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**Working Paper**

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AEI Economics Working Paper, No. 2022-13

**Provided in Cooperation with:**

American Enterprise Institute (AEI), Washington, DC

*Suggested Citation:* Kamin, Steven B. (2022) : Will the Strong Dollar Trigger a Global Recession?, AEI Economics Working Paper, No. 2022-13, American Enterprise Institute (AEI), Washington, DC

This Version is available at:

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# **Will the Strong Dollar Trigger a Global Recession?**

Steven B. Kamin  
*American Enterprise Institute*

AEI Economics Working Paper 2022-13  
October 2022

# Will the Strong Dollar Trigger a Global Recession?<sup>1</sup>

Steve Kamin  
October 31, 2022

In recent months, as inflation has stubbornly refused to back down and the Federal Reserve threatens ever more monetary tightening, a fearful narrative has taken hold in international financial circles: Rising U.S. interest rates are boosting the dollar to record levels, forcing cheaper currencies and higher import costs onto economies already struggling with skyrocketing energy and food prices. In order to keep the lid on soaring inflation, foreign central banks must further tighten their own monetary policies, pushing the world into global recession. Moreover, higher U.S. interest rates and a stronger dollar are putting especial pressure on emerging market economies (EMEs), which must buy dollars to repay their dollar debts with ever-cheaper local currencies.

These narratives, scary as they are, frequently appear below even scarier headlines: “How the surging U.S. dollar is making it almost impossible to afford anything in countries around the world.” ([Fortune](#), October 18) “Fallout From Rate Moves Won’t Stop the Fed.” ([NY Times](#), October 7) “The Fed has the world in its hands — and its aggressive moves are creating global economic chaos that could come back and hurt the US.” ([Business Insider](#), October 1)

There is more than a grain of truth in these concerns. A rising dollar is one of the channels through which U.S. monetary policy tightening helps cool the economy, and this inevitably involves exporting a certain amount of our inflation to other economies. It is also true that, historically, tighter Fed policies have meant bad news for EMEs: plunging currencies, rising credit spreads, and disruptive capital outflows. Those effects have been especially pronounced at times when the Fed was reacting to rising inflation (e.g., the early 1980s) rather than to solid U.S. economic growth (the mid-2000s).<sup>2</sup> And our current situation is certainly closer to the early 1980s than the mid-2000s.

So there is no ignoring the concerns for the global economy posed by aggressive Fed tightening. However, much of the current discussion exaggerates the role of Fed tightening and dollar appreciation in darkening prospects for the world economy. And it underplays what are undoubtedly the more salient forces pushing the world economy toward recession: sharp increases in energy and food costs;

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<sup>1</sup> Beatrice Lee provided excellent research assistance on this note.

<sup>2</sup> See Jasper Hoek, Steven Kamin, and Emre Yoldas (2022), “Are Higher U.S. Interest Rates Always Bad News for Emerging Markets?” *Journal of International Economics*, Vol. 137, July.

energy shortages, especially in Europe, resulting from Russia's invasion of Ukraine; soaring inflation rates prompting central banks around the world to tighten monetary policy; China's growth-strangling zero-COVID policy; and economic scarring and debt buildups left as the legacy of the COVID-19 pandemic.

In this note, I set the record straight by reviewing some simple statistics that support the following findings:

1. Contrary to the impression conveyed in many discussions of the strong dollar, the Fed has not been exceptionally aggressive in its response to rising inflation. It started tightening later than many central banks, and relative to the rise in inflation, its tightening has been very much in line with the actions of other central banks.
2. The strong dollar is hurting EMEs by less than is generally believed. The dollar has risen much more against the currencies of the advanced economies than those of EMEs, and average credit spreads across all EMEs have remained contained.
3. The role of the strong dollar in boosting inflation abroad has been exaggerated. Because nearly all currencies have fallen against the dollar, each foreign economy's "multilateral exchange rate"—that is, its average exchange rate against all of its trading partners—has fallen by much less than its "bilateral" rate against the dollar. In consequence, the correlation between falling currencies and rising inflation around the world has been weak.

As noted above, these findings do not contradict the view that the rising dollar poses challenges abroad. But it puts the strong dollar into perspective as just one of a number of factors clouding prospects for the global economy.

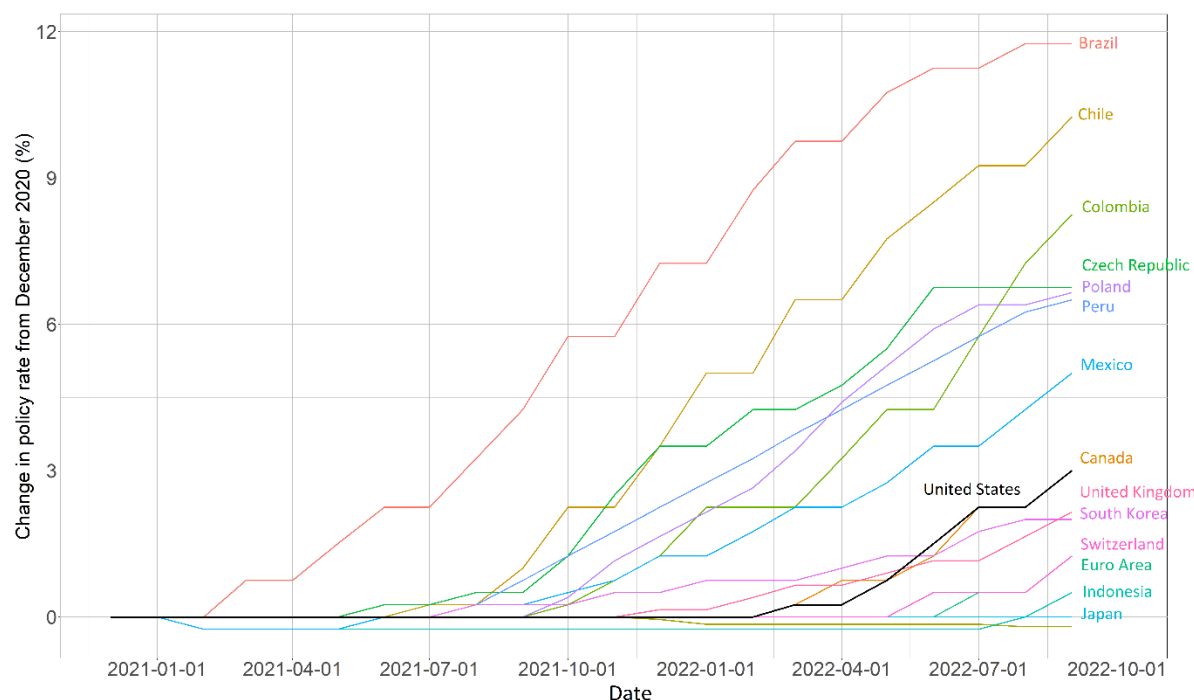
## **1. The Fed's Monetary Policy Tightening Has Not Been Exceptionally Aggressive**

