



IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT
Executive Board – Seventy-Fourth Session

Rome, 5-6 December 2001

IFAD’S INVESTMENT POLICY

I. INTRODUCTION

1. At its Seventy-Second Session, the Executive Board was advised that a review of IFAD’s investment policies would be undertaken by an expert group consisting of three highly qualified experts selected from the three Lists of Member States. The terms of reference for the ‘Review of IFAD’s Investment Policies’ were drafted in May 2001 in consultation with the Convenors of Lists A, B and C and additional Members designated by the Convenors from each List.
2. The following three experts were appointed following that consultation:
 - (a) Mr Bernard Cochemé, Administrator of the United Nations Joint Staff Pension Fund. He was formerly Financial Attaché at the French Mission to the United Nations in New York; and Director of the Retirements Branch of the *Caisse des dépôts et consignations in Paris*;
 - (b) Mr Mohammed Al-Shumrani, Director-General of the Investments Department of the Saudi Arabian Monetary Agency and Board Member of a number of Saudi Arabian financial institutions; and
 - (c) Mr Roberto Zahler, President of Zahler & Co. and Board Member of a number of Chilean financial institutions. From 1991 to 1996, he was Governor of the Central Bank of Chile.

Mr Rachid Ghozali, who assisted the experts in their work, was formerly a senior manager in the Investments Department of the World Bank and a Managing Director of Chase Manhattan Bank.

3. The Expert Group had an initial meeting with the Lists Convenors on 7 June 2001 and presented its summary conclusions to the Convenors on 4 July 2001. The Group’s report was then finalized and presented to the President of IFAD on 6 July 2001 and was forwarded to members of IFAD’s Executive Board together with Management’s comments as part of document EB 2001/73/R.6 “Report of the President on IFAD’s Investment Policy”.



4. A seminar was held in IFAD on 11 and 12 September 2001 in order to review the Report on Investment Policy prepared by the Expert Group. The report contained recommendations on a wide range of issues, and included a proposal for a new asset allocation that would substantially reduce the volatility of the Investment Portfolio.
5. The Expert Group proposed that IFAD's portfolio should be split into a fairly large short-term sub-portfolio that would consist of short duration instruments in order to cover net disbursements for loans and grants over a three-year period, and an investment sub-portfolio with longer-term instruments. In the latter, the allocation to equities would be reduced to 18% of total assets.
6. On the basis of an analysis of the level of net disbursements over the next five years, after taking into account the proceeds of drawdowns of Members' contributions, Management concluded that there is no need for a large short-term sub-portfolio, as current receipts of interest, bond coupons and dividends should be adequate to cover such needs.
7. Many speakers at the seminar favoured a reduction in the level of equities in the investment portfolio, while some called for a total withdrawal from investing in equities. Some representatives preferred maintaining the 45% level of equities. There was a generally held view that any reduction in the allocation to equities should be done in the context of a carefully managed transition in order to avoid unnecessary losses.
8. The President undertook to formulate a new investment policy in the light of the discussions at the seminar and to consult with the List Convenors prior to the Seventy-Fourth Session of the Executive Board in December 2001.
9. Two meetings were held with the List Convenors and with additional Members designated by the Convenors from each List on 26 October and 27 November 2001. The present document contains a synthesis of the material presented and discussed at the two consultations and the conclusions of the President which are presented in paragraphs 39 to 41.

II. ALTERNATIVE ASSET ALLOCATIONS

Portfolio Characteristics

10. Alternative Asset Allocations are presented in Annexes I to III. These include the characteristics of portfolios including allocations to equities of 0%, 10%, 18% and 45% respectively. They are presented in three variations with respect to the allocation to Diversified Fixed Income.
11. Besides equities, IFAD's portfolio consists of cash and three types of bond portfolios, namely Global Government Bonds, Global Inflation Indexed Bonds and Diversified Fixed Interest. In the case of both Global Government Bonds and Global Inflation Indexed Bonds, the minimum credit quality of the portfolio is AA. In the case of Diversified Fixed Interest, the guidelines given by IFAD to the external investment managers allow investment in bonds with a credit rating no lower than single B, provided that the average credit rating for the portfolio is maintained at BBB.
12.
 - (a) Annex I reflects the current policy on asset quality.
 - (b) Annex II includes a floor of single A for fixed interest investments.
 - (c) Annex III includes a floor of AA for fixed interest investments.



13. The definition of long-term credit ratings along with the average credit spreads relating to corporate bonds over government bonds are presented in Annex IV.

