Inflation/Output Tradeoff and the U.S. Dollar Exchange Rate

Comments by Charles Engel, University of Wisconsin-Madison

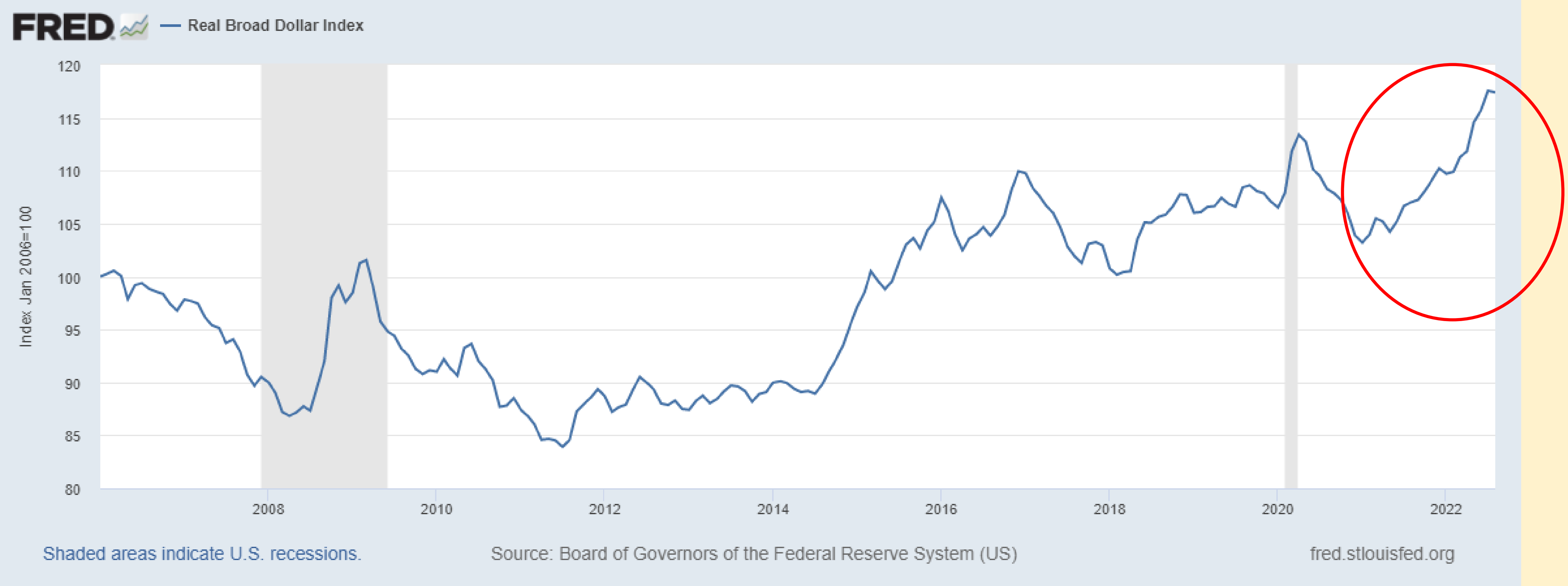
Fiscal and Monetary Policy

- I would like to compliment Dr. Mukhopadhyay for the detailed analysis of the impact of the COVID and commodity price shocks on fiscal deficits and debt sustainability
- I would like to complement Dr. Mukhopadhyay's remarks with some observations about the impacts on monetary policy, and, in particular, the feedback to emerging market economies from the U.S. dollar appreciation

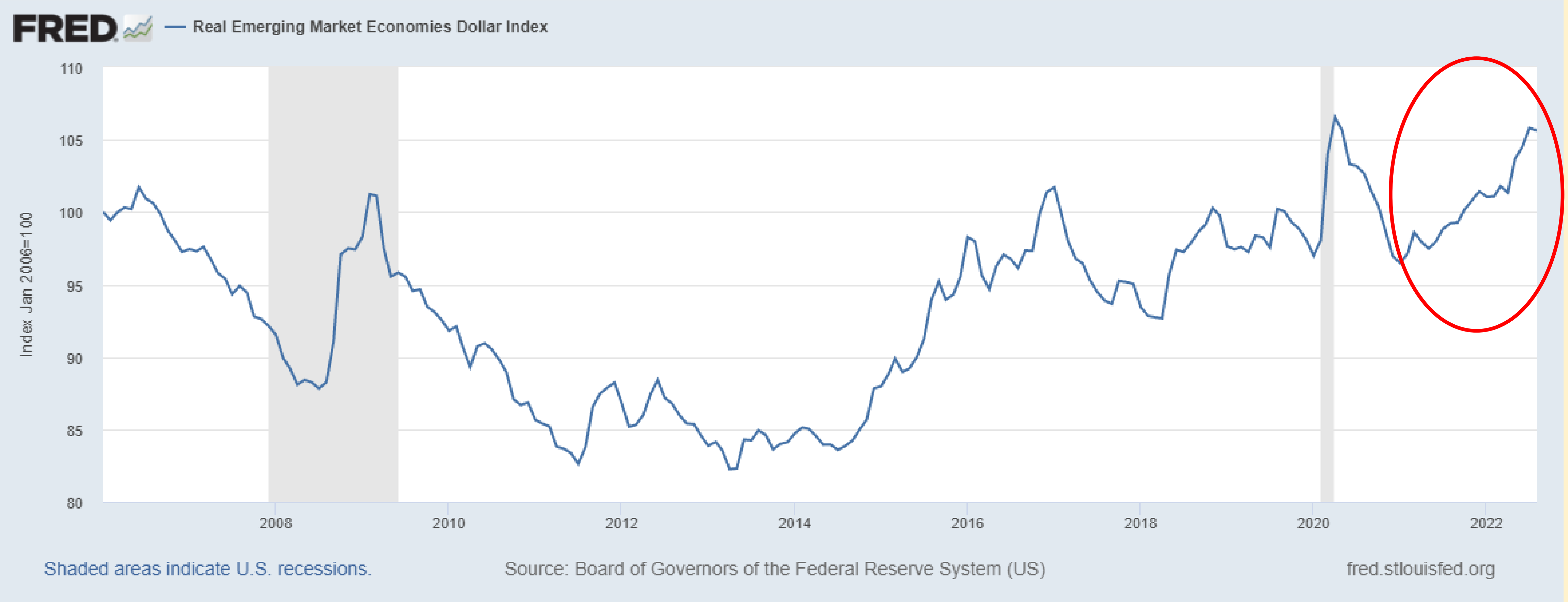
Value of the U.S. dollar

- The dollar has appreciated sharply since early 2021
  - This is true against a broad index, and equally true for advanced economies and emerging markets
  - Because CPI prices adjust slowly, this is reflected in real exchange rates
- The dollar typically appreciates during times of global stress
- The dollar is approaching all-time highs in terms of its real value
- What are the implications for monetary policymaking in low- and middle-income countries?

