

# Appendix I

## International Reserves

Total international reserves, including gold, grew by 16.6 percent in 2010—reflecting in part sharply higher gold prices—and stood at SDR 7.1 trillion at the end of 2010 (Table I.1).<sup>1</sup> Reserves, excluding gold, grew by 14.9 percent to SDR 6.3 trillion in 2010. The market value of gold held by monetary authorities<sup>2</sup> increased by 31.5 percent to SDR 798.7 billion, reflecting a parallel 31.6 percent increase in the price of gold.

Foreign exchange reserves increased to SDR 6.0 trillion in 2010, with a growth rate of 15.5 percent still somewhat below the average annual rate of 18.5 percent registered over the five years prior to the crisis, but up from 9.3 percent in 2009. IMF-related assets (that is, reserve positions in the IMF and holdings of SDRs), which account for the balance of non-gold reserves, grew by 3.7 percent to SDR 248.2 billion. The increase in IMF-related assets resulted from continued increase in outstanding Fund credit to member countries in 2010, while the stock of SDRs remained practically unchanged from the previous year.

### Foreign exchange reserves

Foreign exchange reserves accounted for 96.0 percent of non-gold international reserves at the end of 2010. Emerging and developing economies held SDR 4.0 trillion of reserves (66.6 percent of the total), amounting to an increase of 16.6 percent from the previous year, while advanced economies held SDR 2.0 trillion, representing a 13.3 percent increase. The share of foreign exchange in total reserves decreased to 85.2 percent for the second straight year from the 2008 peak of 90.1 percent.

### IMF-related assets

During 2010, members' reserve positions in the IMF—which consist of members' reserve tranche and creditor positions—increased by 26.2 percent to

SDR 48.8 billion. Increased Fund lending raised the reserve position of advanced as well as emerging and developing economies in 2010. SDR holdings of IMF members remained steady around 200 billion, after having risen more than ten-fold from a substantial SDR allocation in 2009. IMF-related assets accounted for 3.5 percent of total international reserves at the end of 2010.

### Gold reserves

The market value of gold reserves increased by 31.5 percent, almost entirely due to substantially higher gold prices in 2010, raising the share of gold in international reserves by 1.3 percentage points to 11.3 percent. The physical stock of official gold held by emerging and developing economies as well as the stock held by advanced economies remained practically unchanged. At the end of 2010, gold constituted 22.7 percent of the reserves of advanced economies, which hold 80 percent of the world's gold reserves, and 3.8 percent of the reserves of emerging and developing economies.

### Developments during the first quarter of 2011

During the first quarter of 2011, foreign exchange reserves grew at an annualized rate of 7.3 percent and total international reserves grew at 7.4 percent, both at a pace substantially below the pre-crisis as well as 2010 growth rates. Foreign exchange reserve accumulation of SDR 106.4 billion in the quarter occurred entirely in emerging and developing economies. Market value of global gold reserves was broadly unchanged, as modest additional purchases at an annualized rate of 1.8 percent offset the effect of a slight decline in the price of gold. Net purchases of gold by monetary authorities of emerging and developing economies, however, resumed at an annual rate of 9.1 percent in the first quarter of 2011, following a pause in 2010. IMF-related assets increased by SDR 21.8 billion, as continued Fund lending resulted in increased member country reserve positions in the IMF.

<sup>1</sup> On March 31, 2011, 1 SDR = 1.5855 US\$.

<sup>2</sup> Official 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

Available information on the currency composition of foreign exchange reserves is shown in Table I.2 globally and, separately, for the group of advanced economies and for the group of emerging and developing economies. Changes in the SDR value of foreign exchange reserves are decomposed into quantity and valuation (price) changes in Table I.3.

As reported in Table I.2, information about the currency composition of foreign exchange reserves is available for about 55 percent of total reserves—about 87 percent of advanced economies' reserves and just below 40 percent of emerging and developing economies' reserves. "Unallocated" reserves, for which no information on the currency composition is available, represent an increasing share of global reserves since 2000 and also represent just below 50 percent of net foreign exchange reserve accumulation in 2010.

