



Inflation in Emerging and Developing Economies: *Evolution, Drivers, and Policies*

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Four Questions

- 1 How has inflation evolved in EMDEs?** *Declined over time thanks to the sharp fall in global inflation. If cyclical and structural tailwinds wane, maintaining low inflation may become as difficult as achieving it.*
- 2 What have been the global and domestic drivers of inflation?** *A wide range of shocks... A global inflation cycle has emerged and inflation synchronization has strengthened among EMDEs over time. Nevertheless, domestic shocks remain the main source of national inflation variation.*
- 3 How well-anchored are EMDE inflation expectations?** *Despite becoming better-anchored, in part thanks to stronger monetary policy frameworks, inflation expectations remain less well anchored in EMDEs than advanced economies.*
- 4 What are prospects for inflation?** *There are some reasons to expect higher inflation in the post-COVID era but they may not result in a protracted period of elevated inflation in EMDEs.*

Four Questions

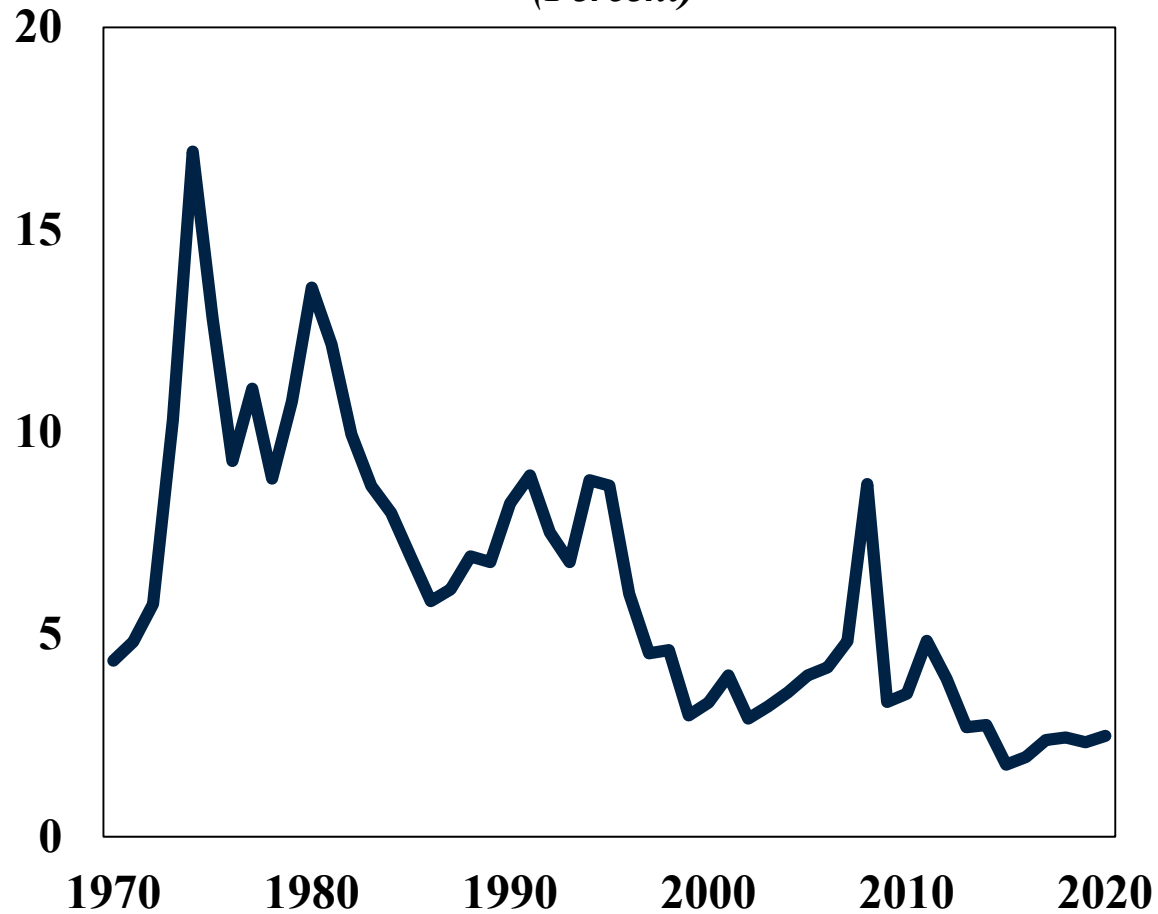
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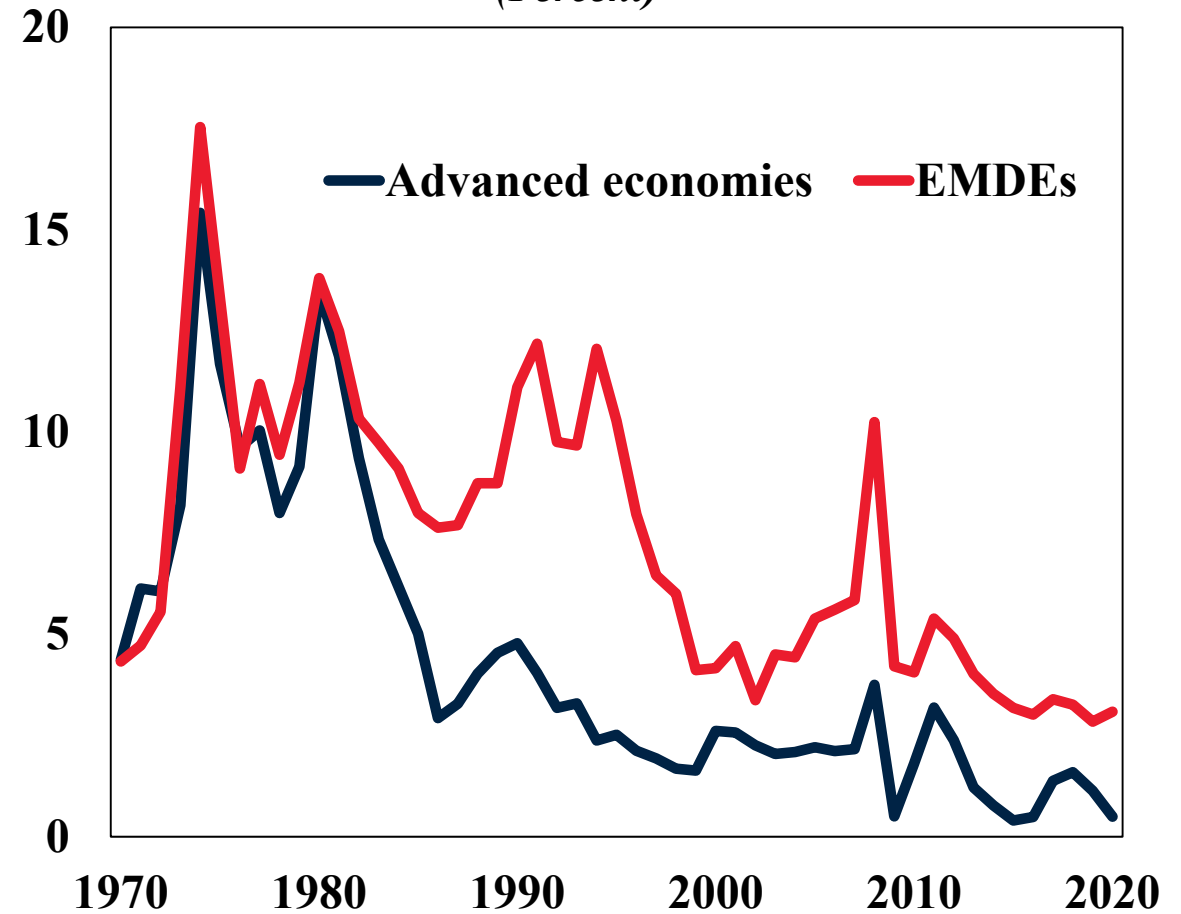
Evolution of Inflation - 1

Synchronized Decline across Country Groups

Global CPI inflation
(Percent)



CPI inflation, by country group
(Percent)



Source: World Bank.

