THE ROLE OF FOREIGN EXCHANGE RESERVES: ANOTHER VIEWPOINT

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Abstract

Discussion around the optimality of foreign exchange reserves has intensified recently, due to a seeming ineficient increasing of foreign reserves, especially in the developing world. This paper presents the state of this issue, challenging the conventional perspective according to which foreign exchange reserves are needed in order to preserve the stability of exchange rates. It argues that reserves' a

Foreign exchange reserves in the world: a synoptic view

The role and the optimality of foreign exchange reserves in the international monetary system have been for long time interesting issues in the literature on international monetary economics. Discussion around these problems has intensified lately, as a consequence of a noticeable increase in the magnitude of world foreign exchange reserves. Indeed, "one of the most striking developments of the last few years is the enormous increase of foreign exchange holdings by central banks, especially in many emerging and transition economies" (Vaubel, 2005, p. 1). This observation is uphold by another keen analyst of the international economy: "Foreign exchange reserves held by developing nations are today at an all time high, and stand at levels that are a multiple of those held by advanced countries (in relation to their incomes or trade)" (Rodrik, 2006, p. 2).

As this author ilustrates, unlike developed countries, developing countries have constantly increased their holdings of foreign reserves, not only in nominal terms, but also relative to their GDP. More exactly, the foreign reserves/GDP ratio is ten times higher now than three decades ago, when it was roughly equal to the ratio kept by the rich countries.

This trend has ben especially abrupt after the 1997 Asian financial crisis. Since then, monetary authorities in emerging markets in East Asia have more than doubled their stockpiles of foreign exchange reserves; by the end of May 2002,

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they held $845 billion, or 38% of the world total. Of these countries, China, Taiwan, Hong Kong, South Korea, and Singapore rank just behind Japan as the world's biggest holders of foreign exchange reserves – together those five countries hold reserves totaling nearly $700 billion.

Among the developing countries, the increase in official foreign exchange holdings has been largest in Africa (+180 per cent), Eastern Europe (+176 per cent) and Asia (+145 per cent). Overall, the largest increases took place in Algeria (666 per cent), Russia (531 per cent), India (372 per cent), Lithuania (360 per cent), South Korea (350 per cent), China (272 per cent).

Romania's foreign exchange reserves is currently 50 times higher than the level existent in 1996. It covers 6 months of imports and is almost double the amount of foreign short-term debt.

Reasons

Among the main reasons for accumulating foreign exchange reserves is the role they can play as a buffer or shield against financial crises. Countries with higher (net) levels of liquid foreign assets are better able to withstand panics in financial markets and sudden reversals in capital flows.

In the face of an increasing number of international financial crises (notable examples include Mexico in 1995, East Asia in 1997, Russia in 1998, Turkey in 1994 and 2001, Brazil in 1999, and Argentina in 2002) a growing literature emerged on the level of reserves necessary to adequately insure against shocks. In that literature, several basic benchmarks for emerging economies were suggested.

First, it was argued that countries shoud preserve reserves equal to short-term external debt. The rationale for this correlation is the following. Countries that may be vulnerable to a capital account crisis can benefit from holding reserves sufficient to cover all debt obligations falling due within the coming year. This benchmark, known as the Greenspan-Guidotti rule, is the most widely preferred benchmark for measuring vulnerability to capital account crisis, and its relevance to currency crisis prevention has the strongest empirical support.

Secondly, economists maintained that foreign exchange reserves should be equal to roughly 5-20 percent of M2. Behind this policy prescription lies the hypothesis that paper money has to be covered by "something" – a valuable thing, which in the past was gold. Countries that intend to maintain a fixed exchange rate need to hold higher reserves relative to M2.

Thirdly, aome argued that reserves should be equal to three or four months of imports. This criterion is especially relevant to low-income countries exposed to current account shocks and without significant access to capital markets.

The emerging economies among the top ten reserve holders maintain reserves far in excess of nearly all of the benchmarks, as shown in the table below.

