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Two Views of the International Monetary System

Distinguishing between two different schools of thought that are named after two different universities, Harvard and Berkeley, the article looks at the evolution, past and future, of the international monetary system. While the empirical view holds that the system will remain unipolar and dollar-based, the opposing view uses history to contend that it may potentially evolve away from the dollar into a multipolar system.

How has the international monetary system evolved over the last 75 years and how will it evolve in the future? I organise my answer to this question by distinguishing two views. One, which I will call the ‘Harvard view’, is that there is a striking degree of persistence in the structure of the system, which remains dollar-based and U.S. led to a remarkable extent.¹ The alternative, which I will call the ‘Berkeley view’, is that the system is evolving away from the United States and the dollar, toward a multipolar world in which several consequential international and reserve currencies will coexist, other countries will no longer rely exclusively or even mainly on the US for

international liquidity and governance will be a collective endeavor.²

Truth be told, the distinction is not always clear cut. It can be argued that the two views overlap and that one view is more about the past while the other is more about the future. Nor are the two views rigidly and consistently associated with Harvard and Berkeley.³ Still, I will maintain this as a useful working distinction, or pretense, for the purpose of this discussion.

The Harvard view: The international monetary system remains unipolar and dollar-based

The Harvard view is fundamentally empirical, although the regularities on which it focuses have stimulated some in-

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1 Here I am referring to the analysis of Gita Gopinath, supplemented by the work of Emmanuel Farhi, Matteo Maggiori and Jeremy Stein, see G. Gopinath: *The International Price System*, NBER Working Paper No. 21646, 2015, National Bureau of Economic Research; G. Gopinath: *Rethinking Macroeconomic Policy: International Economy Issues*, unpublished manuscript, 2017, Harvard University; E. Farhi, M. Maggiori: *A Model of the International Monetary System*, in: *Quarterly Journal of Economics*, Vol. 133, 2017, pp. 295-355; E. Farhi, M. Maggiori: *China vs. U.S.: IMS Meets IPS*, NBER Working Paper No. 25469, 2019, National Bureau of Economic Research; G. Gopinath, J. Stein: *Banking, Trade and the Making of a Dominant Currency*, NBER Working Paper No. 24485, 2018, National Bureau of Economic Research; M. Maggiori, B. Neiman, J. Schreger: *The Rise of the Dollar and the Fall of the Euro as International Currencies*, unpublished paper, 2018, Harvard University, University of Chicago and Princeton University.

2 Here I am referring to my own work but also that of my Berkeley colleagues Maurice Obstfeld and Pierre-Olivier Gourinchas. The first full statement of my view is in B. Eichengreen: *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*, New York 2011, Oxford University Press. Much of the technical research was undertaken with collaborators; see B. Eichengreen, M. Flandreau: *The Rise and Fall of the Dollar (or When Did the Dollar Replace Sterling as the Leading Reserve Currency?)*, in: *European Review of Economic History*, Vol. 13, No. 3, 2009, pp. 377-411; and B. Eichengreen, A. Mehl, L. Chitu: *How Global Currencies Work: Past, Present and Future*, Princeton 2018, Princeton University Press. On the work of my Berkeley colleagues, see especially M. Obstfeld: *International Liquidity: The Fiscal Dimension*, IMES Discussion Paper No. 2011-E-22, Tokyo 2011, Institute for Monetary and Economic Studies, Bank of Japan, pp. 33-48; P.-O. Gourinchas, M. Obstfeld: *Stories of the Twentieth Century for the Twenty-First*, in: *American Economic Journal: Macroeconomics*, Vol. 4, No. 1, 2012, pp. 226-265; P.-O. Gourinchas, O. Jeanne: *Global Safe Assets*, BIS Working Paper No. 399, 2012, Bank for International Settlements.

3 Thus, one sees a member of the Harvard faculty collaborating with one of my Berkeley colleagues in R. Caballero, E. Farhi, P.-O. Gourinchas: *Global Imbalances and Currency Wars at the ZLB*, NBER Working Paper No. 21670, 2015, National Bureau of Economic Research; and one of my Berkeley colleagues collaborating with Harvard’s Gopinath in C. Casas, F. Diez, G. Gopinath, P.-O. Gourinchas: *Dominant Currency Paradigm*, NBER Working Paper No. 22943, 2016, National Bureau of Economic Research. Life is messy.