Left Panel. Median headline CPI (consumer price index) inflation of 155 countries. Right Panel. Median headline CPI inflation, based on 29 advanced economies, 126 EMDEs.

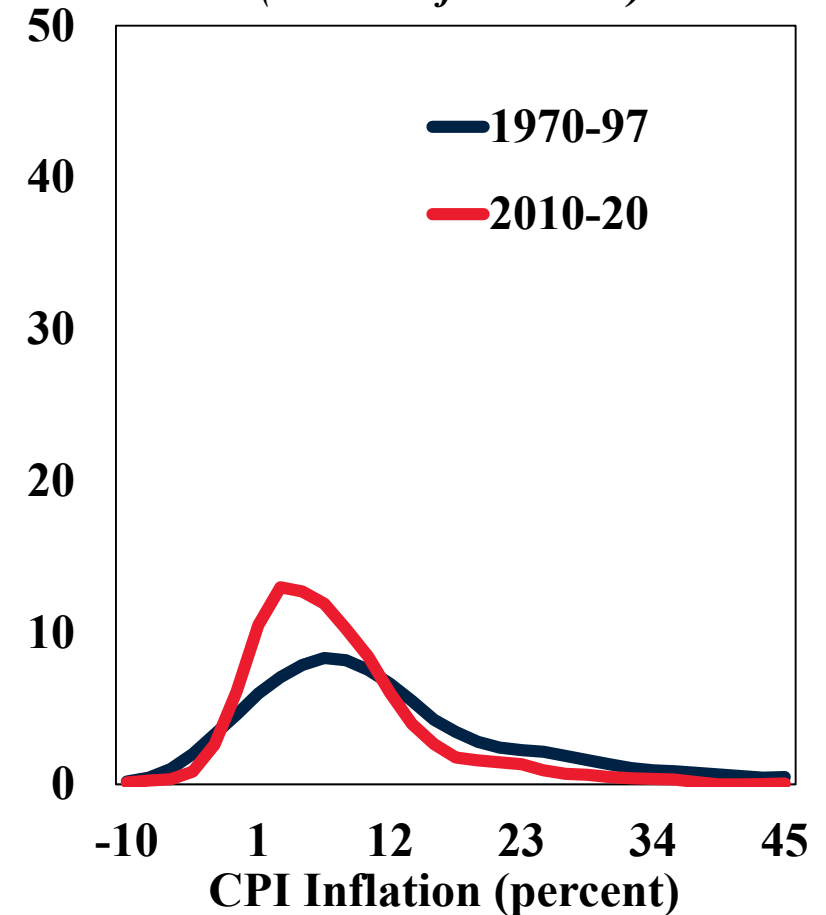
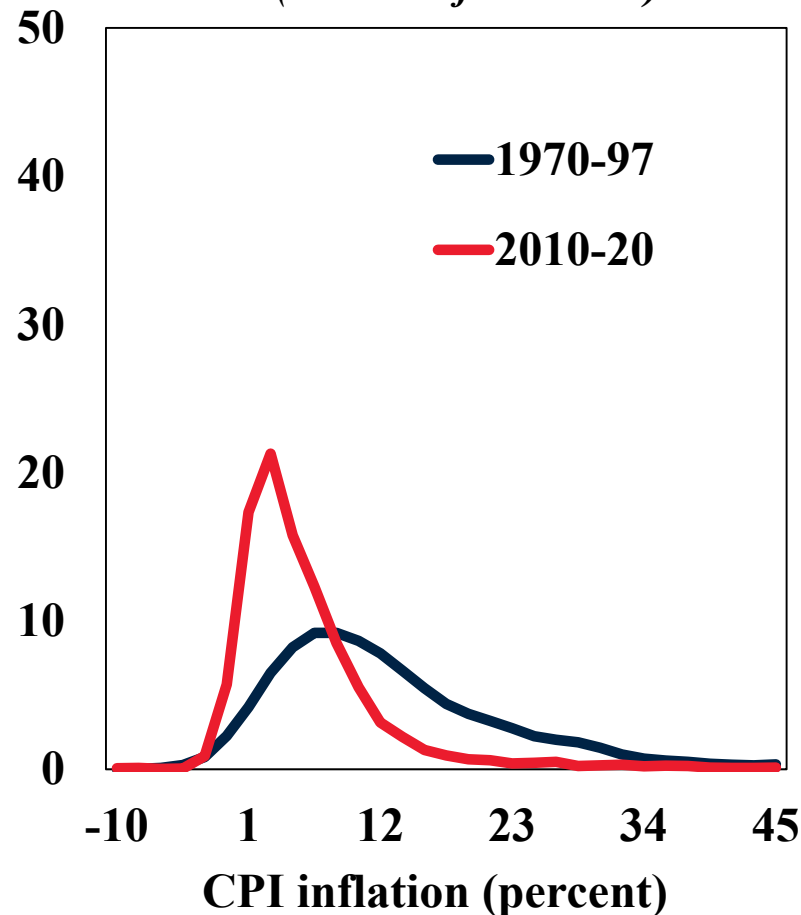
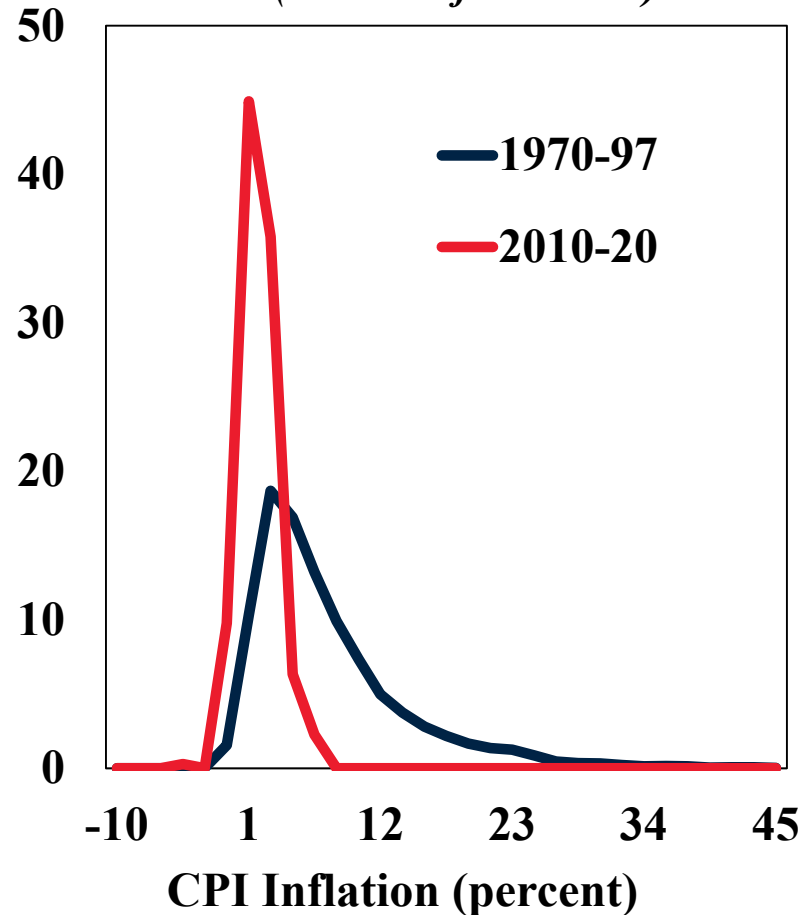
Evolution of Inflation - 2

Broad-Based Decline within Country Groups

Advanced economies
(Percent of countries)

EMDEs excluding LICs
(Percent of countries)

Low-income countries
(Percent of countries)



Source: World Bank.