Many accounts of the Fed and the global economy convey the impression that the Fed is leading other central banks in its aggressive response to rising inflation. This is false on several levels. First, on timing, as indicated in Chart 1, numerous central banks started raising policy interest rates as early as March 2021 (Brazil), compared with the Fed's start a year later. These early rate increases were chiefly in EMEs, though even the Bank of England managed to beat the Fed to the punch, starting its tightening cycle in December 2021.<sup>3</sup>

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<sup>3</sup> Of course, U.S. financial markets started to build in anticipations of the Fed's tightening well before its first rate hike in March 2022, but similar developments occurred in other countries as well.

*Chart 1: Fed Tightening Cycle Lagged Many (mainly EME) Central Banks*

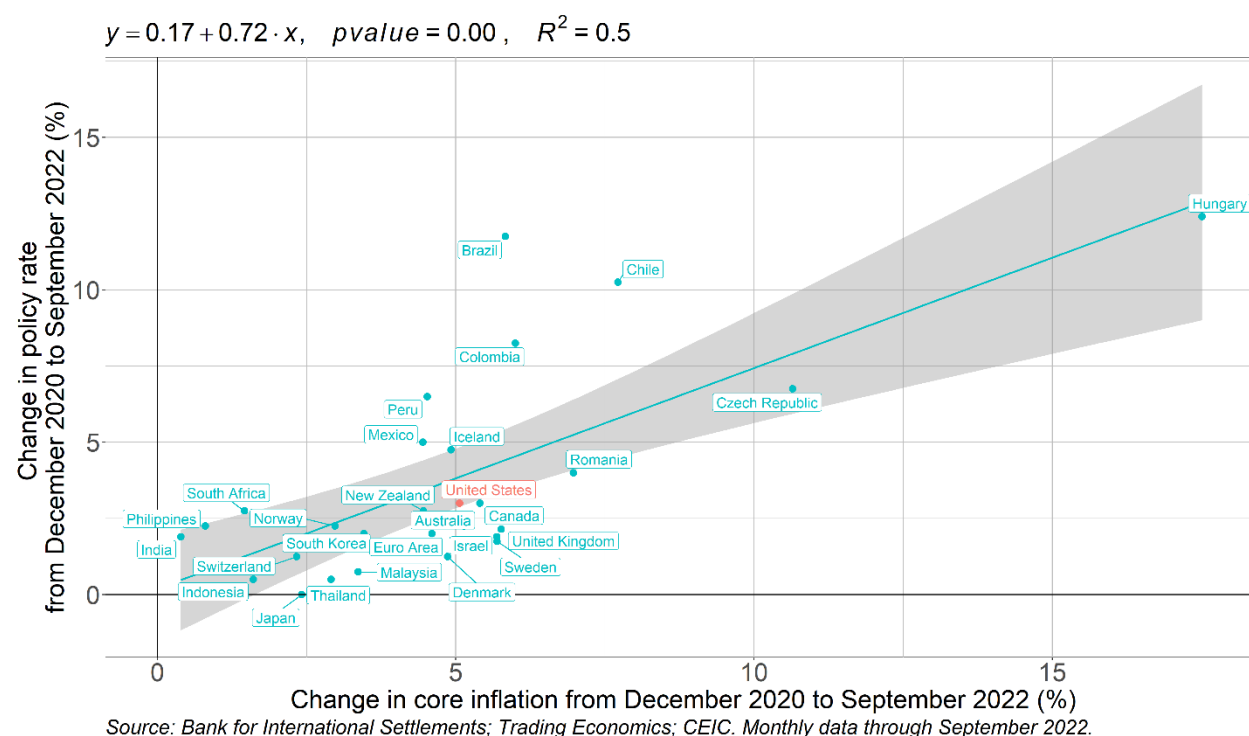


Source: Bank for International Settlements, Trading Economics. Month-end policy rate data through September 2022.

Second, on magnitudes, Chart 2 compares the monetary policy response of diverse countries to their increases in core CPI inflation. (Core inflation, which excludes the effect of volatile energy and good prices, is generally considered to be a more reliable indicator of underlying inflation pressures; for that reason, the Fed and other central banks tend to pay it special attention.) The horizontal axis shows how much core inflation has increased in each country since December 2020, before inflation started picking up worldwide. The vertical axis measures each country's increase in policy interest rate over that period. The chart makes clear, first, that countries experiencing larger increases in inflation have boosted policy interest rates by more. (The p-value shown on the chart indicates the estimated probability that the slope of the trend line is equal to zero.) Second, the Fed's response to inflation has been very consistent with that relationship.<sup>4</sup>

<sup>4</sup> This chart does not take into account the Fed's "quantitative tightening" as it reduces its balance sheet. However, that process is ongoing at other central banks as well. Additionally, "QT" may be less consequential for exchange rate movements than increases in interest rates. See Curcuru, Stephanie E., Steven B. Kamin, Canlin Li, and Marius Rodriguez (2018). International Spillovers of Monetary Policy: Conventional Policy vs. Quantitative Easing. International Finance Discussion Papers 1234.

