

Appendix I

International reserves

Total international reserves, including gold, grew by 14.4 percent in 2009—aided by an approximately 180 billion SDR allocation to members and sharply higher gold prices—and stood at SDR 6.1 trillion at the end of 2009 (Table I.1).¹ Reserves growth in 2009 remained below the average annual rate of over 17.3 percent registered in the prior five years, reflecting lower growth of cross-border capital flows in an improving, yet difficult, global economic environment.

Foreign exchange reserves increased by 9.3 percent to SDR 5.2 trillion in 2009.² The share of foreign exchange in total reserves decreased to 86.1 percent. IMF-related assets (that is, reserve positions in the IMF and SDRs), which account for the balance of nongold reserves, grew more than fivefold to SDR 239.3 billion, reflecting a large SDR allocation to member countries and continued increase in outstanding Fund credit to member countries in 2009. IMF-related assets constituted 4 percent of total reserves at the end of 2009. The market value of gold held by monetary authorities³ increased by 25.2 percent to SDR 603.1 billion, reflecting a 22.8 percent increase in the price of gold.

Foreign exchange reserves

Foreign exchange reserves accounted for 95.6 percent of nongold international reserves at the end of 2009. Emerging and developing economies held SDR 3.4 trillion of reserves (66 percent of the total), an increase of 9.2 percent

since the end of 2008, while advanced economies held SDR 1.8 trillion, an increase of 9.6 percent.

IMF-related assets

During 2009, members' reserve positions in the IMF—which consist of members' reserve tranche and creditor positions—increased by 53.8 percent to SDR 38.6 billion. Increased Fund lending raised the reserve position of advanced as well as emerging and developing economies in 2009. SDR holdings of IMF members grew more than tenfold in the wake of the substantial SDR allocation during 2009. IMF-related assets accounted for 4 percent of total international reserves at the end of 2009, up from below 1 percent in 2008.

Gold reserves

The market value of gold reserves increased by 25.2 percent, largely as the result of substantially higher gold prices in 2009, raising the share of gold in international reserves by nearly 1 percentage point to 10 percent. The physical stock of official gold held by emerging and developing economies increased by 13.4 percent in 2009, while the stock held by advanced economies declined by 0.5 percent. At the end of 2009, gold constituted 20.1 percent of the reserves of advanced economies, which hold 80.5 percent of the world's gold reserves, and 3.2 percent of the reserves of emerging and developing economies.

Developments during the first quarter of 2010

During the first quarter of 2010, both foreign exchange reserves and total international reserves grew by 4.9 percent, a pace consistent with the five-year trend prior to the crisis. Foreign exchange reserves increased by SDR 254.7 billion and market value of gold reserves increased by SDR 36.7 billion, reflecting higher gold prices. IMF-related assets were broadly unchanged.

¹On March 31, 2010, 1 SDR = 1.51824 US\$. In light of substantial revisions to data on foreign exchange reserves, particularly for the period 2005–08, the figures on the level and currency composition of reserves do not necessarily match those in earlier reports.

²Revised data point to 12.4 percent growth of foreign exchange reserves in 2008.

³Official monetary authorities include central banks as well as currency boards, exchange stabilization funds, and treasuries, to the extent that the latter group of entities perform monetary authorities' functions.

Currency composition of foreign exchange reserves

Information about the currency composition of foreign exchange reserves is available for about 56 percent of total reserves—about 88 percent of advanced economies' reserves and just below 40 percent of emerging and developing economies' reserves (Table I.2). “Unallocated” reserves, for which no information on the currency composition is available, represent an increasing share of global reserves since 2000 and over 60 percent of net foreign exchange reserve accumulation in 2009.