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teresting theorising. Its point of departure is the observation that some 60% of identified global foreign exchange reserves take the form of dollars, that more than 60% of the foreign currency liabilities and assets of banks are in dollars, and that the share of world trade invoiced in dollars far exceeds the United States' share in global imports and exports.⁴

Roots and implications of the dollar dominance and sticky prices

Gopinath, Casas et al. and Boz et al. document and draw out the implications of these observations.⁵ In particular, they provide evidence that the dollar exchange rate is more important than the effective exchange rate in price pass-through and trade elasticity regressions. Additionally, they show that U.S.-monetary-policy-induced dollar fluctuations are passed through into other countries' import prices. In contrast, this is not (or not to the same extent) the case for monetary-policy-induced fluctuations in other exchange rates since import prices are sticky in dollar terms. They show that the strength of the dollar is a key predictor of global inflation, since changes in the dollar exchange rate are translated one-for-one into changes in the prices of imports in other countries. The dollar is, furthermore, a key determinant of aggregate trade volumes for the world net of the United States, since it has a sharp impact in other countries on the relative price of traded and nontraded goods, and hence on mark-ups on tradeables and the incentive to export.

These patterns have implications for economic adjustment and policy, as summarised in Gopinath.⁶ Specifically, they point less strongly than other views to the advantages of exchange rate flexibility as an element of the international monetary system, since nominal exchange rate changes do not deliver changes in the relative prices of imports and exports, given that the prices of importables and exportables are sticky in dollar terms.

These authors then go on to develop theoretical frameworks designed to shed light on both the roots of this dol-

lar dominance and its implications.⁷ Gopinath and Stein show that firms in emerging market countries have an incentive to borrow in the dominant currency (the dollar) in order to hedge their overall economic risk, since export prices and financial obligations are then effectively denominated in the same currency.⁸ Why export prices are sticky in dollar terms is not accounted for in the model, however.

Exorbitant privilege of the dominant currency

Similarly, a firm or household depending on goods imported from abroad will wish to hold a buffer stock of bank deposits in dollars, since imports are priced in dollars and dollar prices are sticky. Banks in emerging markets will then have an incentive to provide their customers with these dollar deposits. They can safely do so, however, only if they make dollar loans, including to local firms producing non-tradeable, local currency denominated goods. But such local firms will willingly incur dollar exposures only if dollar loans are cheap. Given these incentives, it follows that the expected return to investors on dominant currency safe assets will be lower than on safe assets denominated in other currencies. This is known as the 'exorbitant privilege' of the dominant currency. In addition to providing an explanation for the U.S. government's relatively low funding costs, it helps to explain the persistence of deviations from uncovered interest parity (lower interest rates on dollars than can be justified by expectations of dollar appreciation) in the post-global financial crisis period, when the demand for safe assets has been large.

Farhi and Maggiori, in related analysis, suggest that if merchandise transactions are priced and invoiced in dollars, then a given level of nominal dollar volatility will mean only a limited amount of real dollar volatility, which will increase the demand for dollar denominated assets.⁹ The issuer will then enjoy a safety premium on the reserve assets (exorbitant privilege once more) but may also be prone to over-issuance if the safety premium is high, perhaps because the demand for safe assets in the rest of

4 Interestingly, the ECB's data on global trade invoicing is not consistent with this premise; it estimates that the euro and the dollar are equally important as global invoicing currencies circa 2017, see European Central Bank: *The International Role of the Euro*, Frankfurt 2018, ECB. The difference may reflect the importance of intra-euro-area trade, which is euro denominated.

5 G. Gopinath: *The international...*, op. cit.; C. Casas et al., op. cit.; and E. Boz, G. Gopinath, M. Plagborg Møller: *Global Trade and the Dollar*, NBER Working Paper No. 23988, 2017, National Bureau of Economic Research.

6 G. Gopinath: *Rethinking...*, op. cit.

7 Much of this work descends in some sense from P. Krugman: *The International Role of the Dollar: Theory and Prospect*, in: J. Bilson, R. Marston (eds.): *Exchange Rate Theory and Practice*, Chicago 1984, University of Chicago Press, pp. 261-276, who modeled complementarities between an international currency's different functions and showed how those complementarities might give rise to persistence and even lock-in.

8 G. Gopinath, J. Stein, op. cit. This will be the case insofar as export prices fluctuate with the dollar.

9 E. Farhi, M. Maggiori: *A model...*, op. cit.; E. Farhi, M. Maggiori: *China...*, op. cit. They also consider the case where a few reserve currency countries issue safe assets under conditions of Cournot competition.

the world is growing rapidly relative to the economy and the debt-servicing capacity of the issuer.