Note: Kernel density estimation of the distribution of advanced economies (Left Panel) and EMDEs excluding low-income countries (LICs) (Center Panel), and LICs (Right Panel) based on the level of headline CPI inflation.

Factors Associated with Disinflation

1 Globalization

- *Greater trade and global value chain integration can improve competition and productivity growth.*
- *Greater financial integration can increase central banks' anti-inflation bias.*

2 Better policy frameworks

- *Move to credible monetary policy frameworks and exchange rate regimes can help anchor inflation expectations.*
- *Greater central bank independence and transparency can improve anchoring of inflation expectations.*
- *Better fiscal frameworks can bolster credibility of monetary policy.*

3 Other structural factors

- *More flexible product and labor markets can increase competition and reduce wage rigidities.*
- *Population aging can dampen domestic demand growth.*
- *Digitalization can promote competition and productivity growth.*

4 Multiple disinflationary shocks over the past fifteen years

- *Global financial crisis; Euro Area debt crisis; COVID-19 global recession*
- *2014-16 and 2020 oil price plunges*

Four Questions

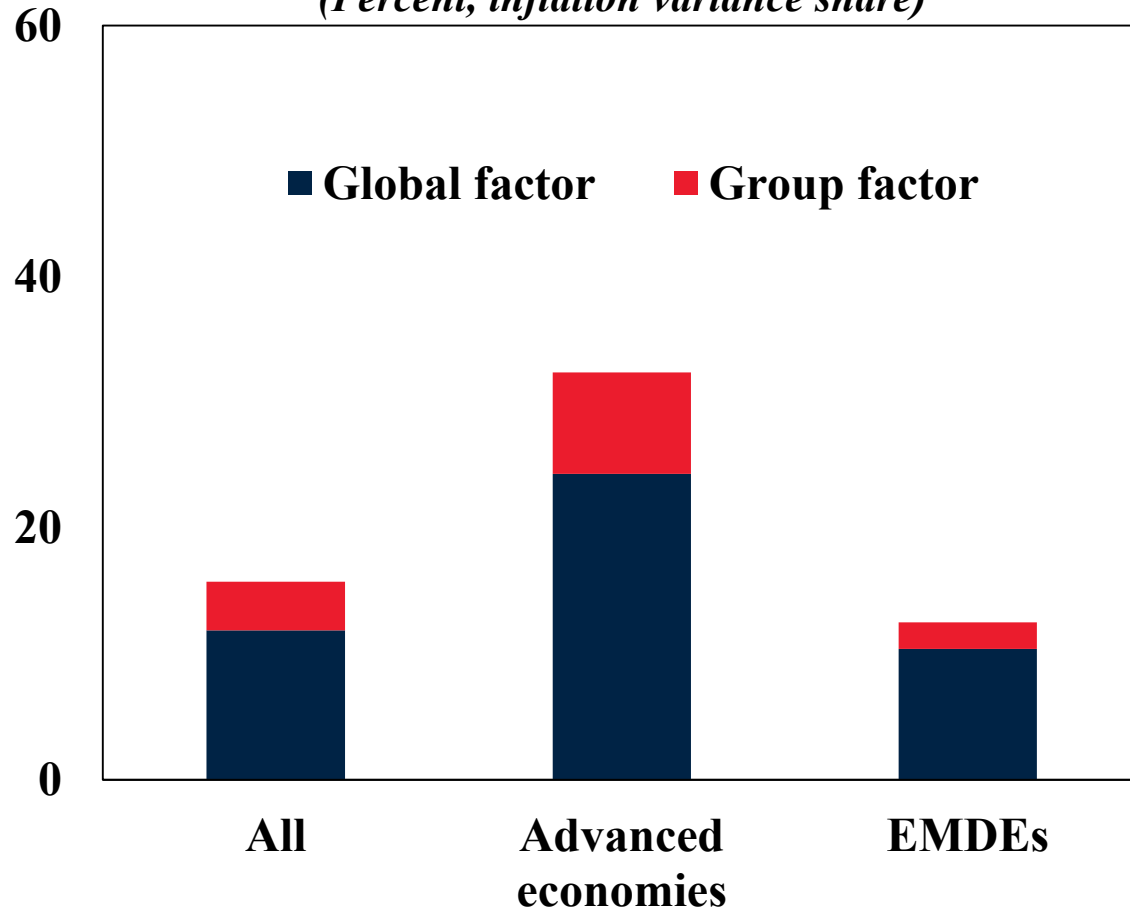
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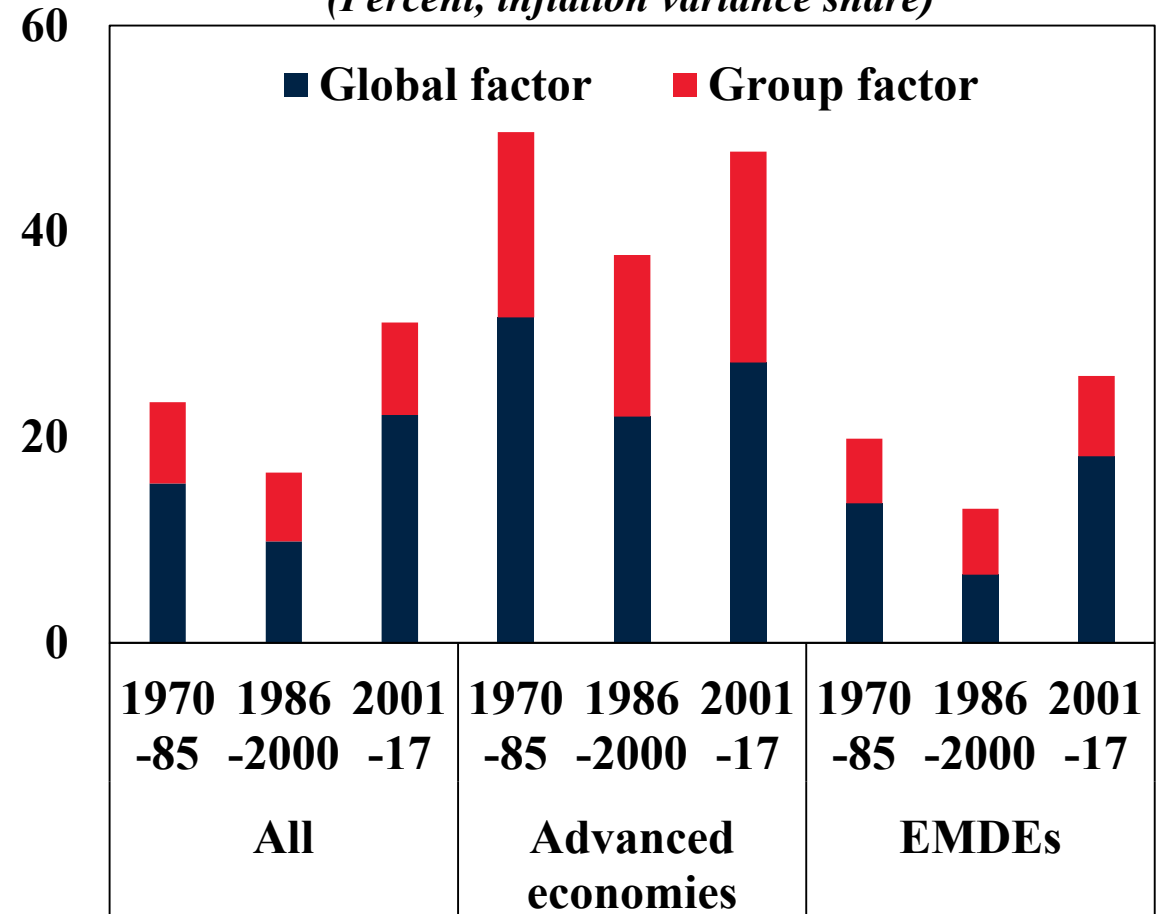
Inflation Synchronization Over Time