The currency composition of reserves has changed gradually over the past decade. In particular:

- The share of U.S.-dollar holdings in foreign exchange reserves peaked at 71.5 percent at end-2001, coinciding with the dollar peak in March 2002. It has since declined—despite robust purchases of dollar assets until 2007 (Table I.3)—to 62.2 percent in 2009, driven by the decline in the value of U.S.-dollar holdings and by a gradual diversification into other currencies over the period. Holdings of U.S.-dollar assets increased by the smallest amount in 2009 in over five years as an increase in purchases was partially offset by a weaker dollar. Consequently, the share of U.S.-dollar assets in international reserves declined significantly in 2009.
 - The share of the euro, which replaced 11 European currencies and the European currency unit (ECU) on January 1, 1999, increased sharply between 1999 and 2003, and after a period of relative stability it increased further to 27.3 percent of total foreign exchange reserves at the end of 2009, aided by a stronger euro. The share of the euro in total foreign exchange reserves from 1999 onwards is not directly comparable with the combined share in previous years of the deutsche mark, French franc, Netherlands guilder, and private ECU, since the reserves formerly denominated in euro-legacy currencies⁴ became

domestic assets of the euro area when the euro was introduced.

- The share of foreign exchange reserves denominated in Japanese yen remained broadly stable at around 3 percent. The share of reserves denominated in pounds sterling increased to 4.3 percent in 2009 as the currency strengthened. The share of Swiss francs remained well below 1 percent, while the share of other currencies rose significantly to 3.1 percent after remaining close to 2 percent since 2003.

Turning to the currency composition of reserves by country group, the share of U.S.-dollar holdings by advanced economies decreased by 1.9 percentage points to 65.4 percent, while the share of euro holdings rose by 1.7 percentage points to 24.8 percent. Likewise, the share of U.S.-dollar holdings by emerging and developing economies moved lower by 2.2 percentage points to 58.5 percent, while the share of euro holdings rose by 0.2 percentage points to 30.1 percent and the share of pounds sterling rose to 5.9 percent. After remaining broadly unchanged through 2007, the share of reserve assets in “other currencies” rose for the second time in 2009 for advanced as well as emerging and developing economies.

Changes in the SDR value of foreign exchange reserves can be decomposed into quantity and valuation (price) changes (Table I.3). Official reserves held in U.S. dollars increased by SDR 57.7 billion in 2009, reflecting a valuation decrease in U.S.-dollar holdings of SDR 29.8 billion and a quantity increase of SDR 87.6 billion. Euro holdings increased by SDR 72.6 billion, as a quantity increase of SDR 59.8 billion was accompanied by a valuation increase of SDR 12.7 billion. As for other currencies, Japanese yen holdings increased by SDR 2.1 billion from quantity increase and pound sterling holdings rose by SDR 15.2 billion, largely reflecting the effect of valuation changes.

⁴Those foreign exchange reserves that, up to December 31, 1998, were denominated in the euro area's former national currencies as well as private ECUs.

Appendix Table I.1
Official holdings of reserve assets¹
(In billions of SDRs)

	2004	2005	2006	2007	2008	2009	Mar. 2010
All countries							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	55.8	28.6	17.5	13.7	25.1	38.6	40.8
SDRs	20.3	20.1	18.2	18.4	18.9	200.7	200.4
Subtotal, Fund-related assets	76.1	48.6	35.7	32.1	44.0	239.3	241.2
Foreign exchange	2,413.6	3,022.6	3,490.7	4,239.4	4,763.9	5,208.7	5,463.4
Total reserves excluding gold	2,489.8	3,071.4	3,526.8	4,272.0	4,808.2	5,448.0	5,704.6
Gold ²							
Quantity (millions of ounces)	897.6	879.0	867.7	852.6	852.9	869.3	870.7
Value at London market price	253.1	315.5	366.7	449.8	481.6	603.1	639.7
Total reserves including gold	2,743.0	3,386.9	3,893.5	4,721.8	5,289.8	6,051.1	6,344.3
Advanced economies³							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	45.1	21.7	12.5	9.3	18.1	27.4	29.2
SDRs	15.5	12.7	13.8	14.0	14.2	129.5	129.6
Subtotal, Fund-related assets	60.6	34.4	26.3	23.4	32.3	156.9	158.8
Foreign exchange	1,332.2	1,453.0	1,495.6	1,537.2	1,614.9	1,770.2	1,860.2
Total reserves excluding gold	1,393.0	1,487.6	1,522.2	1,561.0	1,647.6	1,927.4	2,019.3
Gold ²							
Quantity (millions of ounces)	757.0	740.1	729.0	712.4	703.7	700.2	700.2
Value at London market price	213.5	265.6	308.1	375.9	397.4	485.7	514.4
Total reserves including gold	1,606.5	1,753.2	1,830.3	1,936.9	2,044.9	2,413.1	2,533.7
Emerging and developing economies³							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	10.7	6.8	5.0	4.4	7.0	11.2	11.6
SDRs	4.8	7.3	4.5	4.3	4.7	71.2	70.8
Subtotal, Fund-related assets	15.4	14.2	9.5	8.8	11.7	82.4	82.4
Foreign exchange	1,081.4	1,569.6	1,995.1	2,702.2	3,147.0	3,438.6	3,603.3
Total reserves excluding gold	1,096.8	1,583.8	2,004.5	2,711.0	3,160.6	3,520.6	3,685.3
Gold ²							
Quantity (millions of ounces)	140.5	138.9	138.7	140.2	149.2	169.2	170.5
Value at London market price	39.6	49.8	58.6	74.0	84.3	117.3	125.3
Total reserves including gold	1,136.5	1,633.6	2,063.2	2,785.0	3,244.9	3,638.0	3,810.6