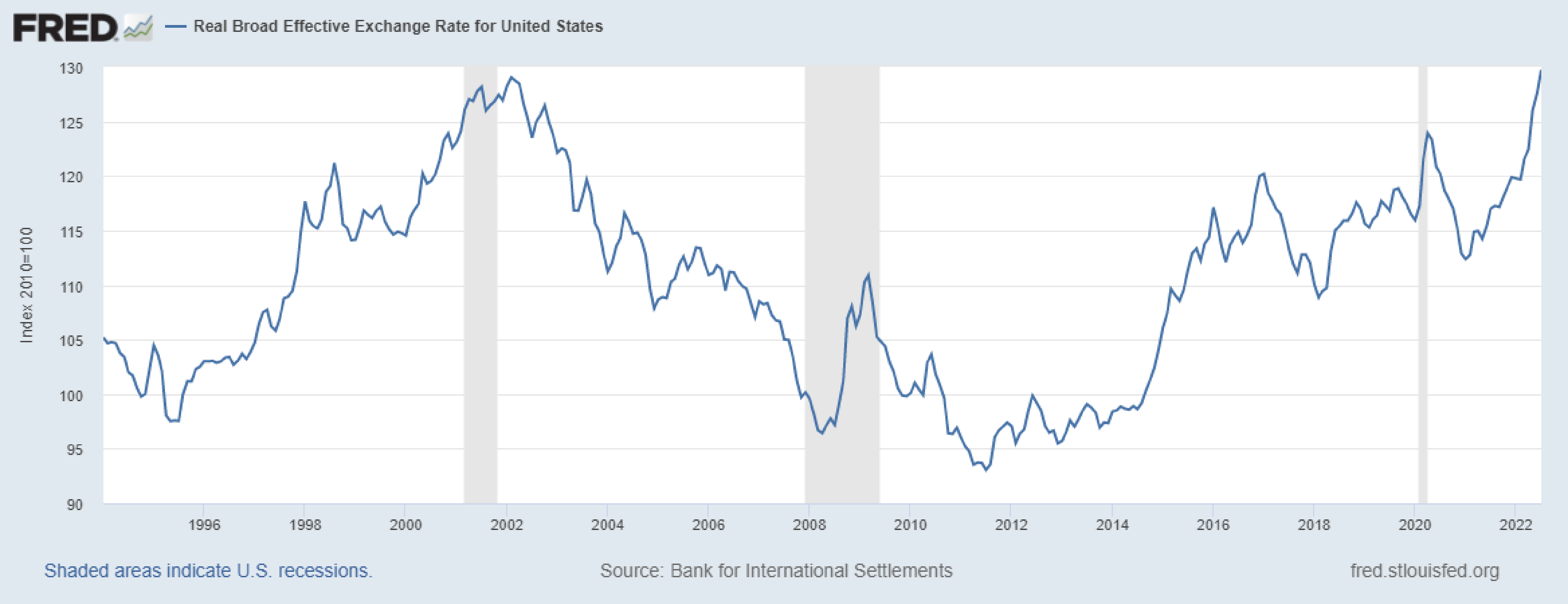
Real Broad Dollar Index (FRB)



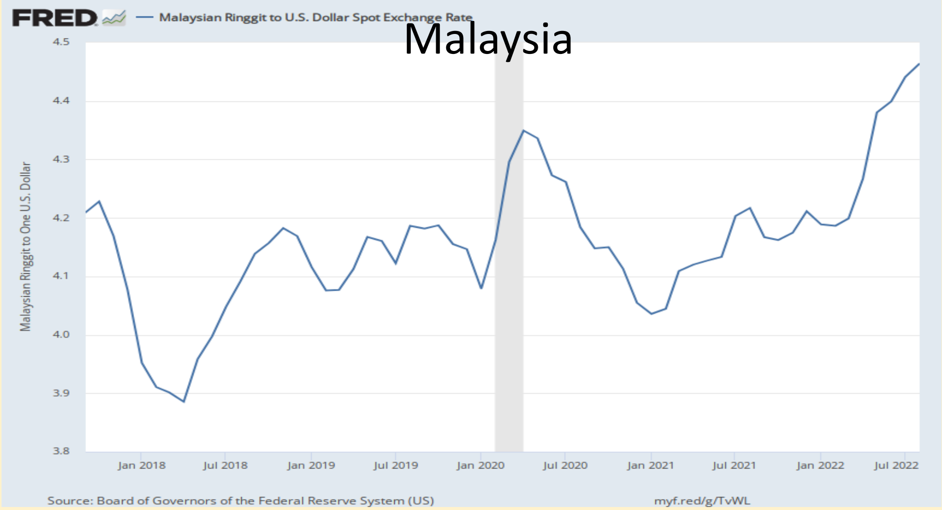
Real Emerging Market Economies Dollar Index

