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June 26, 2007

To: Members of the Executive Board

From: The Acting Secretary

Subject: **Annual Review of Investment Account**

Attached for the **information** of Executive Directors is a paper on the first annual review of the Investment Account.

It is not intended to publish this paper on the Fund's external website.

Questions may be referred to Mr. Ordoobadi (ext. 36935) and Mr. Price (ext. 38805) in FIN.

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

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INTERNATIONAL MONETARY FUND

Annual Review of the Investment Account

Prepared by the Finance Department

(In consultation with the Legal, Monetary and Capital Markets, and Policy Development and Review Departments)

Approved by Michael G. Kuhn

June 25, 2007

I. Introduction and Summary

1. **This paper presents, for information of the Executive Board, the first annual report on the Investment Account (IA), covering the transitional period since the IA was funded in mid-June 2006 through end-April 2007**.[1] [2]

2. **The key points are:**

- The IA was established as a separate part of the General Department and funded on June 20, 2006, through the transfer of currencies from the GRA in an amount equivalent to SDR 5.96 billion, which represented the level of the Fund's General and Special Reserves on April 30, 2006.

- The 1–3 year government bond benchmark endorsed by the Executive Board was implemented in a phased approach that was completed in early October 2006.

- The IA returned 3.04 percent (non-annualized) since its initial funding. The portfolio value increased by the equivalent of SDR 180 million, to SDR 6.14 billion.

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[1] The first report to the Board on IA performance covered the period from funding through end-September 2006. See *Semi-Annual Review of Investment Account Assets* (EBS/06/169, 12/18/06) and Correction 1.

[2] Performance of the PRGF-ESF, PRGF-HIPC, and MDRI Trusts is reviewed in *Annual Review of PRGF-ESF, PRGF-HIPC, and MDRI Trust Assets* (EBS/07/73, 6/26/07).

- The IA's return exceeded the return of the 1–3 year benchmark. However, the return on the portfolio fell short of the 3-month SDR interest rate by 49 basis points.[3] Two main factors contributed to this shortfall. First, the flat-to-inverted yield curve between three-month and two-year maturities resulted in a limited yield spread of the investments of the IA over the three-month SDR interest rate. Second, the increase in two-year SDR yields, beginning in the closing months of 2006, dampened returns on the IA's bond and MTI portfolios.

3. **The paper is structured as follows**. Section II describes the investment strategy and initial funding of the IA. Section III analyzes the return of the IA, and updates previous analyses of the historical returns of the 1–3 year bond benchmark. Section IV reviews manager performance and reports on risk control measures and compliance.

II. Investment Strategy and Initial Funding

4. **The Executive Board established the IA in April 2006, with the objective of contributing to the Fund's income over time by generating investment returns**.[4] The IA was funded through the transfer of currencies from the GRA in an amount equivalent to SDR 5.96 billion on June 20, 2006, which represented the level of the Fund's General and Special Reserves at April 30, 2006. For the members whose currencies were so transferred, the transfers resulted in increased reserve tranche positions subject to remuneration at the SDR interest rate.

5. **FY 2007 was the inaugural year of the IA**. Following the funding of the IA in June, its assets were held temporarily in BIS deposits pending their phased investment in eligible marketable obligations. The IA became fully invested in early October 2006. The portfolios managed by the World Bank and two private managers were built up in three tranches in August, September, and October, and the portfolio of medium-term instruments (MTIs) of the BIS was established in three tranches in June, September, and October (Annex III). This four month phasing plan was drawn up in consultation with the external managers to balance the aim of lengthening the portfolio duration with the desire to limit the risk of initial underperformance from a sharp rise in interest rates.

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[3] The resources in the Investment Account are the Fund's own reserves which do not carry remuneration costs. Nevertheless, the comparison with the SDR interest rate is relevant because the medium-term objective of the Investment Account is to exceed this rate.

[4] See *Establishment of the Investment Account* (EBS/06/57, 4/17/06), and *Establishment and Operation of the Investment Account* (SM/05/317, 8/15/05) and BUFF/05/147. The Executive Board established the IA and adopted Rules and Regulations for its administration on April 28, 2006 (*Decisions 13710-(06/40) IA and 13711-(06/40)*, both adopted 4/28/06).

