Foreign Exchange Reserves : Component-Wise Analysis

** C. Vanlalramsanga*
*** Ramesh Golait*

INTRODUCTION

Foreign exchange reserves[1] play a critical role in the macroeconomic management of an economy. It is an important measure that can ensure that adequate official public sector foreign assets are readily available and are controlled by the authorities for meeting a defined range of objectives for a country. Foreign exchange reserves are held in support of a range of objectives, including to maintain confidence in the policies for monetary and exchange rate management, including the capacity to intervene in support of the national or union currency; limit external vulnerability by maintaining foreign-currency liquidity to absorb shocks during the times of crisis or when access to borrowing is curtailed and in doing so; provide a level of confidence to markets that a country can meet its external obligations; demonstrate the backing of domestic currency by external assets; assist the government in meeting its foreign exchange needs and external debt obligations; and maintain a reserve for national disasters or emergencies. In short, they provide a safety net during economic turmoil and for some countries, a means to peg their nominal exchange rate. They also provide a means to manage windfalls from commodity exports or from sudden surges of capital. There are different views among economists regarding the right size or optimal level of reserves.

Certain economists have proposed a 20 per cent of M_2 as the benchmark, since increased financial integration means that a large part of a country's monetary base can head for the exits during a crisis (de Beaufort Wijnholds and Kapteyn, 2011). With increasing volatility in capital flows across the globe in the form of FDI and portfolio type, such a measure proved to be inadequate and the upshot was the currency crises in the 1990s. As a result, the *'Guidotti-Greenspan'* rule[2] came into existence and later, the IMF endorsed it. Recently, the IMF also proposed a measure that combines exports, short-term debt, other portfolio liabilities, and M_2 as indicators (IMF, 2011). These benchmarks provide a useful guide, but countries can be strikingly different, including in the probability they attach to crisis and in aversion to risk. Just as some individuals buy minimalist healthcare because they do not fear risk or do not believe they will get sick, and others buy coverage for every conceivable treatment, countries too have different demands for self- insurance. Moreover, though holding reserves entails an opportunity cost they are, by definition, safe and low-yielding assets. Reserves are estimated to be about 0.5% of the GDP in the median emerging market (IMF, 2011), though this opportunity cost is itself subjective since it entails an estimate of the expected yield on higher-risk assets. This cost pales in comparison to the deep and prolonged cost and political disruption of financial crises, which can also entail a loss of sovereignty to international creditors in severe cases.

The policy guidance that the IMF provides to emerging economies on reserves was summarized by Stanley Fischer in 2001 : *"An IMF staff study discussed by our Executive Board in 2000 agreed that holding reserves equal to short-term debt was an appropriate starting point for a country with significant but uncertain access to capital markets. But it is*

* *Deputy Secretary,* G-20 India Secretariat, Department of Economic Affairs, Ministry of Finance, Government of India, Ground Floor, Jeevan Vihar Building, 3, Parliament Street, New Delhi -110001. E-mail : vanlal@nic.in

** *Officer On Special Duty,* G-20 India Secretariat, Department of Economic Affairs, Ministry of Finance, Government of India, 3, Sansad Marg, New Delhi - 110001. E-mail: rgolait@rbi.org.in

[1] According to the IMF's Balance of Payments manual, foreign exchange reserves are defined as *'those external assets that are readily available to and are controlled by monetary authorities for direct financing of payments imbalances, for indirectly regulating the magnitudes of imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes'.*

[2] The Guidotti–Greenspan rule states that reserves should equal short-term external debt (one-year or less maturity), implying a ratio of reserves-to-short term debt. The rationale is that countries should have enough reserves to resist a massive withdrawal of short term foreign capital. The rule is named after Pablo Guidotti –former Deputy Minister of Finance, Argentina and Alan Greenspan, former chairman of the Federal Reserve Board, US. Guidotti first stated the rule in a G-33 seminar in 1999, while Greenspan widely publicized it in a speech at the World Bank.

only a starting point. Countries may need to hold reserves well in excess of this level, depending on a variety of factors: macro-economic fundamentals; the exchange rate regime; the quality of private risk management and financial sector supervision; and the size and currency composition of the external debt. This analysis is now reflected in the way we treat reserve adequacy in our lending and surveillance activities." (Fischer, 2001).

With this backdrop, the paper briefly touches upon the source and need of foreign exchange reserves in Section 1. The recent trend in the composition of foreign exchange reserves, particularly in Advanced Economies and Emerging Market Economies (EMEs) has been discussed in the Section 2. Section 3 highlights the overall composition of foreign exchange reserves. The need and composition of forex in India is analyzed in the Section 4, and the paper concludes in Section 5.

SECTION I: SOURCES AND COST OF FOREIGN EXCHANGE RESERVES

During the recent decades, the accumulation of foreign exchange reserves has been extraordinarily large[3], generating large domestic costs, and it is also argued that it is possibly contributing to global imbalances and instability. However, sources, costs, pace and management of foreign reserves vary significantly across countries. Reserves may not completely insure against crises, but countries with large reserves holdings are better able to maintain consumption growth during periods of market pressure.

They also have greater fiscal flexibility, allowing them to further mitigate the effects of the crisis. In this context, sound reserve management practices are important because they can increase a country's overall resilience to shocks. Through their interaction with financial markets, reserve managers gain access to valuable information that keeps policymakers informed of market developments and views on potential threats.