Source: International Monetary Fund, *International Financial Statistics*.

Note: Components may not sum to totals because of rounding.

¹End-of-year figures for all years except 2010. "Fund-related assets" comprise reserve positions in the IMF and SDR holdings of all IMF members. The entries under "Foreign exchange" and "Gold" comprise official holdings of those IMF members for which data are available and certain countries or areas.

²One troy ounce equals 31.103 grams. The market price is the afternoon price fixed in London on the last business day of each period.

³Historical data do not match those in earlier reports because of substantial revisions to foreign exchange reserves over 2005–08 by some advanced as well as emerging and developing economies, and smaller revisions to group totals for earlier periods.

Appendix Table I.2**Share of national currencies in total identified official holdings of foreign exchange, end of year¹**
(In percent)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
All countries											
U.S. dollar	71.0	71.1	71.5	67.1	65.9	65.9	66.9	65.5	64.1	64.1	62.2
Japanese yen	6.4	6.1	5.0	4.4	3.9	3.8	3.6	3.1	2.9	3.1	3.0
Pound sterling	2.9	2.8	2.7	2.8	2.8	3.4	3.6	4.4	4.7	4.0	4.3
Swiss franc	0.2	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.2	0.1	0.1
Euro ²	17.9	18.3	19.2	23.8	25.2	24.8	24.0	25.1	26.3	26.4	27.3
Deutsche mark	—	—	—	—	—	—	—	—	—	—	—
French franc	—	—	—	—	—	—	—	—	—	—	—
Netherlands guilder	—	—	—	—	—	—	—	—	—	—	—
ECU ³	—	—	—	—	—	—	—	—	—	—	—
Other currencies ⁴	1.6	1.5	1.3	1.6	2.0	1.9	1.7	1.8	1.8	2.2	3.1
Advanced economies⁵											
U.S. dollar	69.9	69.8	70.6	66.5	67.2	67.3	69.3	68.2	66.1	67.2	65.4
Japanese yen	7.3	7.3	6.1	5.4	5.2	5.0	4.7	4.3	4.0	4.3	4.1
Pound sterling	3.0	2.8	2.7	2.8	2.3	2.7	2.7	3.3	3.5	2.7	2.8
Swiss franc	0.1	0.3	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Euro	18.0	18.4	19.0	23.2	23.0	22.8	21.2	22.1	24.1	23.1	24.8
Deutsche mark	—	—	—	—	—	—	—	—	—	—	—
French franc	—	—	—	—	—	—	—	—	—	—	—
Netherlands guilder	—	—	—	—	—	—	—	—	—	—	—
ECU	—	—	—	—	—	—	—	—	—	—	—
Other currencies	1.7	1.5	1.4	1.6	2.1	2.1	1.9	1.9	2.1	2.5	2.7
Emerging and developing economies⁵											
U.S. dollar	74.2	74.8	73.8	68.6	63.1	63.0	62.7	61.5	62.0	60.7	58.5
Japanese yen	3.9	2.7	2.4	1.7	1.1	1.3	1.5	1.3	1.8	1.9	1.8
Pound sterling	2.6	2.6	2.8	2.8	3.8	4.9	5.1	6.0	5.9	5.4	5.9
Swiss franc	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Euro	17.5	18.1	19.7	25.3	30.2	29.2	29.2	29.5	28.6	30.0	30.1
Deutsche mark	—	—	—	—	—	—	—	—	—	—	—
French franc	—	—	—	—	—	—	—	—	—	—	—
Netherlands guilder	—	—	—	—	—	—	—	—	—	—	—
ECU	—	—	—	—	—	—	—	—	—	—	—
Other currencies	1.4	1.5	1.0	1.5	1.8	1.4	1.5	1.6	1.5	1.9	3.6
Memorandum items:											
Unallocated reserves⁶											
All countries	22.6	21.6	23.4	25.4	26.5	29.2	34.2	36.9	38.5	42.6	44.1
Advanced economies	9.9	9.0	9.9	11.4	11.9	11.8	12.4	12.0	11.3	11.8	12.6
Emerging and developing economies	44.1	42.9	44.4	46.4	47.0	50.5	54.4	55.5	54.0	58.4	60.3