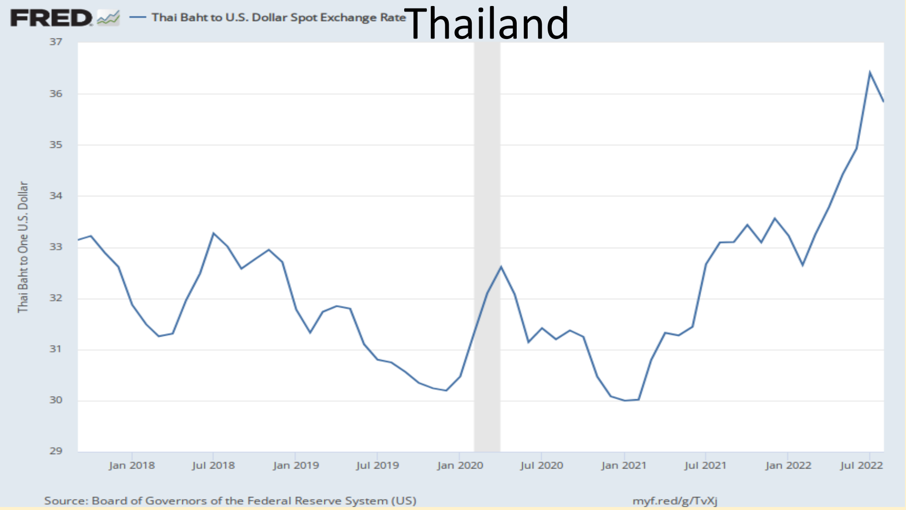


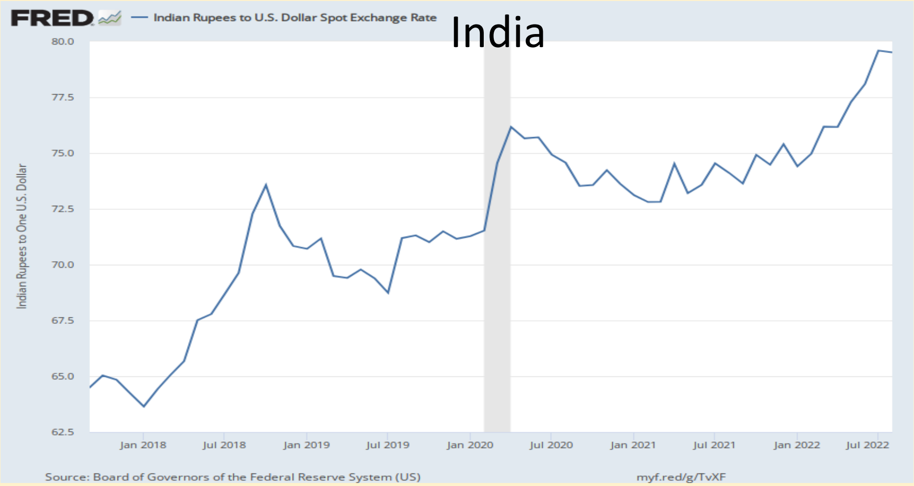
Real Effective Exchange Rate for U.S. (BIS)

