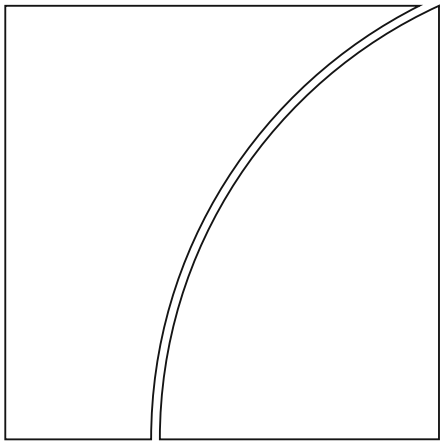

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by Raphael Auer, Mathieu Pedemonte and Raphael Schoenle

Monetary and Economic Department

May 2024

JEL classification: E31, E52, E58, F02, F41, F42, F14, F62.

Keywords: globalization, inflation, Phillips curve, monetary policy, global value chain, international inflation synchronization.

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# Sixty Years of Global Inflation: A Post-GFC Update*

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**Abstract**

Is inflation (still) a global phenomenon? We study the international co-movement of inflation based on a dynamic factor model and in a sample spanning up to 56 countries during the 1960-2023 period. Over the entire period, a first global factor explains approximately 58% of the variation in headline inflation across all countries and over 72% in OECD economies. The explanatory power of global inflation is equally high in a shorter sample spanning the time since 2000. Core inflation is also remarkably global, with 53% of its variation attributable to a first global factor. The explanatory power of a second global factor is lower, except for select emerging economies. Variables such as a broad dollar index, the US federal funds rate, and a measure of commodity prices positively correlate with the first global factor. This global factor is also correlated with US inflation during the 70s, 80s, the GFC, and COVID. However, it lags these variables during the post-COVID period. Country-level integration in global value chains accounts for a significant proportion of the share of both local headline and core inflation dynamics explained by global factors.

JEL classification: E31, E52, E58, F02, F41, F42, F14, F62

Keywords: globalization, inflation, Phillips curve, monetary policy, global value chain, international inflation synchronization

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# 1 Introduction

The influence of global factors on local inflation processes has significant implications for policy design and economic stability. The importance of global inflationary forces may challenge traditional monetary policy frameworks that rely mostly on tools that focus on domestic economic conditions, making them less effective. Therefore, the increasing importance of these global forces calls for a broader perspective that considers international conditions in the design of domestic policies.[1] These considerations are particularly relevant for smaller and more open economies.

To what extent has the recent inflation experience been a global phenomenon? Building on the empirical approach of Ciccarelli and Mojon (2010),[2] this article dissects the international co-movement of inflation using a dynamic factor model, with a focus on different periods of globalization. We analyze three samples: one starting in 1960, one in 1980, and one in 2000, all extending until June 2023. A particular contribution of our analysis to the work of Ciccarelli and Mojon (2010) thus lies in examining the importance of common factors in global inflation dynamics in the aftermath of two large global shocks: the post-GFC years and the recent post-pandemic inflation episode.[3]

As our analysis shows, the first and second factors associated with inflation dynamics exhibit several pronounced characteristics over different periods of globalization: independently of the period considered, the first factor appears relatively similar across samples and explains a large share of the variation of inflation across countries, around 58% in the full sample from 1960-2023 and over 72% in OECD economies. The second factor is relatively unstable across periods. It mostly captures country-specific dynamics, explaining little of the total variation, around 3%-5%. The importance of factors also varies across the development dimension: The importance of the first factor for explaining inflation is high and stable for advanced economies (AEs). For emerging market and developing economies (EMDEs), its im-

[1] See, for example, Borio and Filardo (2007); Bianchi and Civelli (2015); Auer and Mehrotra (2014); Wynne (2012); Auer, Borio, and Filardo (2017); Forbes (2019); and Ascari and Fosso (2024).

[2] See also related approaches in Mumtaz and Surico (2009, 2012).

[3] See also Ha et al. (2023) for recent evidence on international inflation synchronization. Gilchrist et al. (2017, 2023) explicitly highlight financial frictions as a key feature of inflation dynamics during the GFC and the euro crisis.

portance changes over time. For example, its importance is low for countries such as Peru or Argentina in the 1960s but increases in later periods. Because the first global factor explains a substantial share of inflation in many economies, the second factor captures other local inflation experiences, mostly in EMDEs. The two factors also matter in a heterogeneous fashion for the world relative to the experience of the US: During the post-pandemic inflation surge, US inflation tends to lead both factors while in earlier periods global inflation dynamics are more synchronized with the US inflation experience. We also examine the relationship between inflation in China and global factors, finding in particular that it is mildly associated with the second global factor.

When we regress several economic variables on the first and second global factors generated by the factor model, several time-series correlates of global inflation emerge: Commodity prices and the VIX are positively correlated with both factors, but the VIX is only statistically significant for the second factor. In contrast, the US dollar index and the US federal funds rate are positively correlated with the first factor, while they are negatively correlated with the second factor. The factors thus capture various shocks that drive costs and lead to inflationary pressure, but they also capture the role of US monetary policy and general market volatility.

To assess the impact of global value chains (GVCs) on the importance of the *factors* underlying inflation dynamics, we estimate the relationship between the share of inflation explained by our two factors and the share of foreign value added in each country, which is a measure of the input-intensity of local production. GVC measures are significantly positively related to the share of local inflation dynamics that are explained by the first factor of our analysis: Countries with a higher share of their local inflation explained by the first global factor also have a higher share of foreign value added. Moreover, we find that the second factor does not bear any economically or statistically significant relationship with GVCs. It simply has low explanatory power, which suggests that little of this factor is explained by global trade factors.

Our results are consistent with the hypothesis that global shocks are an important driver of national inflation dynamics, but they do not necessarily imply such causality. For example, central banks could have simply been relatively more successful in controlling local shocks, keeping inflation overall low and stable over the past 30 years. While policies to control local shocks are relatively well studied, dealing with international supply shocks

is challenging, and under certain conditions, an *accommodative* monetary policy can be desirable (Blinder, 1981), especially when we consider second round effects and other frictions (Bandera et al., 2023). Our results suggest that this challenge remains today, especially for economies more exposed to international price shocks, as most deviations from their target are explained by a common international factor.

**Literature** A large literature has studied the drivers and dynamics of inflation. Two strands are closely related to the analysis of this chapter. First, a series of papers argues in favor of an international component of inflation. For example, Ha, Kose, and Ohnsorge (2019) find that inflation in advanced economies is more strongly influenced by global factors than inflation in EMDEs. Additionally, they find that the global factor has become more important over time, specially for EMDEs. Likewise, Ascari and Fosso (2024) provide evidence for the increasing importance of global factors based on a Bayesian VAR analysis. Our analysis complements these papers by looking at common factors in AEs and EMDEs using the methodology of Ciccarelli and Mojon (2010), for different periods of globalization, and the relevance of economic variables that drive the factors (see Ha et al. (2023) for a contemporaneous study examining the drivers of global inflation).

Similarly, a series of papers has examined the role of economic factors as drivers of global inflation. The rise in commodity prices has often been cited as an inflationary force that transcends borders, given the global nature of commodity markets, as in De Gregorio (2012) and Peersman (2022). The trade integration of some economies, such as China and other emerging markets, to the global economy can also play a key role, by having a relevant disinflationary effect on prices of manufactured goods worldwide (see, for example, Auer and Fischer (2010)). A key aspect to consider in this trade context is, in particular, the role of GVCs: As production processes have become more global, the propagation of cost changes in one part of the world can quickly affect prices elsewhere. The influence of global value chains on inflation dynamics underscores the complexity of tracing inflationary impulses in a globalized economy. This channel has received substantial attention in the discussion of how prices spill over internationally, for example, in Auer, Borio, and Filardo (2017); Auer, Levchenko, and Sauré (2019). Our analysis explicitly relates our estimated factors to commodity price movement and its role in explaining the relationship between local inflation and the local importance of GVCs.

