# Monetary/fiscal policy mix in the current international context

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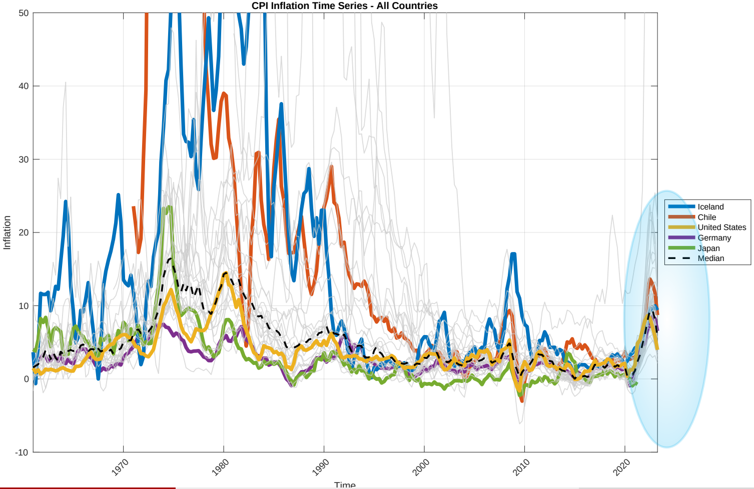
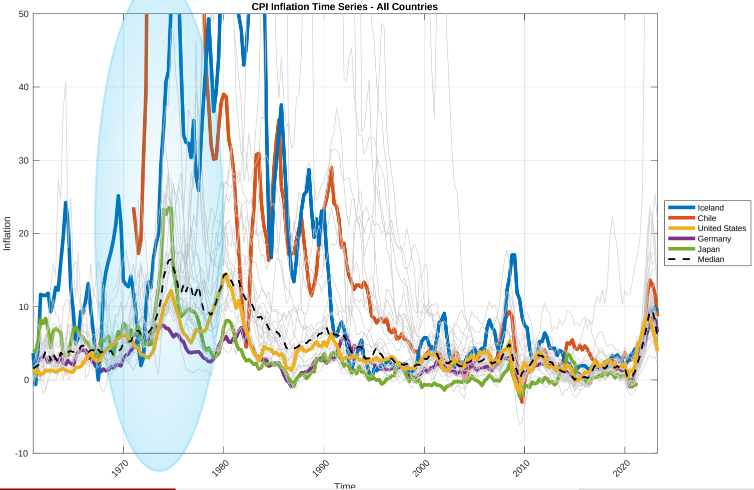
# Inflation across space and time

- How does the post-pandemic increase in inflation compare with the past?