While past experience indicates that central banks were usually able to sterilize the expansionary impact of foreign exchange purchases on base money, interventions have been larger and more prolonged in recent years. When specific features of reserve accumulating countries, such as their underdeveloped financial systems, are taken into account, some risks and costs may materialize as a result of the process of accumulation. The most significant features are

Table 1: Potential Risks And Costs Of Reserve Accumulation

	Potential Risk Or Cost	Underlying Factors
Risks	• Conflict between exchange rate stability and inappropriate easing of monetary conditions, eventually resulting in inflation and/or overinvestment and/or bubbles. • Difficulties for central banks in managing the money market and, more generally, in implementing monetary policy. • Segmentation of the public debt market, thus impairing its liquidity. • Market (i.e., currency and interest rate) risk, resulting in potentially sizeable capital losses on the balance sheet of the monetary authority.	• Unsuccessful sterilisation due to e.g. (i) underdeveloped financial markets and shortage of sterilisation instruments; (ii) snowball effects (i.e. higher interest rates produced by sterilisation coupled with expectations of exchange rate appreciation produce massive capital inflows, thus forcing the central bank to intervene/sterilise even more). • Excessive central bank dependence on liquidity-absorbing transactions, whereas, the money market is more easily managed via liquidity-providing operations. Excessive sterilization through issuance of central bank liabilities instead of government paper. Accumulation over time of a potential for currency revaluation/appreciation, which materializes when intervention ceases or is no longer effective; interest rate risk.
Cost	(1) Sterilisation costs.	The yields paid on domestic sterilisation instruments exceed those on foreign assets.
	(2) Concerns about bank profitability.	Particularly because of controls on lending, the banking sector might hardly have any alternatives to buying low-yield sterilisation instruments.

Source: European Central Bank

[3] The most comprehensive source of information about foreign reserves is the Data Template on International Reserves and Foreign Currency Liquidity, jointly developed in 1999 by the IMF and the Committee on the Global Financial System. The template is part of the IMF's Special Data Dissemination Standard (SDDS). Another source of data is surveys. Authorities, which do not disseminate detailed data about their reserves, are sometimes willing to participate in confidential surveys, in which only aggregate data are published and no individual central banks are identified. The country coverage is often higher than for the SDDS, but it is still incomplete.

summarized in the Table 1 . However, the risks and costs may vary significantly across countries and, over time, within each country.

SECTION II: TRENDS AND COMPOSITIONAL SHIFT IN FOREIGN RESERVES

World foreign exchange reserves grew from USD 1.2 trillion in January 1995 to more than 9.6 USD trillion in December 2010. It is observed that barring 2001, 2002 and 2004, the foreign exchange reserves in emerging-market economies maintain higher reserves as compared to the advanced economies (Chart 1).

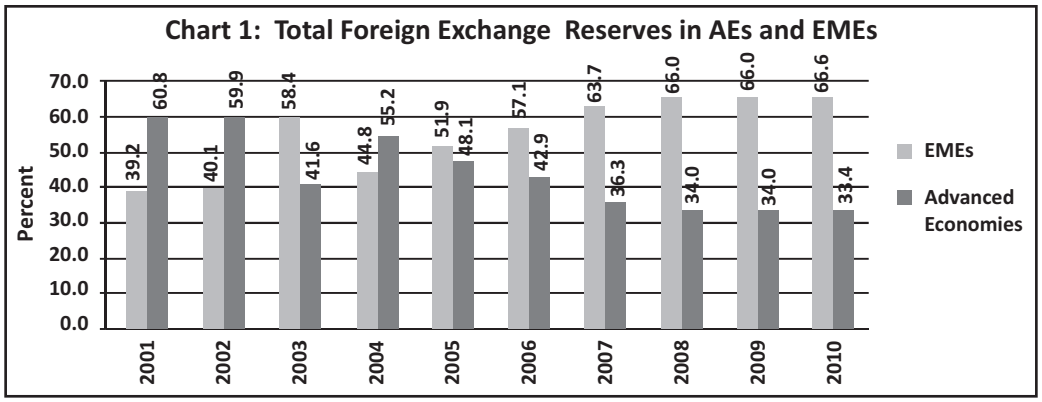


Table 2: Country-wise Foreign Exchange Reserves

Rank	Country	US$ Billion
1	PR China	3197 (Jun 2011)
2	Japan	1138 (Jun 2011)
3	Russia	531 (Jul 2011)
4	Saudi Arabia	497 (Jun 2011)
5	RC (Taiwan)	400 (Jun 2011)
6	Brazil	352 (Aug 2011)
7	India	318 (Aug 27 2011)
8	South Korea	311 (Jul 2011)
9	Switzerland	289 (May 2011)
10	Hong Kong	277 (Jun 2011)
11	Singapore	249 (Jul 2011)
12	Germany	231 (Jun 2011)
13	Thailand	186 (Jul 2011)
14	France	182 (May 2011)
15	Italy	170 (May 2011)
16	Algeria	155 (Dec 2010)
17	United States	143 (Jul 2011)
18	Mexico	136 (Aug 2011)
19	Malaysia	134 (Jun 2011)
20	Indonesia	122 (Jul 2011)
-	EU	1356 (Feb 2011)
-	Eurozone	840 (Jun 2011)