Chart 2: Fed Responses to Soaring Inflation Have Been Well In Line with International Norms



## 2. The Dollar's Rise Is Hurting EMEs by Less Than Generally Believed

As noted above, a frequently-raised concern with the strong dollar is that it creates debt-service problems for EMEs. EMEs are more likely than advanced economies to borrow in dollars, and when their currencies fall against the dollar, this makes it more expensive for governments and firms to purchase the dollars needed to service those debts. This is a legitimate concern. However, most analyses in the financial media use measures of the DXY dollar index to cite the dollar's rise. The DXY measures the dollar's value against a weighted average of the dollar's exchange rates against five advanced-economy currencies: euro, Japanese yen, British pound sterling, Swedish krona, and Swiss franc.<sup>5</sup> This index has risen a substantial 24 percent since the beginning of 2021. As will be apparent, however, this increase vastly exaggerates the dollar's rise relative to the currencies of the EMEs.

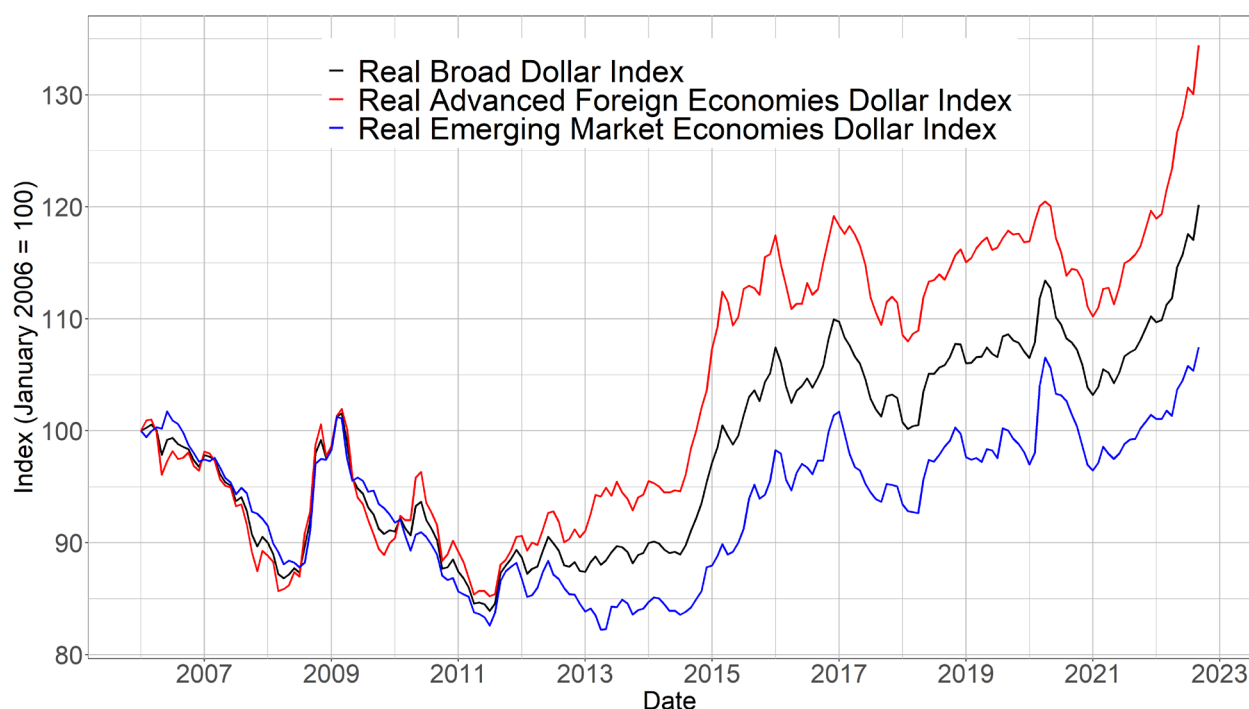
Chart 3 plots three different measures of the dollar as computed by the Federal Reserve Board.<sup>6</sup> The black line plots its value against the currencies of all U.S. trading partners, weighted by their shares in U.S. trade and adjusted for changes in prices. The red line measures the dollar's value relative to the currencies of its advanced-economy trading partners—it moves in a broadly similar fashion to the DXY index noted above. The blue line measures the dollar's average value against the currencies of the

<sup>5</sup> See [https://en.wikipedia.org/wiki/U.S.\\_Dollar\\_Index](https://en.wikipedia.org/wiki/U.S._Dollar_Index).

<sup>6</sup> See <https://www.federalreserve.gov/releases/h10/about.htm>.

EMEs. Obviously, the dollar has risen sharply by all three measures, but since its trough in January 2021, it has risen about 22 percent against the advanced economies—close to the rise in the DXY index—and only about 11 percent against the EMEs.