A second strand of the literature related to our analysis highlights the

role of monetary policy as a driver of co-movement in international inflation. Not only does the increasing importance of global forces challenge traditional monetary policy frameworks that rely mostly on domestic economic conditions, but the global reach of the monetary policies of key central banks, such as the US Federal Reserve and the European Central Bank, has also an influence on the importance of global factors (Miranda-Agrippino and Rey (2020); Degasperi, Hong, and Ricco (2020)). This influence can be particularly important for emerging economies (Kalemli-Özcan and Unsal, 2024; Kalemli-Özcan, 2019), depends on the local policies (Obstfeld, Ostry, and Qureshi, 2019) and can influence emerging markets indirectly, for example through inflation expectations (Frache et al., 2023). The global influence of the policy actions of major central banks can be a result of financial linkages (Rey (2015); Bruno and Shin (2015)) and currency pricing choices of exports and imports, as discussed in the dominant currency pricing literature (Gopinath et al., 2020; Mukhin, 2022; Egorov and Mukhin, 2023).

At the same time, a few papers also argue that monetary policy has played an important role in stabilizing inflation around sustainable boundaries for quite some time. For example, McLeay and Tenreyro (2020) argue that the apparent weakening of a short-run relationship between inflation and domestic measures of slack may simply be due to the optimal conduct of monetary policy. In a similar way, Bergholt, Furlanetto, and Vaccaro-Grange (2023) argue that monetary policy has shifted to a more firm commitment to maintaining price stability. These findings align with our interpretation of the second factor as a non-global component, which does not account for much of inflation variability, and an important first factor.

The structure of the paper is as follows: Section 2 discusses our data and methodology. Section 3 describes and analyzes the patterns of global inflation. Section 4 analyzes the economic forces behind global inflation factors. Section 5 concludes.

# 2 Data and Methodology

The subsequent analysis is based on monthly consumer price index (CPI) data from the BIS Data Portal for a panel of as many as 56 countries. The choice of time frames for the analysis differs, starting as early as 1960 and extending until June 2023. Depending on this choice, the set of available countries changes. A trade-off embodied in the choice of countries thus lies

in the length of the time series and the size of the panel. The subsequent specification with the most data will use data starting in 1999 and comprising 56 countries.

Our analysis focuses on headline inflation, since it is the main policy target in most economies and also widely available. More specifically, the focus on headline CPI inflation derives from most central banks choosing to set their policy objectives by targeting this measure of CPI inflation, in line with theoretical models. In some countries, however, central banks target core inflation which mainly removes some tradable components such as commodities prices and food prices. We thus also consider robustness exercises that use core inflation in a subsample of countries. We note that analysis of headline inflation (rather than just core inflation or some other subsets) is useful even for countries targeting core inflation: The analysis of headline inflation may indeed explain why some central banks avoid considering tradable components, as they are hard to control via traditional monetary policy tools.

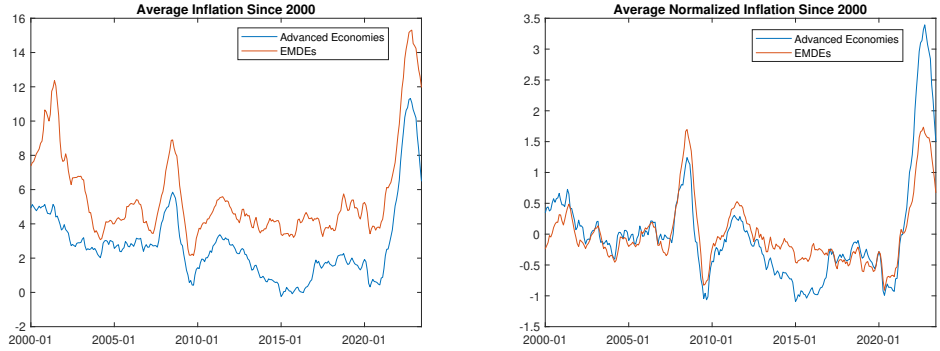
Before discussing our main approach based on a factor model, we describe the evolution of raw inflation dynamics. To connect our discussion to some of the later insights as well as key aspects of globalization, we do so separately for AEs and EMDEs.[4]

This initial comparison is, moreover, based on two measures of inflation. The contrast of the two measures is useful because it further brings out a key characteristic of global inflation dynamics.[5] As a first measure, we compute *simple averages* of inflation for both AEs and EMDEs. As a second measure, we also construct a *normalized measure* of inflation that we then average across countries. To construct this measure, we subtract from the inflation rate of each country its mean inflation rate and divide by the relevant country's standard deviation of inflation over the sample. After this procedure, we take simple averages across countries in each set. This normalization effectively reduces the weight of high-volatility, high-inflation-level economies.

[4]Table 7 in the Appendix contains the list of AE and EMDE countries. We classify countries following definitions from the Bank of International Settlements, see https://www.bis.org/statistics/country_groupings.pdf.

[5]Due to economic growth over time and reclassification of countries, we focus on a rather short time series for this particular comparison starting in 2000.

Figure 1: Average Inflation and Average Normalized Inflation for Advanced Economies and Emerging Market and Developing Economies (EMDEs)




Notes: The panels in the figure show monthly inflation trajectories for advanced economies (AEs) and emerging market and developing economies (EMDEs). Table 7 in the Appendix contains the list of advanced economies and EMDEs. The left panel shows simple averages and the right panel shows averages of a standardized inflation where each country's local inflation is demeaned and normalized by the standard deviation.

Figure 1 illustrates two salient patterns of global inflation. The figure shows the resulting time series for the *simple average* in its left panel and for the *normalized average* in its right panel. First, a characteristic that emerges clearly from the left panel of Figure 1 is that, on average, EMDEs have experienced a higher rate of inflation compared to AEs. In particular, at the beginning of the 2000s, EMDEs were experiencing inflation rates above 10% on average, while AEs were experiencing low rates of inflation. High inflation in EMDEs overall is influenced by high inflation in some Latin American countries, such as Argentina, and some eastern European economies, while other countries such as China experienced low inflation during that period and provided a downward weight on the high average rate in EMDEs.

Second, a further feature of the inflation experience across countries lies in a strong global co-movement evident since the early 2000s. This feature comes out very clearly once the normalized inflation measure is used to characterize the inflation dynamics, shown in the right panel of Figure 1. This normalization effectively reduces the weight of high-volatility, high-inflation economies. As a result, the dynamics between developed and developing economies are remarkably similar up to 2012. Thereafter, AEs experienced a more intense disinflation, due in part to the crisis in the Eurozone, followed by a relatively delayed inflation rise after COVID in the set of EMDEs. Conditioning on the volatility and level of the inflation experiences of countries

highlights that overall inflation dynamics look similar across these two groups of AEs and EMDEs.

To investigate the degree of inflation co-movement more formally, our main approach gauges the strength of such co-movement in the global economy using a common-factor analysis as in Ciccarelli and Mojon (2010). Ciccarelli and Mojon (2010) use a factor representation based on Forni et al. (2000) and Stock and Watson (2002) that decomposes inflation rates as follows:

$$\Pi_t = \Lambda f_t + \varepsilon_t \tag{1}$$

where $\Pi_t$ denotes an $n \times 1$ vector of inflation for the panel of countries. $\Lambda$ captures the response of each country's inflation rate to the common factor $f_t$. Our analysis assumes normality of the error term $\varepsilon_t$ and orthogonality with $f_t$.