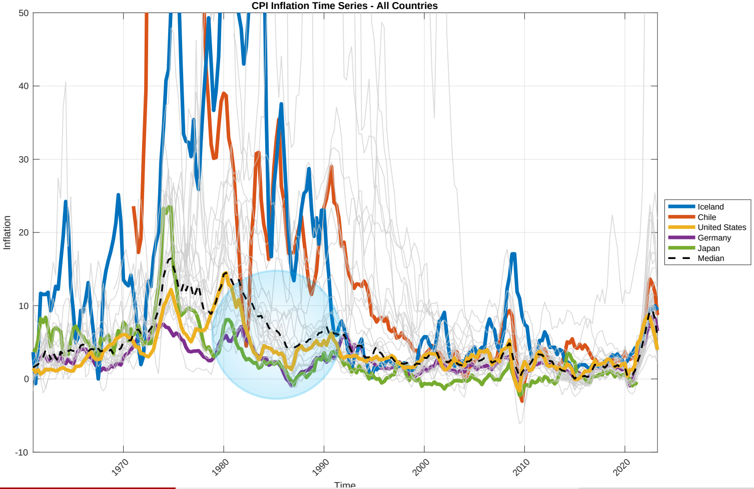
# Inflation across space and time

- High and volatile inflation in several countries in the 1960s and 1970s



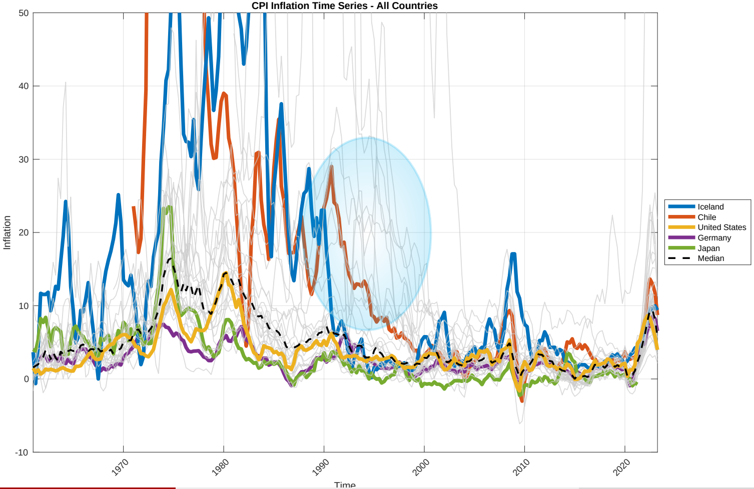
# Inflation across space and time

- Break for advanced economies starting from the 1980s



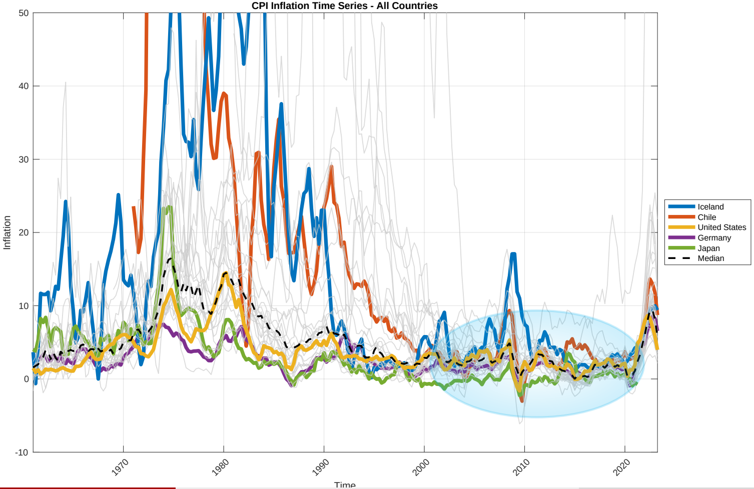
# Inflation across space and time

- Break in the 1990s for the other countries



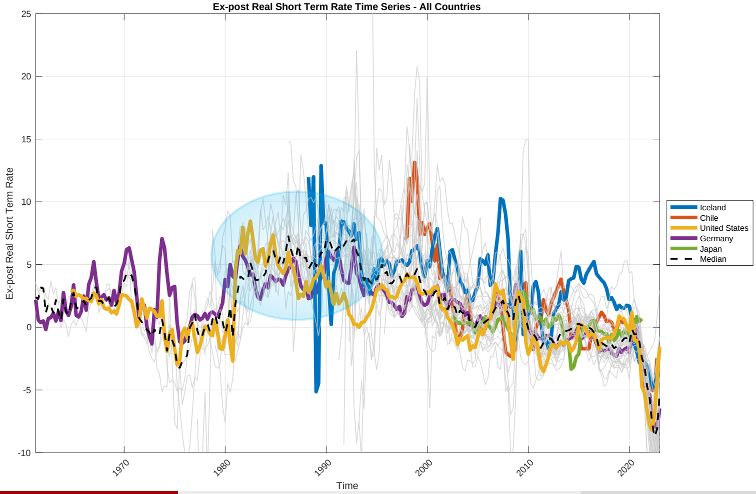
# Inflation across space and time

- Remarkable convergence to low and stable inflation across countries in the 1990s