Note: Components may not sum to totals because of rounding. Country coverage changes marginally every year, but the changes were larger than usual in 2000 (narrower coverage).

¹The currency shares are calculated for the reserves of member countries that report the currency composition of their foreign exchange reserves. The data include minimal estimation undertaken mainly for late reporters. Reserves for which currency composition is not reported are shown under "Unallocated reserves."

²Not comparable with the combined share of euro legacy currencies in previous years because it excludes the euros received by euro area members when their previous holdings of other euro area members' legacy currencies were converted into euros on January 1, 1999.

³In the calculation of currency shares, the ECU is treated as a separate currency. ECU reserves held by the monetary authorities existed in the form of claims on both the private sector and the European Monetary Institute (EMI), which issued official ECUs to European Union central banks through revolving swaps against the contribution of 20 percent of their gross gold holdings and U.S.-dollar reserves. On December 31, 1998, the official ECUs were unwound into gold and U.S. dollars; hence, the share of ECUs at the end of 1998 was sharply lower than a year earlier. The remaining ECU holdings reported for 1998 consisted of ECUs issued by the private sector, usually in the form of ECU deposits and bonds. On January 1, 1999, these holdings were automatically converted into euros.

⁴Foreign exchange reserves of IMF member countries and the sum of reserves that are reported to be held in currencies other than those listed above.

⁵Historical data do not match those in earlier reports because of substantial revisions to foreign exchange reserves over 2005–08 by some advanced as well as emerging and developing economies, and smaller revisions to group totals for earlier periods.

⁶Foreign exchange reserves whose currency composition information is not submitted to the IMF, in percent of total official holdings of foreign exchange reserves.