Assumptions

14. In presenting the three options, the interest rates and bond yields used reflect a situation where there is a modest growth in the world economy, rather than the recessionary environment which we are experiencing at present. The assumptions underlying the computations for the three options are presented in Annex V.

IFAD's changing profile as a long-term investor

15. In document GC 20/L.8 "Diversification of the Investment Portfolio", presented to the Twentieth Session of the Governing Council in February 1997, IFAD based its claim to be a long-term investor on the ratio of liquid assets to disbursements which in 1995 was 10.6 times annual disbursements, compared with an average of 1.6 for other international financial institutions (IFIs).

16. The ratio of investments to disbursements for the United Nations Joint Staff Pension Fund was 15.4. This indicated that IFAD was closer in profile to a pension fund than the other IFIs.

17. IFAD's rate of disbursement increased during the period 1995 to 2000, and the level of the investment portfolio fell in USD terms, so that when the Expert Group conducted its review in 2001, IFAD's ratio of liquid assets to disbursements had fallen to 6.6 which the report of the Expert Group described as 'comfortable' in the section on the investment horizon.

18. IFAD's financial advisors have provided a graph showing the range of real returns for equities, bonds and cash for the period 1900 to 2000, which is included as Annex VI. This indicates that over a five-year time horizon, the difference in the downside risk for holding equities rather than bonds is negligible, while the expectation for higher returns improves over longer periods.

19. It may be concluded that IFAD still has a long-term investment horizon, but that this could deteriorate in the longer term if there is a significant drop in the size of the investment portfolio.

III. CURRENT INVESTMENT POLICY

20. The current investment policy was introduced in 1997 following consultations with the Executive Board and the Governing Council. It was decided to implement the change in policy over a three-year period. Funding of equities mandates commenced in October 1997 and was completed by August 2000.

21. The current investment policy is linked to the view that equities markets outperform fixed interest markets over time. The policy implies a high degree of volatility in annual returns, and is consequently only appropriate for long-term investors. In IFAD's case the policy was linked to a robust system for coping with downturns in the market through the mechanism of Advance Commitment Authority (ACA), which was specifically introduced to deal with such situations.

22. The past three years have been marked by a high level of volatility in the equities markets, and IFAD has resorted to the use of ACA to cover loan and grant commitments in 2001, due to shortfalls in investment income.

23. At the September seminar, it was questioned whether IFAD really had the profile of a long-term investor and whether the ACA mechanism could resist the pressure of a long-term



underperformance of the equities markets. As noted in paragraphs 15 to 19 above, IFAD's ability to resist volatility has been somewhat eroded since 1997.

24. Many speakers at the seminar indicated that the degree of unpredictability in returns associated with the current investment policy is not tolerable, particularly in view of the uncertain outlook for the world economy.

IV. ALTERNATIVE INVESTMENT POLICIES

25. Annex I presents alternative investment policies with lower allocations to equities than the current investment policy, i.e., at 0%, 10% and 18%, with proportionate increases in the remaining asset classes other than cash.

26. In the final analysis, the allocation to equities that is chosen is a matter of judgement. As noted in paragraph 26 of the Expert Group Report "There is no single return-to-risk trade-off that is correct for every investor", it is important for IFAD to ensure that the level of equities decided on corresponds to its risk preferences.

27. The allocation of 18% to equities was recommended by the Expert Group, with a view to bring about a substantial reduction in the volatility of the portfolio. The effect is even more pronounced with the lower allocations of 0% or 10%. It is notable, however, that the allocation of 10% has the highest Sharpe ratio, which indicates that the rate of return is highest per unit of risk.

28. Annex II and III indicate the risk and return characteristics if the floor for the credit rating of bonds included in the Diversified Fixed Interest Portfolio is raised to single A and AA respectively.

29. The Diversified Fixed Interest Portfolio currently amounts to approximately USD 215 million. It includes an allocation of approximately 30% to corporate bonds which have an average credit rating of BBB- and an allocation of approximately 15% to emerging market bonds denominated in USD which have an average credit rating of BB-.

30. IFAD is the only IFI which maintains an exposure to instruments with credit ratings below AA-. The two asset classes concerned have had the highest returns in the fixed interest sector, but also the highest volatility. Losses have been avoided by a high degree of diversification and active management of the credits. The scenario included in Annex III would bring IFAD's investment policy in line with that of other IFIs.