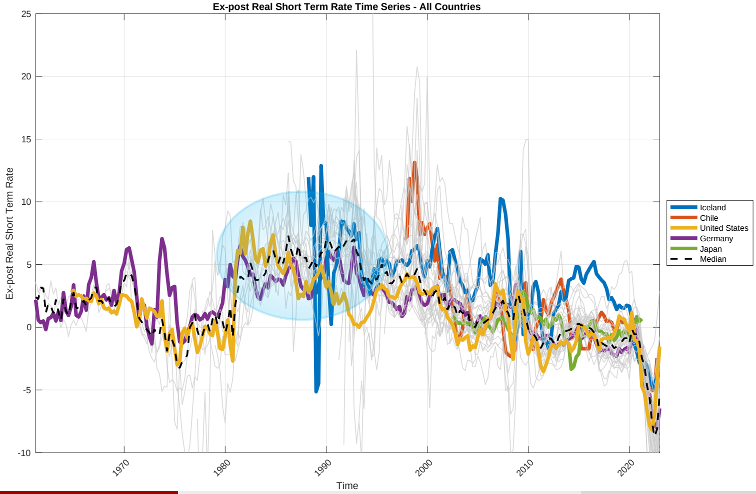
# Large swings in real interest rates

- Decline in inflation associated with a prolonged period of high real interest rates