Our analysis focuses on the first two factors, for different periods of time. By analyzing different time periods as outlined above, we gauge the stability of the factors across different periods of globalization. Moreover, our analysis follows the procedure of Ciccarelli and Mojon (2010) in assessing how much of the total variation in local inflation these global factors explain.

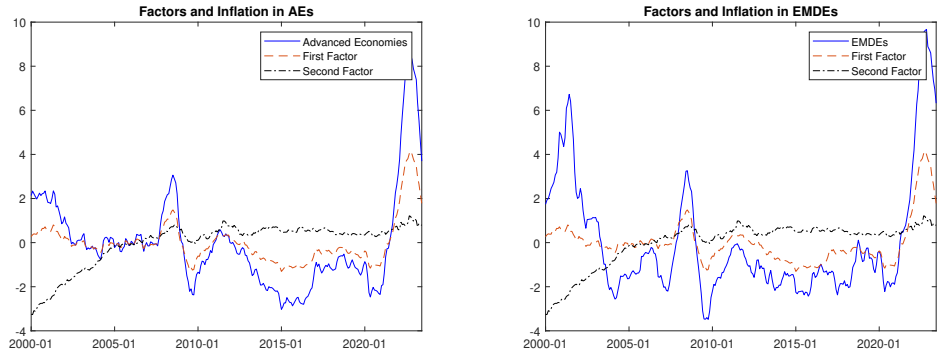
As a final step of the analysis, in Section 4 we gauge which economic variables are statistically associated with the estimated factors. As candidate variables, we include the VIX as a gauge of market volatility; the dollar index, which measures the value of the US dollar relative to a basket of foreign currencies; a commodity price index, as a gauge of the global role of tradable inputs; and the US federal funds rate, as a gauge of the global importance of major central banks' monetary policies. We obtain these data from the database of the St. Louis Fed (FRED). A natural variable to explain co-movement in global inflation also lies in the presence of GVCs. We therefore also relate the share of local inflation in a country explained by one of the two factors from the factor analysis to three measures of GVCs developed in Bems and Johnson (2017). These are the foreign value added (FVA) embodied in a country's exports over the total value added and the domestic value added (DVX) of a country that is embodied in the exports of other countries, or, respectively, the sum of these two variables. We obtain these data from Casella et al. (2019). We complement these variables with a measure of global commodity prices, the primary commodity price index compiled by the IMF.

# 3 Global Inflation and Its Common Factors

The first and second factors of inflation show several pronounced characteristics over different periods of globalization: Independently of the period considered, the first factor appears relatively similar and explains a lot of variation. The second factor is unstable across periods and is associated with some common country-specific dynamics. Its global relevance, moreover, depends on the specific samples used.

We show these results by analyzing three periods: The first includes all available countries starting in 1960, the second those available after 1980, and the third focuses on the recent wave of globalization that accelerated after 2000. Table 1 describes the sample of countries included in each period, reflecting the unbalanced nature of the panel. The US and the western OECD countries are included in all samples. Figure 2 plots both first and second factors alongside average inflation in AEs and EMDEs for the countries in the sample from 2000 until June 2023. Figure 5 in the Appendix shows the results for the samples that start in 1980 and 1960.

Figure 2: Factors and Average Inflation for Different Samples




Notes: The panels in the figure show monthly inflation minus the sample average for the average advanced economies (AEs, left panel) and the average emerging market and developing economies (EMDEs, right panel) over different periods of time. Each panel includes the first and second factors estimated with the panel of countries for each period of time. Table 1 contains the underlying list of countries.

A first result that emerges is that the first factor appears relatively similar across all three periods for the common sample period, capturing common global inflation dynamics, even if the sample of countries increases over time. As is evident, the first factor was trending up before the global financial crisis

and then decreased during the crisis, in line with its global reach. It is also evident that the first factor increased after the pandemic, in line with the experience that the increase in inflation that started in 2021 was common across countries.

A strong correlation between inflation and the first factor is characteristic for AEs. Inflation in EMDEs is more volatile. Notably, higher inflation before the global financial crisis is present in both groups of countries. This pre-GFC increase in inflation coincides with an increase in the first factor. However, for EMDEs this increase in inflation is relatively small compared to the inflation rates prevalent in the early 2000s. Similarly, after the GFC, advanced economies did not experience a big moderation in inflation relative to their average, which seems to have influenced the first global factor that remains stable until March 2020. The subsequent inflation surge in 2021 is very similar in magnitude, and simultaneous, for both AEs and EMDEs.

With respect to the second factor, we observe only a very weak correlation with inflation. The factor has a negative correlation with trend inflation in the early 2000s, especially for EMDEs, but remains flat for the rest, in contrast to the average variation that occurred in AEs and EMDEs between the GFC and the end of the sample in 2023.

In Figure 5 in the Appendix we also plot the first and second factors and average inflation for advanced economies for earlier periods in the data.[6] The first factor shows marked increases in the 1970s in line with the common oil price shocks during that period. This experience was followed by a general decline in the 1980s. Global inflation dynamics captured by the first factor also tend to be more closely in line with the inflation dynamics in AEs in these earlier periods.

When it comes to the second factor, more nuanced results emerge. The second factor changes significantly depending on the sample under consideration. For example, when estimated based on the longest sample that starts in 1960, it declines during the recent post-pandemic surge of inflation. But when estimated on more recent samples, it increases or is relatively flat during this period, as shown in Figure 2. The likely reason for this result is that the second factor mostly explains the inflation experiences of countries with regional inflation trajectories and hence is more unstable than the first factor depending on periods and countries considered.

[6]We don't plot the average inflation of EMDEs for earlier periods, as those averages would be heavily influenced by hyperinflation experiences in the late 80s, and early 90s.

These two results on the first two factors are also reflected in the quantitative importance that they bear in explaining the variation in inflation. Table 1 shows how much of the inflation experience of each country each factor explains (as measured by $R^2$). The first factor dominantly explains the local inflation experience of most AEs. This holds true across different periods of globalization. For EMDEs, the importance of the first factor changes over time. For example, its importance is low for countries such as Peru or Argentina in the 1960s, but increases in later periods.