Global Factor Explains a Growing Share of Inflation Variation

Global and group factors, 1970-2017
(Percent, inflation variance share)



Global and group factors, by sub-period
(Percent, inflation variance share)

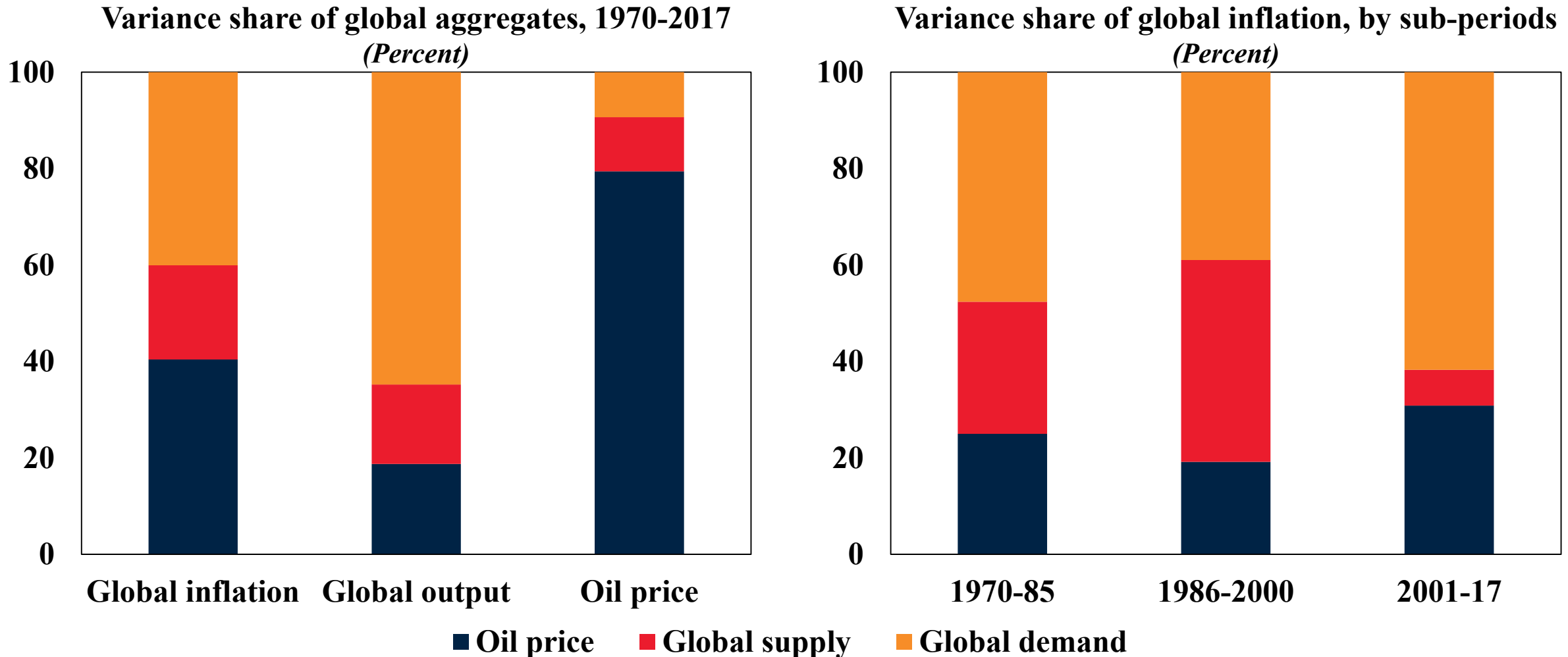


Source: World Bank.

Note: Contributions of global and group factors to inflation variance, estimated with the baseline dynamic factor model (2-factor model with a global factor and a group factor) for the period of 1970-2017 (Left Panel) and for three sub-periods (Right Panel). Median estimates across 99 countries (25 advanced economies and 74 EMDEs including 16 low-income countries).

Drivers of Global Inflation

Driven by Global Demand and Oil Price Shocks; Demand Shocks Becoming More Important



Source: World Bank.

Note: Variance decompositions estimated by a global factor-augmented vector autoregressive (FAVAR) model, based on 29 advanced economies and 26 EMDEs over 1970-2017 (Left Panel) and during its sub-periods (Right Panel).

