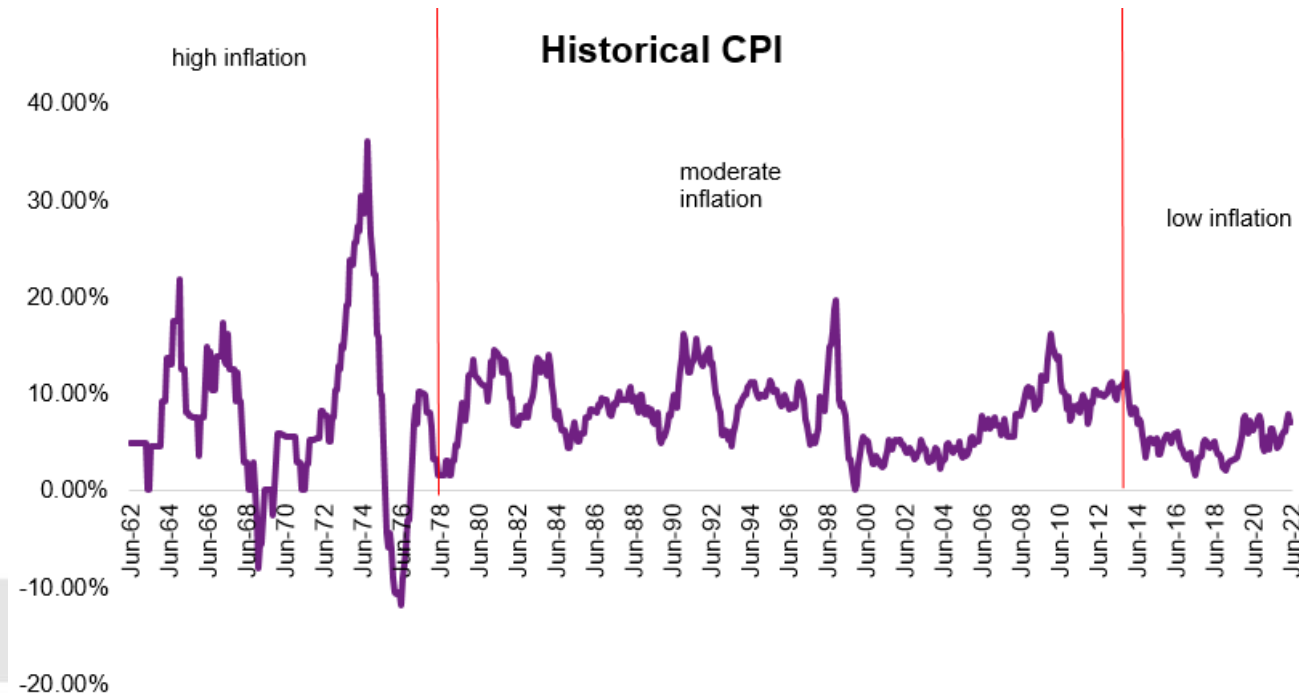
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- ☐ Reduction in market value of current portfolio
- ☐ Review impact on market risk versus insurance risk
- ☐ Increased volatility in asset returns
- ☐ Impact from excess inflation on reserves, especially where it is a material risk driver
- ☐ Low/negative equity returns in the short term
- ☐ Level of uncertainty increased by the current environment ?
- ☐ Is the current modelling approach commensurate with senior management views on risk ?

# Calibrating risk factors using Real World ESGs

- ❑ Adjustments for short term distribution : mean and volatility levels, percentiles
- ❑ Evolution governed by pace of mean reversions
- ❑ Convergence towards normative levels depending upon historical pace of reversions / implied by current market conditions
- ❑ Whether the current high inflation is just a blip in the era of low inflation, or are we moving to a new regime of moderate/high inflation?



Level of short - term volatility in projections?

Short term mean and evolution?