Table 1: Share of Local Inflation Explained by Global Factors

| | 1960-2023 | | 1980-2023 | | 2000-2023 | |
|---|---|---|---|---|---|---|
| Countries | 1st Comp | 2nd Comp | 1st Comp | 2nd Comp | 1st Comp | 2nd Comp |
| Australia | 0.768 | 0.004 | 0.662 | 0.015 | 0.737 | 0.034 |
| Austria | 0.617 | 0.120 | 0.583 | 0.092 | 0.868 | 0.033 |
| Belgium | 0.762 | 0.061 | 0.701 | 0.080 | 0.851 | 0.026 |
| Canada | 0.839 | 0.000 | 0.839 | 0.013 | 0.698 | 0.000 |
| Denmark | 0.732 | 0.033 | 0.881 | 0.023 | 0.896 | 0.000 |
| Finland | 0.811 | 0.035 | 0.893 | 0.004 | 0.868 | 0.004 |
| France | 0.887 | 0.008 | 0.926 | 0.017 | 0.883 | 0.002 |
| Germany | 0.543 | 0.084 | 0.512 | 0.088 | 0.855 | 0.043 |
| Greece | 0.587 | 0.230 | 0.718 | 0.211 | 0.675 | 0.029 |
| Ireland | 0.841 | 0.027 | 0.827 | 0.051 | 0.630 | 0.094 |
| Italy | 0.901 | 0.002 | 0.955 | 0.000 | 0.912 | 0.000 |
| Japan | 0.474 | 0.142 | 0.602 | 0.000 | 0.201 | 0.208 |
| Luxembourg | 0.740 | 0.045 | 0.688 | 0.077 | 0.812 | 0.002 |
| Netherlands | | | 0.416 | 0.223 | 0.768 | 0.000 |
| New Zealand | 0.691 | 0.025 | 0.625 | 0.023 | 0.739 | 0.006 |
| Norway | 0.702 | 0.000 | 0.740 | 0.002 | 0.399 | 0.010 |
| Portugal | 0.757 | 0.058 | 0.714 | 0.078 | 0.778 | 0.036 |
| Spain | 0.779 | 0.000 | 0.921 | 0.008 | 0.755 | 0.022 |
| Sweden | 0.771 | 0.004 | 0.822 | 0.009 | 0.804 | 0.027 |
| Switzerland | 0.483 | 0.022 | 0.658 | 0.031 | 0.673 | 0.020 |
| United Kingdom | 0.775 | 0.032 | 0.776 | 0.010 | 0.714 | 0.156 |
| United States | 0.702 | 0.001 | 0.715 | 0.035 | 0.707 | 0.003 |
| Argentina | 0.010 | 0.052 | 0.019 | 0.061 | 0.204 | 0.161 |
| Chile | 0.360 | 0.077 | 0.586 | 0.220 | 0.629 | 0.060 |
| Colombia | 0.424 | 0.174 | 0.431 | 0.320 | 0.462 | 0.121 |
| Hong Kong SAR | 0.358 | 0.073 | 0.463 | 0.086 | 0.000 | 0.616 |
| Iceland | 0.670 | 0.024 | 0.676 | 0.004 | 0.230 | 0.001 |
| India | 0.135 | 0.002 | 0.227 | 0.013 | 0.054 | 0.033 |
| Israel | 0.210 | 0.134 | 0.334 | 0.042 | 0.319 | 0.000 |
| Peru | 0.006 | 0.092 | 0.024 | 0.127 | 0.452 | 0.091 |
| Philippines | 0.255 | 0.044 | 0.241 | 0.062 | 0.370 | 0.017 |
| South Africa | 0.353 | 0.379 | 0.444 | 0.332 | 0.100 | 0.000 |
| Indonesia | | | 0.007 | 0.006 | 0.016 | 0.070 |
| Korea | | | 0.554 | 0.002 | 0.550 | 0.018 |
| Malaysia | | | 0.354 | 0.027 | 0.170 | 0.060 |
| Singapore | | | 0.388 | 0.126 | 0.525 | 0.096 |
| Thailand | | | 0.469 | 0.005 | 0.406 | 0.013 |
| Turkey | | | 0.147 | 0.095 | 0.458 | 0.247 |
| Algeria | | | | | 0.129 | 0.167 |
| Brazil | | | | | 0.020 | 0.071 |
| Bulgaria | | | | | 0.736 | 0.039 |
| China | | | | | 0.014 | 0.149 |
| Croatia | | | | | 0.882 | 0.001 |
| Cyprus | | | | | 0.709 | 0.026 |
| Czechia | | | | | 0.851 | 0.016 |
| Estonia | | | | | 0.918 | 0.016 |
| Hungary | | | | | 0.708 | 0.035 |
| Latvia | | | | | 0.684 | 0.039 |
| Lithuania | | | | | 0.751 | 0.134 |
| North Macedonia | | | | | 0.832 | 0.000 |
| Poland | | | | | 0.749 | 0.014 |
| Romania | | | | | 0.145 | 0.755 |
| Saudi Arabia | | | | | 0.014 | 0.214 |
| Serbia | | | | | 0.068 | 0.527 |
| Slovak Republic | | | | | 0.601 | 0.172 |
| Slovenia | | | | | 0.600 | 0.319 |
| Average OECD 1960 | 0.722 | 0.044 | 0.735 | 0.049 | 0.737 | 0.034 |
| Average Sample 1960 | 0.579 | 0.064 | 0.613 | 0.074 | 0.595 | 0.058 |
| Average Sample 1980 | | | 0.567 | 0.069 | 0.557 | 0.062 |
| Average Sample 2000 | | | | | 0.546 | 0.090 |

Note: This table shows the proportion of variance that is explained by the factor for each country. As in Ciccarelli and Mojon (2010), the estimates capture the $R^2$ of a regression of the national inflation rate on a factor and a constant.

By contrast, the second factor generally does not explain a large share of the variation in inflation. Notably, however, it tends to account for more of the local inflation experiences that are not well-explained by the first factor,

such as for Argentina or Hong Kong. For example, Hong Kong experienced large negative inflation rates at the beginning of the 2000s and relatively stable positive inflation thereafter. The second factor captures this experience well, especially in the most recent, post-2000 sample. But the second factor also describes well countries that experienced significant disinflation in the early 2000s, such as Romania. At the same time, the first factor explains very little of the variation of such inflation experiences. The next section explores variables that can account for these results in an economic rather than a statistical sense.

We next investigate the share of local *core* inflation that is explained by global factors. While most central banks set their objective target looking at CPI headline inflation (or other measures of aggregate inflation), others also consider core inflation, a measure of inflation that removes volatile factors such as food and/or energy. Our above result that the first factor significantly explains local inflation aligns with such a focus on core inflation. In a world where global factors explain most of the fluctuation in inflation, it might be informative to remove some of the most tradable components that cannot necessarily be controlled by domestic monetary policy.

Interestingly, global factors also explain a big proportion of countries' core inflation. To establish this fact, we repeat our analysis, but for a subset of countries where we have access to a measure of core inflation. Table 2 shows the list of countries we use for this specific analysis. Figure 6 in the Appendix plots the core factor along with AEs, EMDEs and US core inflation. Our previous findings continue to apply for core inflation, which Table 2 shows: The first global core inflation factor explains a big proportion of core inflation. Table 8 in the Appendix shows that the results in terms of correlation with global variables also continue to apply to this core global factor. Finally, Figure 3 shows a high correlation between a country's headline inflation explained by the first global factor and the country's core inflation explained by the first core factor.

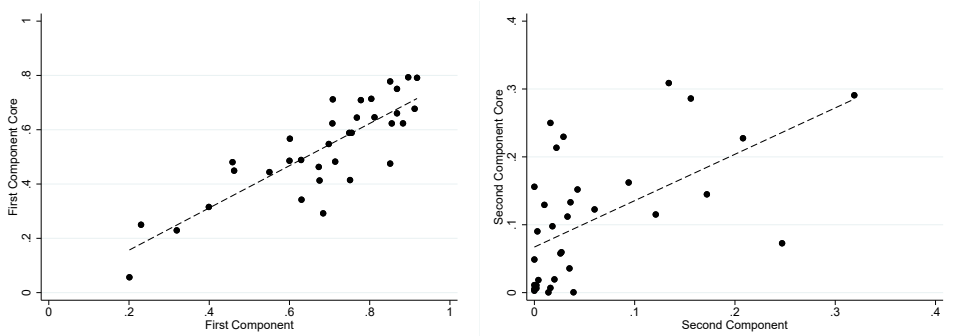
Our results thus indicate that a global factor explains a big proportion of inflation across countries, even when we consider less tradable goods (as captured by the core inflation measure). The next section discusses how trade integration can help rationalize these findings.