6. **IA assets are split evenly between eligible bonds managed by external managers and MTIs issued by the BIS.** Under this balanced allocation, both asset classes have similar durations, anchored to the 1–3 year benchmark index endorsed by the Executive Board. The bond portfolios are managed by the World Bank (34 percent of the total) and JP Morgan and UBS (8 percent each).[5]

Targeted Distribution of Assets among Investment Managers and the BIS

	In percent of Total
Bond Portfolio	50
JPM	8
UBS	8
World Bank	34
MTIs (BIS)	50
Total Investment Account	100

7. **The investment objective of the IA is to achieve investment returns that exceed the SDR interest rate over time while minimizing the frequency and extent of negative returns and underperformance over a 12-month investment horizon**.[6] To achieve its investment objective, the IA's investment strategy is anchored by a 1–3 year government bond benchmark index, weighted to reflect the currency composition of the SDR basket. Consistent with its investment authority (Box 1), the IA portfolio mainly comprises domestic government bonds and MTIs.

III. Market Developments and Portfolio Returns

A. Market Developments

8. **As the IA is invested in line with a 1–3 year government bond benchmark, two-year yields provide a good proxy for the sensitivity for the IA's performance to changes in market interest rates**. The slope of the SDR yield curve between three-month and two-year maturities provides an indication of the *ex ante* term premium accruing to the IA's investments. The performance of the IA relative to the SDR interest rate depends on the spread between three-month and two-year yields and changes in the level of interest rates. The spread will affect the yield cushion provided by the longer maturity bonds, and changes in the level of interest rates will affect their value. Thus, an analysis of changes in the term structure of SDR interest rates helps explain the performance of the IA.

[5] The structure of the IA mirrors that for investable assets of the PRGF-ESF, PRGF-HIPC, and MDRI Trusts, which also have a substantial liquidity tranche.

[6] See BUFF/05/147.

Box 1. Investment Authority of the Investment Account

The investment authority of the IA is specified in the Fund's Articles of Agreement. This authority stipulates that the assets of the IA may be invested in a member's currency "in marketable obligations of that member or in marketable obligations of international financial organizations. No investment shall be made without the concurrence of the member whose currency is used to make the investment. The Fund shall invest only in obligations denominated in special drawing rights or in the currency used for investment" (Article XII, Section 6 (f)(iii)).

Accordingly, assets of the IA may be invested in marketable obligations of the members whose currencies are used for the investment (including the obligations of their central banks and official agencies) denominated in the currency of the member or SDRs, as well as marketable obligations of specific international financial organizations such as the World Bank, the European Investment Bank, regional development banks, and the Bank for International Settlements (BIS) denominated in the currency used for investment or in SDRs. The investment authority precludes investing in any marketable obligation that is not issued by an eligible issuer. The securities so excluded comprise a number of instruments included in the portfolios of reserve asset managers, such as commercial bank deposits, commercial paper, mortgage- and asset-backed securities, and corporate bonds. They also effectively exclude derivative securities and asset-backed securities, as such instruments are typically not issued by eligible issuers. The Rules and Regulations for the IA approved by the Executive Board provide for additional limitations, including with regard to the use of derivative securities, short selling and any form of leverage.

The legal authority does not impose any specific quantitative limit on the currency exposure of the eligible marketable obligations, other than being denominated in the currency used for investment or in SDRs. However, in order to limit currency risk, the benchmark for the IA portfolio is denominated in the SDR. IA assets are invested in marketable obligations denominated in SDRs or in the constituent currencies of the SDR weighted to reflect the share of each currency in the SDR basket.

9. **Since the period when the IA was funded through end-April 2007, the SDR yield curve flattened significantly as short-term rates rose while two-year yields were little changed on balance** (Figures 1 and 2, and Annex I). The relatively flat slope of the yield curve reflected generally well contained inflation expectations in the four bond markets of the SDR, expectations that the tightening cycle in the United States and the United Kingdom was approaching an end, and the impact of purchases by central banks and other institutional investors of longer maturity bonds.