Source: Central Banks' website

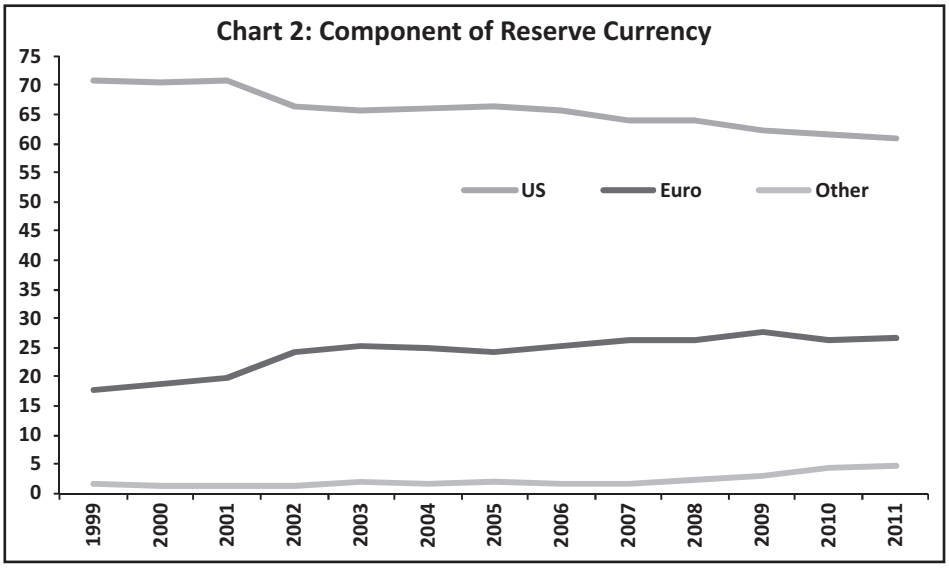
The unprecedented accumulation of official foreign assets can be seen as the outcome of three main drivers in addition to the oil price hike. In the aftermath of the financial crises that occurred in the 1990s and early 2000s, many emerging-market economies (EMEs) felt the need to self-insure against future crises. At the beginning of the recoveries and following strong depreciation of their currencies, the crisis-hit Asian economies pursued export-led growth supported by exchange rate regimes anchoring their currency, de jure or de facto, to the US dollar. Certain features of the domestic financial systems of EMEs, especially in Asia, are likely to have played a role. Such characteristics relate mainly to:

(i) Their underdeveloped local financial systems, entailing difficulties in properly channeling domestic private savings to investment as well as inefficient and/or costly hedging markets;

(ii) The domestic savings over investment driven by either a savings glut (e.g., China) or an investment drought (other Asian emerging-market economies). These drivers of reserve accumulation seem to have one aspect in common, namely the role played by the build-up of official foreign assets both as an outcome of and an instrument for integration of the EMEs concerned into the global financial markets (Table 2).

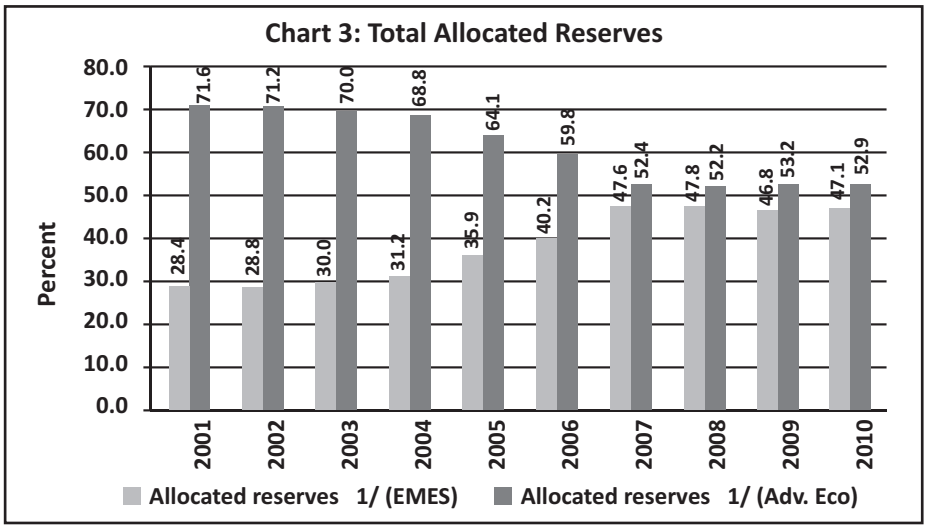
SECTION III: COMPOSITION OF OFFICIAL FOREIGN EXCHANGE RESERVES (COFER)

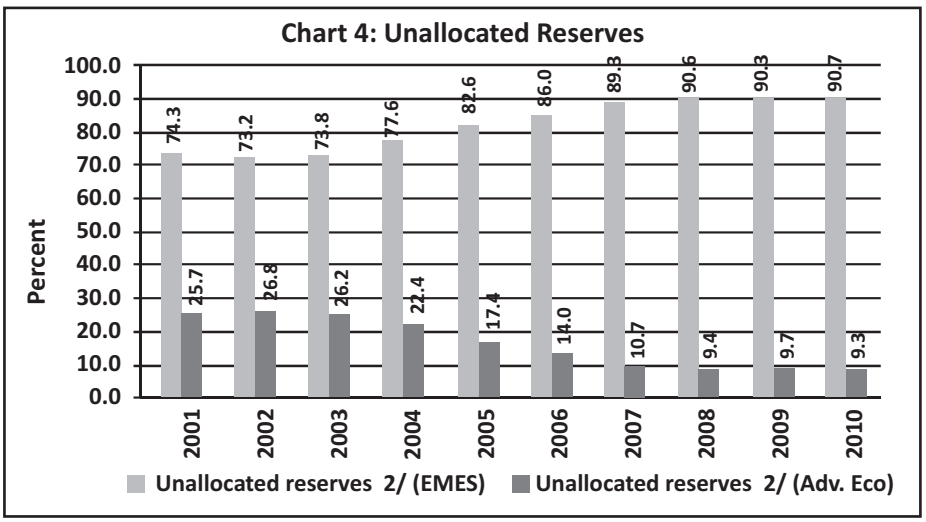
There has been considerable debate among academicians and policy makers on whether a single reserve currency will always dominate the global economy and if not, what would be the alternatives ? Many have argued that one currency will almost always dominate due to network externalities, especially in the field of invoicing trade and denominating foreign debt securities, meaning that there are strong incentives to conform to the choice that dominates the marketplace. The argument is that, in the absence of sufficiently large shocks, a currency that dominates the marketplace will not lose much ground to challengers. Based on the IMF data, the Chart 2 depicts that the US$ is enjoying the privilege of having a major share in Currency composition of official foreign exchange reserves, and it remains a dominant currency, till now. However, the dominance has been gradually decreasing in the recent years, and Unallocated Reserves is gaining share (Chart 2). One factor contributing to fluctuations in the dollar's share of reserves and deposits is exchange rate movements.