Table 2: Share of Local Core Inflation Explained by Global Factors

| Countries | First Factor | Second Factor |
|---|---|---|
| Austria | 0.750 | 0.112 |
| Belgium | 0.778 | 0.058 |
| Canada | 0.548 | 0.049 |
| Chile | 0.489 | 0.123 |
| Colombia | 0.449 | 0.115 |
| Czechia | 0.475 | 0.250 |
| Denmark | 0.793 | 0.011 |
| Estonia | 0.791 | 0.007 |
| Finland | 0.660 | 0.019 |
| France | 0.623 | 0.011 |
| Germany | 0.623 | 0.152 |
| Greece | 0.413 | 0.230 |
| Hungary | 0.712 | 0.036 |
| Iceland | 0.250 | 0.007 |
| Ireland | 0.342 | 0.162 |
| Israel | 0.229 | 0.003 |
| Italy | 0.677 | 0.156 |
| Japan | 0.057 | 0.227 |
| Korea, Rep. | 0.444 | 0.098 |
| Latvia | 0.292 | 0.001 |
| Lithuania | 0.415 | 0.309 |
| Luxembourg | 0.646 | 0.006 |
| Netherlands | 0.645 | 0.005 |
| Norway | 0.316 | 0.129 |
| Poland | 0.588 | 0.000 |
| Portugal | 0.709 | 0.133 |
| Slovak Republic | 0.567 | 0.145 |
| Slovenia | 0.486 | 0.291 |
| Spain | 0.589 | 0.213 |
| Sweden | 0.714 | 0.060 |
| Switzerland | 0.463 | 0.020 |
| Turkiye | 0.481 | 0.073 |
| United Kingdom | 0.483 | 0.286 |
| United States | 0.623 | 0.090 |
| Average | 0.533 | 0.105 |

Note: This table shows the proportion of variance that is explained by the factor for each country. As in Ciccarelli and Mojon (2010), the estimates capture the $R^2$ of a regression of the national core inflation rate on a factor and a constant.

Figure 3: Relationship All and Core Factor




Notes: The panels in the figure show the correlation between the share of local CPI inflation (x axis) or core inflation (y axis) explained by the global factor. Each dot represents a country. Those shares are calculated for the sample of countries in Table 2 from 2000 to 2023. The slope for the first factor is 0.778 (robust standard errors of 0.075, $R^2$ of 0.702) and for the second factor it is 0.684 (robust standard errors of 0.190, $R^2$ of 0.325).

# 4 Economic Forces Behind Inflation Factors

Economically, what is behind the relevance of these statistical factors? This section presents evidence for the importance of several global economic variables for the two factors and also highlights the importance of GVCs for each factor.

## 4.1 The correlates of global inflation

First, our analysis shows that several global economic variables are associated with the first and second factors generated by the factor model. These variables include the dollar index, the US federal funds rate, the primary commodity price index and the VIX index. They capture various shocks that drive costs and lead to inflationary pressure, but they also capture the role of US monetary policy and general market volatility.

Table 3: Factors and Other Global Variables

| | First Factor | | | | Second Factor | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| VIX | 0.004 | | | | 0.011*** | | | |
| | (0.003) | | | | (0.004) | | | |
| Dollar Index | | 0.036*** | | | | -0.017*** | | |
| | | (0.002) | | | | (0.003) | | |
| Commodity Price Index | | | 0.008*** | | | | 0.008*** | |
| | | | (0.001) | | | | (0.001) | |
| Federal Funds Rate | | | | 0.217*** | | | | -0.048*** |
| | | | | (0.006) | | | | (0.014) |
| Constant | -0.476*** | -3.332*** | -1.615*** | -1.015*** | -0.034 | 1.461*** | -0.478* | 0.133*** |
| | (0.057) | (0.197) | (0.123) | (0.025) | (0.085) | (0.223) | (0.097) | (0.051) |
| Observations | 402 | 480 | 246 | 497 | 402 | 480 | 246 | 497 |
| R-squared | 0.003 | 0.271 | 0.356 | 0.771 | 0.010 | 0.073 | 0.421 | 0.047 |

Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (4) the dependent variable is the first factor. For Columns (5) to (8) it is the second factor. VIX is the market expectation of near-term volatility according to the Chicago Board Options Exchange, Inc. Dollar Index is the trade-weighted US dollar index (goods only) that goes from 1973 to 2019. Commodity Price Index is the primary commodity price index built by the IMF that represents the benchmark commodity prices on the global market. The Federal Fund Rate is the Federal Reserve policy rates from 1960 to 2023. Robust standard errors in parenthesis.

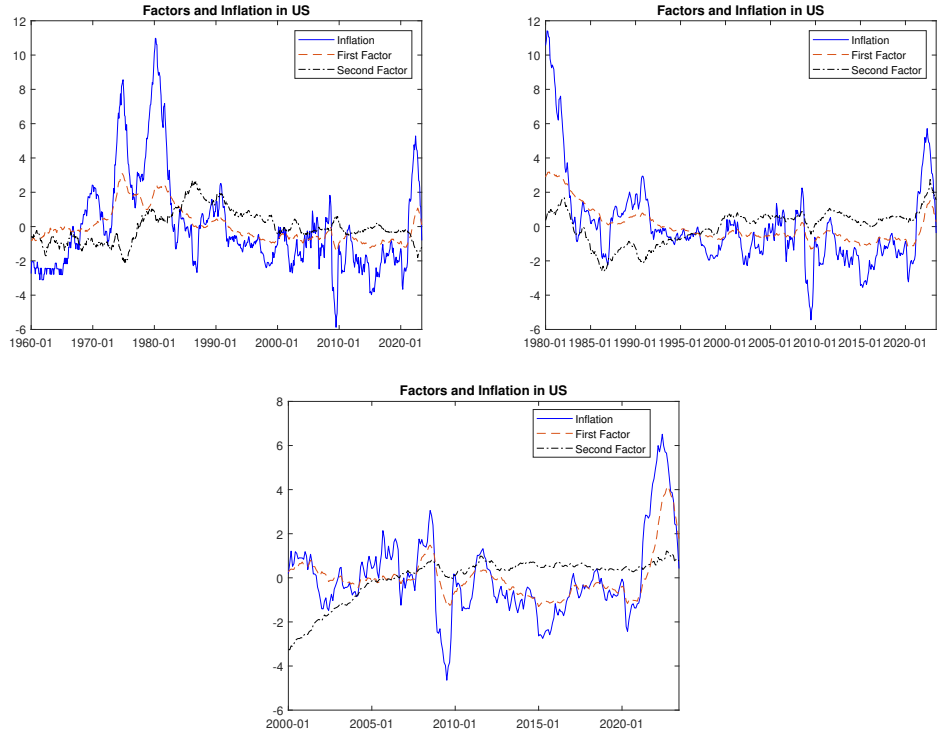
Regarding the first factor, we find a positive association with all four variables as Table 3 shows. The first factor has a positive, statistically significant correlation with the global dollar index. This association could indicate that changes in the US dollar translate into costs in other countries, but it could also capture inflationary pressures in the US. The positive correlation with the commodity price index reflects common movements in input cost. The first factor also strongly and statistically significantly correlates with the US federal funds rate. This association encapsulates global inflationary pressures and a policy reaction from the Federal Reserve. While the first factor is also positively correlated with the global VIX, its relationship does not have statistical significance.

Regarding the second factor, we find a statistically significant relationship with all four variables. But unlike in the case of the first factor, the VIX now takes on statistical significance. Since the second factor is usually correlated more with inflation dynamics for countries that are not affected by global inflation trends (as discussed in the previous section), this finding suggests that the inflationary pressures of these countries are in particular related to higher global uncertainty.