Figure 1. Synthetic SDR Yield Curve
(In percent)

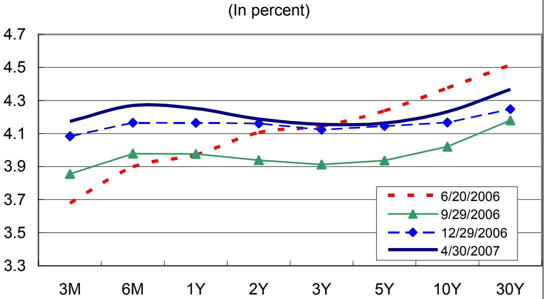

Figure 2. 2-year Yields less 3-month Rates, 2006-07
(SDR terms, in basis points)

- During *June–September 2006*, the SDR yield curve remained positively sloped between three-month and two-year maturities, and two-year yields declined (Figure 1). This combination of a positive term premium and declining two-year yields favored the 1–3 year benchmark, and the returns of the IA exceeded the three-month SDR interest rate. However, given that the IA was only partially invested in line with the 1–3 year benchmark during this period, the returns were less than would have been achieved had the IA already been fully invested.

- Yields on all four currencies of the SDR rose during the *fourth quarter of 2006*, pushing the SDR yield curve higher. The SDR yield curve had a slight downward slope between three-month and two-year maturities through much of the final quarter (Figure 2). The combination of a compressed yield cushion and rising two-year yields hurt the performance of the IA's portfolio.

- During *the first four months of 2007*, SDR interest rates continued to move higher, notwithstanding a significant decline in two-year yields in February. The increase was most pronounced at shorter term maturities of six-months or less, reinforcing the inversion of the yield curve between three-month and two-year maturities. At April 30, 2007, the three-month SDR interest rate was 4 basis points above the synthetic two-year SDR yield.

- Swap spreads, which affect the performance of the MTI portfolio, remained relatively stable through much of the period, but widened modestly in the first quarter of 2007. The average yield pickup of MTIs in SDR terms was 10 to 15 basis points over government bond yields of similar maturities.

B. Portfolio Returns

10. **Since its initial funding, the net asset value (NAV) of the Investment Account rose by SDR 180 million to SDR 6.14 billion at end-April 2007**. The return of the total portfolio was 3.04 percent gross of fees, and 3.02 percent net of manager and custodial fees.[7]

11. **Both the bond and MTI portfolios slightly exceeded the return of the 1–3 year benchmark during this period.**[8] However, primarily as a result of the upward shift in the SDR yield curve and limited term premium between three-month and two-year yields

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[7] The investment management and custodial fees on the externally managed government bond portfolios now average about 6 basis points per year. There are no external asset management fees associated with MTIs. For the total portfolio, fees average about 3 basis points per year.

[8] All IA performance and benchmark data are cumulative unannualized returns. Reflecting the phasing of investments in this inaugural year of the IA, the return data for the bond and MTI portfolios as well as for the deposits in which assets were initially held are for different partial periods.

discussed above, the IA's portfolio fell short of its long-run investment objective and underperformed the three-month SDR interest rate by 49 basis points (3.04 percent versus 3.53 percent) on a cumulative, unannualized basis (Table 1).

12. **As already noted, the investment objective of the IA is to exceed the return of the three-month SDR interest rate over time while limiting risk.** The indicative medium-term incremental return used for the Fund's income projections is 50 basis points.[9] If the IA had generated 50 basis points of incremental return over the three-month SDR interest rate during the period since the funding of the IA, it would have generated about SDR 236 million in income, compared with an actual outturn of SDR 180 million.

- During the period from funding through end-September 2006, when the SDR yield curve flattened, the IA portfolio returned a cumulative 12 basis points over the three-month SDR interest rate.

- During October 2006–January 2007, when the yield curve became inverted and shifted higher, the IA underperformed the SDR interest rate by 55 basis points.

- The IA outperformed the SDR interest rate by 28 basis points in February 2007, recouping about half of the underperformance of the previous four months, as two-year yields declined. However, yields rose again in March and April, and the IA underperformed the SDR interest rate by a combined 34 basis points, more than reversing February's gains.