The accumulation of foreign exchange reserves by emerging-market economies has continued on an unprecedented scale for several years. The country's exchange official reserves, in particular, in developing countries with fragile access to international capital markets, are considered to be a cushion for paying for imports and ensuring the servicing of external debt in foreign currencies. Therefore, the reserve currency composition is often linked to the composition of trade and financial flows. Moreover, risk management considerations and optimal asset allocation approaches seem to have gained in prominence recently. Central banks also take into consideration, to the extent that it is compatible

with their other objectives, the *"market neutrality principle*[4]*"*, as prescribed by the IMF. At present, 33 advanced economies and 105 emerging and developing economies are reporting to COFER[5]. The Foreign exchange reserves in COFER do not include holdings of a currency by the issuing country. For instance, the U.S. dollar assets of the Federal Reserve and the Euro assets of the European Central Bank and member countries of the European Economic and Monetary Union are not foreign exchange reserves. COFER data for individual countries are strictly confidential. However, the aggregate currency composition of reserves of EMEs allocated, and unallocated[6] is presented in Charts

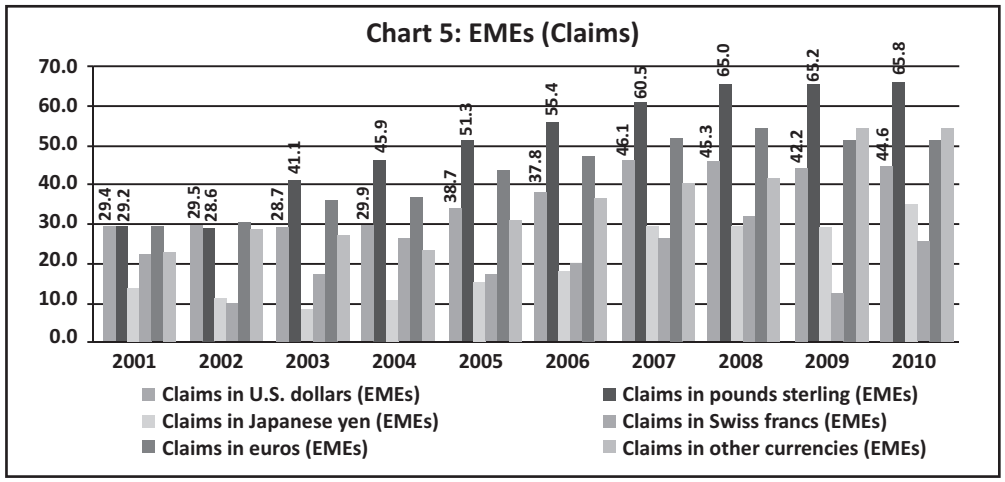


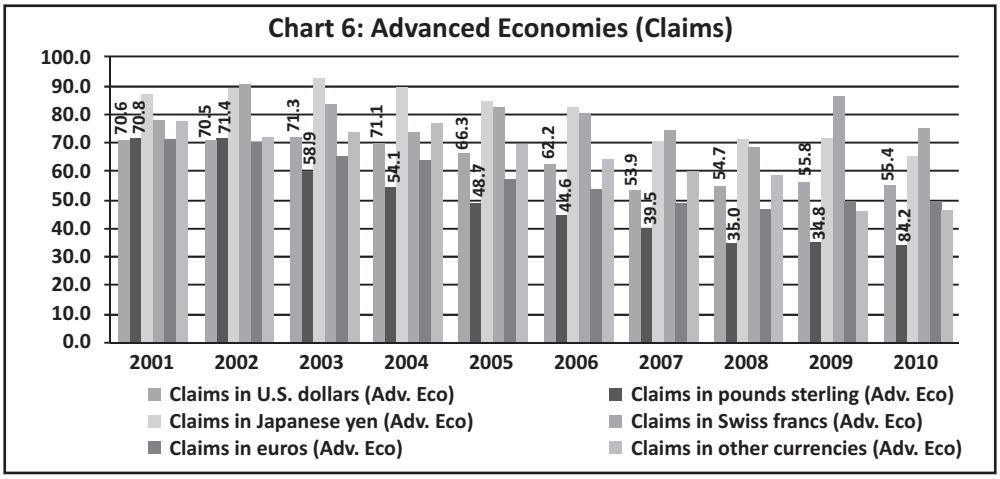


[4] Market-neutral strategies are often attained by taking matching long and short positions in different stocks to increase the return from making good stock selections and decreasing the return from broad market movements. Market neutral strategists may also use other tools such as merger arbitrage, shorting sectors, and so on.

[5] According to the IMF, the currencies identified in COFER are: U.S. dollar, Euro, Japanese yen, Pound sterling, Swiss francs, and other currencies. Before the Euro was introduced in 1999, the European currencies identified separately were: European, Deutsche mark, Currency Unit (ECU), French franc, and Netherlands guilder. Foreign exchange reserves in COFER consist of the monetary authorities' claims on non-residents in the form of foreign banknotes, bank deposits, treasury bills, short- and long-term government securities, and other claims usable in the event of balance of payments needs.

[6] In addition to the lines for the five major currencies and *"other currencies"* , there are two other lines in the tables: Unallocated Reserves, and Allocated Reserves. The Unallocated Reserves captures the difference between the total reserves data reported to IFS (for the world table on Foreign Exchange) and to COFER, for each of the country groupings mentioned above. It consists of two components: i) The total reserves of non-reporting countries, i.e., the countries within each grouping, which do not report currency composition data to COFER, and ii) any discrepancy between reporters' data on total reserves as reported to COFER and to IFS. The Allocated Reserves line equals the reporters' data on total reserves as reported to COFER.