Farhi and Maggiori use this model to show how an increase in invoicing in a different currency, say the renminbi, can induce a shift from dollar- to renminbi-denominated safe assets.¹⁰ In turn, this can lead to a plunge in the price of and loss of confidence in the safety of dollar denominated assets if nothing is done to reduce the stock. Either way, the likely outcome is a shift from a dollar dominated international monetary system, in which the bulk of trade invoicing and safe assets are denominated in that currency, to a renminbi denominated system.

The Berkeley view: The international monetary system evolves to multipolar, away from the dollar

If the Harvard view is fundamentally empirical, then the Berkeley view is fundamentally historical. It regards the dominance of the dollar for much of the last 75 years as a historical anomaly that is unlikely to persist. Eichengreen and Flandreau argue that multipolar international monetary arrangements have been the rule, not the exception.¹¹ This was true before the gold standard, when silver, gold and bimetallic blocs coexisted and interacted. It was true in the 19th century, when the British pound, the French franc and the German mark all accounted for significant fractions of global foreign exchange reserves.¹² It was true in the interwar period, for much of which sterling and the dollar contributed equally to the stock of global liquidity and were equally important as invoicing and settlement currencies. Historical evidence is not consistent, in particular, with the maintained assumption of the Harvard view that traded goods prices are sticky in terms of a single global currency. Indeed, international currency status was shared even in the last 75 years when the dollar rarely accounted for more than 70% of global foreign exchange reserves, trade invoicing, and payments through the Society for Worldwide Interbank Financial Telecommunications (SWIFT) and for most of which it accounted for less.

To be clear, ‘multipolarity’ in this context does not mean that international currency status necessarily is or will be shared equally by different national units. It does however suggest that it will be shared more equally than is implied by the Harvard view.

¹⁰ E. Farhi, M. Maggiori: China..., op. cit.

¹¹ B. Eichengreen, M. Flandreau: Blocs, Zones and Bands: International Monetary History in Light of Recent Theoretical Developments, in: *Scottish Journal of Economics*, Vol. 43, No. 4, 1996, pp. 398-418.

¹² P. Lindert: *Key Currencies and Gold, 1900-1913*, Princeton Studies in International Finance No. 24, 1969, Princeton University.

The sustainability problem

Why might a unipolar international monetary system be unsustainable? One answer is that the country at its centre may not wish to sustain it. To be sure, other countries have long complained that the United States benefits disproportionately from its exorbitant privilege. The federal government is able to sell debt securities to foreign official investors at lower interest rates, and it enjoys automatic insurance insofar as investors rush into those securities in turbulent times, strengthening the dollar and the U.S. balance of payments when it is needed most. But the current U.S. administration may be less conscious of these benefits than its predecessors.

Then there is the view that the dollar’s exorbitant privilege confers more costs than benefits. C. Fred Bergsten has long argued that the strength of the dollar, which is associated with the unit’s reserve currency status, handicaps U.S. merchandise exporters.¹³ One can imagine this argument resonating with a U.S. administration that associates the manufacturing trade balance with the strength of the economy. In addition, there is the argument that reserve currency status exposes the issuer to a liquidity-trap risk. By definition, yields go down globally in a global liquidity trap. But they go down most in the country that issues the reserve asset, since investors are willing to pay a premium for its assets in troubled times. And the zero lower bound is not somewhere that a country – reserve currency country or other – wishes to be.

Alternatively, the reserve currency country may wish to maintain its status but be unable to do so. Its capacity to issue safe assets that hold their value against alternative investments will be limited by the ability of its government to raise the revenues needed to service and amortise its debt in noninflationary fashion, as noted above. If other economies are growing faster than that of the reserve issuing country – if emerging markets are growing faster than the United States, as suggested by the logic of convergence – then the demand for reserves will outstrip the capacity of the country to provide them. The issuer may respond by increasing the supply of debt securities – by running chronic deficits, in other words – in which case confidence in the reserve currency will decline.¹⁴ Or it can respond by attempting to balance its budget and external accounts, in which case the world may experience a global reserve and liquidity shortage. This, as Obstfeld puts it, is a 21st century version of the Triffin Dilemma.¹⁵

¹³ See for example C.F. Bergsten: Strong Dollar, Weak Policy, in: *International Economy*, Vol. 15, No. 4, 2001; C.F. Bergsten: The Dollar and the Deficits. How Washington Can Prevent the Next Crisis, in: *Foreign Affairs*, Vol. 88, 2009.

¹⁴ There is considerable overlap here with the Farhi and Maggiori analysis described above.

¹⁵ M. Obstfeld, op. cit.

