US Dollar Appreciation, Global Dollar Shortage: Implications, Concerns

Opinion

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Table. Exchange Rates and Foreign Reserves of Selected Advanced Countries, China, India and Fiji:2015 -2022

	2015	2016	2017	2018	2019	2020	2021	2022
Euro Zone								
Exch Rate	0.90	0.90	0.89	0.85	0.89	0.88	0.85	0.95
Foreign Res	701.55	741.79	802.69	822.53	914.23	1077.85	1196.16	1184.87
UK								
Exch Rate	0.65	0.74	0.78	0.75	0.78	0.78	0.73	0.81
Foreign Res	148.11	134.93	150.86	172.66	173.57	180.05	194.18	176.41
Japan								
Exch Rate	121.04	108.79	112.17	110.42	109.01	106.77	109.75	131.50
Foreign Res	1233.10	1216.52	1264.14	1270.47	1322.44	1390.81	1405.75	1227.57
Australia								
Exch Rate	1.33	1.35	1.30	1.34	1.44	1.45	1.33	1.44
Foreign Res	45.41	52.48	65.65	53.91	57.99	42.54	57.88	56.70
New Zealand								
Exch Rate	1.43	1.44	1.41	1.45	1.52	1.54	1.41	1.58
Foreign Res	14.70	17.81	20.68	17.66	17.81	13.73	16.11	14.40
China								
Exch Rate	6.23	6.64	6.76	6.62	6.91	6.90	6.45	6.74
Foreign Res	3405.25	3097.66	3235.68	3168.22	3222.89	3357.24	3427.93	3306.84
India								
Exch Rate	64.15	67.20	65.12	68.39	70.42	74.10	73.92	78.60
Foreign Res	353.32	361.69	412.61	399.17	463.47	590.23	638.48	567.30
Fiji								
Exch Rate	2.10	2.09	2.07	2.09	2.16	2.17	2.07	2.20
Foreign Res	0.92	0.91	1.12	0.95	1.04	1.08	1.52	1.56

Note: Exch rate in Units of Domestic Currency per one US$ and Foreign Exchange Reserves in US$ in billion)

The US dollar appreciated soon after the US Federal Reserve (the Fed) raised its interest rate on July 27 by 25 basis points to 5.50 per cent. This time not in despair, but in an atmosphere of confidence that its monetary tightening measures, after all, are proving effective.

It was the 11th increase since the Fed began its ongoing monetary tightening in March 2022. The latest hike brings borrowing costs to their highest level in over 22 years.

As we write this article, the US dollar had appreciated from Rs 81.92 to Rs 82.94. The depreciation of the Indian rupee is attributed to outflows of hot money seeking higher returns in the world's safest haven.

This was triggered by positive macroeconomic news from America, that the US economy is no longer facing inflationary pressures as the United Kingdom and the Eurozone.

Successful implementation of contractionary monetary policy changes since 2022, along with other positive economic indicators, including a robust labour market, also suggest a recession is unlikely.

It appears that the US rate-hiking cycle is now concluding, which brings some relief to central banks worldwide.

However, inflation would remain a concern, as the current year-on-year inflation (July 2022-June 2023) stands at 3 per cent, which is still above the Fed's 2 per cent target.

The Fed Chairman, in a news conference, emphasised that there was still a long way to go, as the 525 basis points increase since April 2022 (when inflation was 9.10 per cent) has not yet brought inflation down to the desired level.

He cautioned global inflation fears persist. The possibility of two or more hikes is not ruled out, as the Fed aims to anchor inflation expectations among all stakeholders.

Emerging Global Concerns

There are concerns stemming from the appreciating US dollar and the ongoing dollar shortages. According to IMF economists Rudolfs Bems and Racha Moussam, who reviewed global exchange rates and foreign reserve holdings, emerging economies are experiencing more

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significant adverse effects compared to advanced economies due to the spillover of the US dollar's appreciation. Empirical evidence by Maurice Obstfeld and Haonan Zhou confirms that in emerging market economies, a 10% US dollar appreciation results in a 1.9 per cent decrease in economic output, lasting for two and a half years.

In contrast, the negative effects on advanced economies are smaller (not exceeding 0.6per cent) and dissipate within one year. As a result, the negative consequences fall disproportionately on both advanced and emerging economies.

The rising US dollar impacts trade and financial channels. Bems and Moussam observe that real trade volumes steeply decline, with imports dropping twice as much as exports. Additionally, credit availability decreases, capital inflows diminish, and tighter monetary policies are implemented, leading to a decline in stock-market activities.

The income compression channel plays a more significant role, resulting in reduced consumption of imported items. However, the external sector adjustment in emerging market economies is slow due to their higher exposure to the US dollar.

In advanced economies, exchange rate depreciation/appreciation occurs relatively automatically, with less intervention in market forces.

Market interventions, such as selling US dollars and buying domestic currencies to prevent excessive depreciation of the domestic currency, have their limits determined by the availability of foreign reserves.