[9] See *Review of the Fund's Income Position for FY2007 and FY2008* (EBS/07/36, 4/9/07)

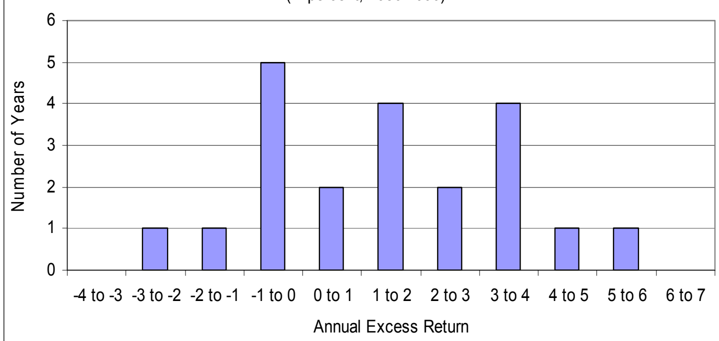
Table 1. Portfolio Summary as of end-April 2007
(In percent, unless otherwise noted)

	Valuation		Performance 1/ (Non-annualized)											Since Inception	
	Net Asset Value (In SDR millions)	Duration (in months)	Jun-06 2/	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	Portfolio	Benchmark
Bond Portfolio															
JPM	487.1	16	...	...	...	0.32	0.30	0.37	-0.01	0.19	0.56	0.24	0.16	2.16	2.18
UBS	487.5	19	...	...	...	0.28	0.26	0.37	0.03	0.26	0.58	0.26	0.17	2.25	2.18
WB	2,074.5	21	...	...	0.43	0.37	0.22	0.37	-0.01	0.22	0.61	0.26	0.14	2.64	2.60
Total	3,049.0	20	...	...	0.43	0.34	0.24	0.37	0.00	0.22	0.60	0.26	0.15	2.63	2.60
BIS															
MTI	3,090.5	21	0.00	0.63	0.42	0.37	0.20	0.43	-0.04	0.19	0.66	0.20	0.13	3.24	3.22
Deposits	...	...	0.12	0.30	0.32	0.31	...	...	...	...	...	...	...	1.04	…
Total	6,139.5	21	0.10	0.38	0.37	0.34	0.22	0.40	-0.02	0.21	0.63	0.23	0.14	3.04	...
Income return 3/			0.31	0.29	0.31	0.28	0.29	0.29	0.29	0.29	0.26	0.29	0.29	3.24	...
Capital return 4/			-0.21	0.09	0.06	0.06	-0.07	0.11	-0.31	-0.08	0.37	-0.06	-0.15	-0.20	...
Month-end market value 5/			5,965	5,988	6,010	6,031	6,044	6,068	6,067	6,079	6,117	6,131	6,140	...	...
Memorandum items:															
ML1-3		22		0.57	0.41	0.35	0.28	0.36	-0.04	0.24	0.59	0.26	0.13	…	…
JPM1-3		21	0.02	0.57	0.45	0.35	0.27	0.37	-0.07	0.23	0.61	0.24	0.13	…	…
3M SDR		3	0.11	0.32	0.32	0.32	0.33	0.34	0.34	0.35	0.35	0.35	0.35	3.53	…
IA excess return over 3M SDR		...	*-0.01*	*0.06*	*0.05*	*0.02*	*-0.11*	*0.06*	*-0.36*	*-0.14*	*0.28*	*-0.12*	*-0.21*	*-0.49*	…

1/ Bond portfolio returns are gross of fees, while MTI returns are net of fees. On average, management and custodian fees average 3 basis points of the total portfolio.
2/ Inception date of June 20, 2006 for BIS deposits, and June 23, 2006 for MTIs.
3/ Flow of coupon and interest earned.
4/ Marked-to-market valuation changes due to changes in the level of interest rates (includes transaction costs).
5/ Market value is net of fees.

C. Risk and Return Characteristics of the 1–3 Year Benchmark

Figure 3. Distribution of Annual Excess Return of the 1-3 Year Benchmark over the Three-Month SDR Rate (In percent, 1986-2006)



13. **In light of the initial underperformance of the IA, staff has revisited its analysis of the experience with the 1–3 year benchmark.** Prior analyses of past returns suggest that the 1–3 year government bond index represents a prudent balance between risk and return for the IA.[10] The index has, over time and in most periods, yielded higher returns than the SDR interest rate, without exposure to undue risk. Moreover, it has consistently earned positive returns in every rolling 12-month period since 1986. Nevertheless, the inherent risks to the investment strategy cannot be eliminated. The range of the 1–3 year benchmark's performance relative to the three-month SDR interest rate has been quite wide, including several periods of underperformance (Figure 3). Over the last two decades, a period of generally declining interest rates, the latter have occurred roughly one-third of the time.