## 4.2 US, China and global inflation

We next explore how the factors correlate with inflation in the US and China. In order to do so, we take the whole time series and run a regression where the dependent variable is either the first or second factor and the independent variable is US inflation, or, respectively, Chinese inflation. First, in terms of US inflation, Figure 4 shows inflation in the US and the factors for the different sample periods. A high correlation between US inflation and the first global factor is apparent.

Figure 4: Factors and US Inflation for Different Samples




Notes: Figures show monthly inflation for the US minus the sample average over different periods of time and the first and second factors estimated with the panel of countries for each period of time. Table 7 contains the underlying list of countries.

Interestingly, the recent increase in the first factor after the COVID pandemic appears delayed compared to the rise of inflation in the US. Notably, its recent decline also appears delayed compared to the evolution of US inflation. Additionally, US inflation declined faster than the first factor at the

end of the Great Inflation likely due to the monetary policy tightening of Paul Volcker.

A set of regression specifications allows us to quantify the relationship further, in particular by allowing us to also include as dynamic control one-month lagged US inflation. Table 4 shows estimation results for the sample from 1960 to 2023. Tables 10 and 11 in the Appendix show estimates for other sample periods, with generally similar findings.

Table 4: First and Second Factors and US inflation

| | First Factor | | | Second Factor | | |
|---|---|---|---|---|---|---|
| Inflation US | 0.297*** | | 0.024 | -0.009 | | 0.019 |
| | (0.008) | | (0.052) | (0.012) | | (0.084) |
| Lagged Inflation US | | 0.300*** | 0.276*** | | -0.009 | -0.028 |
| | | (0.007) | (0.051) | | (0.013) | (0.085) |
| Constant | -1.123*** | -1.130*** | -1.131*** | 0.035 | 0.036 | 0.036 |
| | (0.028) | (0.028) | (0.028) | (0.051) | (0.051) | (0.051) |
| Sample | 1960-2023 | 1960-2023 | 1960-2023 | 1960-2023 | 1960-2023 | 1960-2023 |
| Observations | 761 | 761 | 761 | 761 | 761 | 761 |
| R-squared | 0.717 | 0.729 | 0.729 | 0.001 | 0.001 | 0.001 |

Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (3) the dependent variable is the first factor. For Columns (4) to (6) it is the second factor. Inflation US is annual US inflation with a monthly frequency. Lagged Inflation US is the one-month lagged annual US inflation with a monthly frequency. The sample goes from February 1960 to June 2023. Robust standard errors in parenthesis.

Results indicate that there is a strong positive relationship between the first factor and US inflation. Also, US inflation appears to account for a big proportion in the variation of the first factor, as seen by the $R^2$ summarized in Table 1. Importantly, while lagged inflation also explains a big proportion of the first factor, when both current and lagged inflation are included, lagged inflation becomes statistically significant. This finding confirms the suggestive interpretation in the above discussion of Figure 4, as US inflation seems to lead the first factor. In terms of the second factor, the estimated coefficient is small and not statistically significant. US inflation does not explain much of the variation in this factor.

Interestingly, this is not true for other relevant global countries. Table 5 shows the relationship between Chinese inflation and the first and second factors; Figure 7 in the Appendix plots the factors alongside Chinese inflation. While the estimated coefficients are positive and statistically different, the explanatory power of Chinese inflation is relatively small. Additionally, if

anything, as the figure illustrates, the second factor seems to be more in line with Chinese inflation than the first factor, mainly due to the increase in inflation in the early 2000s. At the same time, the second factor seems to be important for some other countries as well, as Table 1 shows. For example, it explains more than 75% of the inflation variation in Romania. But Romania experienced a disinflation in the early 2000s, not inflation like China. Therefore, how to interpret this second factor is a bit unclear. Thus, while Chinese inflation might have some relationship to the second factor, its relevance is relatively small, especially compared to the high correlation between the first global factor and US inflation.

Table 5: First and Second Factors and Inflation in China

| | First Factor | | | Second Factor | | |
|---|---|---|---|---|---|---|
| Inflation China | 0.061*** | | -0.044 | 0.203*** | | -0.003 |
| | (0.021) | | (0.080) | (0.028) | | (0.096) |
| Lagged Inflation China | | 0.070*** | 0.112 | | 0.208*** | 0.212** |
| | | (0.021) | (0.081) | | (0.027) | (0.095) |
| Constant | -0.131 | -0.153* | -0.148* | -0.437*** | -0.439*** | -0.438*** |
| | (0.081) | (0.079) | (0.080) | (0.102) | (0.100) | (0.101) |
| Sample | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 |
| Observations | 282 | 281 | 281 | 282 | 281 | 281 |
| R-squared | 0.014 | 0.019 | 0.019 | 0.160 | 0.174 | 0.174 |

Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (3) the dependent variable is the first factor. For Columns (4) to (6) it is the second factor. Inflation China is the annual inflation in China with a monthly frequency. Lagged Inflation China is the one-month lagged annual inflation in China with a monthly frequency. The sample goes from January 2000 to June 2023. Robust standard errors in parenthesis.

## 4.3 Relationship to GVC linkages

A particular variable of interest in understanding global inflation dynamics is structural, pertaining to the impact of the global value chains. How much global factors affect local inflation should be a function of how integrated local economies are with international trade networks and by the extent to which global shocks can affect local costs and price setting (see, for example, Gilchrist and Zakrajsek (2019); Auer, Levchenko, and Sauré (2019); Amiti et al. (2023)). What is the impact of global value chains on the importance of the *factors* underlying inflation dynamics?

In order to see how relevant international integration is in this context,

we estimate the strength of the relationship between the share of inflation explained by our two factors and the share of value added in each country that is related to global value chains. Specifically, we estimate the following specification:

$$s_i^{factor} = \alpha + \beta_1 GVC_i + \varepsilon_i, \tag{2}$$

where $s_i^{factor}$ denotes the share of local inflation in country $i$ explained by a factor. The variable $GVC_i$ is defined by the average global value added participation index of country $i$ between 2000 and 2018 over the total value added. This index is equal to $GVC_i = FVA_i + DVX_i$, where $FVA_i$ denotes the foreign value added (FVA) embodied in country $i$'s exports over the total value added, or equivalently, the value added of a country's exports that is explained by imported intermediate inputs. In turn, $DVX_i$ denotes the domestic value added (DVX) of country $i$ that is embodied in the exports of other countries, relative to the total value added, or how much country $i$ adds to the exports of a third country. Our analysis also regresses $s_i^{factor}$ on each of these factors separately so as to gauge its individual contributions.

Table 6: Global Value Added and Global Inflation

| | First Factor | | | | Second Factor | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| FVA | 0.817*** | | 0.897*** | | 0.091 | | 0.077 | |
| | (0.274) | | (0.278) | | (0.136) | | (0.126) | |
| DVX | | -0.546 | 0.265 | | | -0.115 | -0.046 | |
| | | (0.416) | (0.464) | | | (0.233) | (0.209) | |
| GVC | | | | 0.869*** | | | | 0.071 |
| | | | | (0.274) | | | | (0.121) |
| Const | 0.278*** | 0.723*** | 0.169 | -0.008 | 0.052 | 0.118 | 0.070 | 0.0036 |
| | (0.100) | (0.133) | (0.201) | (0.188) | (0.039) | (0.079) | (0.075) | (0.068) |
| Obs | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| R2 | 0.175 | 0.026 | 0.180 | 0.145 | 0.010 | 0.005 | 0.010 | 0.004 |

Note: This table shows the results of a regression where the share of local inflation explained by global factors is the dependent variable, as in Table 1. The independent variables are described in the first column of the table. For Columns (1) to (4) the dependent variable is the first factor. For Columns (5) to (8) it is the second factor. FVA denotes a country's exports over the total value added, or equivalently, the value added of a country's exports that is explained by imported intermediate inputs over the total value added. DVX denotes domestic value added over the total value added that is embodied in the exports of other countries. GVC contains the sum of FVA and DVX. Robust standard errors in parenthesis.