Such interventions aim to reduce volatility rather than control trade deficits or promote exports.

Emerging economies including India resort to and defend market interventions, clarifying that they are for reducing volatility and they are not aiming at any particular nominal exchange rate (ER).

Purchasing Power Parity Theory

In connection with this, the Purchasing Power Parity Theory test (PPPT) is often used to determine whether a prevailing exchange rate is overvalued to make imports cheaper or undervalued to promote exports, both to reduce trade imbalances.

Under very restrictive assumptions, the PPPT reveals the extent of the undervaluation or overvaluation of a currency.

A good classroom example is Big Mac Index introduced in 1986 by the Economist of London, which publishes two bi-annual test results, which are delectable staples for students of international finance and monetary economics.

Under highly restrictive assumptions of no transport costs and no tariff/quota barriers between two countries but with identical manufacturing processes, and with the same weight of each Big Mac and the same quality of ingredients, prices of the goods produced in two countries are compared to obtain bilateral ER.

There are also assumptions regarding non-tradable such as water, electricity and rents of buildings for outlets and manufacturing.

Their domestic costs are zero or ignored. The "ideal tradable good" is the Big Mac sold by McDonald's outlets almost all over the world except perhaps in North Korea.

The only difference between the two Big Macs of Indian and the US outlets is the Indian Big Mac has no beef or pork, but has only chicken.

However, it is claimed there is no compromise in nutritional properties.

Using two prices of Big Mac, in the US ($ 5.89) and in India, the price of the closest to American Big Mac is Mac Spicy Chicken Burger Wrap (Rs 194), we derive the implied PPPT ER. The procedure is, we divide Rs194 by $5.89. The quotient is Rs 32. 94, which is ER per one US $. The market ER on the day, when two country Big Mac prices are obtained, is Rs 81.92.

The difference between the PPPT implied ER and the actual ER is Rs 48.98, and the difference is then expressed as a proportion of the actual rate in percentage terms: a negative 59 per cent, That is the Indian rupee is undervalued by 59 per cent, as far as Big Mac is concerned.

Under the most restrictive assumptions, the PPPT test illustrates the extent of the undervaluation of a currency. The same example and procedure when applied to advanced countries, we find the extent of undervaluation is less than 1 per cent.

So the message is needed corrections are provided by a full, unimpeded operation of market forces under a flexible ER regime.

Emerging market economies with more anchored inflation expectations or more flexible exchange rate regimes fare better.

Central banks, under flexible ER regimes, do not use the PPPT implied ER but use the real effective exchange rate (REER) which is nominal trade-weighted ER duly adjusted for domestic inflation relative to world inflation, to determine the export competitiveness as well as stability of domestic currency.

Case of Fiji

Fiji has a fixed exchange rate system. Daily ERs are announced by RBF. The Reserve Bank of Fiji uses REER. An application of PPPT test would indicate the extent of undervaluation or otherwise. We use the price which prevailed on July 26 California and in Suva.

Burger Price in the US is US$ 5.89 and Fiji Price is FJ$ 10.15. PPP theory implied ER is FJ$10.15/ US$ 5.89 = 1.72, implying one US$ = FJ$ 1.72. But the actual ER is one US$ = FJ$2,27.

The difference between implied and actual ER (1.72-2.27), expressed as a percent of actual ER suggests FJ$ is undervalued by 24.22 per cent. Jack Yankee from California takes advantage of the lower price of Big Mac in Fiji. He takes US$5.89 with him and flies on Aladdin's Magic Carpet to Suva and converts US5.89 into Fiji Dollars: 13.37; buys one McBurger at FJ$10.15 and saves FJ$ 3.22; buys an ice cream cone at FJ 2.50 with toppings; and save 72 cents in small coins for his coin collecting grandson.

Jack returns the magic carpet to Aladdin with thanks for the rent-free Magic Carpet for costless air travel. Of course, all the unrealistic assumptions have been fully exploited in this example for the PPPT. Fiji's current fixed regime has worked well with prudent policies for keeping inflation down.

It is because the financial sector has not fully developed, offering attractive financial assets, The familiar capital movements, especially of the upsetting, fickle-minded hot money inflows are relatively absent.

The impact of interest rate differential is none in Fiji. Additionally, exchange controls are in place.

The capital account is not fully liberalised. In these circumstances, an effective tool, which incorporates the influence of domestic consumer price inflation relative to inflation overseas on the value of domestic goods is REER.

The latest July ended Reserve Bank of *Fiji Economic Review* reports REER index, which is the trade-weighted average of major currencies including the US dollar has weakened over the year (-4.4 per cent).

The weakening of REER promotes exports of goods and services, including tourism and inward remittances. However, it raises import costs. The trade deficit widened by 11.5 per cent in the year to April, as higher-cost imports continued to outweigh the gain from merchandise exports.

The RBF Economic Review indicates that taxation policies announced in the National Budget are expected "to put upward pressure on domestic consumer prices", which is likely to impact REER.