14. **Staff have also updated its analysis of the benchmark during periods when the yield curve was inverted between the three-month and two-year SDR rates, as at present (**Box 2). Over the past two decades, the 1–3 year benchmark has exceeded the return of the three-month interest rate about 62 percent of the time when the yield curve was inverted, and the benchmark's strongest monthly relative return (March 1986) was achieved when the yield curve was inverted (see Box 2, table). Conversely, a positively sloped yield curve does not guarantee that the 1–3 year benchmark will perform better than the three-month SDR interest rate: about 77 percent of the episodes of underperformance occurred when the yield curve was positively sloped.

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[10] Previous analyses were provided in Annex II of *Establishment of the Investment Account*, EBS/06/57, 4/17/06, and Annex II of *Establishment and Operation of the Investment Account*, SM/05/317, 8/15/05.

Box 2. Historical Risk and Return Characteristics of the 1–3 Year Benchmark

Over the past two decades, the 1–3 year benchmark has generated returns that have struck a balance between risk and return. The 1–3 year index has generated positive returns in every calendar year and over every rolling one-year period since 1986. It has also generated positive returns over every six month period.

Over shorter investment horizons, however, the 1–3 year benchmark has periodically generated negative returns. Since 1986, this benchmark experienced negative monthly returns about 14 percent of the time. Among all the periods of rising interest rates recorded since 1986, the worst series of consecutive negative returns for the 1–3 year benchmark occurred during the first four months of 1994, when SDR two-year yields increased from 4.02 percent to 5.04 percent (see table below).

Table. Extreme Returns of the 1-3 Year Index
(In percent, since 1986)

	Return	Period	Change in 2 y	Slope 2 y-3 m (average)
Worst Monthly Return	-0.48	Apr 04	0.29	0.59
Worst Cumulative Negative Return	-0.72	Jan 94 to Apr 94	1.03	0.57
Best Monthly Return	1.98	Mar 86	-0.34	-0.16

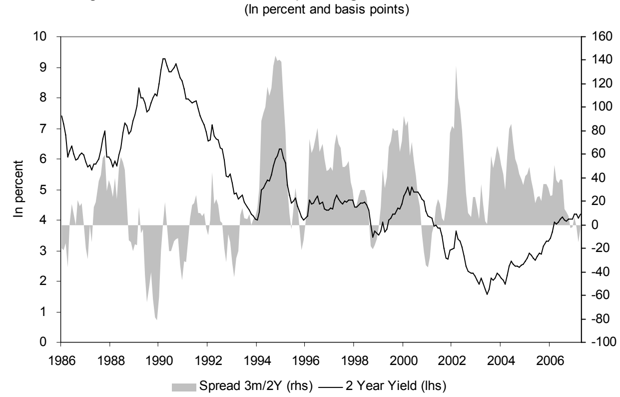
Note: Number of periods of negative monthly return: 36 out of 256 periods.

Performance when the SDR Yield Curve is Inverted

There are two main factors influencing the performance of the IA portfolio relative to the three-month SDR interest rate: the slope of the yield curve between three-month and two-year maturities and the changes in the level of interest rates.

The slope of the SDR yield curve between three-month and two-year maturities provides a proxy for the *ex ante* term premium accruing to the 1–3 benchmark index. It has been positive about 73 percent of the time. There have been four episodes of yield curve inversions since the mid-1990s (Figure).

Figure. 2-Year SDR Yield and Spread against the SDR Rate, since 1986
(In percent and basis points)



When the SDR yield curve has been inverted, there have been instances of some months of relative underperformance at the same time or immediately following the period of yield curve inversion. But these periods of underperformance have not always persisted: even in years that experienced periods of yield curve inversion, the 1–3 year benchmark has outperformed the three-month SDR interest rate over 60 percent of the time. However, the absence of a yield cushion during periods of inversion means that the direction of rates becomes the critical factor determining relative performance. The 1–3 year benchmark has performed strongly when the yield curve inversion signaled the end of a tightening cycle. Moreover, the highest monthly excess return (141 basis points in March 1986) occurred when the yield curve was inverted.