Appendix Table I.3
Currency composition of official holdings of foreign exchange, end of year¹
(In millions of SDRs)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
U.S. dollar										
Change in holdings	114,987	64,294	-7,043	100,295	141,102	203,634	112,029	228,519	80,248	57,743
Quantity change	75,190	33,568	63,034	184,942	191,524	103,715	182,702	307,280	32,370	87,586
Price change	39,797	30,726	-70,077	-84,647	-50,422	99,918	-70,674	-78,761	47,878	-29,843
Year-end value	828,847	893,140	886,097	986,392	1,127,494	1,331,128	1,443,157	1,671,676	1,751,924	1,809,667
Japanese yen										
Change in holdings	6,600	-7,658	-5,533	1,477	6,585	5,662	-3,368	8,405	9,394	2,083
Quantity change	11,248	-963	-6,410	205	7,637	8,656	506	8,883	-12,333	4,459
Price change	-4,649	-6,695	877	1,271	-1,052	-2,993	-3,874	-477	21,727	-2,376
Year-end value	70,671	63,013	57,480	58,956	65,541	71,204	67,835	76,241	85,635	87,718
Pound sterling										
Change in holdings	3,063	1,659	3,433	4,319	16,111	13,934	24,985	25,406	-12,339	15,166
Quantity change	3,888	1,409	2,465	3,805	14,489	16,075	17,958	28,904	22,854	5,519
Price change	-826	249	968	514	1,622	-2,141	7,028	-3,498	-35,193	9,647
Year-end value	32,080	33,739	37,172	41,491	57,602	71,536	96,521	121,927	109,587	124,753
Swiss franc										
Change in holdings	826	342	1,901	-2,005	-530	54	880	268	-282	-613
Quantity change	732	308	1,400	-2,106	-661	243	805	141	-601	-637
Price change	94	34	502	102	131	-189	75	127	319	24
Year-end value	3,136	3,479	5,380	3,375	2,845	2,899	3,779	4,047	3,765	3,152
Euro										
Change in holdings ²	33,206	26,401	74,788	62,030	47,684	54,399	74,578	131,869	37,207	72,571
Quantity change	36,969	30,112	48,492	28,369	34,219	81,721	44,549	92,397	59,889	59,823
Price change	-3,762	-3,711	26,296	33,661	13,466	-27,322	30,030	39,472	-22,682	12,748
Year-end value	213,132	239,533	314,321	376,350	424,035	478,434	553,012	684,881	722,088	794,659
Sum of the above³										
Change in holdings	158,681	85,037	67,546	166,116	210,952	277,682	209,104	394,467	114,229	146,950
Quantity change	128,027	64,434	108,981	215,216	247,207	210,410	246,519	437,605	102,180	156,750
Price change	30,654	20,604	-41,434	-49,100	-36,255	67,272	-37,415	-43,137	12,049	-9,800
Year-end value	1,147,866	1,232,904	1,300,450	1,466,566	1,677,518	1,955,200	2,164,304	2,558,771	2,673,000	2,819,950
Other currencies										
Change in holdings	1,347	-1,431	4,566	8,963	2,610	2,204	5,252	8,389	12,322	30,610
Year-end value	17,401	15,970	20,535	29,498	32,109	34,312	39,564	47,953	60,275	90,885
Unallocated reserves⁴										
Change in holdings	27,781	61,156	68,202	89,479	164,291	329,110	253,715	345,908	397,937	267,247
Year-end value	320,854	382,009	450,212	539,691	703,981	1,033,092	1,286,807	1,632,715	2,030,652	2,297,899
Total official holdings⁵										
Change in holdings	187,809	144,762	140,314	264,558	377,853	608,996	468,071	748,764	524,488	444,806
Year-end value	1,486,121	1,630,883	1,771,197	2,035,755	2,413,608	3,022,604	3,490,675	4,239,439	4,763,927	5,208,733

Note: Components may not sum to total because of rounding. Country usage changes marginally every year, but the changes were larger than usual in 2000 (narrower coverage). **2008 currency composition data were significantly revised**; historical data for unallocated reserves and total official holdings do not match those in earlier reports as a result of substantial revisions.

¹The currency composition of official foreign exchange reserves as reported by countries, including minimal estimation undertaken mainly for late reporters. Reserves for which currency composition is not reported are shown under "Unallocated reserves." Quantity changes are derived by multiplying the changes in official holdings of each currency from the end of one quarter to the next by the average of the two SDR prices of that currency prevailing at the corresponding dates. This procedure converts the change in the quantity of national currency from own units to SDR units of account. Subtracting the SDR value of the quantity change so derived from the quarterly change in the SDR value of foreign exchange held at the end of two successive quarters and cumulating these differences yields the effect of price changes over the years shown.

²Represents the change from end-1998 holdings of euro legacy currencies by official institutions outside the euro area.

³Each item represents the sum of the currencies above.

⁴Foreign exchange reserves whose currency composition information is not submitted to the IMF.

⁵Includes "Unallocated reserves" whose currency composition could not be ascertained.