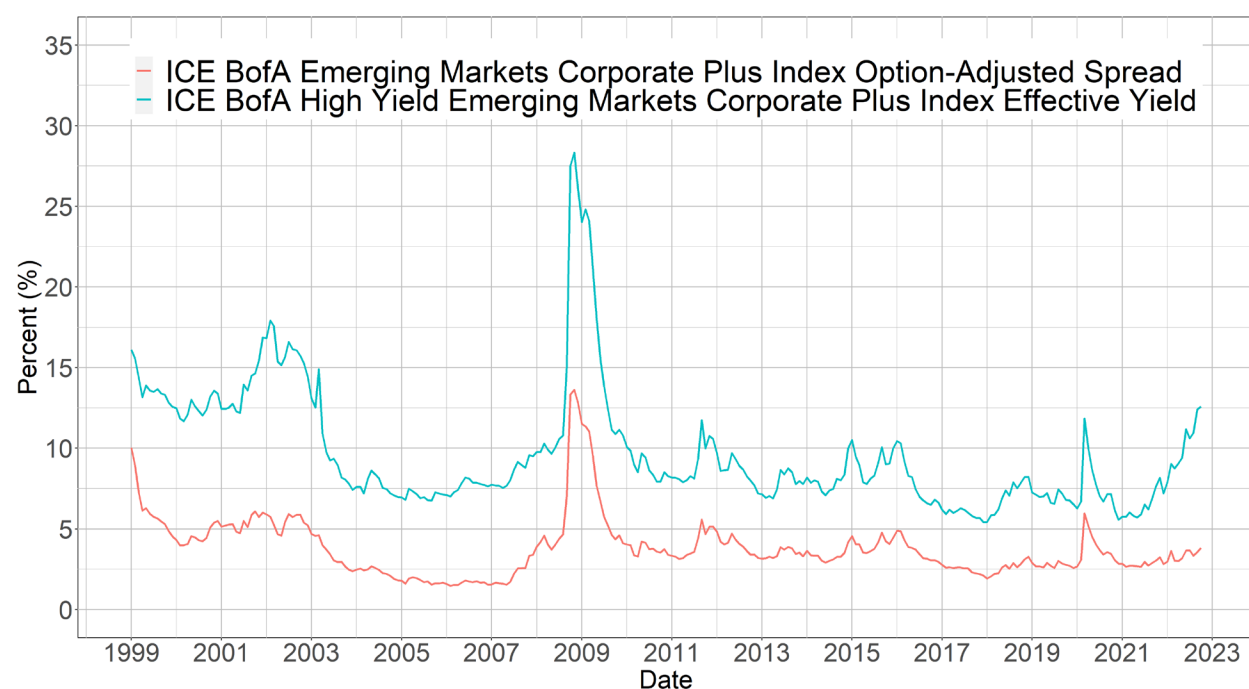
*Chart 3: The Dollar Has Risen Far More Against Advanced Economies than EMEs*



Source: Board of Governors of the Federal Reserve System (US). Monthly data through September 2022.

To be sure, even an 11 percent rise in the dollar’s value could be challenging for some EMEs, especially those already burdened by high debt and slow growth. Moreover, the effects of Fed tightening go beyond the rise in the dollar: Higher interest rates, and higher spreads of interest rates on risky loans relative to safe assets, also boost debt service burdens. But, at least so far, most EMEs have managed to weather this storm reasonably well. A good measure of the financial stress experienced by EMEs is the spread of their dollar-denominated debts over U.S. Treasury yields. As indicated in Chart 4, on average across EMEs (the red line), these spreads have remained remarkably contained, suggesting that EMEs generally have managed to work through a litany of adverse shocks – including rising U.S. interest rates, the strong dollar, elevated energy and food prices, and soaring domestic inflation—without pronounced distress.

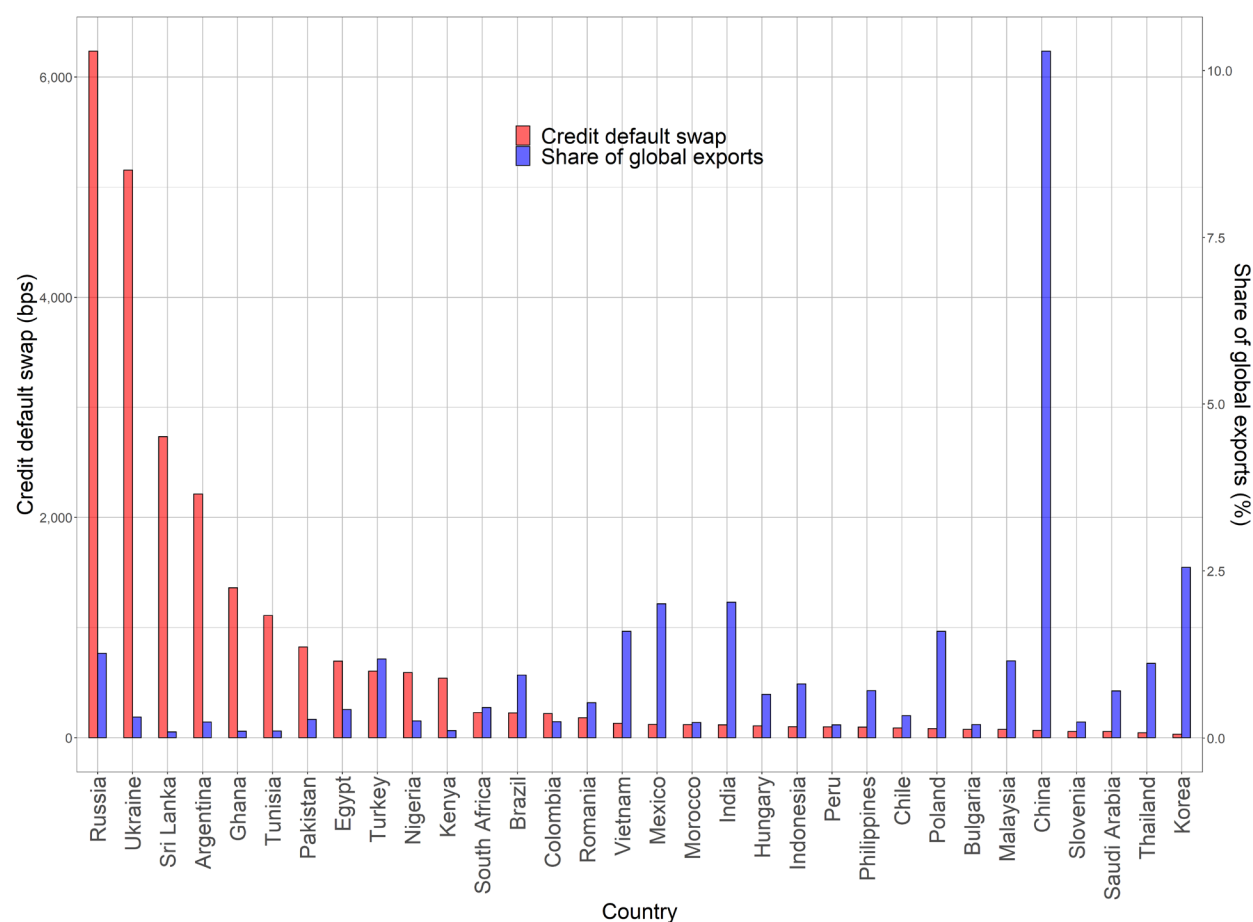
Chart 4: EME Spreads Remain Contained, Though High-Yields Spreads Are Widening



Source: Ice Data Indices, LLC, accessed through the Board of Governors of the Federal Reserve System (US).  
Month-end data through October 2022.