Four Questions

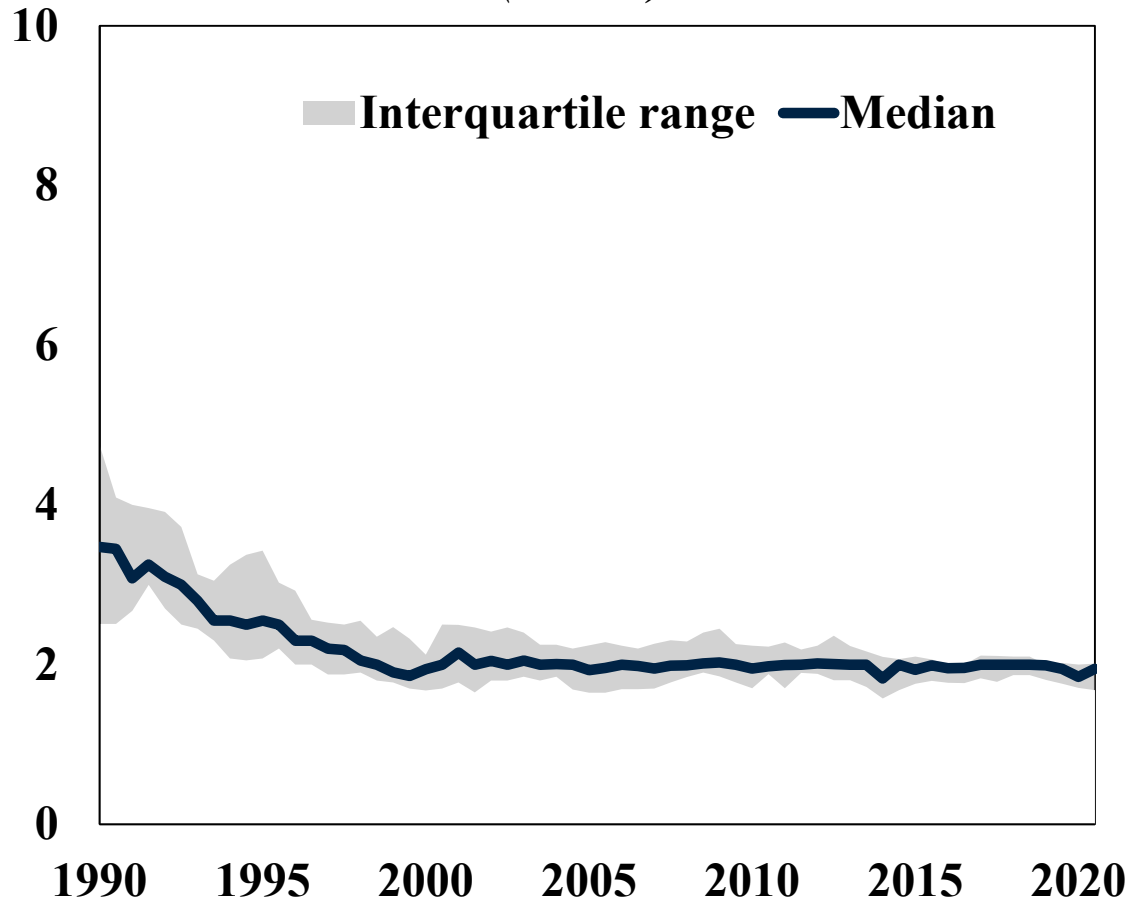
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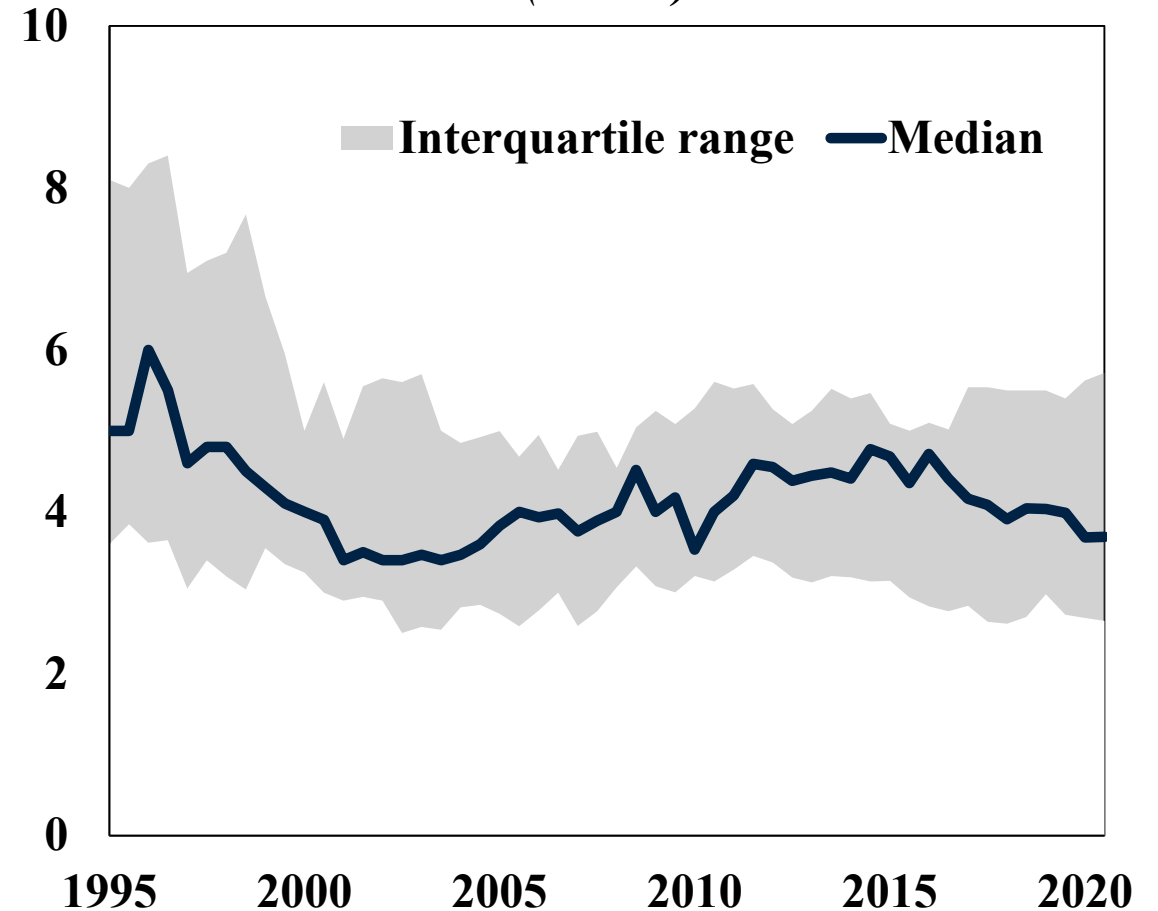
Inflation Expectations

Broad-Based Decline, but Remain Higher in EMDEs

Inflation expectations in advanced economies
(Percent)



Inflation expectations in EMDEs
(Percent)

