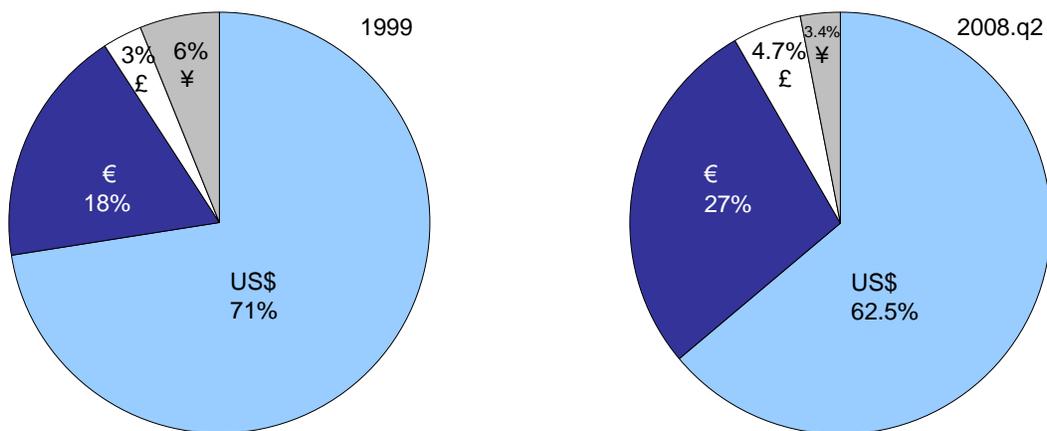


Appendix 1: Currency Composition of Foreign Currency Reserves

At the end of 1999, countries held \$1.8 trillion in foreign currency reserves. By the middle of 2008 the stock of foreign currency reserves had nearly quadrupled to \$7.0 trillion. Over this period, the share of foreign currency reserves held in dollars fell from 71 percent to 62.5 percent while the share of reserves held in euros rose from 18 percent to 27 percent (see charts below).¹ This change in composition, however, does not reflect a shift in preference among holders of foreign reserves (primarily central banks) away from dollars and toward euros. Rather, the change in composition is the result of exchange rate valuation effects. Simply put, the depreciation of the dollar between early 2002 and mid-2008 increased the dollar value of euro reserves making it appear that countries were accumulating euro reserves at an increasingly rapid pace relative to dollar reserves.



Determinants of the Choice of Reserve Currency

Three key factors influence the use of a country's currency for international reserves: the size of the country's economy; the depth, liquidity and openness of the country's financial markets; and, the stability of the value of the currency (specifically low inflation). A large economy with well-developed capital markets and low inflation will have a currency that is frequently used in international transactions, retains its value, and can easily be exchanged for other currencies (used for intervening in currency markets). Another factor influencing a country's choice of reserve currency is its exchange rate regime. A country whose currency is pegged to the dollar could be expected to hold most of its reserves in dollars, as it would use dollars to intervene in foreign exchange markets to maintain the value of the local currency.

All of these factors support a rise in the use of the euro as a reserve currency. The euro area is the second largest economy in the world (roughly 90 percent the size of the U.S. economy), with well-developed capital markets and low inflation. In addition, since the creation of the euro 10 years ago, several countries (notably those hoping to gain entry to the euro area) have pegged their currencies to the euro. To the extent that these countries have been accumulating reserves they likely have a preference for euros.

¹ Currency shares are based on data from the IMF's COFER database. Reporting reserve holdings by currency is not mandatory. All advanced economies report the currency composition of their reserves. The reporting rate by emerging market and developing countries has ranged from 80 to 90 reporters (out of 160 countries) and accounted for between 51 to 66 percent of the total reserves of this group. The IMF does not reveal the list of countries who report to the COFER database.

Exchange Rate Changes and the Currency Composition of Reserves

Shifts in the currency composition of reserves result not solely from purchases and sales of foreign currency. Changes in exchange rates also affect the composition. The share of the dollar was relatively stable between 1999 and the first quarter of 2002, fluctuating between 71 and 73 percent of total reserves. The euro's share of reserves rose slightly, reaching almost 20 percent in the first quarter of 2002. Between the first quarter of 2002 and the second quarter of 2008, the dollar's share fell 9 percentage points while the euro's share rose 7 percentage points. Over this period the dollar depreciated by 45 percent against the euro, 29 percent against the pound, 20 percent against the yen and 40 percent against the Swiss franc. The depreciation of the dollar against these other reserve currencies would have lowered the relative share of the dollar even in the absence of any changes in reserves. Currency reserve data are reported in dollars. A depreciation of the dollar (appreciation of the euro) increases the dollar value of the stock of euro reserves, as well as the total dollar value of reserves.

One way to examine the effect of exchange rate changes on the currency composition of reserves is to look at what would have happened to the composition of reserves if exchange rates had not changed. The table below shows the composition of exchange reserves between 2002 and 2008 holding the exchange rates fixed at the 2002.q2 values. In the first quarter of 2002, nearly 72 percent of reserves were held in dollars and 20 percent in euros. If exchange rates had remained constant in the second quarter of 2008, 73 percent of reserves would be held in dollars and the 17 percent in euros.

Currency Composition of Reserves Under Constant Exchange Rates				
	2002.q1		2008.q2	
	\$ millions	percent of reserves	2008.q2 reserves at 2002.q1 exchange rates (\$ millions)	percent of reserves
U.S. dollars	1,129,099	71.6	2,729,230	72.8
Pounds Sterling	42,133	2.7	147,916	3.9
Yen	69,125	4.4	119,145	3.2
Swiss francs	5,362	0.3	4,097	0.1
Euros	310,064	19.7	652,319	17.4
Other	20,781	1.3	96,622	2.6
Total Allocated Reserves	1,576,564	100.0	3,749,329	100.0

These data indicate that there has been no shift in preferences away from holding dollar reserves. Indeed, it appears that the accumulation of dollar reserves has outpaced the accumulation of euro reserves over the past six years.

Over the longer-term it is likely that the relative share of the euro in reserve holdings will increase. There is little evidence, however, that a shift in the composition of reserves has occurred since the creation of the euro.