To be sure, these global stressors have been much more impactful for the more vulnerable EMEs, as indicated by the sharp rise in “high yield” credit spreads for EMEs with below-investment-grade ratings (the blue line). For those economies, the rise in global interest rates and the strong dollar have made an already challenging environment even more difficult. However, the implications of their distress for the global economy are limited. Chart 5 compares the vulnerability of a wide array of EMEs to their share in global trade. The red bars indicate each country’s credit default swap (CDS) spread, a measure of market perceptions of a country’s creditworthiness similar to the credit spreads shown in Chart 4; the blue bars indicate the country’s share in global trade. For the vast majority of the more vulnerable EMEs shown on the left-hand side of this chart, shares in global trade are quite small, indicating that their distress is unlikely to roil the global economy. The chart does not include a wide array of poorer countries that are also facing debt distress, but these would account for even less of world trade.

Chart 5: The EMEs With High CDS Spreads Are Not the EMEs with Big Shares in Global Exports



Source: Council on Foreign Relations; International Monetary Fund. Share of global exports refers to share of global goods exports.

### 3. The Dollar's Rise Is Exporting Less Inflation Abroad Than Generally Believed

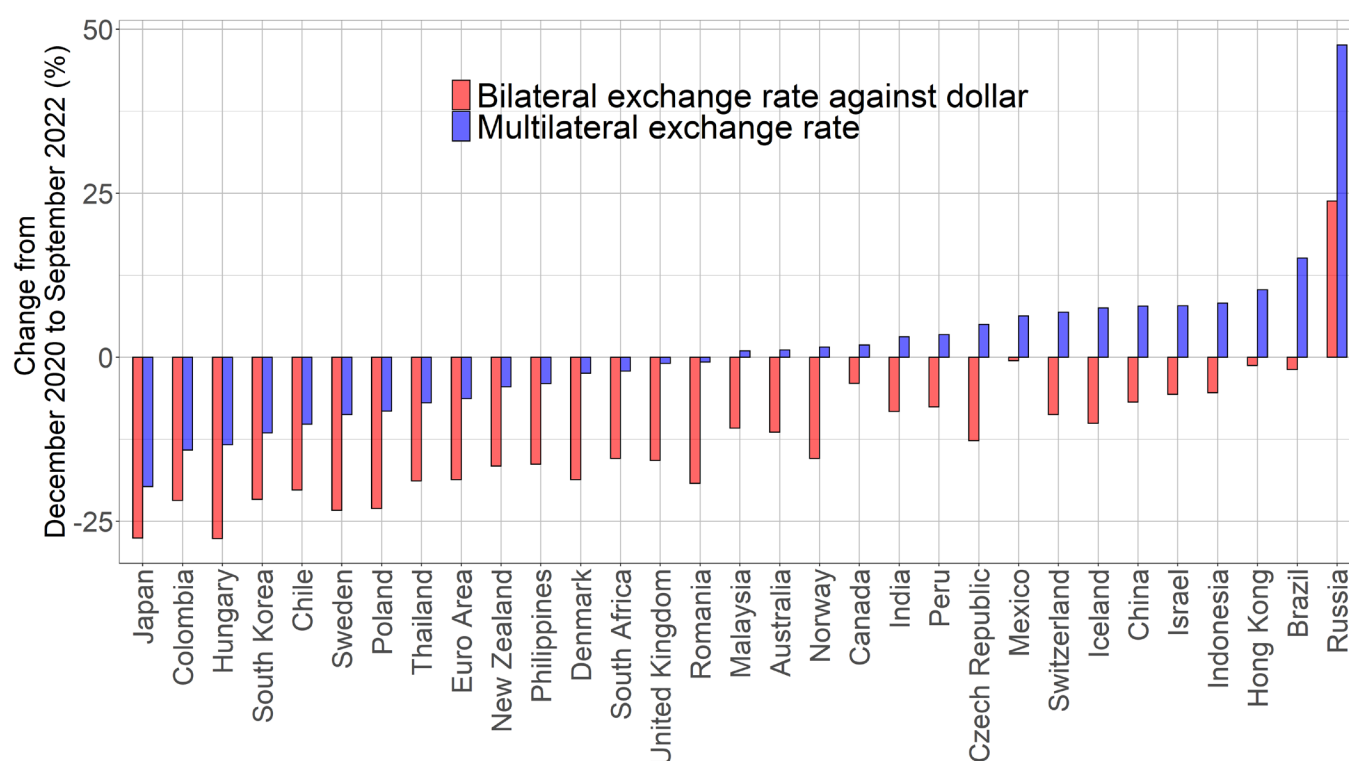
The second concern raised about the strong dollar is relevant to advanced economies as well as EMEs: The counterpart of the dollar's rise has been the depreciation of foreign currencies. This raises the cost of imports for foreign economies, adding upward pressure to already-rising prices, and forcing foreign central banks to raise interest rates more than they otherwise would. Accordingly, the strong dollar may lead to excessive monetary tightening around the world and a greater chance of a global recession.

As in the case of the dollar and debt-burdened EMEs, there is certainly a grain of truth in this argument. A rising currency leading to falling import costs is one of the ways in which monetary tightening helps to reduce domestic inflation, and this necessarily adds somewhat to inflation pressures abroad. But how substantial is this effect? Simple logic suggests: not so much. If the currencies of all foreign economies are falling against the dollar, then those currencies are not moving all that much

against each other. Accordingly, each country's "multilateral" (also known as "effective") exchange rate, which is the average exchange rate against all its trading partners weighted by their trade shares, is likely depreciating much less than its "bilateral" exchange rate against the dollar.