Developing countries adequacy reserve ratios, 2005

Country	Debt	Reservs/M2	Reserves/Months of imports
	Benchmark		
	1.00	**0.05 – 0.20**	**3.00**
China	11.58	0.22	15.72
Taiwan	5.95	0.35	15.65
Russia	4.43	0.93	16.40
India	4.29	0.80	13.17
South Korea	2.63	0.21	7.93
Malaysia	3.09	0.43	7.49

In addition to all these reasons, it is said that central banks accumulate foreign exchange reserves for political reasons. Public choice literature asserts that central banks seek to obtain or increase their power and prestige.[1]

The costs of keeping foreign exchange reserves

Some economists have started to question the utility of such enormous accumulation of foreign exchange reserves, emphasing the costs associated with this policy. Intuitively, the opportunity cost of hoarding money is the income that could be gained if the same amount of cash is invested in profitable economic projects. As Rodrik (2006, p. 2) explains, "central banks hold their foreign exchange reserves mostly in the form of low-yielding short-term U.S. Treasury (and other) securities. Each dollar of reserves that a country invests in these assets comes at an opportunity cost that equals the cost of external borrowing for that economy (or alternatively, the social rate of return to investment in that economy). The spread between the yield on liquid reserve assets and the external cost of funds – a difference of several percentage points in normal times—represents the social cost of self-insurance".

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[1] See, for example, Vaubel (1993).

Another viewpoint

From the very beginning it should be pointed out that under a gold standard, foreign exchange reserves would be completely unnecessary. The keeping of foreign exchange reserves is a normal feature of a system of coexisting (i.e. competing) fiat money producers. Only in a system of paper moneys issued by independent central banks, each of these institutions seeks to "hedge" its currency against the potential risk of depreciation. It can do so either – the easy way – by refreining from inflating the money supply or – the hard way – by accumulating foreign exchange reserves in order to "defend" the value of its currency when the general public chooses to turn to a different currency.

Thus, the existence of foreign exchange reserves grants each central bank a "space of maneuvre" within which it can engineer an expansionist monetary policy without the fear that inflation could be nipped in the bud by the changing preferences of an alert public. In other words, it is a way to enhance its credibility. As Vaubel (2005, p. 3) expalins further, "this option of increasing the money supply without depreciating the currency is also highly attractive to politicians who want to generate a boom at the time of the next election. Under fixed exchange rates and possibly even under flexible exchange rates, foreign exchange "reserves" facilitate monetary political business cycles."

From a larger perspective, the policy of accumulating foreign exchange reserves is self-enforcing. On the one hand, it allows domestic central bank to increase its money supply without fear of suffering depreciation. On the other hand, it turns into a higher demand for the international currency hoarded as foreign reserve. But this increase in demand provides to the foreign money producer the same opportunity of extending its own money supply without running the risk of generating a monetary crisis. In the words of Vaubel (2005, p. 7), "thus, by accumulating foreign exchange reserves, the domestic central bank tends to encourage inflationary monetary policies abroad. The Bundesbank committed this mistake in the final years of the Bretton Wood System – it even contributed to the American pre-election boom of 1972. The central banks of the emerging and transition countries have been doing exactly the same in the recent past" (Vaubel, 2005, p. 7).

References

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Anexes

Table 1

Official Foreign Exchange Holdings, in billions of SDRS

period (end of):	1996 (1)	2003 (2)	(2) / (1)
industrial countries of which:	501.8	742.7	1.48
- Europe	304.7	208.2	.68
- Japan	144.2	439.3	3.05
- Australia	9.7	20.2	2.08
- Canada	12.5	21.2	1.70
developing countries of which:	587.3	1,285.5	2.19
Asia	339.9	833.4	2.45
- China	73.0	271.3	3.72
- India	13.7	65.7	4.80
- Indonesia	12.4	23.4	1.89
- Korea	23.1	104.0	4.50
- Malaysia	18.2	29.3	1.61
Middle East	57.8	94.5	1.63
Africa	21.8	61.0	2.80
- Algeria	2.9	22.2	7.66
- Morocco	2.6	9.2	3.54
- Nigeria	2.8	4.8	1.71