Caballero, Farhi and Gourinchas show that a ‘more sinister’ version of the Triffin Dilemma may also arise if a single country, such as the United States, is the sole provider of safe assets.¹⁶ If the global economy grows more rapidly than the U.S. economy, so will the global demand for safe assets relative to the supply. This will push up the price of safe assets and depress their yield, increasing the likelihood that the issuer (and the world economy) will hit the zero lower bound and succumb to the problem of secular stagnation. In a stagnant world lodged at the zero lower bound, previously safe assets may then come to be seen as unsafe, further aggravating the global safe-asset shortage and pushing their prices up and their yields down even more.¹⁷

The implication of this view is that extended periods at the zero lower bound, which are likely to be associated with the dominance of a single global currency, are not a sustainable equilibrium, so something has to give. For example, it is possible, in response to this safe asset shortage, for additional sources of safe assets to develop, and for other potential suppliers – read ‘the euro area and China’ – to take proactive steps to develop them. This is the multipolar-world scenario described above.

But, as Gourinchas and Jeanne emphasise, safety is in the eye of the beholder.¹⁸ For other governments to be recognised as safe asset providers, not only must they stand behind their obligations, but they must be recognised by investors as prepared to do so if their assets are to display the liquidity expected of a global safe asset.

A multipolar international monetary system requires coordination and stable policies

Thus, whether the world succeeds in transitioning to a multipolar international monetary system where assets denominated in several currencies come to be recognised globally as safe and liquid will depend on how investors solve this coordination problem. As in any international monetary setting where there exists a coordination problem, there may be a role for an organisation like the International Monetary Fund (IMF) to provide a focal point for coordination by inter alia providing public information on the safety and liquidity of different currencies, and by encouraging orderly reserve diversification. It may similarly have a role in providing an external backstop for potential safe asset providers.¹⁹

16 C. Caballero, E. Farhi, P.-O. Gourinchas, *op. cit.*

17 P.-O. Gourinchas, O. Jeanne, *op. cit.*

18 *Ibid.*

19 For more on the last point, see E. Farhi, P.-O. Gourinchas, H. Rey: *Reforming the International Monetary System*, London 2011, Centre for Economic Policy Research.

Elaborating on the idea of a coordination problem, Farhi and Maggiori warn that a system of multiple international and reserve currencies may be subject to runs as investors “coordinate in and out of a given reserve currency”.²⁰ My own view is that the likelihood of this scenario depends on whether the governments issuing the competing reserve currencies follow stable or unstable policies.²¹ We have witnessed both cases in history: unstable policies leading to an unstable international system in the 1920s and more stable policies leading to a more stable system before 1913.

For those who worry that we can no longer count on stable policies in the United States and that the main thing supporting the dollar’s reserve and safe asset status is an absence of alternatives, another response might be to supplement and ultimately replace the dollar with the special drawing rights (SDRs).²² But substituting new SDR allocations for Federal Reserve swap lines and making the IMF a quasi lender of last resort would require giving the IMF the ability to inject SDRs into the global system overnight. Moreover, the supplementation stage creates all the same dangers as a multi-currency system, insofar as reserve managers are then free to shift between dollars and SDRs. A substitution account, through which dollars held by central banks are retired, could speed the transition and eliminate this nascent source of instability.²³ But we have been there before. Attempting to go down this road would confront formidable – dare one say insurmountable – political obstacles.²⁴

Conclusion: A multipolar international monetary system is feasible

Thus, the best hope in my view is a multipolar system backed by sound and stable policies on the part of the central banks and governments of the reserve currency issuers. This is not a perfect world. But it is at least a feasible one.

20 E. Farhi, M. Maggiori: *A model...*, *op. cit.*

21 ‘Likelihood’ is not the same as ‘guarantee’. But just as strong banks with a reputation for solvency are less likely to be subject to self-fulfilling runs than weak banks with dubious reputations, strong and stable policies can only help.

22 See the discussion in International Monetary Fund: *Considerations on the Role of the SDR*, IMF Policy Paper, Washington DC 2018, IMF.

23 The idea of a substitution account was discussed following the breakdown of Bretton Woods and again in the wake of the Global Financial Crisis. See P. Kenen: *The Analytics of a Substitution Account*, in: *PSL Quarterly Review*, Vol. 34, No. 139, 1981, pp. 403-426; and P. Kenen: *The Substitution Account as a First Step toward Reform of the International Monetary System*, Policy Brief No. 10-6, Washington DC 2010, Peterson Institute for International Economics.

24 I discuss these obstacles in B. Eichengreen: *Managing a Multiple Reserve Currency World*, in: W.T. Woo (ed.): *The 21st Century International Monetary System*, Manila 2010, Asian Development Bank.