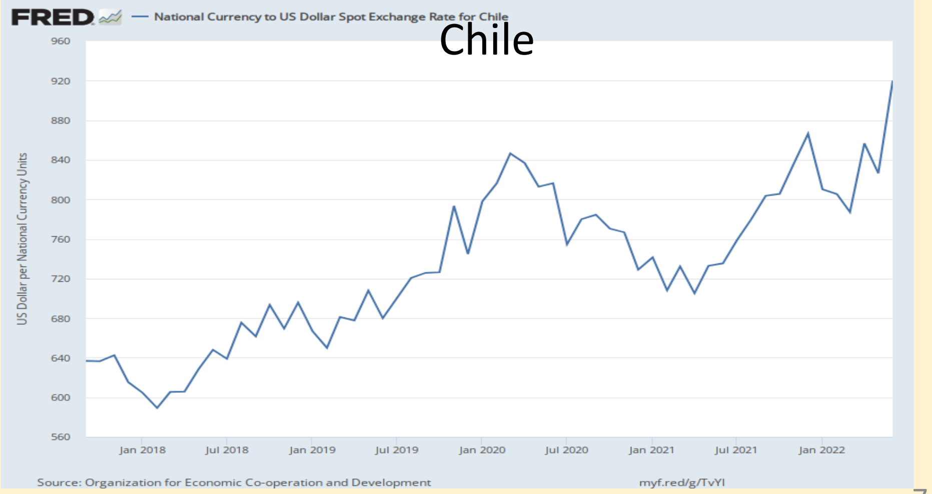


Exchange Rates of Selected Countries

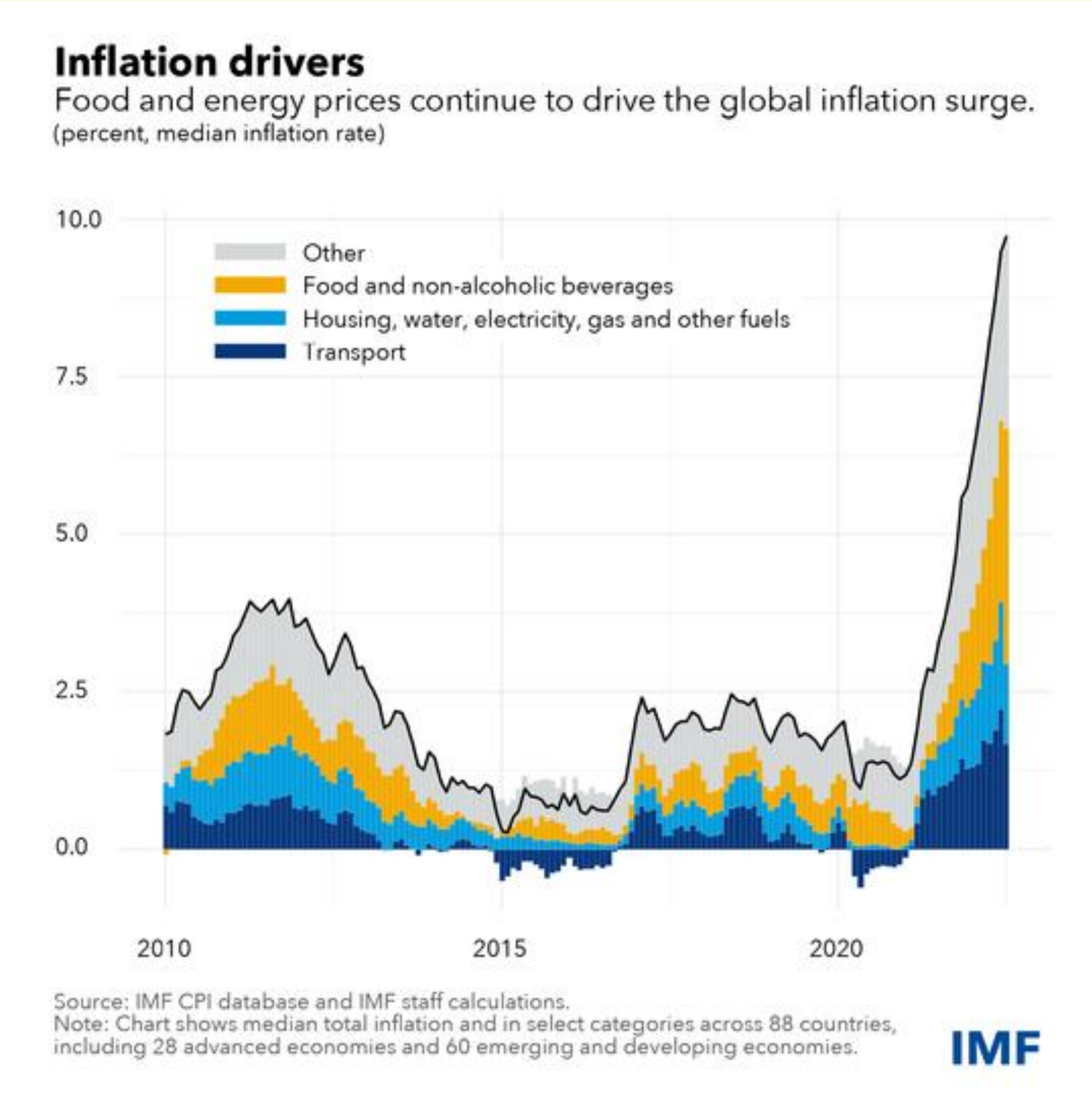




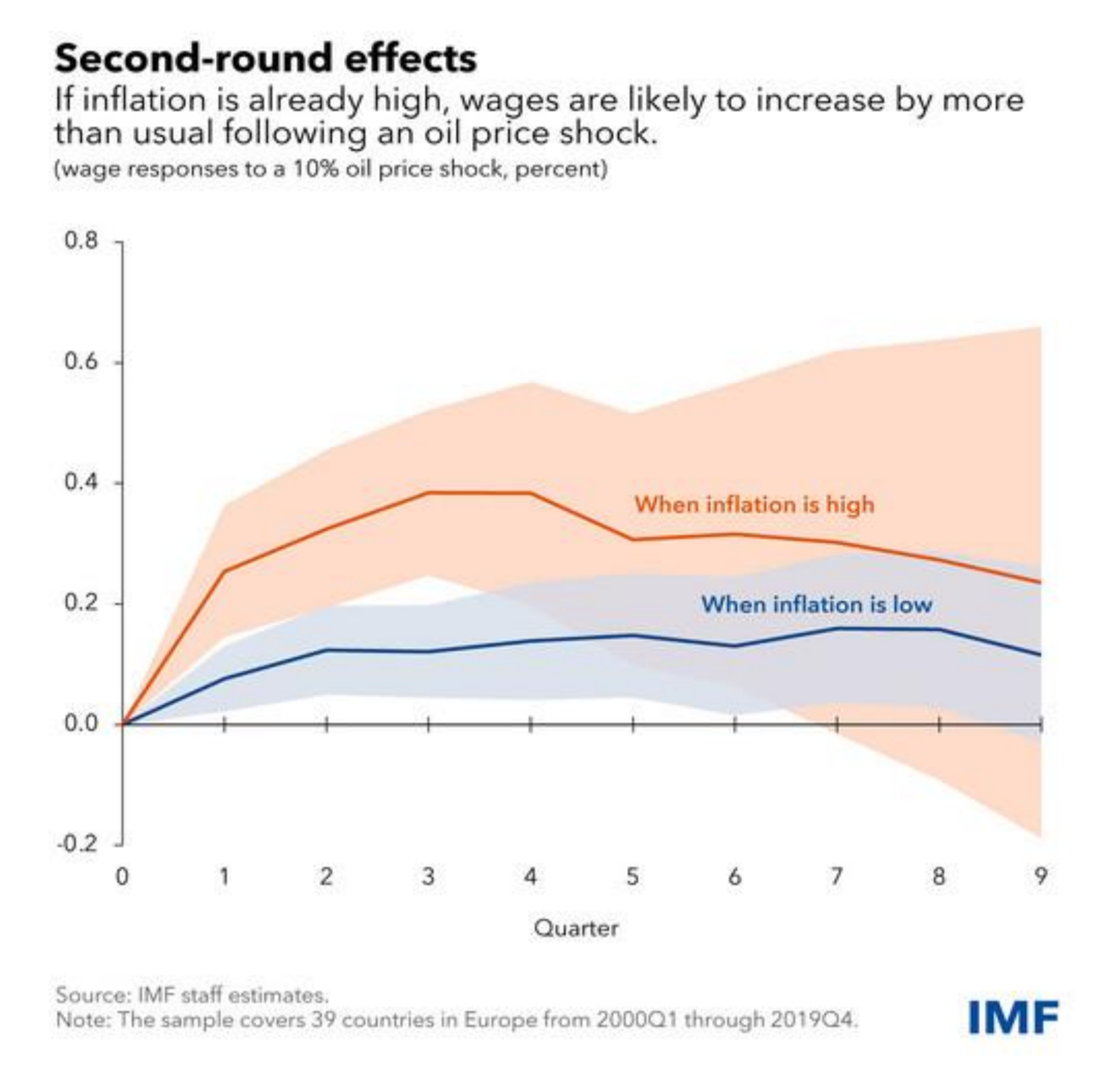




Food and Oil Prices Helping to Feed Inflation



“2nd Round” Effects on Wages and Prices

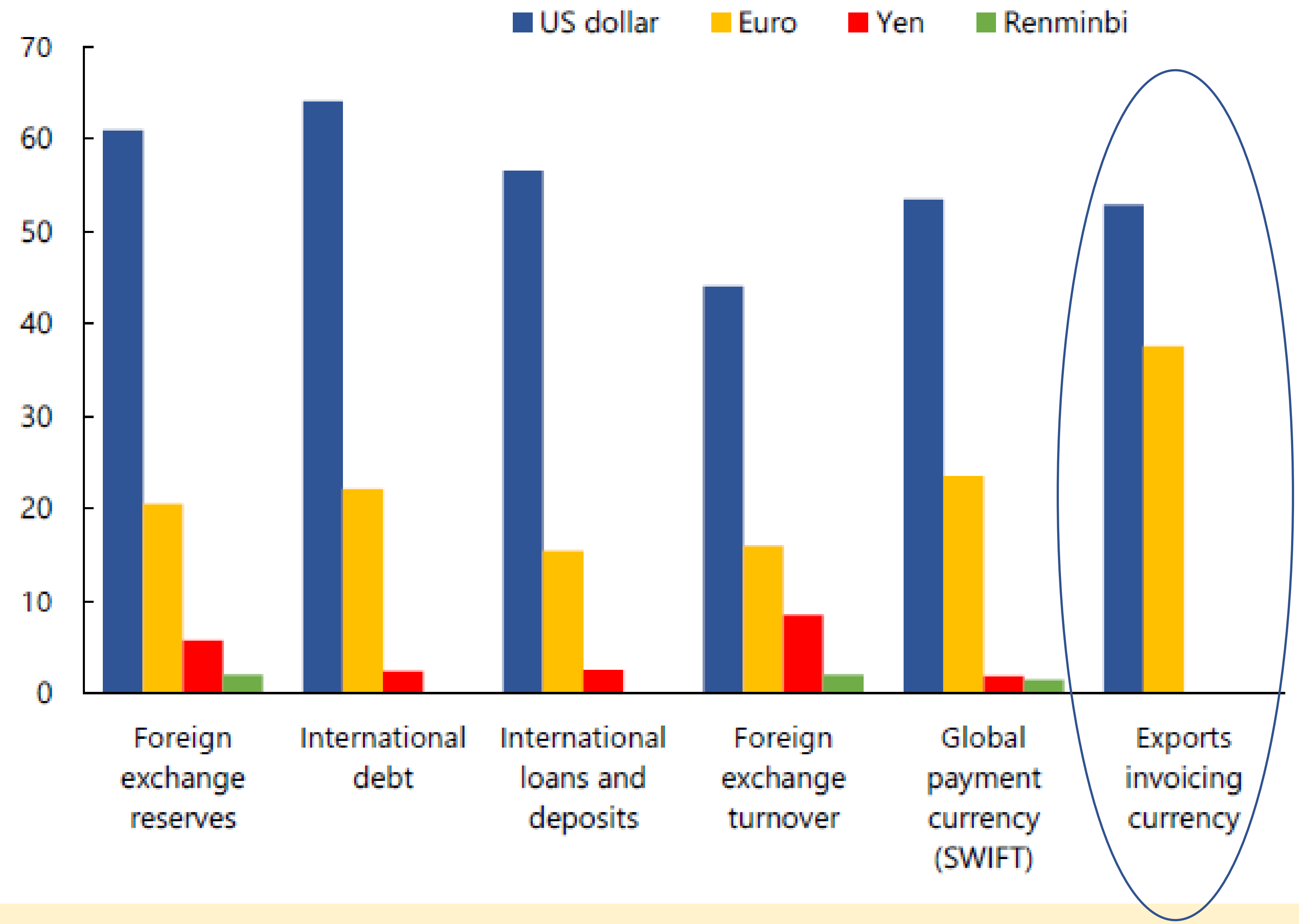


The dollar and the price of oil

- Between January 2021 and the end of August 2022, the dollar price of oil on world markets rose approximately 100%
- But the price increase in other currencies has been much steeper
    - 140% in euros
    - 132% in pound sterling
    - 163% in Japanese yen
    - 140% in Thai baht
    - 124% in Malaysian ringgit
- The law of one price effectively holds for oil, but paradoxically, it has risen much more in the rest of the world than in the U.S.!

The dollar and pressure on inflation

- The case of oil illustrates how cost-push shocks are exacerbated in non-U.S. countries when the dollar appreciates
- There is also a pass-through effect coming from imports invoiced in dollars
  - This effect is much more pervasive than just the effect of imports from the U.S.