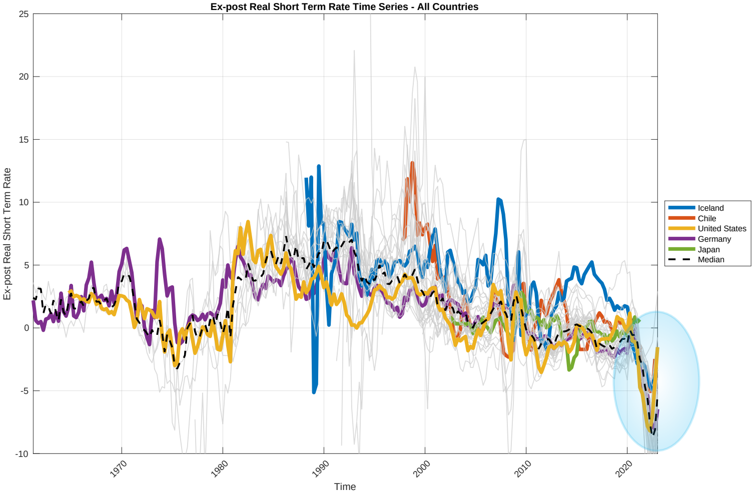
# Large swings in real interest rates

- Small open economies traditionally vulnerable to these structural changes



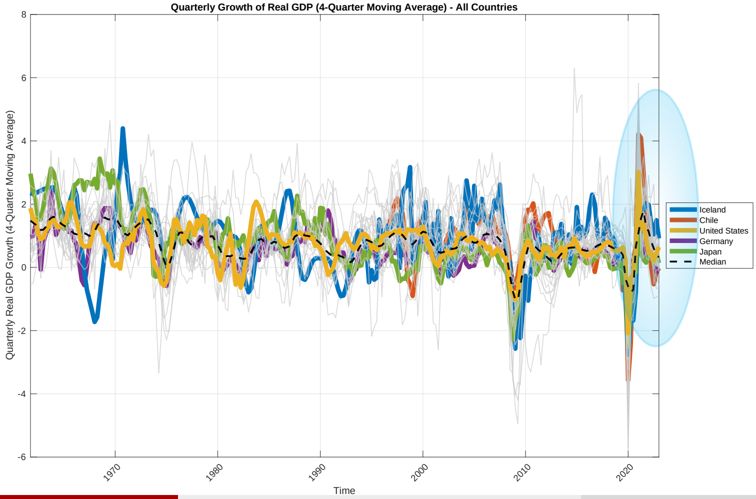
# Large swings in real interest rates

- Economies experienced synchronized drop in (ex-post) real interest rates



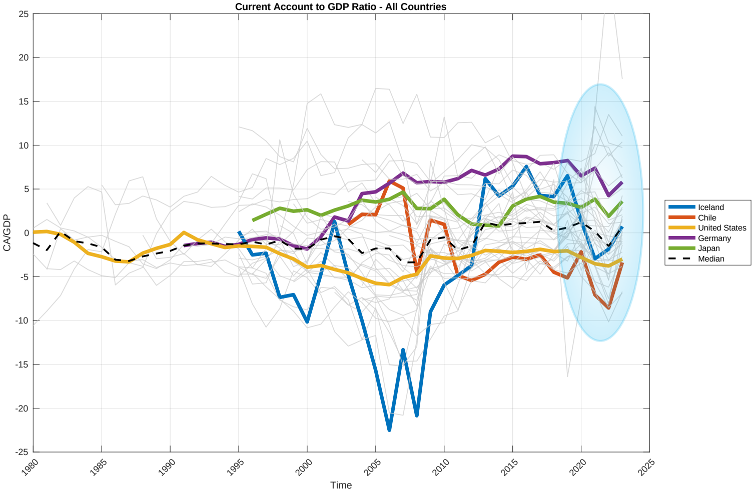
# Post-pandemic recovery

- Post pandemic inflation associated with a quick rebound in real activity



# Current accounts

- **Reversal** in current account for some countries



# How to interpret the post-pandemic inflation?

- Breaks in inflation often attributed to changes in monetary policy, but...
- ...conquest of inflation better understood as a monetary/fiscal policy phenomenon:
  1. Key role of central bank independence (US, UK, ...)
  2. Shift in fiscal practice (Euro) and graduation from fiscal procyclicality (Chile)
  3. Reduction in mean, volatility, and persistence of inflation
- If the conquest of inflation is the result of a change from a Fiscally-led to a Monetary-led policy mix, how should we interpret the post-pandemic inflation?
  1. Return to a Fiscally-led policy mix and back to school for the graduating class?
  2. **Or** an emergency budget that generated a quick recovery?

# Overview

These remarks are based on three papers that provide an interpretation of the recent increase in inflation as a fiscal phenomenon:

1. A Fiscal Theory of Persistent Inflation with Renato Faccini and Leonardo Melosi (QJE, 2023): For the US
2. Fiscal Influences on Inflation in OECD Countries, 2020-2022 with Robert Barro (2023 NBER working paper): Cross-country evidence
3. Inflation as a Fiscal Limit with Leonardo Melosi (2022 Jackson Hole Economic Symposium)

**Optimistic view** (A Fiscal Theory of Persistent Inflation):

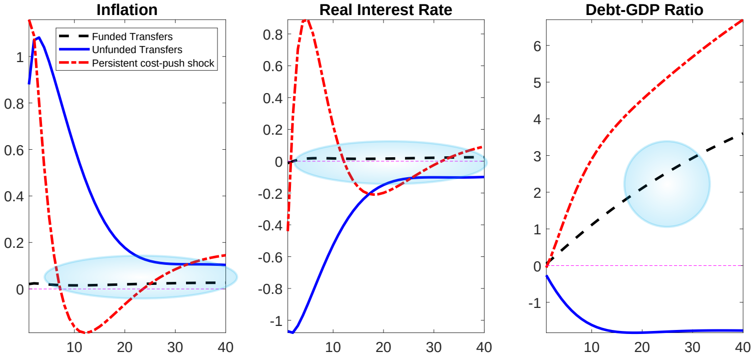
- Policy coordination generated a quick rebound of the economy from the pandemic
- Large spur of fiscal inflation was the cost
- **Mission accomplished**, we are on our way back to **normality**

# A Fiscal Theory of Persistent Inflation

- New class of general equilibrium models with partially unfunded government debt
  1. At any given point in time, part of the outstanding government debt is unfunded
  2. Unfunded debt is not backed by future fiscal adjustments $\Rightarrow$ Inflationary pressure accommodated by the central bank
  3. Debt stability achieved with a mix of fiscal adjustments and inflation
- With nominal rigidities, unfunded fiscal shocks cause persistent movements in inflation and in real interest rates $\rightarrow$ A fiscal theory of persistent inflation
- We estimate a TANK model augmented with **unfunded fiscal shocks** on US data:

  $\Rightarrow$ Post-pandemic inflation and recovery were the result of unfunded fiscal shocks: **Two massive fiscal stimuli** and **a new monetary framework**
- Optimistic view: Inflation expected to slowly revert to its 2% target