This exactly what is shown in Chart 6. Bilateral depreciations against the dollar are generally far larger than multilateral depreciations (computed using data from the Bank for International Settlements). In fact, nearly half of the currencies shown actually appreciated on a multilateral basis. Accordingly, the dollar's rise is likely exporting much less inflation abroad than might generally be believed.

*Chart 6: The Decline of Currencies Against the Dollar Exaggerates Their Multilateral Decline*



Source: Bank for International Settlements; CEIC. Monthly rates through September 2022.

A couple of qualifications to this argument are worth noting. First, it is often suggested that because the prices of oil and other globally trade commodities are priced in dollars, a depreciation against the dollar may raise the local-currency cost of imports by more than would be implied by the country's trade with the United States alone. However, it is generally understood that when the dollar rises against other currencies, the dollar price of commodities tends to fall. For example, one study

estimates that a 1 percent rise in the value of the dollar leads to a 0.7 percent fall in oil prices.<sup>7</sup>

Accordingly, the impact of the strong dollar through this channel may not be all that large.

A second argument, known as the “dominant currency paradigm,” is that even the prices of non-commodity exports are frequently priced in dollars, and these dollar prices are adjusted only slowly in response to changes in exchange rates.<sup>8</sup> Again, this would suggest a larger inflationary impact abroad of the dollar’s rise than would be implied solely by the movement in multilateral exchange rates. However, other research has cast doubt on the dominant currency theory.<sup>9</sup> Moreover, many of the countries whose currencies have fallen substantially against the dollar are in Europe, and there, trade is more likely to be denominated in euros than in dollars.<sup>10</sup>

In order to bring some empirical evidence to bear on these issues, Chart 7 looks at the relationship between currency movements and headline inflation rates around the world. All else equal, if the strong dollar is exporting inflation abroad, countries whose currencies have fallen most against the dollar should be also be those that have experienced the greatest increase in inflation. Chart 7 appears to support that view: countries whose currencies have fallen more against the dollar (the X axis) have generally experienced larger increases in headline inflation since the end of 2020 (the Y axis).

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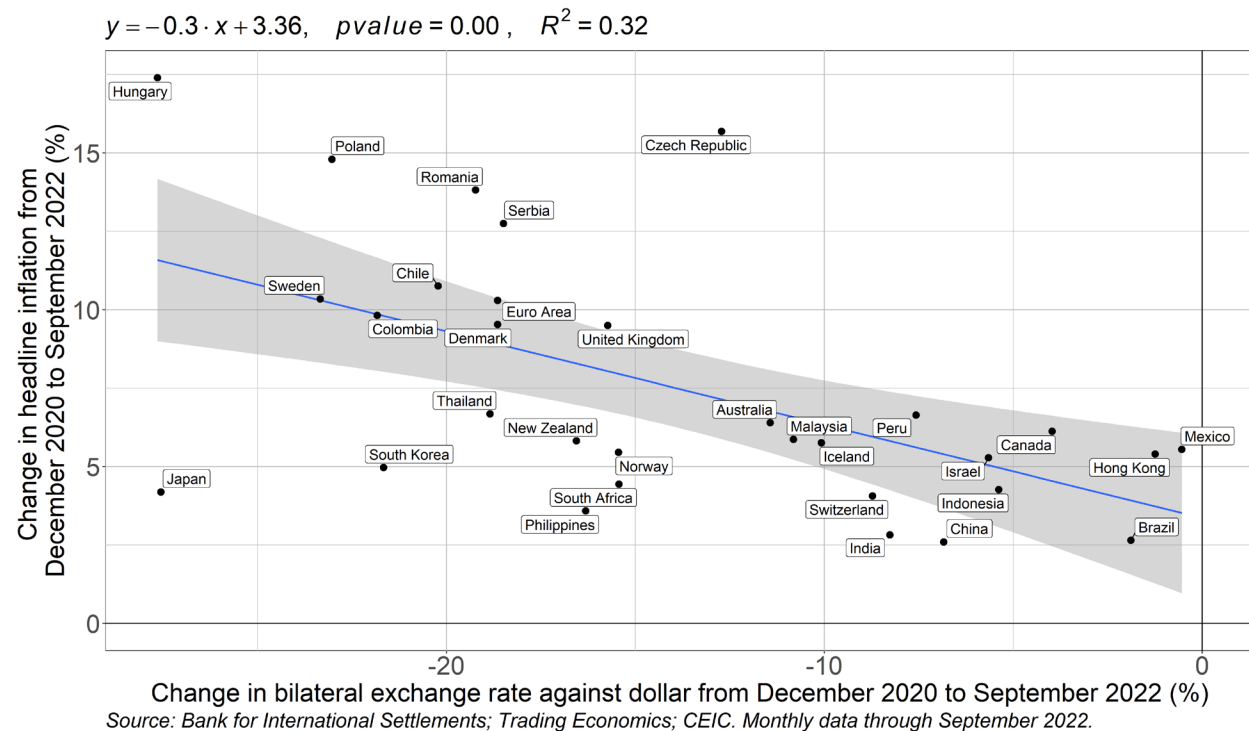
<sup>7</sup> Marcel Fratzscher, Daniel Schneider and Ine Van Robays (2014), “Oil Prices, Exchange Rates and Asset Prices,” European Central Bank Working Paper No. 1689, July.

<sup>8</sup> See, among others, Gopinath, Gita, Emine Boz, Camila Casas, Federico J. Díez, Pierre-Olivier Gourinchas, and Mikkel Plagborg-Møller (2020). “Dominant Currency Paradigm.” *American Economic Review*, 110 (3): 677-719.

<sup>9</sup> Joseph E. Gagnon and Madi Sarsenbayev (2021), “Dollar Not So Dominant. Dollar Invoicing Has Only a Small Effect on Trade Prices.” *PIIE Working Paper* 21-16, December.