3, 4, 5 and 6. Currency composition data for each currency for three groupings of countries, i.e., World, advanced economies and emerging and developing economies is given in the Annexure 1. Central banks and official international institutions have been major holders of gold for more than 100 years. However, the breakdown of Bretton Woods and move to floating exchange rates led some central banks to reappraise the need for such high levels of gold in their reserves.

SDR

Subsequent to the collapse of the Bretton Woods system, the major currencies shifted to a floating exchange rate regime. In addition, the growth in international capital markets facilitated borrowing by creditworthy governments. Both of these developments lessened the need for SDRs[7].

BOX 1 : SDR : Is It A Safe Asset?

International transactions reveal a large preference for the US dollar as the currency of denomination. This is most intensely revealed in the patterns of holding reserves. The share of the U.S. dollar in global reserve assets far exceeds the share of the U.S. in the global economy. In large part, this reflects the dollar's central role as

[7]The SDR is neither a currency, nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. Holders of SDRs can obtain these currencies in exchange for their SDRs in two ways: (i) Through the arrangement of voluntary exchanges between members; and (ii) By the IMF designating members with strong external positions to purchase SDRs from members with weak external positions. In addition to its role as a supplementary reserve asset, the SDR serves as the unit of account of the IMF and some other international organizations. The SDR is consisting of the euro, Japanese yen, pound sterling, and U.S. dollar. The U.S. dollar-equivalent of the SDR is posted daily on the IMF's website. It is calculated as the sum of specific amounts of the four basket currencies valued in U.S. dollars on the basis of exchange rates quoted at noon each day in the London market.

"international cash" acting across the world as a unit of account and medium of exchange for cross-border trade and financial transactions, debt securities, commodity pricing, and an anchor for monetary regimes. By being available as a composite product, the SDR also offers a convenient means of reserve diversification and stable store of value. However, for the SDR to take on this significant role, several prerequisites have to be in place which are formidable at this juncture - like SDR needs to be recognized as a monetary liability, akin to other reserve currencies supported by the fiat of the membership of the IMF; need to go into greater issuance of SDRs by the IMF in the form of large annual allocations; other international financial institutions and national governments to develop deep and liquid markets for SDRs, SDR-denominated instruments such as bonds and notes. It is necessary to carefully evaluate whether an SDR-based system is desirable. It is likely to face resistance from major reserve issuers. Furthermore, such a system may not be in the interests of the broader membership of the IMF and the global community, as it would socialize costs of adjusting a few large balance sheet positions concentrated in the dominant currency. There is also the danger that greater volumes of SDRs issued by the IMF could be used to thwart more critical macroeconomic adjustment by countries with weak fundamentals and imprudent policies, especially with fragile debt dynamics.

In the context of the recent debate on the supply of safe assets and what could be the role of the SDR is highlighted in the Box 1.

SECTION IV: THE INDIAN SCENARIO

The demand placed on the foreign exchange reserves may vary across the countries depending upon the factors like the exchange rate regime, extent of openness, the size of the external sector and the nature of markets operating in the economy. While liquidity and safety constitute the twin objectives of reserve management in India, return optimization becomes an embedded strategy within the framework (RBI, 2011). Adequacy of foreign exchange reserves has emerged as an important parameter in evaluating the ability to absorb external shocks. With the changing profile of capital flows, the traditional approach of assessing reserve adequacy in terms of import cover has been broadened to include a number of parameters, which take into account the size, composition and risk profiles of various types of capital flows, as well as the types of external shocks to which the economy is vulnerable. According to the High Level Committee on Balance of Payments (Chaired by Dr. C. Rangarajan), while determining the adequacy of reserves, due attention should be paid to payment obligations, in addition to the traditional measure of import cover of 3 to 4 months.

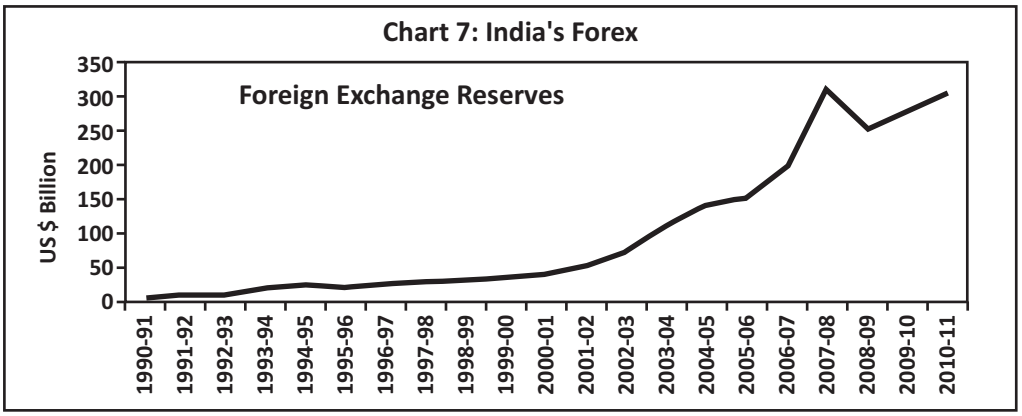
The foreign exchange reserves of the country comprises of

(i) Foreign-currency assets;

(ii) Gold holdings;

(iii) Special Drawing Rights (SDRs); and

(iv) Reserve tranche position in the IMF (from the year-2002-03). India's foreign exchange reserves have grown