# Identification of unfunded transfers shocks




- **Funded transfers**: Modest impact on the macroeconomy, debt increases
- **Unfunded transfers**: Persistent inflation increases, real rate and debt decline
- **Phillips curve shifter**: Short-lasting inflation spike, real rate and debt increase

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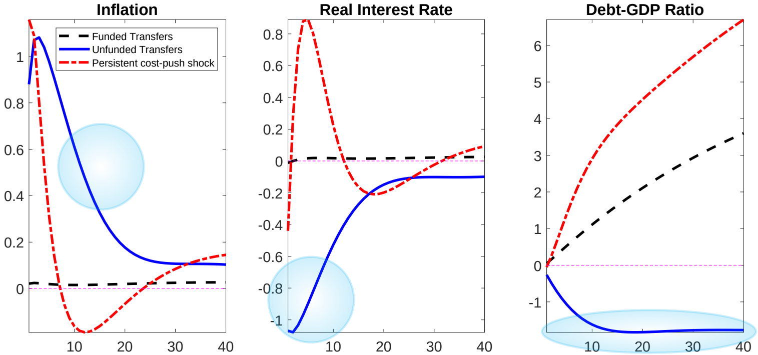


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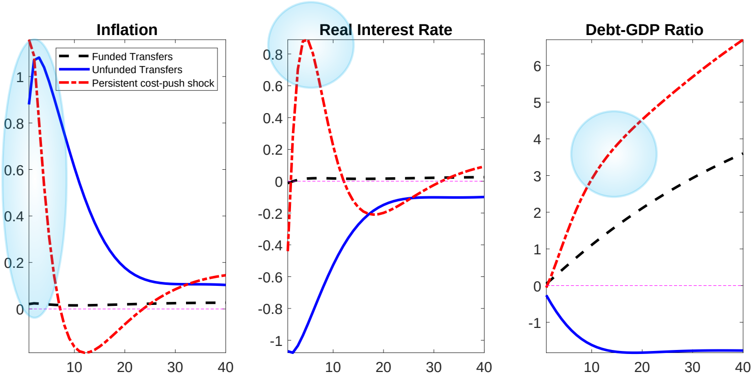


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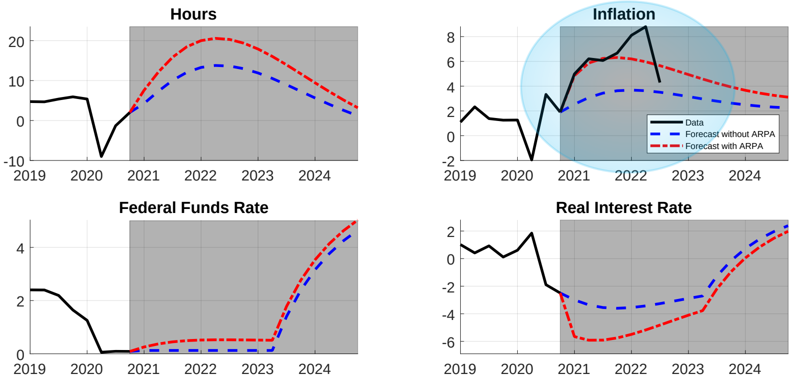
# ARPA Fiscal Stimulus and Inflation Prediction




No ARPA: Real-time forecast based on filtered data up to 2020Q4

With ARPA: Real-time forecast including ARPA shock based on transfer payments in 2021Q1 attributed to funded and unfunded transfers according to historical pattern

## **Cross-country evidence** (Fiscal Influences on Inflation in OECD Countries, 2020-2022):

- Market value of govt debt as present discounted value of future primary surpluses

$$\frac{B_t}{P_t} = \sum_{i=1}^{\infty} \frac{(\mathcal{T}_{t+i} - G_{t+i})}{(1+r)^i}$$

- Derive a simple relation between **change in inflation** and **COVID fiscal stimulus** rescaled for **amount** and **duration** of outstanding **government debt**

$$\pi - \pi^* = \eta \left( \sum_{i=1}^{M} \Delta \frac{G_{t+i}}{Y_{t+i}} \right) / \left( \frac{B_t^*}{P_t Y_t} \frac{T}{2} \right)$$