Two main results emerge, as summarized in Table 6. First, countries with a higher share of their local inflation explained by the first global factor also have a higher share of their foreign value added (i.e., their local production uses more imported intermediate inputs). This result tends to originate from the information encapsulated by the FVA variable, which measures how much of a country's exports are explained by value added from imports, in other words, its export dependence on imported intermediate inputs. This result therefore suggests that the capacity of the first factor to explain local inflation is related to the extent of the trade integration of countries, especially trade integration of their supply chains. Notably, the DVX variable by itself does not contribute greatly to the overall explanatory power of GVCs for the first factor while the FVA variable carries most of the information. Thus, the correlation of our GVC variable with the first factor mainly stems from the extent to which foreign value added in general is embodied in a country's exports over the total value added.

The second result that emerges in the context of GVCs relates to the sec-

ond factor. Simply, this second factor does not bear any strong relationship to GVCs. In general, there is no strong, statistically significant correlation with this factor. In addition, the $R^2$ tends to be low which suggests that little of this factor is explained by global trade factors.

Table 9 in the Appendix shows that this finding also applies to core inflation. Overall we see that the results for aggregate inflation apply in a very similar way to the findings using core inflation.

# 5 Conclusion

This chapter has examined the international co-movement of inflation using a dynamic factor model between 1960 and 2023, extending the seminal work of Ciccarelli and Mojon (2010) to include the time since the global financial crisis, including the post-pandemic inflation surge. The first factor of inflation explains a high proportion of inflation across countries and periods of globalization, especially in advanced economies. The second factor captures experiences in a smaller number of countries, mostly developing economies. During the post-pandemic inflation surge, US inflation was leading both factors while in earlier periods global inflation dynamics were more synchronized with the US inflation experience. Inflation in China is mildly associated with the second factor.

Economically, what is behind the relevance of these statistical factors? Global economic variables such as the dollar index, the US federal funds rate, and commodity prices are associated with the first and second factors generated by the factor model while the VIX is more relevant for the second factor. Moreover, GVCs play an important role: GVC measures account for a significant proportion of the share of local inflation dynamics that are explained by the first factor of our factor analysis.

The results in this chapter indicate that global factors are relevant for explaining local inflation. This result is particularly important for countries that depend more heavily on imported inputs as the importance of GVCs indicates. Importantly, this finding also holds true for inflation components that are not imported, i.e. core inflation. Taken together, these findings highlight the challenges that local monetary authorities face in a globally integrated economy, such as the choice of appropriate policy tools to stabilize prices when global prices are quite volatile.

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# Appendix

Table 7: List of Countries

| EMDEs | AEs | |
|---|---|---|
| Algeria | Australia | New Zealand |
| Argentina | Austria | Norway |
| Brazil | Belgium | Poland |
| Bulgaria | Canada | Portugal |
| Chile | Croatia | Romania |
| China | Cyprus | Slovak Republic |
| Colombia | Czechia | Slovenia |
| Hong Kong | Denmark | Spain |
| India | Estonia | Sweden |
| Indonesia | Finland | Switzerland |
| Israel | France | United Kingdom |
| Malaysia | Germany | United States |
| North Macedonia | Greece | |
| Peru | Hungary | |
| Philippines | Iceland | |
| Saudi Arabia | Ireland | |
| Serbia | Italy | |
| Singapore | Japan | |
| South Africa | Latvia | |
| South Korea | Lithuania | |
| Thailand | Luxembourg | |
| Türkiye | Netherlands | |

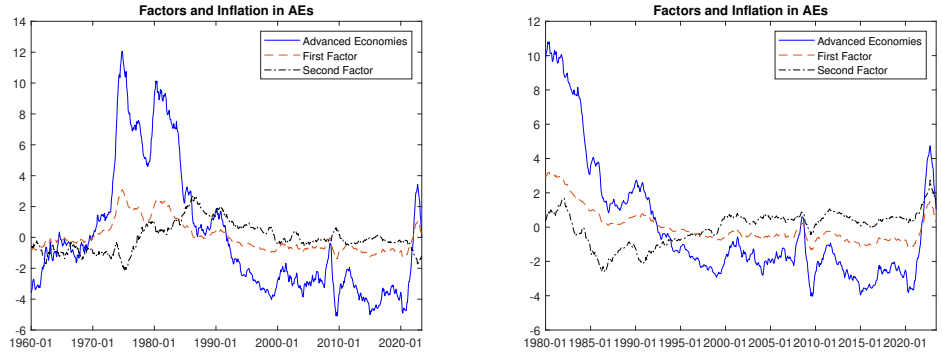
Note: This table lists the countries used for the main results of this paper. It also shows the country classification used in Figure 4. EMDEs are "emerging market and developing economies" and AEs are "advanced economies." We classify countries based on the latest country classification in the BIS Annual Economic Reports (see https://www.bis.org/statistics/country_groupings.pdf).

## Table 8: Core Factors and Other Global Variables

| | First Factor | | | | Second Factor | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Vix | 0.031*** | | | | 0.017*** | | | |
| | (0.006) | | | | (0.006) | | | |
| Dollar Index | | 0.018*** | | | | 0.040*** | | |
| | | (0.003) | | | | (0.004) | | |
| Commodity Price Index | | | 0.011*** | | | | -0.011*** | |
| | | | (0.002) | | | | (0.001) | |
| Federal Funds Rate | | | | 0.128*** | | | | 0.274*** |
| | | | | (0.010) | | | | (0.018) |
| Constant | -0.617*** | -1.774*** | -1.562*** | -0.445*** | -0.337** | -1.197*** | 1.219*** | -0.331*** |
| | (0.121) | (0.235) | (0.245) | (0.031) | (0.130) | (0.184) | (0.207) | (0.056) |
| Observations | 282 | 240 | 246 | 257 | 282 | 240 | 246 | 257 |
| R-squared | 0.064 | 0.179 | 0.171 | 0.253 | 0.020 | 0.226 | 0.281 | 0.319 |