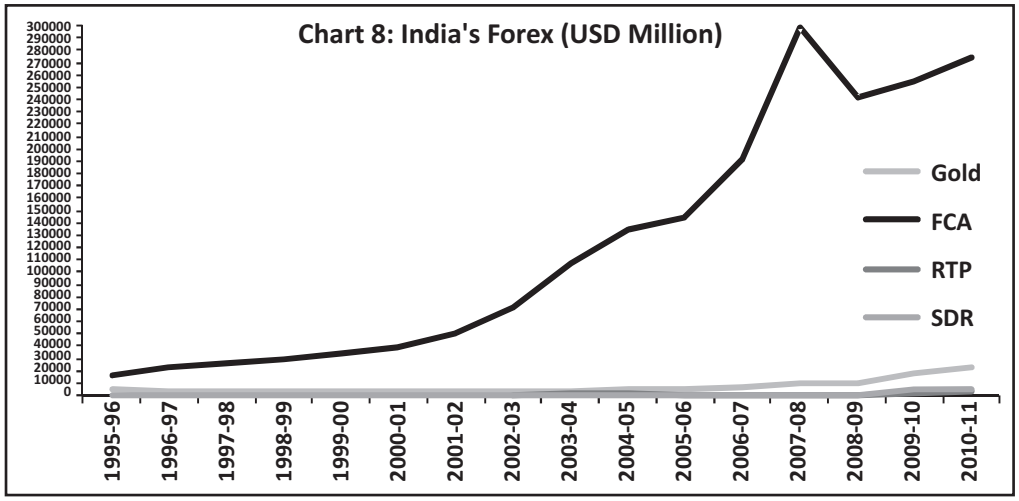


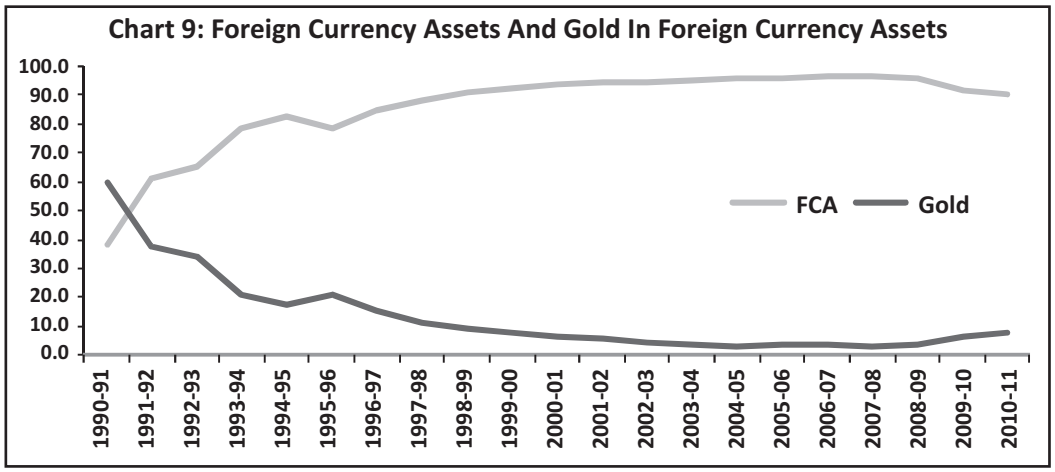
significantly since 1991. The reserves stood at US$ 5.8 billion at end-March 1991, which has grown to as high as $318 billion on August 18, 2011 (Chart 7). While foreign-currency assets have grown in tandem, appreciation in gold reserves has also contributed from US $9.2 million in April 2009 to US $ 246.6 million as on July 8, 2011. A valuation gain, on both euro and gold, appears to be one of the drivers for an increase in the foreign exchange reserves. The foreign-currency assets also shows an increasing trend from $ 241.4 billion in April 2009 to $ 282.4 billion as on July 8, 2011. It needs to be acknowledged that foreign exchange reserves have helped India to insulate from the worst impact of the recent financial crisis.

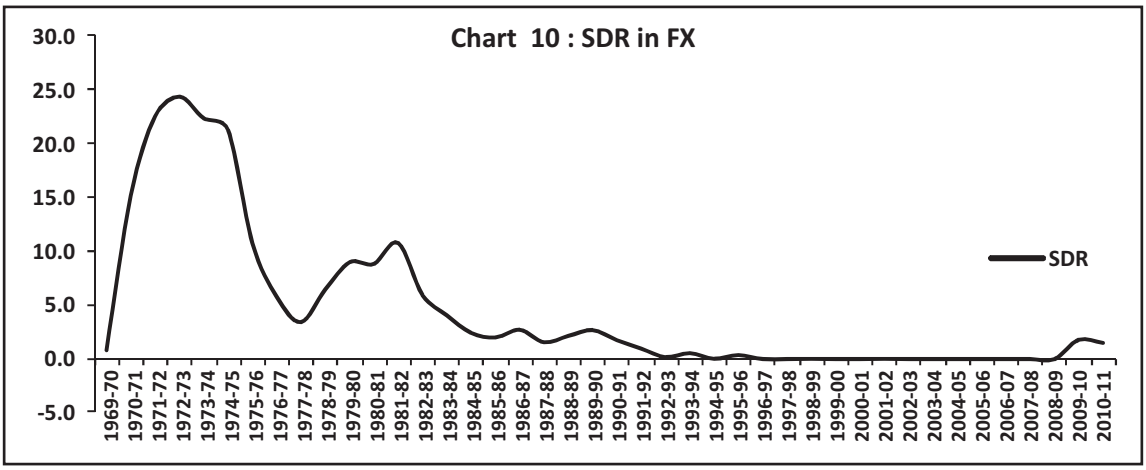
GOLD AND FOREIGN CURRENCY ASSETS

According to the World Gold Council, there is a distinct possibility that Asian and other central banks will continue to increase the proportion of gold held in their reserves. In the recent years, Asia has also become an important gold producer. China became the world's largest producer of gold in 2007, replacing South Africa, which according to GFMS, had held the position since 1905. In 2008, China produced 292 tonnes of gold, 12% of the world's total, an increase of 126.8 tonnes from a decade earlier. Asia, as a whole, now produces 555.9 tonnes or 23% of the world's gold production, compared with 444.9 tonnes or 17% in 1998. Russia's production has grown to 188.7 tonnes from 127.3 tonnes over the same period, making it the world's fifth largest producer of gold in 2011.