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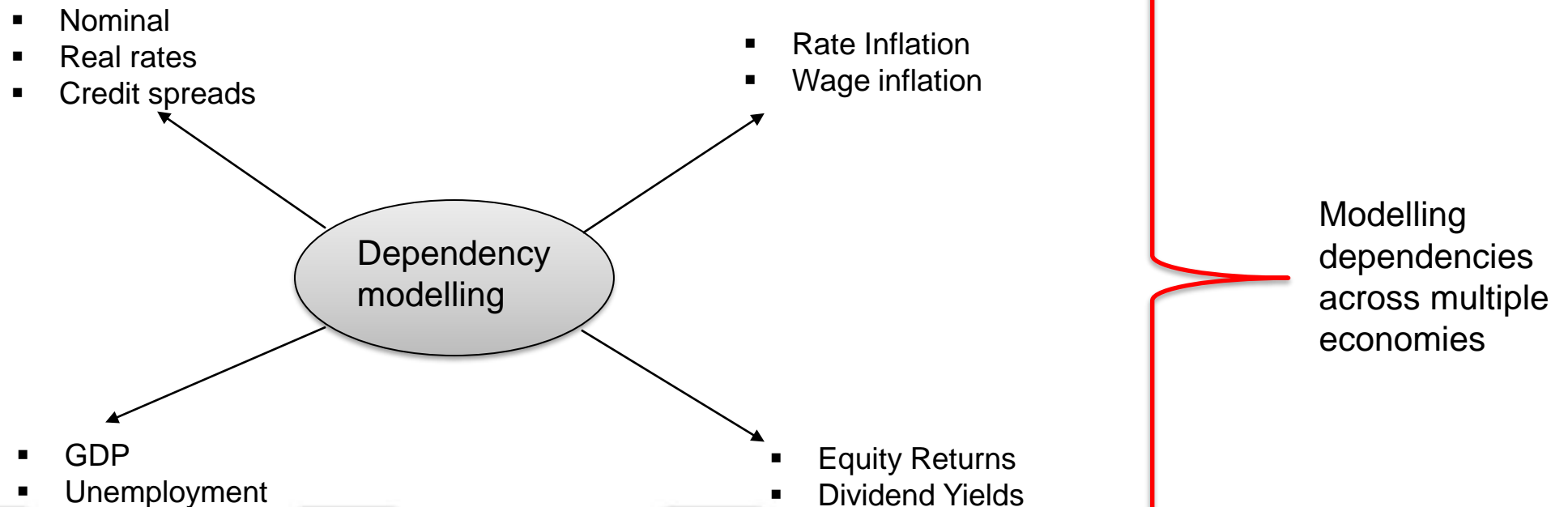
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# Calibrating risk factors using Real World ESGs

- ❑ Adjustments for various economic series for a modelled economy
- ❑ Capturing correlations across various economies



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# Calibrating risk factors using Real World ESGs

Factors to consider while determining short term distribution of projections

- ☐ Older historical data and its relevance to current economic regime
- ☐ More recent market developments
- ☐ Central bank forecasts
- ☐ Views of credible economic research reports
- ☐ Correlation of the modelled market with other markets
- ☐ Interdependencies between various economic series for a given economy
- ☐ Market-implied expectations” although these can be distorted by market pressures which disguise the true expectations

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# Advantage of risk assessment using stochastic app..



- ☐ Allows to capture the impact on the economic series from extreme events such as Covid 19 pandemic and Russia-Ukraine war within short term projections
- ☐ A large number of plausible set of scenarios providing the worst and best possible outcomes under a given set of assumptions
- ☐ Approach captures market dynamics closely compared to a deterministic approach

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## Monetary Policy Statement, 2022-23 Resolution of the Monetary Policy Committee (MPC) June 6-8, 2022

- ❑ On 8<sup>th</sup> June 2022, Reserve Bank of India (RBI) increased the policy repo rate under the liquidity adjustment facility (LAF) by 50 basis points to 4.90% with immediate effect
- ❑ The Monetary Policy Committee also decided to remain focused on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth

### Global Economy

High inflation, slow economic growth

Persisting geopolitical sanctions

Elevated prices of crude oil and other commodities

COVID 19 related supply chain bottlenecks

### Indian Economy

Real GDP growth rate in 2021-22 : 8.7%

Recovery in economic activity since April 2022

System liquidity remains in large surplus

Increase in headline inflation from 7% in March 2022 to 7.8% in April 2022

# India market



## Monetary Policy Statement, 2022-23 Resolution of the Monetary Policy Committee (MPC) June 6-8, 2022

- ☐ Inflation likely to remain above 6% for first three quarters of 2022-23
- ☐ Increased uncertainty due to geopolitical risks tensions and growth risks
- ☐ Supply side measures taken by govt to suppress cost push measures
- ☐ Increase in policy repo rate to curb inflation increase
- ☐ Withdrawal of accommodative policy to pursue growth

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# Thank You