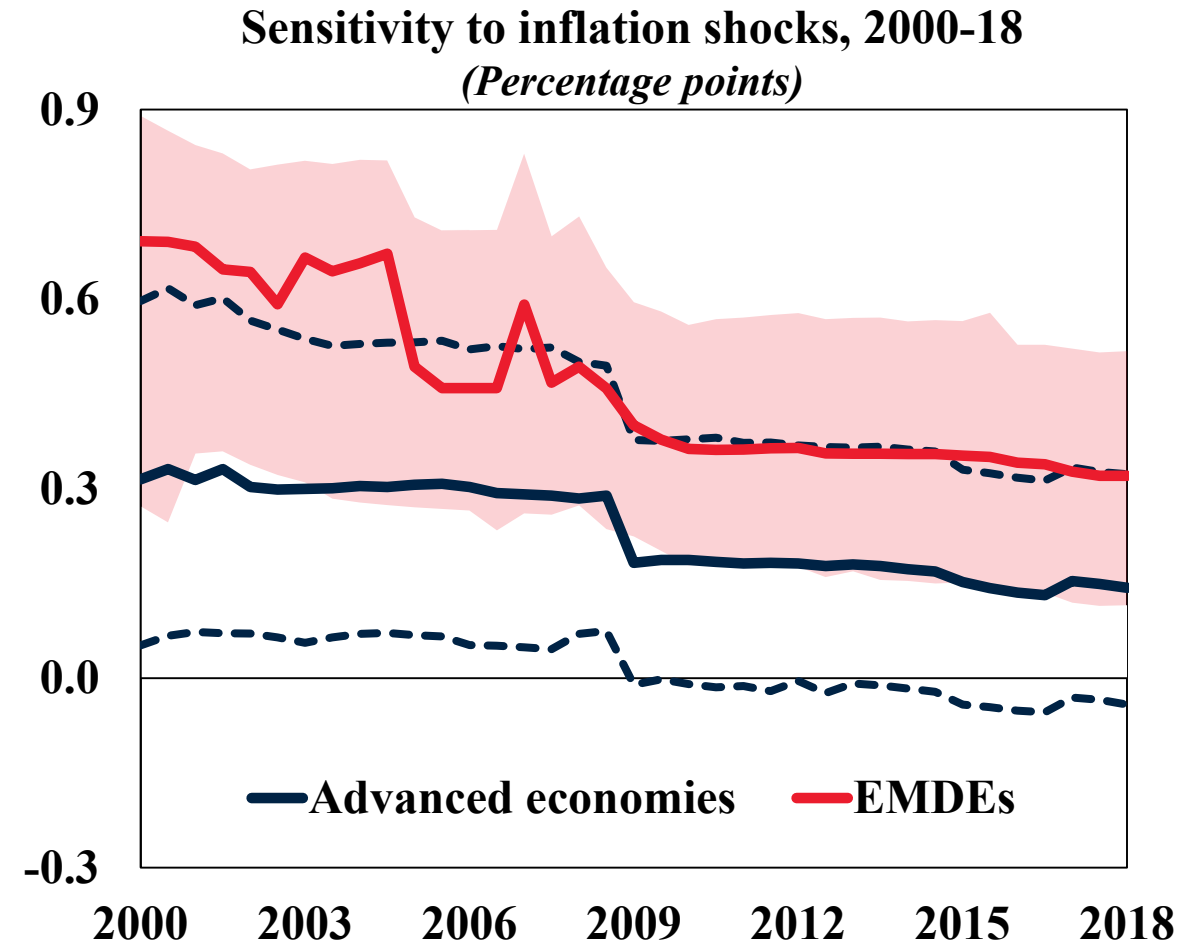
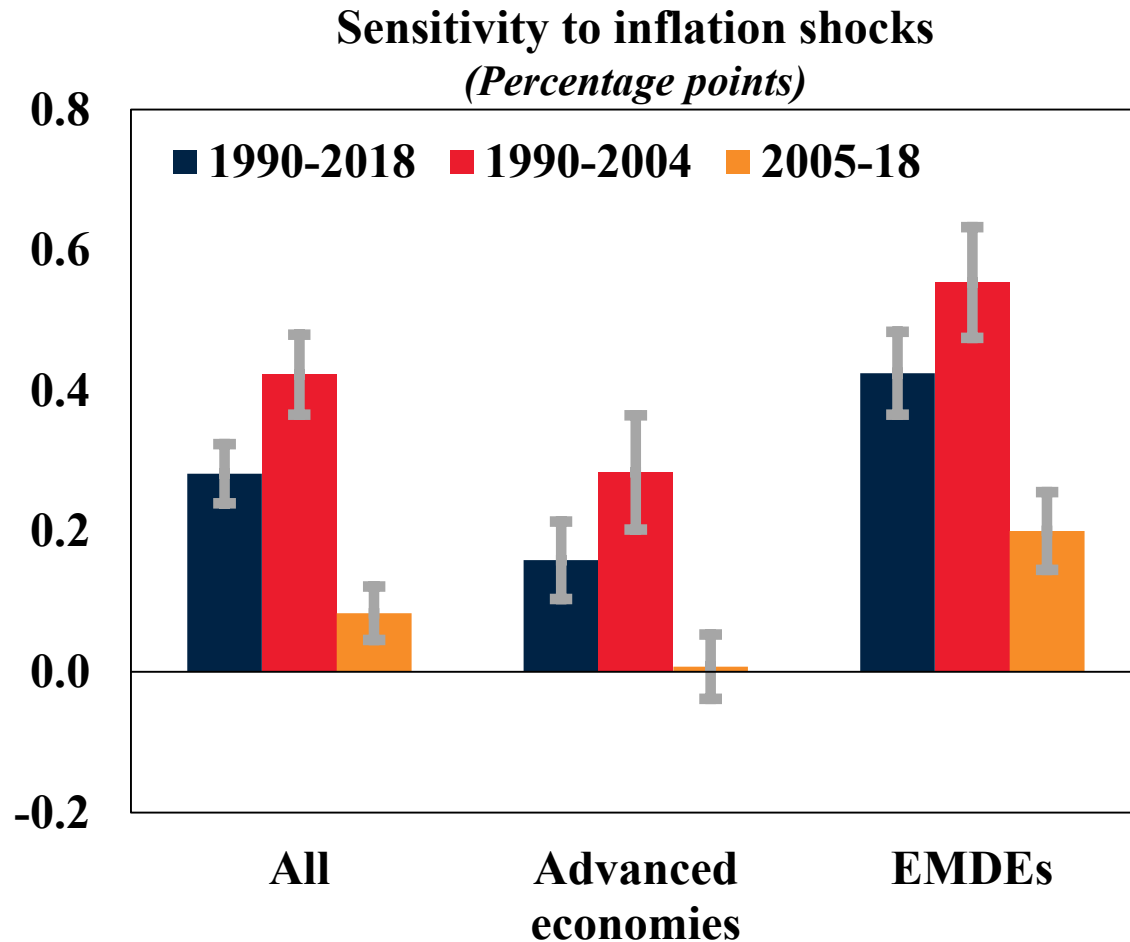


Sources: Consensus Economics, International Monetary Fund, World Bank.

Note: Inflation expectations refer to 5-year-ahead expectations of annual inflation and measured at a bi-annual frequency. Interquartile range of the country sample. Sample includes 24 advanced economies (over 1990H1-2020H2) and 23 EMDEs (over 1995H1-2020H2).

Anchoring Inflation Expectations in EMDEs

Better Anchored Now; Still Not as Well as in Advanced Economies



Sources: Consensus Economics, International Monetary Fund, World Bank.

Note: Inflation shocks are defined as the difference between realized inflation and short-term inflation expectations in the previous period. Left Panel. Sensitivity is estimated using a panel regression of changes in 5-year-ahead inflation expectations on inflation shocks. Bars denote median estimates and vertical lines denote 90 percent confidence intervals. Based on 24 advanced economies and 23 EMDEs for 1990H2-2018H1. Right Panel. Time-varying sensitivity is estimated by regressing changes in 5-year-ahead inflation expectations on inflation shocks. Solid lines denote median estimates and areas between two dotted blue lines and shaded in pink indicate, respectively, medians of 68 percent confidence intervals for advanced economies and EMDEs. Sample includes 24 advanced economies (over 1995H1-2018H1) and 23 EMDEs (over 2000H1-2018H1).