Summary of Portfolio Characteristics

31. Table 1 summarizes the characteristics of the alternative portfolios and indicates the potential income associated with the various allocations to equities and floors for the credit ratings of bonds for a portfolio totalling USD 2 000 million. However, it should be noted that a high degree of uncertainty attaches to any forecast of future investment returns. Since the inception of the diversified investment policy in 1997, returns have been quite contrary to expectations, which were based on historic data covering the long-term performance of equity markets.

Table 1. Portfolio Characteristics
(amounts in USD millions)

% Equities	Current Credit Quality			Single A			AA		
	RoR %	Potential Income	Volatility %	RoR %	Potential Income	Volatility %	RoR %	Potential Income	Volatility %
45	7.0	140	8.3	7.0	140	8.3	7.0	140	8.2
18	6.1	122	5.1	6.0	120	5.0	6.0	120	4.8
10	5.8	116	4.6	5.7	114	4.4	5.6	112	4.2
0	5.4	108	4.4	5.3	106	4.2	5.3	106	3.9

V. OTHER RECOMMENDATIONS OF THE EXPERT GROUP

32. Besides addressing the issue of overall asset allocation the Expert Group Report addressed a number of important issues on which Management commented both in the Report of the President on IFAD's Investment Policy, and during the course of the September Seminar. Progress on these issues is reported below:

Operational Risk

33. The Expert Group Report emphasized the need to strengthen Treasury procedures. This is already taking place with respect to the implementation of recommendations regarding risk management, the recording and evaluation of key indicators and the production of a comprehensive procedures manual.

34. It is recognized that the staff levels and training requirements will be determined to a large extent on the basis of the workload implicit in the revised investment policy, but preliminary measures have been taken in the context of the allocation of resources in the budget for 2002.

Socially, Ethically and Ecologically Acceptable Investing

35. It is envisaged that as part of the transition to a new asset allocation, IFAD's managers for both equities and corporate bonds will be asked to apply screening techniques to ensure that IFAD only invests in companies whose products, and whose employment and environmental policies conform with socially, ethically and ecologically acceptable principles.

Investments Advisory Committee

36. The Expert Group noted that membership of the Investments Advisory Committee is restricted to IFAD Management and staff members. It was recommended that the internal membership should be reduced and that one or two external members with broad experience of the investment management business should be added.

37. The principle of external membership is not new to IFAD, and IFAD's Financial Advisors routinely participate in meetings of the Investments Advisory Committee. Whether new expertise is needed will be discussed once the revised investment policy has been determined.



Reporting to the Executive Board

38. The Expert Group suggested that in addition to the quarterly reports on IFAD's investment portfolio, Members of the Executive Board should be sent monthly bulletins on the status of the portfolio. This recommendation will be put on the Agenda of the Audit Committee for further discussion.

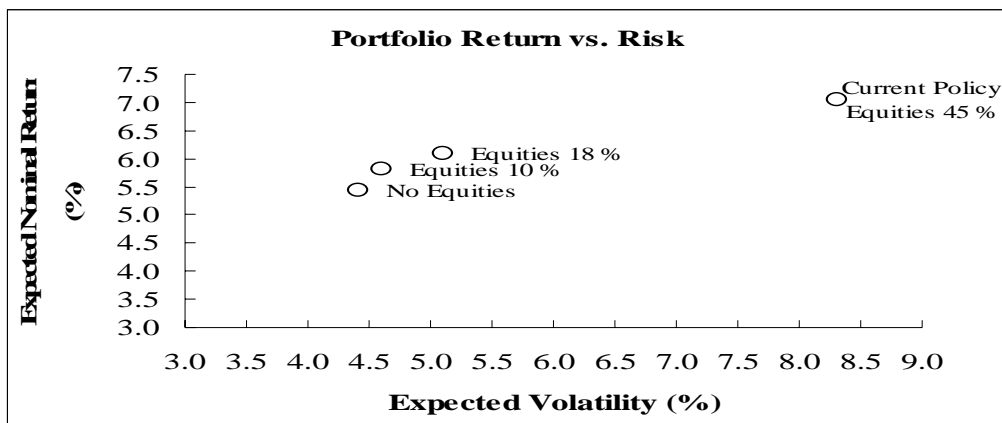
VI. CONCLUSION

39. Extensive consultations with Board Members has made clear that a range of views exist but that the level of volatility associated with the current investment policy is not acceptable. Volatility/risk rises significantly with the level of investment in equities. In order to strike a prudent balance between risk and return, an allocation to equities of 10% would be appropriate.

40. Furthermore, given the relatively small change in potential investment income between the current policy and a floor of AA, and the risks inherent in the current recessionary environment, it is proposed that a cautious approach should be adopted, and that IFAD should revise its policy and bring this in line with that of other IFIs as far as the credit quality floor is concerned.