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

- The share of U.S. dollar holdings in global foreign exchange reserves peaked at 71.5 percent at end 2001, coinciding with the dollar's peak valuation in March 2002. It has since declined steadily to 61.5 percent in 2010, driven by the decline in the value of U.S. dollar holdings and by a gradual diversification into other currencies over the period. Since 2001, the share for advanced economies fell by 6.1 percentage points to 64.4 percent in 2010, while the share for emerging and developing economies fell by 15.6 percentage points to 58.3 percent. The 240.2 billion increase in 2010 in the SDR value of US dollar reserve holdings can be decomposed into a quantity increase of 211.0 billion, and a valuation increase of 29.3 billion.
- The share of the euro in global foreign exchange reserves increased sharply between 1999 and 2003, and has since remained within a narrow range around 26 percent. The share declined to 26.2 percent in 2010 from the record high of 27.6 percent in 2009 mainly on account of weakness of the euro currency in 2010. Within the advanced economies group and the emerging and developing economies group, the share of the euro in the foreign exchange reserves exhibits a similar pattern of rising sharply through 2003 and settling in a narrow range subsequently. The 68.3 billion increase in 2010 in the SDR value of euro reserve holdings can be decomposed into a quantity increase of 115.0 billion and a valuation decline of 46.7 billion.
- The share of global foreign exchange reserves denominated in Japanese yen jumped from 2.9 percent in 2009 to 3.8 percent in 2010. It had dropped steadily from 6.1 percent in 2000 and settled around 3 percent in recent years. Record net purchases as well as strength of the yen contributed to the significant increase in this share in 2010. Both the advanced economies group and the emerging and developing economies group recorded a similar increase in the share in 2010. The 41.2 billion increase in the SDR value of yen reserve holdings can be decomposed into a quantity increase of 26.8 billion and a valuation increase of 14.4 billion.
- The share of the pound sterling and the Swiss franc in global foreign exchange reserves remained steady around 4 - 4.5 percent and 0.1 percent respectively in recent years. In 2010, pound sterling reserve holdings recorded a quantity increase of SDR 10.1 billion and a valuation decrease of SDR 2.0 billion while Swiss franc reserve holdings recorded a quantity decrease of SDR 0.2 billion and a valuation increase of SDR 0.4 billion.
- The share of all other currencies in global foreign exchange reserves rose to 4.4 percent in 2010 from 3.1 percent in 2009. These currencies represent a higher share of emerging and developing economies reserves at 5.1 percent in 2010.

**Appendix Table I.1**  
**Official holdings of reserve assets<sup>1</sup>**  
*(In billions of SDRs)*

	2005	2006	2007	2008	2009	2010	Mar. 2011
<b>All countries</b>							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	28.6	17.5	13.7	25.1	38.7	48.8	74.7
SDRs	20.1	18.2	18.4	18.9	200.7	199.4	195.3
<b>Subtotal, Fund-related assets</b>	<b>48.6</b>	<b>35.7</b>	<b>32.1</b>	<b>44.0</b>	<b>239.4</b>	<b>248.2</b>	<b>270.0</b>
Foreign exchange	3022.6	3490.9	4239.8	4764.3	5207.1	6012.0	6118.4
<b>Total reserves excluding gold</b>	<b>3071.4</b>	<b>3527.0</b>	<b>4272.4</b>	<b>4808.6</b>	<b>5446.6</b>	<b>6260.2</b>	<b>6388.7</b>
Gold <sup>2</sup>							
Quantity (millions of ounces)	879.0	867.7	852.6	852.9	875.5	875.1	879.0
Value at London market price	315.5	366.7	449.8	481.6	607.4	798.7	797.8
<b>Total reserves including gold</b>	<b>3386.9</b>	<b>3893.7</b>	<b>4722.2</b>	<b>5290.2</b>	<b>6053.9</b>	<b>7058.9</b>	<b>7186.5</b>
<b>Advanced Economies<sup>3</sup></b>							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	21.7	12.5	9.3	18.1	27.4	34.5	55.2
SDRs	12.7	13.8	14.0	14.2	129.6	129.5	126.9
<b>Subtotal, Fund-related assets</b>	<b>34.4</b>	<b>26.3</b>	<b>23.4</b>	<b>32.3</b>	<b>157.0</b>	<b>164.0</b>	<b>182.1</b>
Foreign exchange	1454.4	1497.4	1539.3	1617.5	1772.6	2008.0	1994.3
<b>Total reserves excluding gold</b>	<b>1489.0</b>	<b>1524.1</b>	<b>1563.1</b>	<b>1650.1</b>	<b>1929.9</b>	<b>2172.4</b>	<b>2176.8</b>
Gold <sup>2</sup>							
Quantity (millions of ounces)	740.1	729.0	712.4	703.7	700.2	700.0	700.0
Value at London market price	265.6	308.1	375.9	397.4	485.7	638.8	635.3
<b>Total reserves including gold</b>	<b>1754.6</b>	<b>1832.2</b>	<b>1938.9</b>	<b>2047.5</b>	<b>2415.6</b>	<b>2811.2</b>	<b>2812.1</b>
<b>Emerging and Developing economies<sup>3</sup></b>							
Total reserves excluding gold							
Fund-related assets							
Reserve positions in the Fund	6.8	5.0	4.4	7.0	11.2	14.3	19.5
SDRs	7.3	4.5	4.3	4.7	71.1	70.0	68.4
<b>Subtotal, Fund-related assets</b>	<b>14.2</b>	<b>9.5</b>	<b>8.8</b>	<b>11.7</b>	<b>82.3</b>	<b>84.2</b>	<b>87.9</b>
Foreign exchange	1568.3	1993.5	2700.6	3146.8	3434.6	4003.9	4124.2
<b>Total reserves excluding gold</b>	<b>1582.4</b>	<b>2002.9</b>	<b>2709.3</b>	<b>3158.5</b>	<b>3516.7</b>	<b>4087.8</b>	<b>4211.9</b>
Gold <sup>2</sup>							
Quantity (millions of ounces)	138.9	138.7	140.2	149.2	175.4	175.2	179.0
Value at London market price	49.8	58.6	74.0	84.2	121.6	159.9	162.5
<b>Total reserves including gold</b>	<b>1632.3</b>	<b>2061.5</b>	<b>2783.3</b>	<b>3242.7</b>	<b>3638.3</b>	<b>4247.7</b>	<b>4374.4</b>