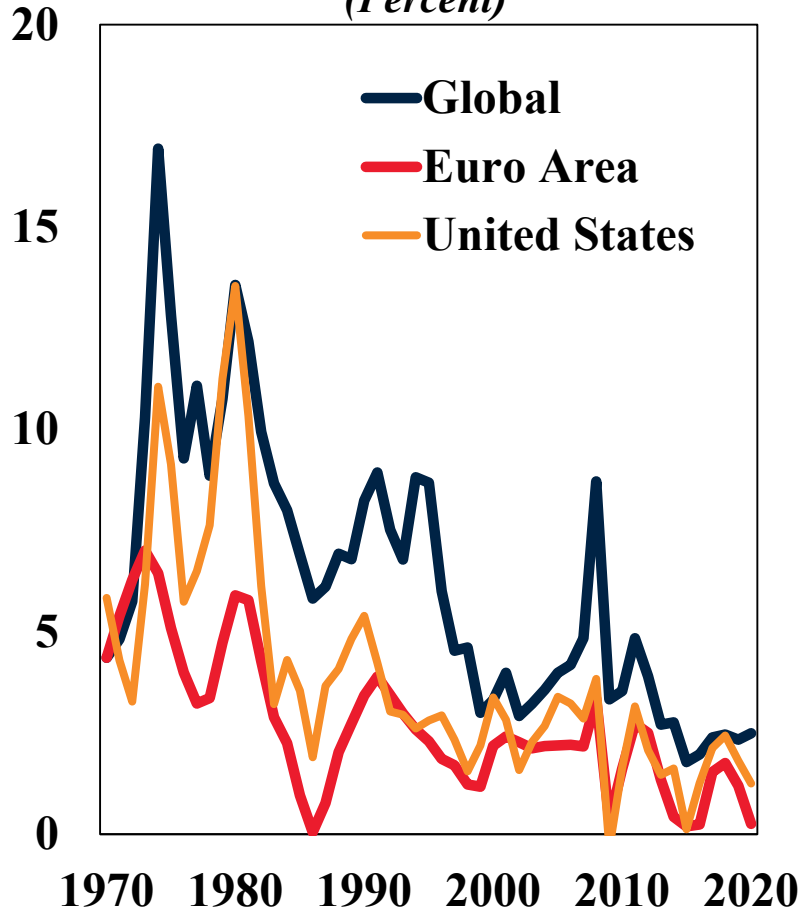
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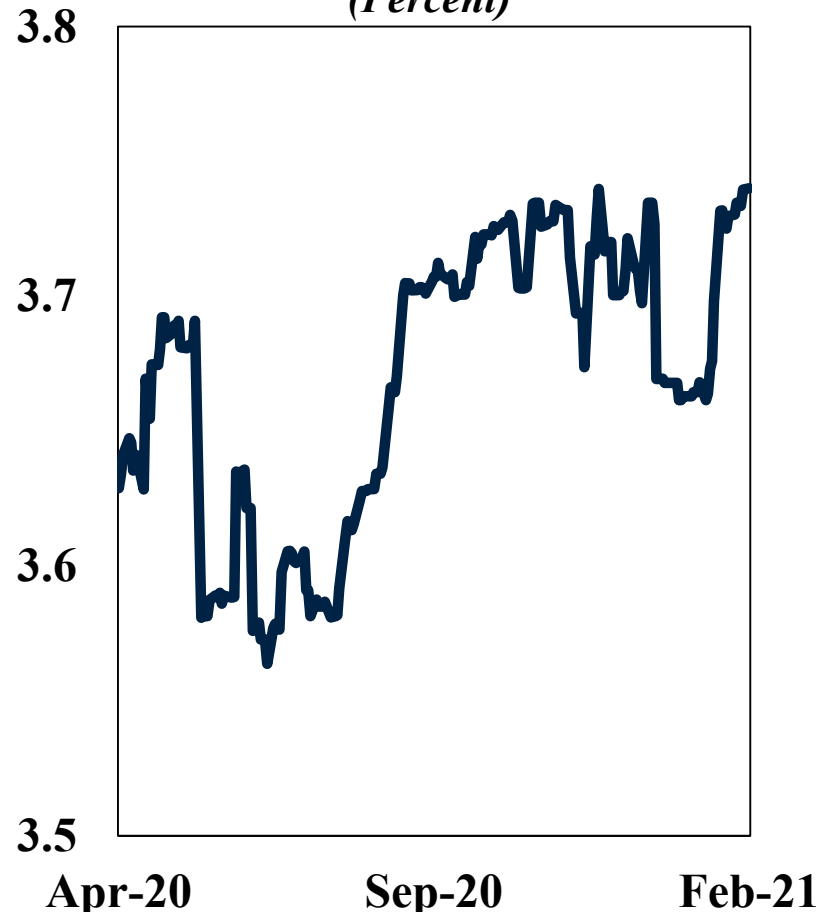
Inflation in 2021

Rising Inflation Expectations amid Recovery from COVID-19 Pandemic

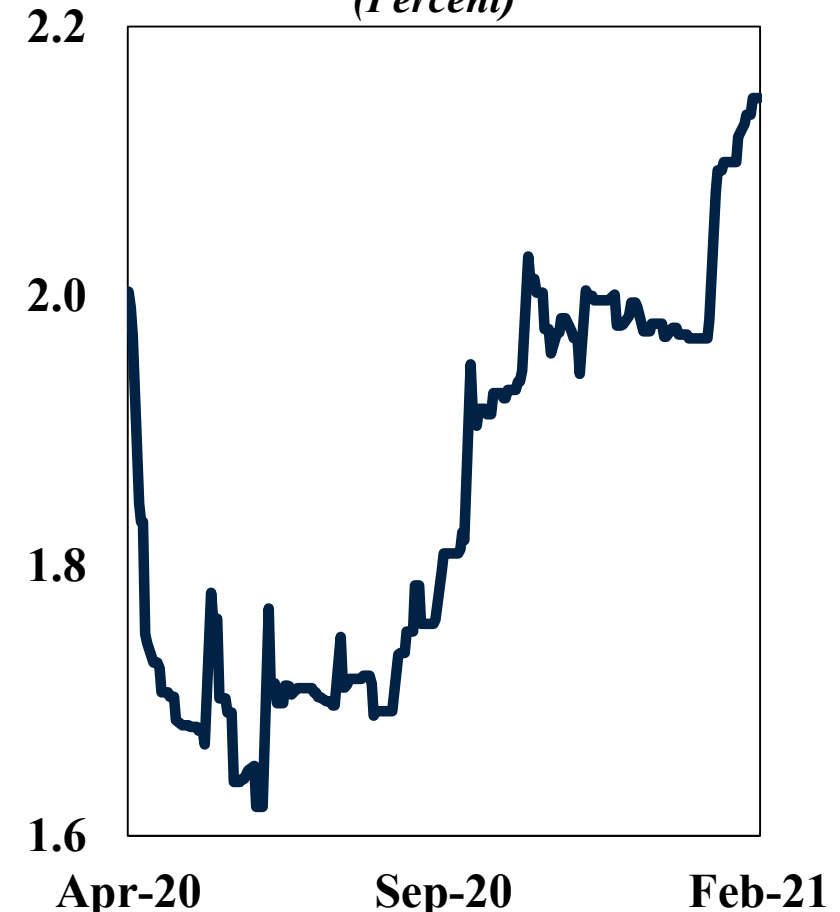
CPI inflation
(Percent)



EMDE inflation expectations for 2021
(Percent)



U.S. inflation expectations for 2021
(Percent)



Sources: Consensus Economics; Ha, Kose, and Ohnsorge (2019); Haver Analytics; World Bank.

Left Panel. Global inflation defined as median of 155 countries. Center and Right Panels. Consensus forecasts of inflation, as surveyed in respective days since April 1, 2020, on the horizontal axis. Last observation is February 1, 2021. Center Panel. Average inflation forecast based on 27 EMDEs for which data of consensus forecasts are available, weighted by GDP in U.S. dollars for the previous years.