  - Because of DCP – “dominant currency pricing” or “dollar currency pricing” – a dollar appreciation increases the local-currency prices of imports globally


US dollar
Euro
Yen
Renminbi
70
60
50
40
30
20
10
0
Foreign exchange reserves
International debt
International loans and deposits
Foreign exchange turnover
Global payment currency (SWIFT)
Exports invoicing currency

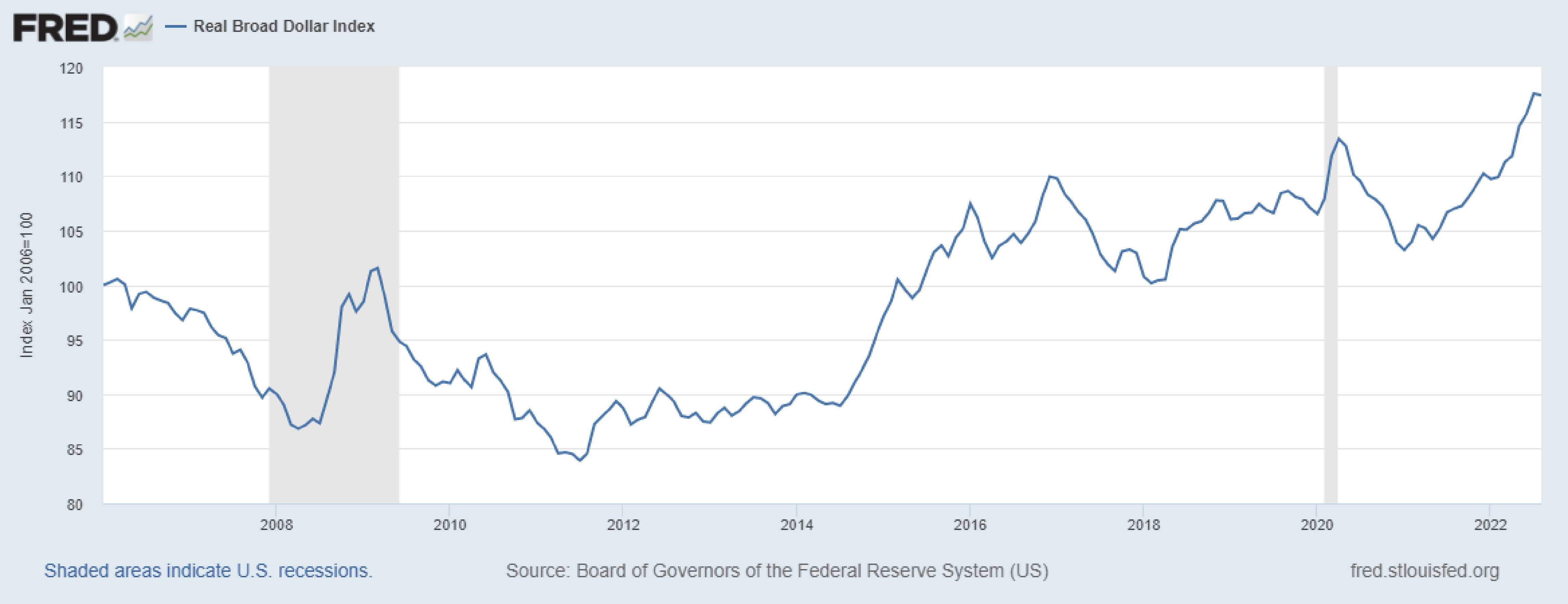
Implications for policy

- The dollar exchange rate increases inflationary pressures
- However, a thought experiment:
  - Suppose all countries are equally hit by COVID and the war in Ukraine
  - Suppose the U.S. monetary policy is an optimal response
  - If all countries simply fixed their exchange rate to the dollar, they would inherit U.S. monetary policy
  - So, is the dollar appreciating because other countries' policies are insufficiently strict or credible?
- For one thing, we know the shocks have not hit the world equally
  - The U.S. is net-zero on energy trade, while the oil and gas price shocks have hit Europe and Asia much harder.