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South America	106.9	128.6	1.20
- Mexico	13.3	38.9	2.92
Eastern Europe	60.9	168.0	2.76
- Croatia	1.5	5.5	3.67
- Czech R.	8.6	17.7	2.06
- Lithuania	.5	2.3	4.60
- Poland	12.4	21.4	1.73
- Romania	1.5	6.1	4.07
- Russia	7.8	49.2	6.31
- Slovak R.	2.4	7.9	3.29
- Slovenia	1.6	5.6	3.50
- Turkey	11.4	22.7	1.99
- Ukraine	1.3	4.5	3.46
all countries	1,089.1	2,028.2	1.86

Source: Vaubel, 2005.

Figure 1
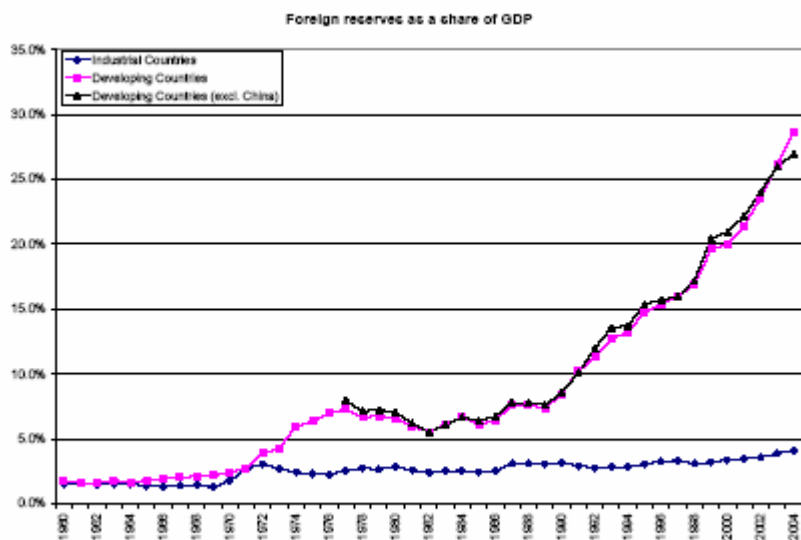
Source: Rodrik (2006)

Figure 3

Official holdings of Treasury bills and bank deposits

In billions of US dollars
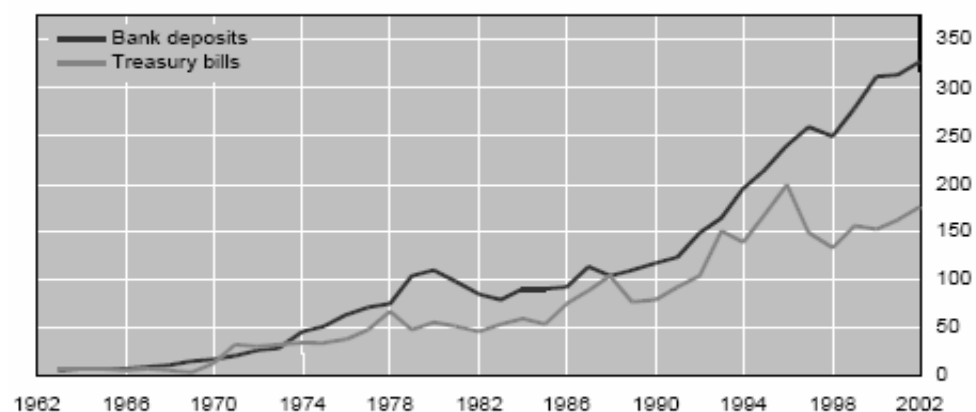
Note: Bank deposits include money market paper held in the United States.
Sources: US Treasury; BIS.