Back in the mid-1970s, gold accounted for around 20 percent to 25 percent of the total reserves, later , it came down in the range of 5 percent to 12 percent till 1989-90. However, in 1990-91, the percentage share of gold in the total foreign reserves shot up to as high as 60 percent. This was mainly due to revaluation of gold in line with the gold price in the international market in mid-October 1990, besides dwindling of the foreign-currency reserves. The trend in reserves is largely governed by the foreign-currency assets' component (Charts 8 and 9).



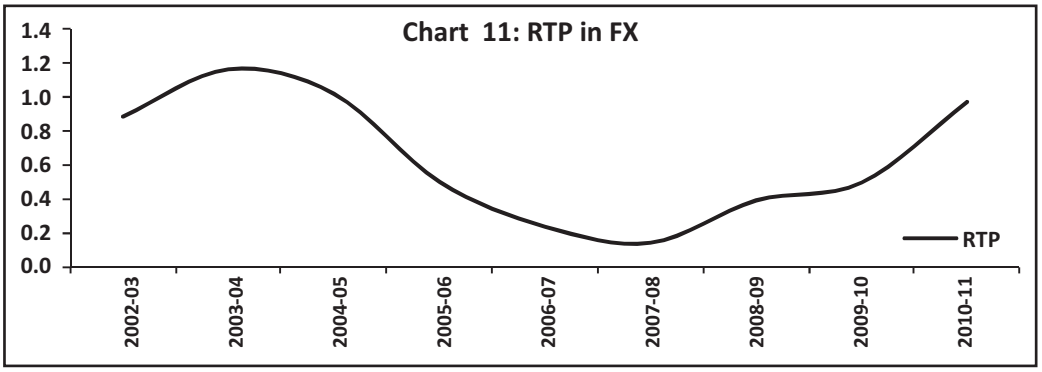




The Chart 4 indicates that the percentage share of SDR in the India forex toolkit was about 24 percent in 1971-72 and thereafter, it declined till 2008-09. Recently, it has witnessed an increasing trend (Chart 10).

RESERVE TRANCHE POSITION

The primary means of financing the International Monetary Fund is through members' quotas. Each member of the IMF is assigned a quota, part of which is payable in SDRs or specified usable currencies *("reserve assets")*, and part in the member's own currency. The difference between a member's quota and the IMF's holdings of its currency is a country's Reserve Tranche Position (RTP), and it is accounted among a country's Foreign Exchange Reserves. This is mostly applicable to countries participating in the Financial Transaction Plan (FTP) of the IMF. The percentage of RTP in India's forex toolkit has witnessed an increasing trend since 2007-08 (Chart 11).



SECTION V : CONCLUSION

Recently, there has been an intense discussion among policymakers, including the G20 regarding the effective measurement and monitoring of global liquidity and a country-specific analysis regarding drivers of reserve accumulation, including by developing metrics to reserve adequacy, with a hope to contribute to an improved understanding and functioning of the International Monetary System. Most emerging countries, including India, argued that reserves should be seen as a part and parcel of the global financial safety net (GFSN), with reserves and strong fundamentals as the first wall, regional financial arrangements as the second wall, and global multilateral institutions as the third wall. On the issue of reserves management, the reserves built up, as in the case of India, have been essentially used to contain volatility in the event of capital flow reversals. While evaluating the level of reserves and the quantum of self-insurance between countries, distinction needs to be made between countries whose reserves are a consequence of current account surpluses and countries with current account deficits, whose reserves are a result of capital inflows. India falls in the latter category, with essentially borrowed resources in contrast to countries with current account surpluses. World foreign exchange reserves grew from USD 1.2 trillion in January 1995 to more than

9.6 USD trillion in December 2010. In emerging-market economies alone, reserves have increased many-fold during the past decade, and at present, are estimated at over US$5 trillion. The data on the composition of official reserves indicated that reserve managers have approached diversification cautiously. The bulk of foreign-currency reserves are still invested in bank deposits and government securities, and the US dollar has maintained its place as the dominant reserve currency, though declining in share. The primary reason to hold reserves is to be prepared for contingencies. However, while accumulation of reserves may complement sound domestic policies to provide countries with a flexible, stigma free, and easily accessible buffer against external shocks, it comes with costs.

Annexure I : Currency Composition of Official Foreign Exchange Reserves (COFER)