The dollar and the flight to safety

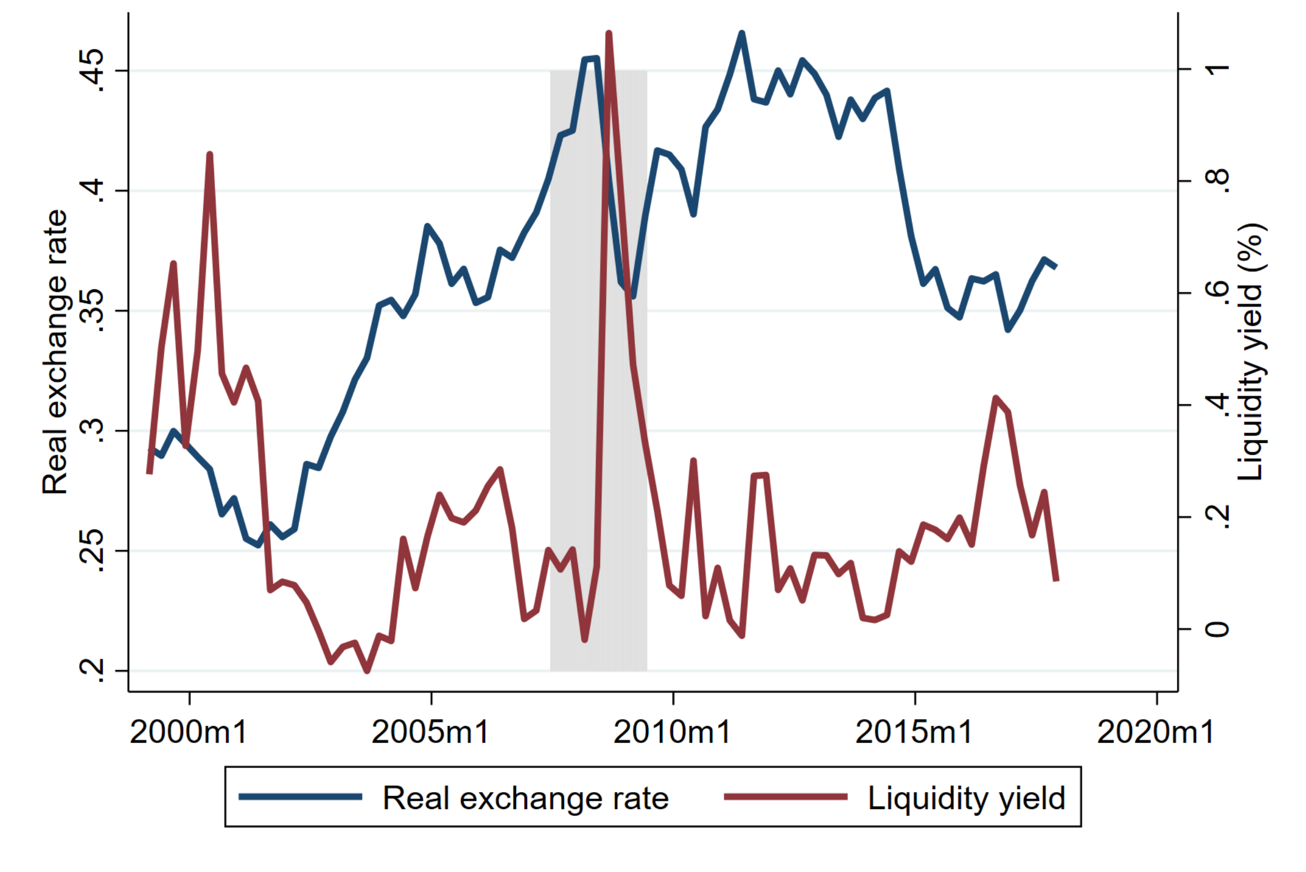
- But the dollar has gotten stronger not just because U.S. monetary policy is perceived to be tighter.
- During times of global stress, financial constraints tighten.
- The constraints on holdings of dollar assets, particularly U.S. Treasury assets are less binding
  - There is a flight to “safety”
  - Safety means a flight to liquid assets that allow financial intermediaries and firms to have more flexibility
- This effect can be seen during times of financial stress when the dollar appreciates and immediately afterward as liquidity increases

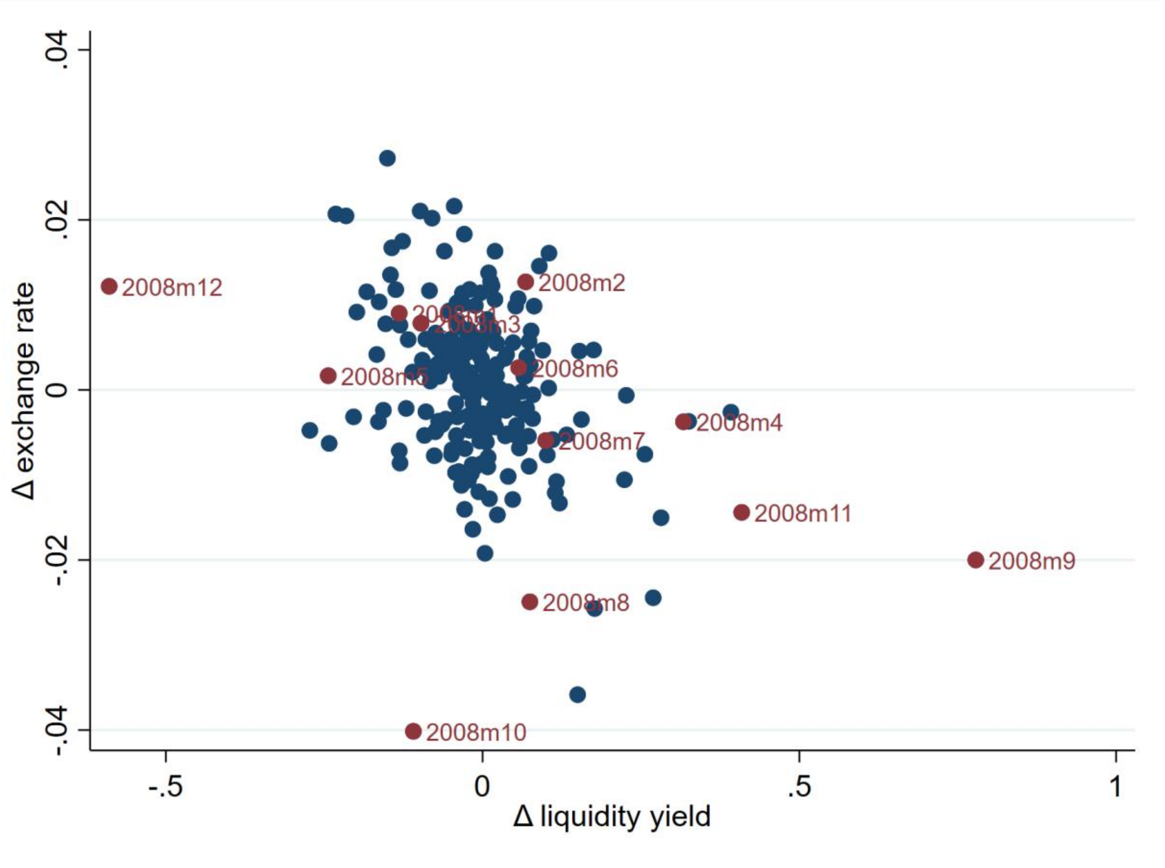
Real Broad Dollar Index (FRB)