41. The new investment policy should be implemented in an orderly way with an adequate transition period in order to minimize and if possible avoid losses. It is expected that the new policy will be fully implemented by the commencement of the Sixth Replenishment period, i.e. 2004. The transition will be monitored and reported to the Board regularly.

Summary of Portfolio Characteristics
Credit Rating: Current

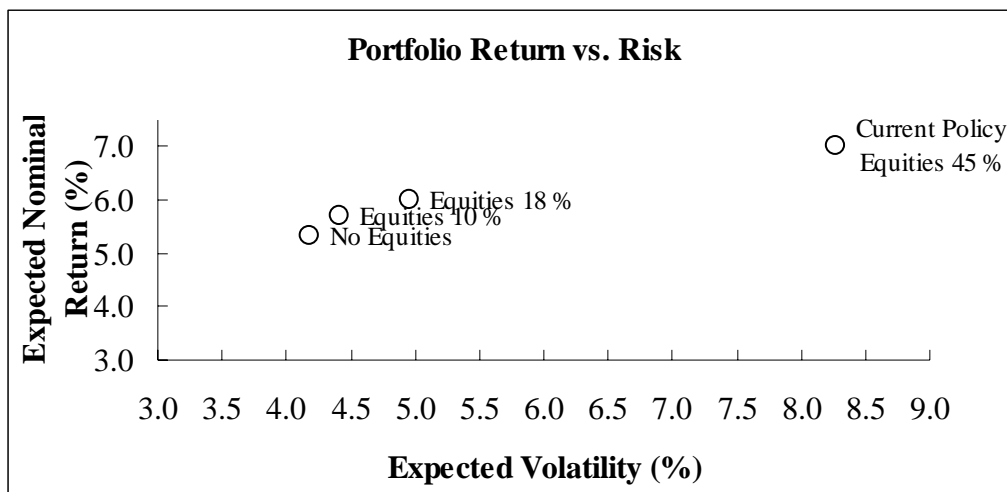


Asset	Assumptions		No Equities	Equities 10 %	Equities 18 %	Current Policy Equities 45 %
	Nominal Return %	Volatility %				
Cash	3.0	2.9	5.0	5.0	5.0	5.0
Global government bonds	5.3	5.6	50.0	44.0	40.0	40.0
Diversified fixed-interest	6.3	8.0	25.0	23.0	21.0	10.0
Global inflation indexed bonds	5.3	2.8	20.0	18.0	16.0	-
Global equities	9.2	15.9	-	10.0	18.0	45.0
Total %			100.0%	100.0%	100.0%	100.0%
Return						
i) Expected coupon/dividend payments (USD million)*			109	101	96	75
ii) Expected nominal return %			5.4	5.8	6.1	7.0
iii) Probability % of achieving in 3 years a minimum average return of 3 %			85%	88%	87%	82%
iv) Cumulative returns 3 years:						
Expected cumulative return %			17.2	18.4	19.4	22.6
Expected minimum cumulative return % (95% confidence level)			1.9	2.5	1.7	-6.1
Expected maximum cumulative return % (95% confidence level)			32.5	34.4	37.1	51.4
Risk						
v) Expected volatility %			4.4	4.6	5.1	8.3
vi) Expected Value-at-Risk**			146	152	169	274
Risk-adjusted return						
vii) Sharpe Ratio			0.55	0.61	0.61	0.49

* Calculated for a total portfolio of USD 2 billion.

** Calculated in USD million with a 1 year horizon and 95 % confidence level. Calculated for a total portfolio of USD 2 billion.