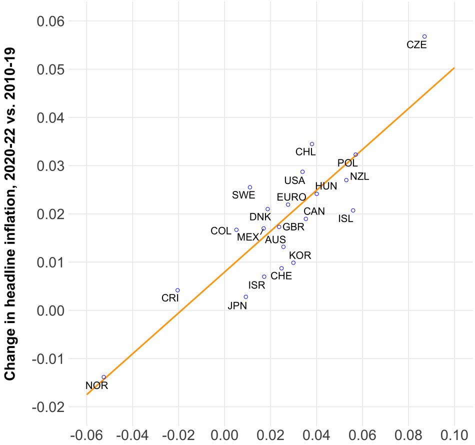
- Verify whether relation can explain **cross-country variation** in inflation

$$\pi_i - \pi_i^* = \alpha + \eta \Delta G_i + \delta_i + \epsilon_i$$

where $\delta_i$ is a border with Ukraine or Russia dummy

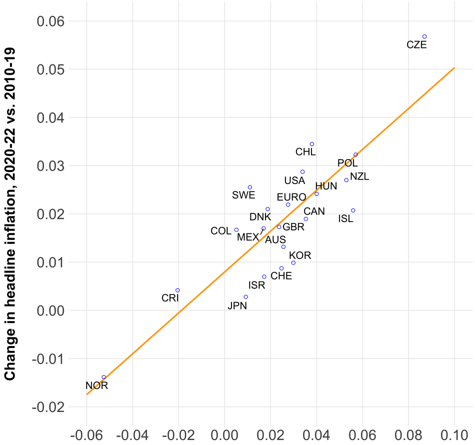
# Explaining cross-country variation of inflation: Headline

- Strong relation between rescaled spending and inflation: $\eta = .42$ and $R^2 = .79$



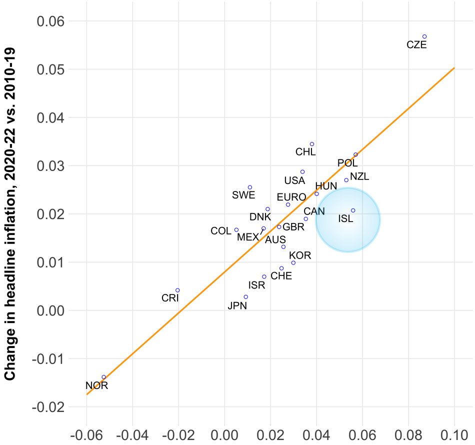
# Explaining cross-country variation of inflation: Headline

- Only other variable that matters is border with Russia or Ukraine



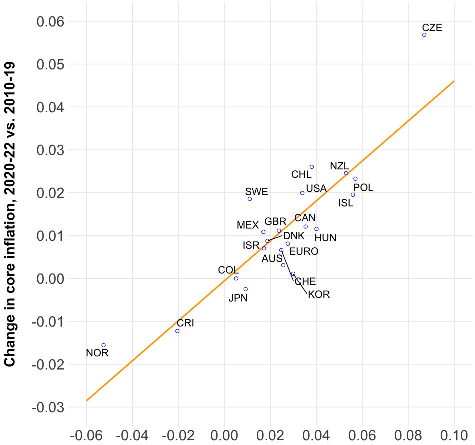
# Explaining cross-country variation of inflation: Headline

- Iceland in the middle of the pack



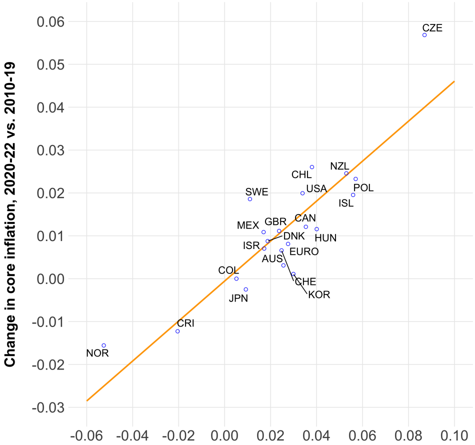
# Explaining cross-country variation of inflation: Core