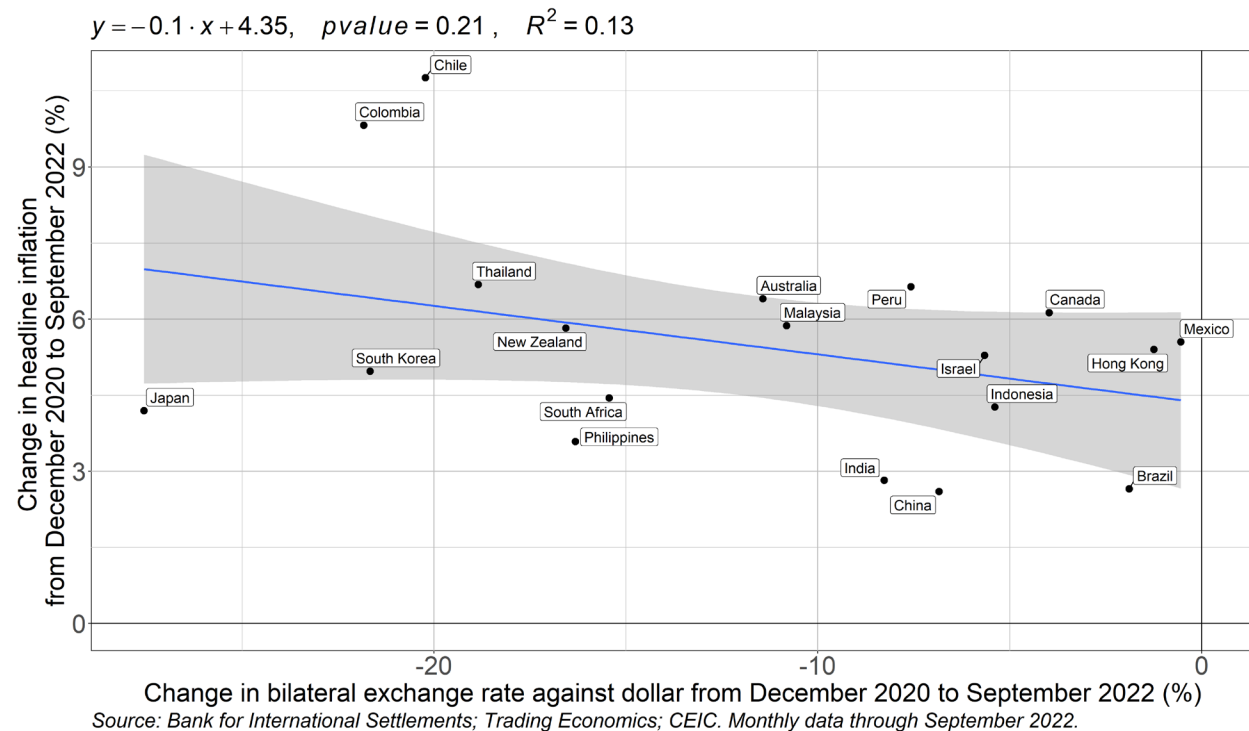
<sup>10</sup> Emine Boz, Camila Casas, Georgios Georgiadis, Gita Gopinath, Helena Le Mezo, Arnaud Mehl, and Tra Nguyen (2020), “Patterns in Invoicing Currency in Global Trade”, *International Monetary Fund Working Paper* WP/20/126, July.

Chart 7: Including Europe, Countries With More Depreciation Against the Dollar Had Greater Increases in Headline Inflation



However, much of the negative relationship between inflation and currency depreciation shown in the chart likely reflects a reverse causal relationship: countries with greater increases in inflation have experienced greater currency depreciation. For many of these countries, the specific source of this omitted variable is Russia, which has constrained natural gas supplies to Europe, forcing up prices and pushing down currencies as markets anticipate a deep recession. Chart 8 below repeats the analysis, but excludes all European countries and currencies. There is still a negative relationship between currency depreciation and increases in headline inflation, but the slope of the trend line is not statistically significant and the  $R^2$  is quite low.

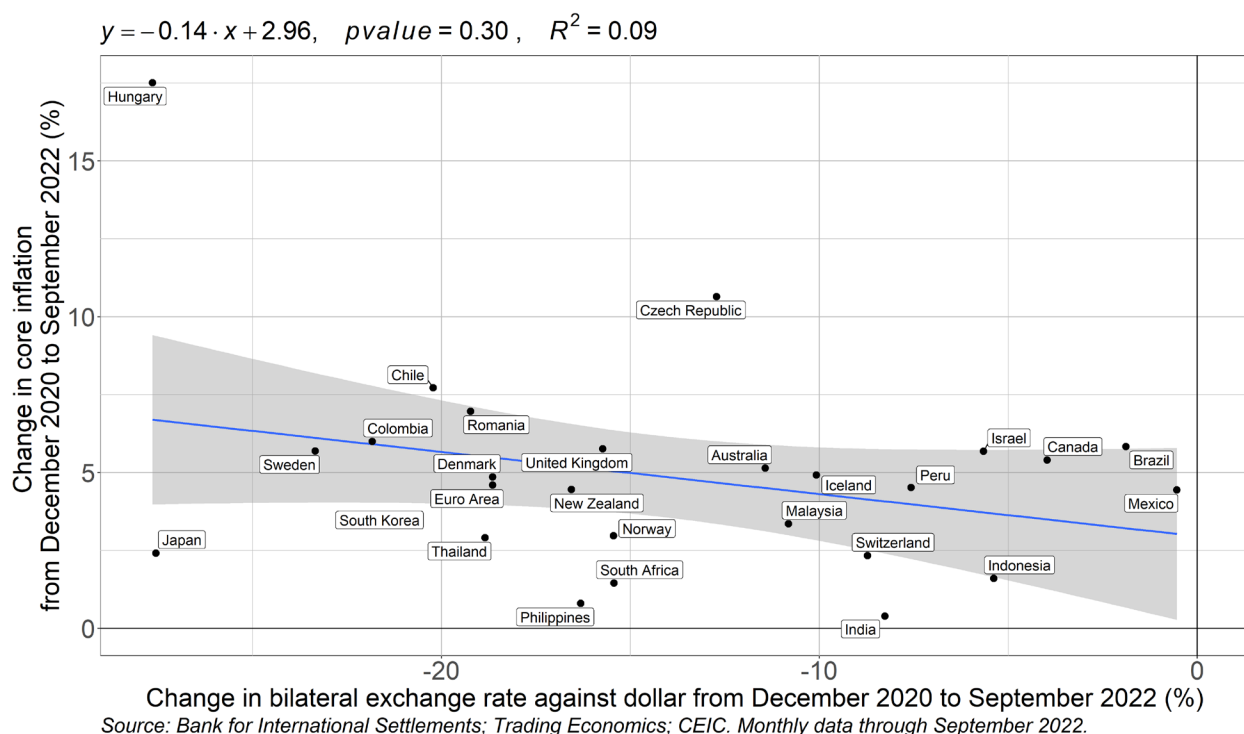
Chart 8: Excluding Europe, the Relationship between Depreciation Against the Dollar and Increases in Headline Inflation Has Been Weak