Convenience Yield and Value of the Dollar

US vs rest of G10 real exchange rate and convenience yield





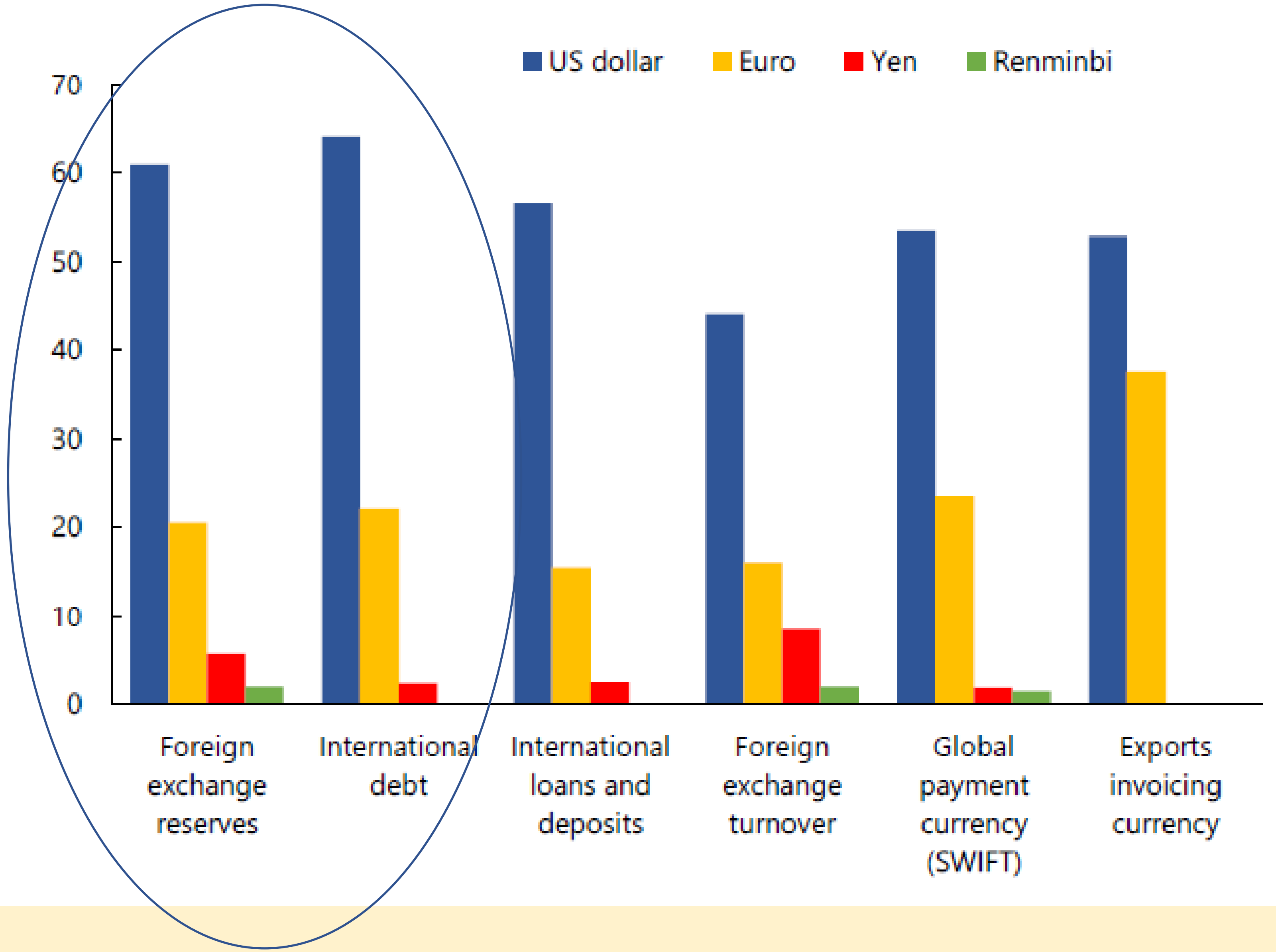
Data: Engel and Wu 2022

Implications for Policy

- The upshot is that even in the completely symmetric case, with identical monetary policies globally, the U.S. dollar would appreciate during times of global stress
- That is, even mimicking U.S. monetary policy, other countries would be facing additional inflationary pressure
- The output/inflation tradeoff is worse for other countries, even when the external shock hits them equally

The dollar and financial stability

- A large portion of internationally held debt (private and public) is denominated in dollars
- A dollar appreciation increases the local-currency value of that debt and potentially threatens balance sheets
- This threat has been at least partly mitigated by accumulation of dollar reserves by central banks, and the extension of dollar swap lines from the U.S.