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

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

<sup>1</sup>End of year figures for all years except 2011. "IMF-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.

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

<sup>3</sup>Estonia is now in the Advanced Economies group; historical data do not match those in earlier reports due to substantial revisions to foreign exchange reserves over 2005-2008 by some advanced as well as emerging and developing economies, and smaller revisions to group totals for earlier periods that were first incorporated in last year's Annual Report.

## Appendix Table I.2

### Share of national currencies in total identified official holdings of foreign exchange, end of year<sup>1</sup> (In percent)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>All countries</b>											
U.S. dollar	71.1	71.5	67.1	65.9	65.9	66.9	65.5	64.1	64.1	62.1	61.5
Japanese yen	6.1	5.0	4.4	3.9	3.8	3.6	3.1	2.9	3.1	2.9	3.8
Pound sterling	2.8	2.7	2.8	2.8	3.4	3.6	4.4	4.7	4.0	4.3	4.0
Swiss franc	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1
Euro <sup>2</sup>	18.3	19.2	23.8	25.2	24.8	24.1	25.1	26.3	26.4	27.6	26.2
Other currencies <sup>3</sup>	1.5	1.3	1.6	2.0	1.9	1.7	1.8	1.8	2.2	3.1	4.4
<b>Advanced economies<sup>4</sup></b>											
U.S. dollar	69.7	70.5	66.4	67.1	67.3	69.2	68.1	66.0	67.1	65.1	64.4
Japanese yen	7.3	6.1	5.4	5.2	5.0	4.7	4.2	4.0	4.3	3.9	4.7
Pound sterling	2.8	2.7	2.8	2.3	2.7	2.7	3.3	3.5	2.7	2.8	2.6
Swiss franc	0.3	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Euro	18.4	19.0	23.3	23.1	22.9	21.2	22.2	24.2	23.3	25.4	24.3
Other currencies	1.5	1.4	1.6	2.1	2.1	1.9	1.9	2.1	2.5	2.6	3.9
<b>Emerging and Developing economies<sup>4</sup></b>											
U.S. dollar	74.9	73.9	68.7	63.2	63.1	62.8	61.6	62.1	60.8	58.6	58.3
Japanese yen	2.8	2.4	1.7	1.1	1.3	1.5	1.3	1.8	1.9	1.8	2.8
Pound sterling	2.6	2.8	2.8	3.8	4.9	5.1	6.0	5.9	5.5	5.9	5.5
Swiss franc	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Euro	18.0	19.6	25.1	30.1	29.1	29.0	29.4	28.5	29.9	30.1	28.2
Other currencies	1.5	1.0	1.5	1.8	1.4	1.5	1.6	1.5	1.9	3.6	5.1
<b>Memorandum items:</b>											
Unallocated Reserves <sup>5</sup>											
All countries	21.6	23.4	25.4	26.5	29.2	34.2	36.9	38.5	42.6	44.1	44.7
Advanced economies	9.0	9.9	11.4	11.9	11.8	12.4	12.0	11.3	11.8	12.6	12.4
Emerging and Developing economies	42.9	44.4	46.4	47.1	50.6	54.4	55.5	54.0	58.5	60.4	60.8

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

<sup>1</sup> The 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."

<sup>2</sup> Not 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.

<sup>3</sup> Foreign exchange reserves of IMF member countries that are reported to be held in currencies other than those listed above.