			(In millions of U.S. dollars)							
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
World										
Total foreign exchange holdings	2,049,665	2,408,001	3,025,091	3,748,377	4,320,167	5,251,719	6,700,000	7,338,334	8,163,195	9,258,642
Allocated reserves 1/	1,569,551	1,795,994	2,223,203	2,655,173	2,843,625	3,315,575	4,119,398	4,210,072	4,562,264	5,123,535
Claims in U.S. dollars	1,122,431	1,204,673	1,465,752	1,751,012	1,902,535	2,171,075	2,641,671	2,698,423	2,832,674	3,152,642
Claims in pounds sterling	42,401	50,537	61,655	89,457	102,243	145,205	192,675	168,793	194,374	203,450
Claims in Japanese yen	79,190	78,145	87,608	101,787	101,769	102,051	120,480	131,901	132,994	194,093
Claims in Swiss francs	4,372	7,314	5,016	4,419	4,143	5,685	6,395	5,799	5,233	5,392
Claims in euros	301,089	427,406	559,340	658,634	683,893	832,039	1,082,399	1,112,317	1,257,456	1,340,431
Claims in other currencies	20,069	27,919	43,833	49,865	49,041	59,520	75,778	92,839	139,534	227,527
Unallocated reserves 2/	480,114	612,006	801,888	1,093,204	1,476,542	1,936,145	2,580,602	3,128,262	3,600,931	4,135,107
Advanced economies										
Total foreign exchange holdings	1,246,566	1,443,359	1,766,946	2,070,761	2,078,708	2,252,743	2,432,420	2,491,405	2,778,837	3,092,452
Allocated reserves 1/	1,123,120	1,279,176	1,557,148	1,825,781	1,821,599	1,982,264	2,157,080	2,197,890	2,429,321	2,708,669
Claims in U.S. dollars	792,352	849,700	1,045,038	1,227,839	1,261,105	1,350,325	1,423,433	1,475,810	1,581,962	1,745,013
Claims in pounds sterling	30,034	36,088	36,338	48,421	49,831	64,719	76,021	59,055	67,739	69,574
Claims in Japanese yen	68,356	69,329	80,512	90,764	86,263	84,197	85,215	93,545	94,922	126,147
Claims in Swiss francs	3,391	6,616	4,158	3,247	3,428	4,579	4,721	3,955	4,511	4,020
Claims in euros	213,489	297,428	359,079	417,198	387,038	440,455	522,190	511,245	616,432	659,009
Claims in other currencies	15,498	20,014	32,023	38,311	33,935	37,990	45,501	54,281	63,755	104,906
Unallocated reserves 2/	123,446	164,184	209,798	244,980	257,109	270,479	275,339	293,515	349,516	383,783
Emerging and developing economies										
Total foreign exchange holdings	803,099	964,641	1,258,145	1,677,617	2,241,459	2,998,976	4,267,580	4,846,930	5,384,358	6,166,191
Allocated reserves 1/	446,431	516,819	666,055	829,393	1,022,027	1,333,311	1,962,317	2,012,182	2,132,944	2,414,866
Claims in U.S. dollars	330,079	354,973	420,714	523,172	641,431	820,750	1,218,237	1,222,612	1,250,712	1,407,629
Claims in pounds sterling	12,367	14,448	25,317	41,036	52,413	80,487	116,654	109,738	126,635	133,877
Claims in Japanese yen	10,834	8,817	7,095	11,023	15,506	17,854	35,265	38,356	38,072	67,946
Claims in Swiss francs	981	698	858	1,172	715	1,106	1,675	1,845	721	1,372
Claims in euros	87,600	129,978	200,261	241,436	296,855	391,584	560,209	601,072	641,024	681,422
Claims in other currencies	4,571	7,904	11,810	11,554	15,106	21,530	30,277	38,558	75,779	122,621
Unallocated reserves 2/	356,668	447,823	592,090	848,224	1,219,433	1,665,665	2,305,263	2,834,747	3,251,414	3,751,324

Source: IMF Statistics Department COFER database and International Financial Statistics

1/ This line shows reserves data, whose currency composition has been identified.

2/ This line is the difference between total foreign exchange reserves and the allocated reserves.

Annexure II : Foreign Exchange Reserves										
End of	SDRs		Gold		Foreign Currency Assets*		Reserve Tranche Position*		Total	
Financial Year	Rupees crore	USD million	Rupees crore	USD million	Rupees crore	USD million	Rupees crore	USD million	Rupees crore	USD million
1	2	3	4	5	6	7	8	9	10	11
1989-90	184	107	281	487	5787	3368	-	-	6252	3962
1990-91	200	102	6828	3496	4388	2236	-	-	11416	5834
1991-92	233	90	9039	3499	14578	5631	-	-	23850	9220
1992-93	55	18	10549	3380	20140	6434	-	-	30744	9832
1993-94	339	108	12794	4078	47287	15068	-	-	60420	19254
1994-95	23	7	13752	4370	66005	20809	-	-	79780	25186
1995-96	280	82	15658	4561	58446	17044	-	-	74384	21687
1996-97	7	2	14557	4054	80368	22367	-	-	94932	26423
1997-98	4	1	13394	3391	102507	25975	-	-	115905	29367
1998-99	34	8	12559	2960	125412	29522	-	-	138005	32490
1999-00	16	4	12973	2974	152924	35058	-	-	165913	38036
2000-01	11	2	12711	2725	184482	39554	-	-	197204	42281
2001-02	50	10	14868	3047	249118	51049	-	-	264036	54106
2002-03	19	4	16785	3534	341476	71890	3190	672	361470	76100
2003-04	10	2	18216	4198	466215	107448	5688	1311	490129	112959
2004-05	20	5	19686	4500	593121	135571	6289	1438	619116	141514
2005-06	12	3	25674	5755	647327	145108	3374	756	676387	151622
2006-07	8	2	29573	6784	836597	191924	2044	469	868222	199179
2007-08	74	18	40124	10039	1196023	299230	1744	436	1237965	309723
2008-09	6	1	48793	9577	1230066	241426	5000	981	1283865	251985
2009-10	22596	5006	81188	17986	1149650	254685	6231	1380	1259665	279057
2010-11	20401	4569	102572	22972	1224883	274330	13158	2947	1361013	304818
*: IMF designated India as a creditor under its Financial Transaction Plan (FTP) in February 2003										

Foreign currency assets is driving the increasing level of foreign exchange reserve in India, while the corresponding increase in the gold reserve component did not occur for a fairly long time. It is also observed that a gold holding in India, in terms of percentage, is lower as compared with a sizable holding by advanced countries and even some EMEs. In general, for all countries, gold holding is seen to have been gradually increasing. Be as it may, an increase in global liquidity in recent years increased capital inflows to emerging-market economies with various effects, leading to an impressive pace of foreign reserve growth. It has become an important issue on the international policy agenda, and the paper presented factual position and provided useful insight on the issues of foreign reserves, providing both the global as well as the Indian context.

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