- Similar results with core inflation: $\eta = .47$ and $R^2 = .79$



# Explaining cross-country variation of inflation: Core

- Again, only other variable that matters is border with Russia or Ukraine



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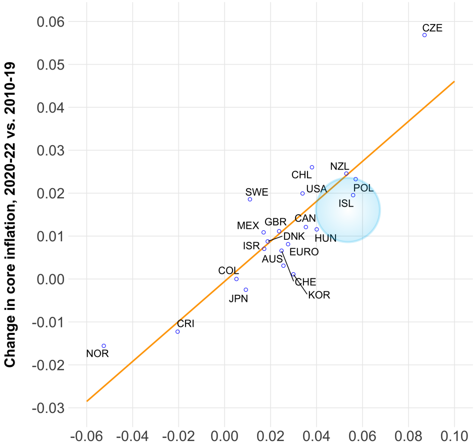
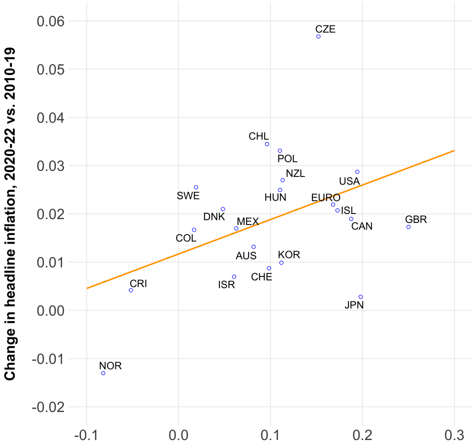


# Size of the fiscal stimulus only: Headline

- Weak and not significant relation if only using size of the fiscal stimulus



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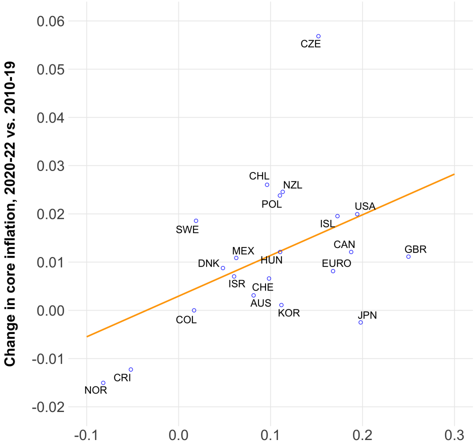

**Concerned view** (Inflation as a Fiscal Limit):

- Large fiscal stimulus shifted the perception about future policy mix
- Fiscal inflation due to changes in policymakers' behavior and **beliefs**
- Central banks **could not have prevented** the rise in fiscal inflation
- **What if fiscal and monetary policy fail to coordinate?**
- Monetary policy has changed, fiscal policy not yet

  $\Rightarrow$ **risk of ephemeral short term gains in inflation**

  $\Rightarrow$ **going back to school** for graduating class from fiscal procyclicality

# Summary

- Following the COVID pandemic, several countries have implemented robust fiscal interventions $\Rightarrow$ Quick rebound of the economy, but also **surge in fiscal inflation**
- **Optimistic view**: Fiscal inflation triggered by an emergency budget
  1. **Countercyclical** policy intervention $\Rightarrow$ **No need to go back to school**
  2. Central banks have increased rates $\Rightarrow$ Signal about future policy mix
  3. **Fiscal inflation slowly declines** as effect of unfunded shock fades away
- **Pessimistic view**: Precarious fiscal situation in several countries
  $\Rightarrow$ Risk of **return of a Fiscally-led regime**

# What is the most likely scenario?

- Inflation on a **descending path**, supporting the **unfunded emergency budget** view
- However, there are **three reasons for concern**:
  1. **Threats to central bank independence**. These can be more or less explicit, but they are common across countries and across the political spectrum
  2. **Large fiscal imbalances** have not been addressed and pressure will increase on central banks if a new recession were to occur
  3. **Geopolitical conflicts** might prevent a return to pre-pandemic level of integration
- Experience of the 1960s and 1970s is a warning not to declare victory too early
- Low and stable inflation requires mutually consistent monetary and fiscal policies providing a clear path for both inflation and debt sustainability