<sup>4</sup> Historical data do not match those in earlier reports due to substantial revisions to foreign exchange reserves over 2005-2008 by some advanced as well as emerging and developing economies, and smaller revisions to group totals for earlier periods that were first incorporated in last year's Annual Report.

<sup>5</sup> Foreign 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 year<sup>1</sup>***(In billions of SDRs)*

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>U.S. dollar</b>										
Change in holdings	64.3	-7.0	100.3	141.1	203.6	112.0	228.5	80.2	55.0	240.2
Quantity change	33.6	63.0	184.7	191.5	103.7	182.7	307.3	32.4	84.8	211.0
Price Change	30.7	-70.1	-84.4	-50.4	99.9	-70.7	-78.8	47.9	-29.8	29.3
Year-end value	893.1	886.1	986.4	1,127.5	1,331.1	1,443.2	1,671.7	1,751.9	1,806.9	2,047.1
<b>Japanese yen</b>										
Change in holdings	-7.7	-5.5	1.5	6.6	5.7	-3.4	8.4	9.4	-0.8	41.2
Quantity change	-1.0	-6.4	0.2	7.6	8.7	0.5	8.9	-12.3	1.6	26.8
Price Change	-6.7	0.9	1.3	-1.1	-3.0	-3.9	-0.5	21.7	-2.4	14.4
Year-end value	63.0	57.5	59.0	65.5	71.2	67.8	76.2	85.6	84.8	126.0
<b>Pound sterling</b>										
Change in holdings	1.7	3.4	4.3	16.1	13.9	25.0	25.4	-12.3	14.4	8.1
Quantity change	1.4	2.5	3.8	14.5	16.1	18.0	28.9	22.9	4.8	10.1
Price Change	0.2	1.0	0.5	1.6	-2.1	7.0	-3.5	-35.2	9.6	-2.0
Year-end value	33.7	37.2	41.5	57.6	71.5	96.5	121.9	109.6	124.0	132.1
<b>Swiss franc</b>										
Change in holdings	0.3	1.9	-2.0	-0.5	0.1	0.9	0.3	-0.3	-0.4	0.2
Quantity change	0.3	1.4	-2.1	-0.7	0.2	0.8	0.1	-0.6	-0.5	-0.2
Price Change	0.0	0.5	0.1	0.1	-0.2	0.1	0.1	0.3	0.0	0.4
Year-end value	3.5	5.4	3.4	2.8	2.9	3.8	4.0	3.8	3.3	3.5
<b>Euro</b>										
Change in holdings	26.5	74.8	62.0	47.7	54.4	74.6	131.9	37.2	79.9	68.3
Quantity change	30.2	48.5	28.4	34.2	81.7	44.5	92.4	59.9	67.2	115.0
Price Change	-3.7	26.3	33.6	13.5	-27.3	30.0	39.5	-22.7	12.8	-46.7
Year-end value	239.6	314.4	376.4	424.1	478.5	553.1	685.0	722.2	802.1	870.4
<b>Sum of the above<sup>2</sup></b>										
Change in holdings	85.1	67.6	166.1	211.0	277.7	209.1	394.5	114.2	148.1	358.0
Quantity change	64.5	109.0	215.0	247.2	210.4	246.5	437.6	102.2	157.9	362.5
Price Change	20.6	-41.4	-48.9	-36.3	67.3	-37.4	-43.1	12.0	-9.8	-4.6
Year-end value	1,233.0	1,300.5	1,466.6	1,677.6	1,955.3	2,164.4	2,558.8	2,673.1	2,821.2	3,179.2
<b>Other Currencies</b>										
Change in holdings	-1.4	4.6	9.0	2.6	2.2	5.3	8.4	12.3	28.7	58.7
Year-end value	16.0	20.5	29.5	32.1	34.3	39.6	48.0	60.3	89.0	147.7
<b>Unallocated Reserves<sup>3</sup></b>										
Change in holdings	61.2	68.1	89.5	164.3	329.1	253.9	346.1	397.9	266.0	388.1
Year-end value	382.0	450.2	539.6	703.9	1,033.1	1,287.0	1,633.0	2,031.0	2,297.0	2,685.1
<b>Total official holdings<sup>4</sup></b>										
Change in holdings	144.8	140.3	264.6	377.9	609.0	468.3	748.9	524.5	442.8	804.8
Year-end value	1,631.0	1,771.2	2,035.8	2,413.6	3,022.6	3,490.9	4,239.8	4,764.3	5,207.1	6,012.0

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

<sup>1</sup> The 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.

<sup>2</sup> Each item represents the sum of the currencies above.

<sup>3</sup> Foreign exchange reserves whose currency composition information is not submitted to the IMF.

<sup>4</sup> Includes "Unallocated Reserves."