Finally, Chart 9 puts the European economies back into the picture, but focuses on core inflation rather than headline. With energy prices now excluded from the calculation, the slope of the trend line between currency depreciation and increases in core inflation is very similar to that for headline inflation when Europe is excluded. Again, that slope is not significantly different from zero and the  $R^2$  is extremely low.

So, to sum up, logical considerations along would suggest that the dollar's rise is unlikely to have boosted inflation abroad by a great deal. Confirming this logic, the cross-country relationship between declines in currencies and increases in inflation has been weak, once sources of spurious correlation are controlled for.

*Chart 9: The Relationship between Depreciation Against the Dollar and Increases in Core Inflation Has Been Weak, Too*



#### 4. Conclusion

The world economy faces many challenges that pose meaningful risks of a global recession: elevated energy and commodity prices; pronounced energy shortages in Europe; widespread surges in inflation that require correspondingly widespread tightenings of monetary policy; the impact of the zero-COVID policy on China's economy; and disruptions from Russia's invasion of Ukraine. These downdrafts are all the more worrisome in light of the fragility remaining in the wake of the COVID-19 pandemic: widespread economic scarring and high levels of indebtedness.

On top of all this, the Fed's monetary policy tightening and related rise in the dollar pose additional concerns, helping to boost import costs and debt burdens for many countries around the world. However, as this note has demonstrated, those concerns should not be overstated. By international standards, the Fed has not been exceptionally aggressive in its response to rising inflation. The dollar

has risen much less against the currencies of emerging markets than against those of other advanced economies, so the impact of the strong dollar on EME debt burdens has been correspondingly smaller. In fact, most of the larger and systemically important EMEs have weathered the dollar's rise quite well. Finally, there is little evidence that the rising dollar has substantially pushed up inflation rates abroad. The overall trade-weighted exchange rates of the foreign economies have depreciated much less than their values against the dollar alone, and the correlation between the fall in their currencies and rise in inflation is quite weak.

## Appendix

Appendix Table 1: Data Sources

Variable	Source	Link	Notes
Policy rates	Bank for International Settlements (BIS)	<a href="https://www.bis.org/statistics/full_data_sets.htm">https://www.bis.org/statistics/full_data_sets.htm</a>	
Core inflation	CEIC	<a href="https://www.ceicdata.com/en">https://www.ceicdata.com/en</a>	All core inflation values are taken from CEIC with the exception of the Euro Area, which are provided by Trading Economics.
	Trading Economics	<a href="https://tradingeconomics.com/euro-area/core-inflation-rate">https://tradingeconomics.com/euro-area/core-inflation-rate</a>	
Headline inflation	CEIC	<a href="https://www.ceicdata.com/en">https://www.ceicdata.com/en</a>	All headline inflation values are taken from CEIC with the exception of the Euro Area, which are provided by Trading Economics.
	Trading Economics	<a href="https://tradingeconomics.com/euro-area/inflation-cpi">https://tradingeconomics.com/euro-area/inflation-cpi</a>	
Bilateral exchange rate against the dollar	CEIC	<a href="https://www.ceicdata.com/en">https://www.ceicdata.com/en</a>	
Multilateral exchange rate against the dollar	BIS	<a href="https://www.bis.org/statistics/eer.htm?m=2676">https://www.bis.org/statistics/eer.htm?m=2676</a>	
Real Broad Dollar Index	Board of Governors of the Federal Reserve System (US)	<a href="https://fred.stlouisfed.org/series/RTWEXBGS#0">https://fred.stlouisfed.org/series/RTWEXBGS#0</a>	
Real Advanced Foreign Economies Dollar Index	Board of Governors of the Federal Reserve System (US)	<a href="https://fred.stlouisfed.org/series/RTWEXAFEGS">https://fred.stlouisfed.org/series/RTWEXAFEGS</a>	
Real Emerging Market Economies Dollar Index	Board of Governors of the Federal Reserve System (US)	<a href="https://fred.stlouisfed.org/series/RTWEXEMEGS">https://fred.stlouisfed.org/series/RTWEXEMEGS</a>	
ICE BofA Emerging Markets Corporate Plus	Ice Data Indices, LLC, retrieved from FRED, Federal	<a href="https://fred.stlouisfed.org/series/BAMLEMCBPIOAS#0">https://fred.stlouisfed.org/series/BAMLEMCBPIOAS#0</a>	

Index Option-Adjusted Spread	Reserve Bank of St. Louis		
ICE BofA High Yield Emerging Markets Corporate Plus Index Effective Yield	Ice Data Indices, LLC, retrieved from FRED, Federal Reserve Bank of St. Louis	<a href="https://fred.stlouisfed.org/series/BAMLEMHBHYCRPIEY#0">https://fred.stlouisfed.org/series/BAMLEMHBHYCRPIEY#0</a>	
Credit default swap spread	Council on Foreign Relations	<a href="https://www.cfr.org/cfr-sovereign-risk-tracker">https://www.cfr.org/cfr-sovereign-risk-tracker</a>	
Share of global exports	International Monetary Fund	<a href="https://data.imf.org/regulation.aspx?key=61013712">https://data.imf.org/regulation.aspx?key=61013712</a>	