IV. Manager Performance and Risk Controls

15. **The external managers have performed broadly in line with the Merrill-Lynch 1–3 year government bond benchmark in the period under review** (see Table 1).[11]

- The World Bank, which closely tracks the index, outperformed by 3 basis points.
- UBS exceeded the benchmark return by 6 basis points, while JP Morgan underperformed by 2 basis points. A large part of the reason for JP Morgan's relative underperformance can be attributed to its longer portfolio duration in December and January (though both managers' portfolios remained shorter than the ML 1–3 year benchmark), when SDR interest rates increased (Table 2).

Table 2. Bond Portfolio Average Duration and Excess Returns 1/

	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	Aug-06–Apr-07
Deviations from Benchmark Duration (In months)										Average Monthly Deviation
JPM	--	0	0	-2	-1	-2	-4	-6	-6	-3
UBS	--	-8	-5	-6	-5	-4	-4	-5	-3	-5
IBRD	-1	-1	-1	0	0	-1	-1	0	0	-1
Monthly Excess Return (In percent)										Total Excess Return
JPM	--	-0.03	0.02	0.01	0.03	-0.05	-0.03	-0.01	0.03	-0.02
UBS	--	-0.07	-0.02	0.01	0.08	0.03	0.00	0.01	0.04	0.06
IBRD	0.02	0.02	-0.06	0.01	0.03	-0.01	0.02	0.00	0.01	0.03
Memorandum items:										
ML 1-3 - End of Month Yields (In percent)	3.92	3.92	3.97	3.92	4.12	4.23	4.07	4.13	4.19	

1/ The World Bank portfolio was partially funded in August and the portfolios managed by the two private managers were funded in early September 2006 in line with the phased adoption of the 1–3 year benchmark. Returns are expressed before management fees.

- Net of investment management and custodial fees, UBS and the World Bank outperformed the benchmark slightly (by 2 basis points and 1 basis point, respectively), while JP Morgan underperformed by 7 basis points.
- The portfolio of MTIs held with the BIS exceeded the benchmark by 2 basis points. There are no management or custodial fees associated with MTIs.

16. **Investments were kept within the risk limits and investment mandates agreed with each external manager.** Regular rebalancing of each of the bond and MTI portfolios ensured that their currency composition closely matched that of the SDR basket, thereby

[11] As a result of the phased implementation, the investment returns for the World Bank begin August 2006, while those for JPM and UBS start from September 1, 2006.