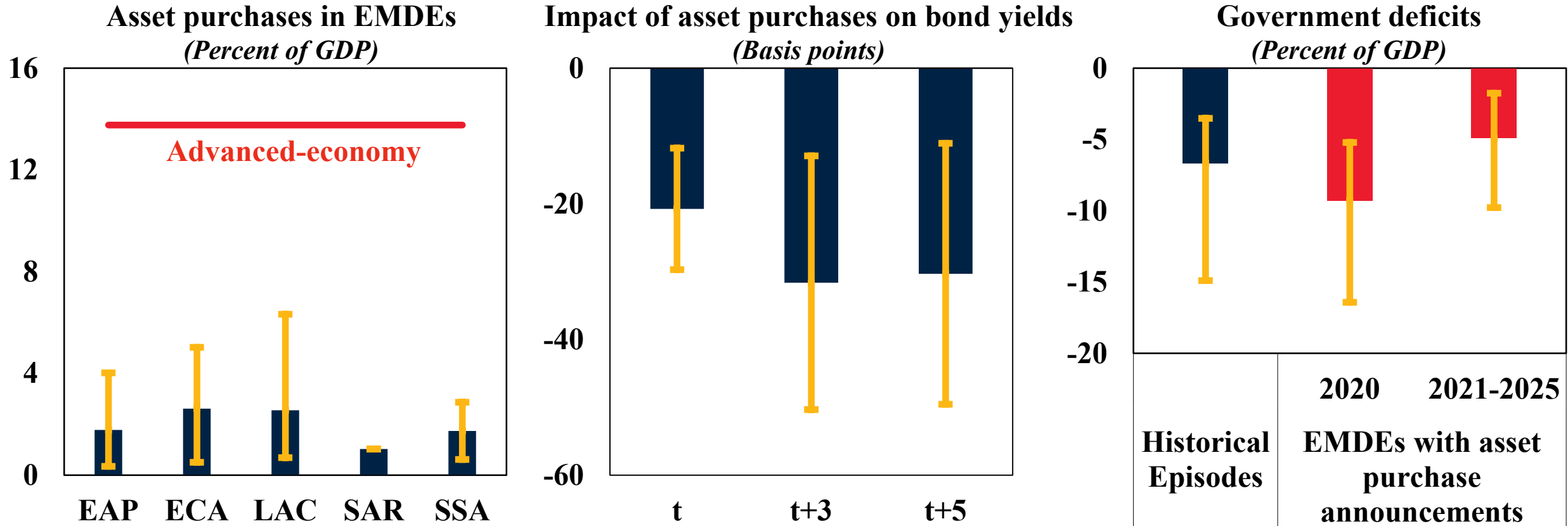
Inflation Prospects

A Few Factors to Consider...

- 1 Stronger cyclical recovery** *Diminishing global slack amid faster containment of COVID-19 and additional front-loaded fiscal stimulus could push up near-term inflation*
- 2 Higher costs of inputs** *Rising shipping costs and a cyclical upturn in global commodity prices could further strengthen inflation*
- 3 New monetary policy frameworks** *Adoption of average inflation targeting in some advanced economies, and the use of unconventional monetary policy tools in EMDEs, could increase policy-related upward risks to inflation*
- 4 Deteriorating fiscal policy frameworks and mounting debt levels** *Sharply rising debt levels and spending needs may lead to weaker long-term fiscal frameworks and be a source of higher inflation*

Asset Purchases in EMDEs

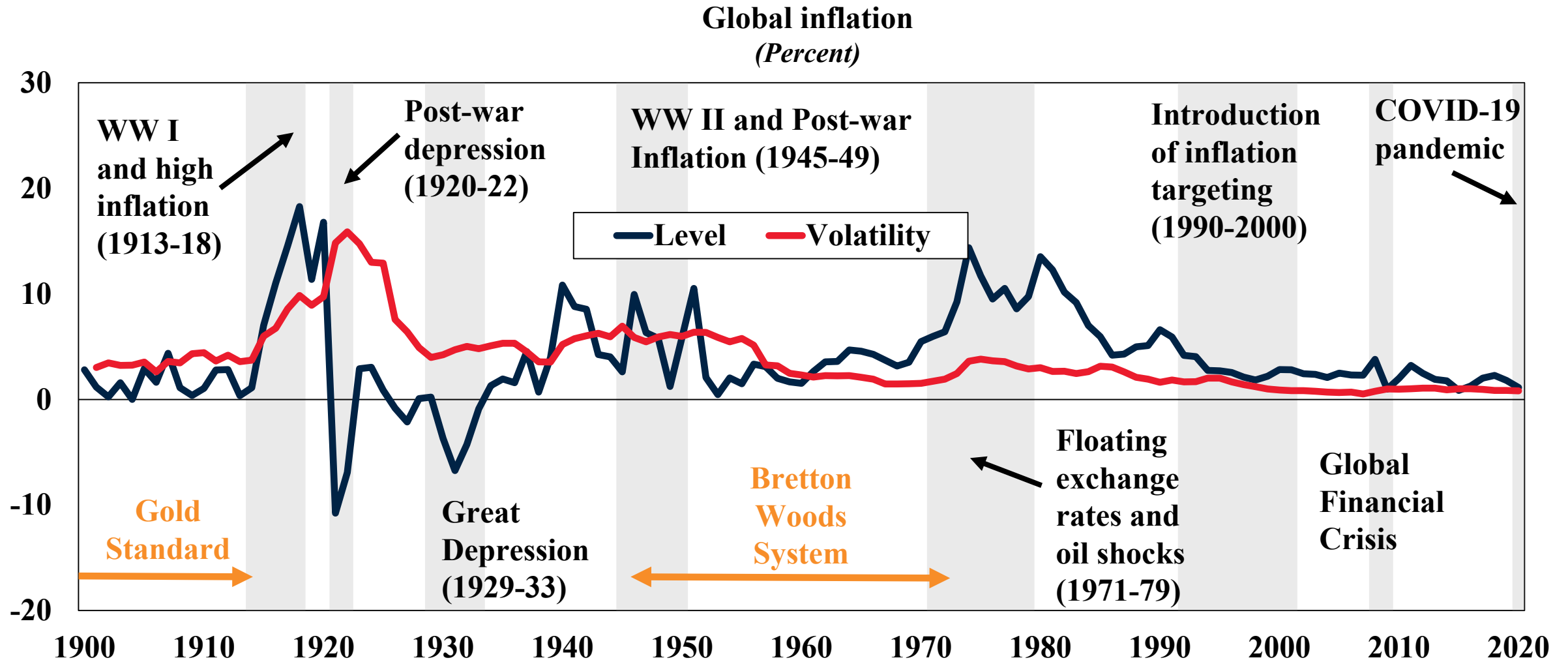
Varying Size; Declines in Bond Yields; Concerns about Deficit Financing



Sources: Bank for International Settlements; Haver Analytics; International Monetary Fund; Kose et al. (2020); World Bank. Note: EAP, ECA, LAC, SAR, and SSA are East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia, and Sub-Saharan Africa, respectively. Left Panel. Blue bars denote unweighted regional averages of announced central bank asset purchase programs, expressed relative to nominal local-currency GDP in 2019. Yellow whiskers indicate range of programs. The ultimate size of asset purchase programs in some countries will depend on market conditions; data for these countries reflect total assets purchased up to August 13, 2020. Center Panel. Panel regression results based on daily bond yields in 26 EMDEs. 25 QE announcement in 14 EMDEs are studied. Horizontal axes indicate days after the announcements of quantitative easing ($t = 0$). Standard errors are clustered by country. Blue bars indicate point estimates and yellow sticks indicate 90 percent confidence intervals. Right Panel. Historical episodes include Argentina (1989), Bolivia (1985), Brazil (1989), Peru (1990), and Turkey (1994), and are reported in the blue bars as the average of the five episodes in the 1-5 years ahead of the peak rate of inflation or debt monetization. Red bars indicate the average of EMDEs undertaking asset purchase programs since the emergence of the COVID-19 pandemic in the years indicated. Bars denote averages, whiskers denote ranges. Red bars for 2020 and 2021-25 show the average of the fiscal deficit projected in the IMF's October *World Economic Outlook* for EMDEs undertaking asset purchase programs.

Low Inflation: Miracle or Mirage?

Past Periods of Low Inflation Did Not Last



Source: World Bank.

Note: Median of annual average inflation and inflation volatility in 24 countries where data are available across the full period. Inflation volatility is defined as a 6-year moving standard deviation (from years $t-5$ to t).

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Thank You!

Questions & Comments

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(April and October)
- *Global Monthly*
- *Global Productivity* – *July 2020*
- *Global Waves of Debt* – *December 2019*
- *A Decade After the Global Recession* – *November 2019*