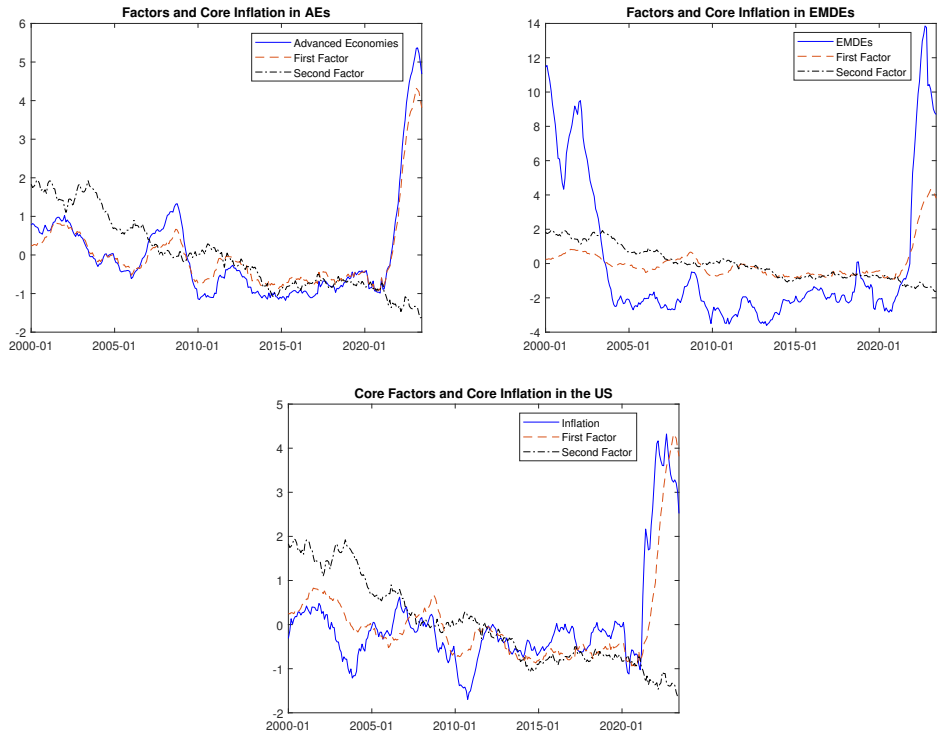
Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (4) the dependent variable is the first factor for the core inflation sample. For Columns (5) to (8) it is the second factor for the core inflation sample. VIX is the market expectation of near term volatility according to the Chicago Board Options Exchange, Inc. Dollar Index is the real broad dollar index (goods only) that goes from 1973 to 2019. Commodity Price Index is the primary commodity price index built by the IMF; that is, the value represents the benchmark prices that are representative of the global market. The Federal Fund Rate is the Federal Reserve policy rates from 1960 to 2023. Robust standard errors in parenthesis.

## Figure 5: Factors and Inflation for Different Samples




Notes: Figures show monthly inflation for advanced economies on average over different periods of time and the first and second factors estimated with the panel of countries for each period of time. Table 1 contains the underlying list of countries.

Figure 6: Core Factor and Core Inflation




Notes: Figures show monthly core inflation minus the sample average for advanced economies (top left), emerging markets and developing economies (top right) and the US (bottom) since 2000 and the first and second factors estimated with the panel of countries for which we have core inflation. Table 2 contains the underlying list of countries.

Table 9: Global Value Added and Global Core Inflation

| | First Factor | | | | Second Factor | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| FVA | 0.548** | | 0.561** | | -0.068 | | -0.080 | |
| | (0.228) | | (0.228) | | (0.107) | | (0.110) | |
| DVX | | -0.373 | 0.053 | | | 0.010 | -0.051 | |
| | | (0.318) | (0.342) | | | (0.188) | (0.205) | |
| GVC | | | | 0.514** | | | | -0.077 |
| | | | | (0.227) | | | | (0.106) |
| Const | 0.326*** | 0.647*** | 0.305* | 0.182 | 0.131*** | 0.102* | 0.151* | 0.158** |
| | (0.094) | (0.105) | (0.156) | (0.163) | (0.040) | (0.059) | (0.082) | (0.070) |
| Obs | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| R2 | 0.170 | 0.026 | 0.171 | 0.125 | 0.009 | 0.000 | 0.010 | 0.010 |

Note: This table shows the results of a regression where the share of local core inflation explained by global factors is the dependent variable, as in Table 2. The independent variables are described in the first column of the table. For Columns (1) to (4) the dependent variable is the first factor. For Columns (5) to (8) it is the second factor. FVA denotes a country's exports over the total value added, or equivalently, the value added of a country's exports that is explained by imported intermediate inputs over the total value added. DVX denotes domestic value added over the total value added that is embodied in the exports of other countries. GVC contains the sum of FVA and DVX. Robust standard errors in parenthesis.

Table 10: First and Second Factors and US Inflation

| | First Factor | | | Second Factor | | |
|---|---|---|---|---|---|---|
| Inflation US | 0.336*** | | -0.004 | 0.076*** | | -0.015 |
| | (0.009) | | (0.060) | (0.014) | | (0.099) |
| Lagged Inflation US | | 0.336*** | 0.339*** | | 0.077*** | 0.091 |
| | | (0.009) | (0.059) | | (0.013) | (0.099) |
| Constant | -1.125*** | -1.130*** | -1.129*** | -0.255*** | -0.258*** | -0.257*** |
| | (0.032) | (0.030) | (0.031) | (0.052) | (0.052) | (0.052) |
| Sample | 1980-2023 | 1980-2023 | 1980-2023 | 1980-2023 | 1980-2023 | 1980-2023 |
| Observations | 522 | 522 | 522 | 522 | 522 | 522 |
| R-squared | 0.724 | 0.743 | 0.743 | 0.040 | 0.041 | 0.041 |

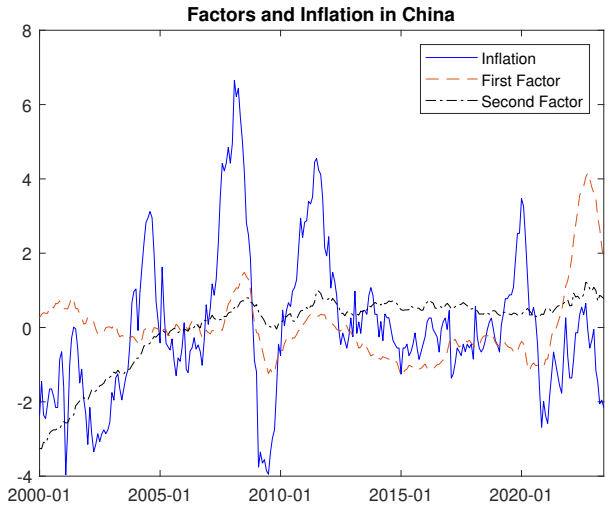
Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (3) the dependent variable is the first factor. For Columns (4) to (6) it is the second factor. Inflation US is annual US inflation with a monthly frequency. Lagged Inflation US is the one-month lagged annual US inflation with a monthly frequency. The sample goes from January 1980 to June 2023. Robust standard errors in parenthesis.

Table 11: First and Second Factors and US inflation

| | First Factor | | | Second Factor | | |
|---|---|---|---|---|---|---|
| Inflation US | 0.465*** | | 0.008 | 0.030 | | -0.037 |
| | (0.030) | | (0.067) | (0.024) | | (0.102) |
| Lagged Inflation US | | 0.480*** | 0.473*** | | 0.033 | 0.069 |
| | | (0.027) | (0.074) | | (0.024) | (0.102) |
| Constant | -1.184*** | -1.223*** | -1.224*** | -0.075 | -0.084 | -0.081 |
| | (0.066) | (0.062) | (0.062) | (0.073) | (0.072) | (0.073) |
| Sample | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 | 2000-2023 |
| Observations | 282 | 282 | 282 | 282 | 282 | 282 |
| R-squared | 0.717 | 0.729 | 0.729 | 0.001 | 0.001 | 0.001 |

Note: This table shows the results of a regression where the factor is the dependent variable. The independent variables are described in the first column of the table. For Columns (1) to (3) the dependent variable is the first factor. For Columns (4) to (6) it is the second factor. Inflation US is annual US inflation with a monthly frequency. Lagged Inflation US is the one-month lagged annual US inflation with a monthly frequency. The sample goes from January 2000 to June 2023. Robust standard errors in parenthesis.

Figure 7: Global Factors and Inflation in China




Notes: The figure shows monthly headline inflation minus the sample average for China since 2000 and the first and second factors estimated with the panel of countries. Table 2 contains the underlying list of countries.

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