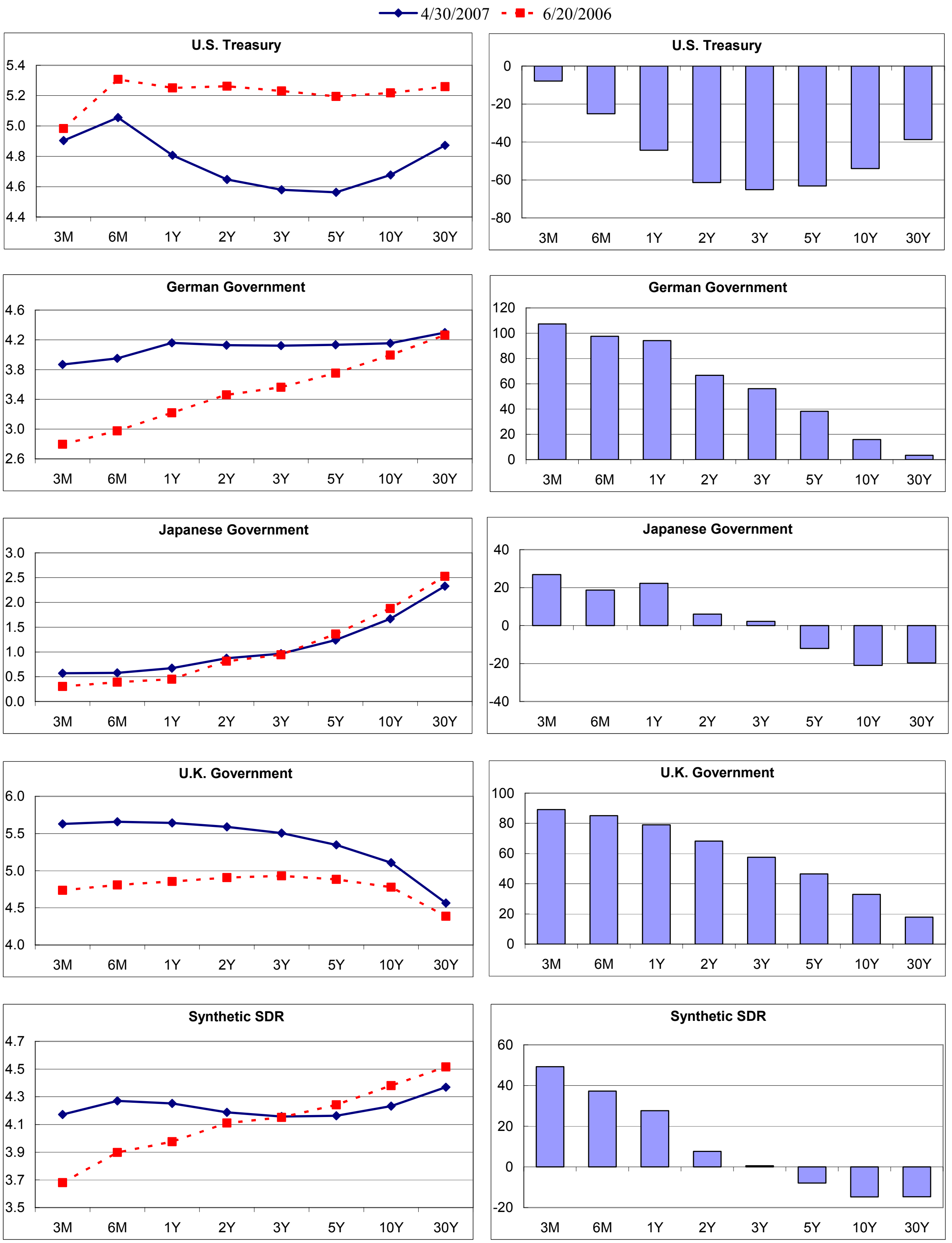
limiting exposure to currency risk (Annex II). The duration of the bond and MTI portfolios was kept within the limits established in their respective investment mandates and, in aggregate, stood at 21 months for the IA at end-April 2007. All securities and deposits held by the external managers conformed to the credit and issuer limits established in the investment guidelines.

17. The next semi-annual review of operations of the IA covering the period ending October 31, 2007 will be issued in December 2007.

ANNEX I: CHANGES IN SDR YIELDS

1. Yield curves at the start and at the end of the period (In percent)

2. Yield Changes during the period (In basis points)



Annex II: Investment Account—Bond Portfolio Exposure

(As of April 30, 2007; in percent)

Currency Exposure

	Benchmark	Investment Account
Euro	36.6	36.5
Japanese yen	10.1	10.0
Pound sterling	11.8	11.8
U.S. dollar	41.5	41.6
Total	100.0	100.0

Country Exposure

	Rating 1/	Investment Account
African Development Bank	AAA	0.6
Asian Development Bank	AAA	0.3
France	AAA	3.2
Germany	AAA	33.5
Japan	AA	10.1
Luxembourg	AAA	9.2
United Kingdom	AAA	8.5
United States	AAA	34.7
Total		100.0

Maturity Exposure

	Investment Account
Cash 2/	5.9
< One Year	8.2
1 to 3 Years	82.1
3 to 5 Years	2.6
5 to 10 Years	1.2
Total	100.0

1/ S&P long-term local currency sovereign rating.

2/ Includes residual cash balances and custodian's short-term investment funds.

ANNEX III: INVESTMENT ACCOUNT—STRUCTURE AND PHASING OF INVESTMENTS

Date	Action
June 20, 2006	Transfer SDR 5.96 billion from GRA to IA 2-day notice account at BIS.
June 21	Invest first tranche of SDR 1.49 billion in MTIs; place balance in 3 deposits maturing end-July, -August, and -September.
August 1	Transfer second tranche of SDR 1.49 billion from maturing BIS deposit to the World Bank.
September 1	Invest third tranche of SDR 1.49 billion from maturing BIS deposit: transfer SDR 477 million each to the two private managers, and invest SDR 536 million in MTIs.
October 2	Invest final tranche of SDR 1.52 billion from maturing BIS deposit: SDR 536 million with the World Bank and SDR 987 million in MTIs.