US dollar
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70
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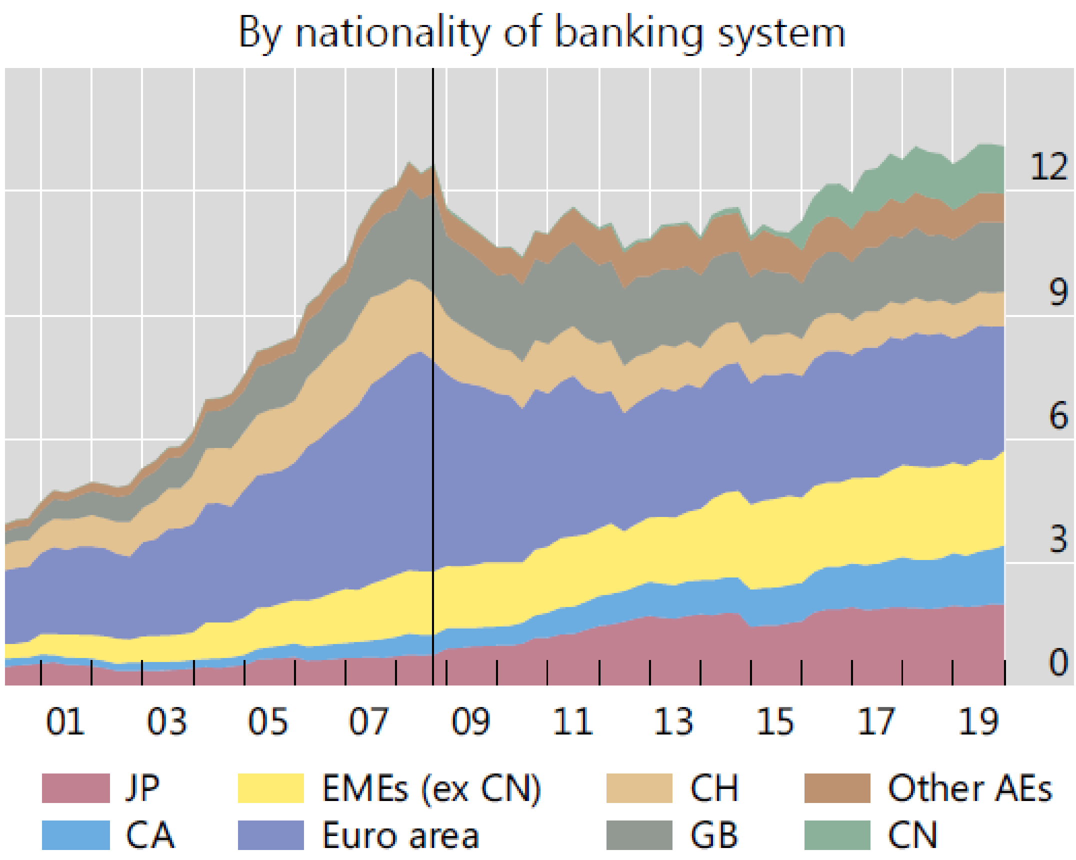
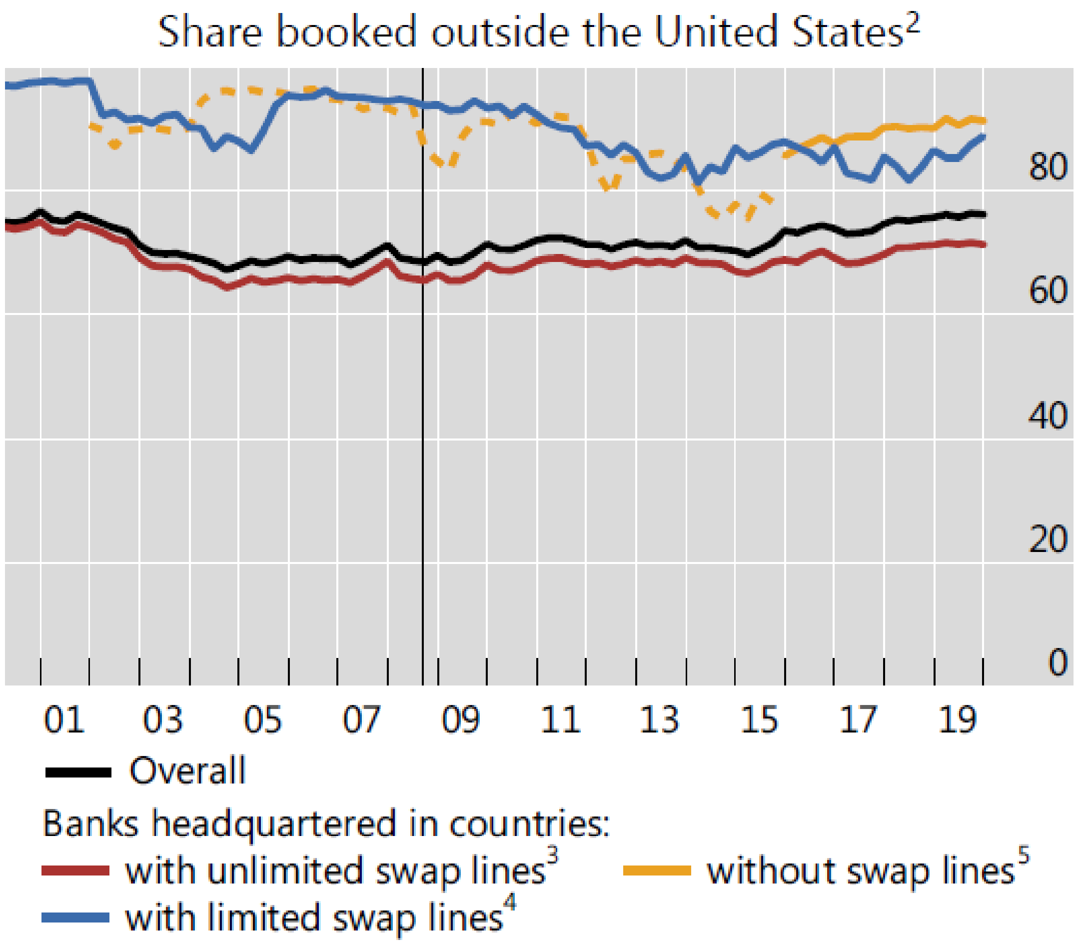
Foreign exchange reserves
International debt
International loans and deposits
Foreign exchange turnover
Global payment currency (SWIFT)
Exports invoicing currency

US dollar liabilities on the balance sheets of non-US banks (USD trn)[1]

Graph 1





Monetary Policy Cooperation?

- Coordinated monetary policy would seem to improve world welfare, redistributing the burden of external shocks
- But the U.S. seems to have little to gain, and might actually lose from cooperation:
  - The U.S. is not very open to international trade
  - The usual “expenditure switching” effect of an appreciation is muted in the U.S. because trade is denominated in dollars.
- The appreciation does reduce the dollar value of U.S. holdings of foreign assets, but this has had little apparent influence on policy

Conclusions

- The dollar exchange rate puts extra inflationary pressure on other countries
- Economies in the rest of the world are already more stressed than the U.S. and might prefer less strict monetary policy
- The “flight to safety” force on the dollar worsens the output/inflation tradeoff for all non-U.S. countries
- There appear to be potential gains from cooperation but may not be in the U.S. interest.
- However, U.S. policy makers may need to consider issues of geo-political stability, and the influence of the dollar on non-U.S. economies

Source citations for figures in presentation

- Pages 4-7 and 15: Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/
- Page 8: Barrett, Phillip, “IMF Chart of the Week”, IMF Blog September 9, 2022

https://blogs.imf.org/2022/09/09/how-food-and-energy-are-driving-the-global-inflation-surge/?utm_medium=email&utm_source=govdelivery

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