Summary of Portfolio Characteristics
Credit Rating: A

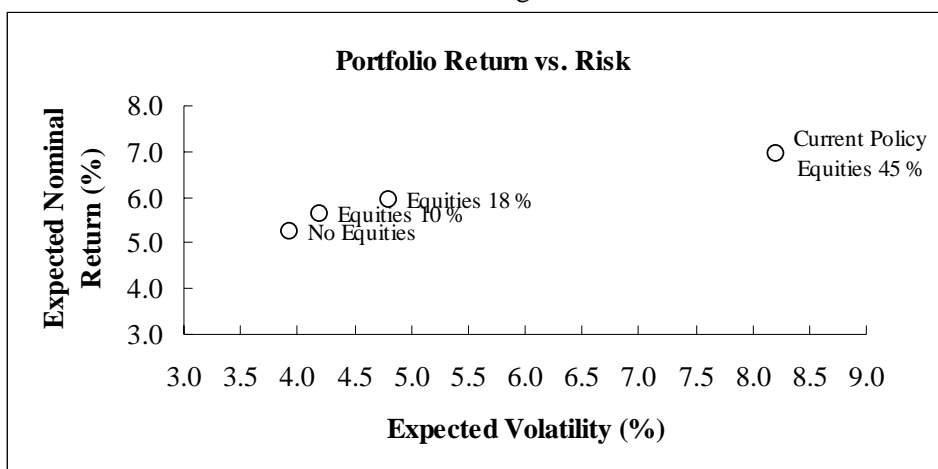


Asset	Assumptions		No Equities	Equities 10 %	Equities 18 %	Current Policy Equities 45 %
	Nominal Return %	Volatility %				
Cash	3.0	2.9	5.0	5.0	5.0	5.0
Global government bonds	5.3	5.6	50.0	44.0	40.0	40.0
Diversified fixed-interest	5.9	7.0	25.0	23.0	21.0	10.0
Global inflation indexed bonds	5.3	2.8	20.0	18.0	16.0	-
Global equities	9.2	15.9	-	10.0	18.0	45.0
Total %			100.0%	100.0%	100.0%	100.0%
Return						
i) Expected coupon/dividend payments (USD million)*			107	100	94	74
ii) Expected nominal return %			5.3	5.7	6.0	7.0
iii) Probability % of achieving in 3 years a minimum average return of 3 %			85%	88%	87%	82%
iv) Cumulative returns 3 years:						
Expected cumulative return %			16.9	18.1	19.1	22.5
Expected minimum cumulative return % (95% confidence level)			2.4	2.9	2.0	-6.1
Expected maximum cumulative return % (95% confidence level)			31.3	33.4	36.3	51.1
Risk						
v) Expected volatility %			4.2	4.4	5.0	8.3
vi) Expected Value-at-Risk**			138	146	164	273
Risk-adjusted return						
vii) Sharpe Ratio			0.56	0.62	0.61	0.48

* Calculated for a total portfolio of USD 2 billion.

** Calculated in USD million with a 1 year horizon and 95 % confidence level. Calculated for a total portfolio of USD 2 billion.

Summary of Portfolio Characteristics
Credit Rating: AA



Asset	Assumptions		No Equities	Equities 10 %	Equities 18 %	Current Policy Equities 45 %
	Nominal Return %	Volatility %				
Cash	3.0	2.9	5.0	5.0	5.0	5.0
Global government bonds	5.3	5.6	50.0	44.0	40.0	40.0
Diversified fixed-interest	5.6	6.0	25.0	23.0	21.0	10.0
Global inflation indexed bonds	5.3	2.8	20.0	18.0	16.0	-
Global equities	9.2	15.9	-	10.0	18.0	45.0
Total %			100.0%	100.0%	100.0%	100.0%
Return						
i) Expected coupon/dividend payments (USD million)*			105	98	93	74
ii) Expected nominal return %			5.3	5.6	6.0	7.0
iii) Probability % of achieving in 3 years a minimum average return of 3 %			86%	88%	88%	82%
iv) Cumulative returns 3 years:						
Expected cumulative return %			16.6	17.9	18.9	22.4
Expected minimum cumulative return % (95% confidence level)			3.0	3.4	2.3	-6.1
Expected maximum cumulative return % (95% confidence level)			30.3	32.5	35.5	50.9
Risk						
v) Expected volatility %			3.9	4.2	4.8	8.2
vi) Expected Value-at-Risk**			130	139	158	271
Risk-adjusted return						
vii) Sharpe Ratio			0.57	0.63	0.62	0.48

* Calculated for a total portfolio of USD 2 billion.

** Calculated in USD million with a 1 year horizon and 95 % confidence level. Calculated for a total portfolio of USD 2 billion.

**DEFINITIONS OF LONG-TERM CREDIT RATINGS**

- AAA** Bonds, which are rated AAA, are judged to be of the best quality. They carry the smallest degree of investment risk. Interest payments are protected by a large or by an exceptionally stable margin and the principal is secure. While the various protective elements are likely to change, such changes are most unlikely to impair the fundamentally strong position of such bonds.
- AA** Bonds, which are rated AA, are judged to be of high quality by all standards. They are rated lower than AAA bonds because margins of protection may not be as large as for AAA bonds or fluctuation of protective elements may be of greater amplitude or there may be other elements present, which make the long-term risk appear somewhat larger than for AAA bonds.
- A** Bonds, which are rated A, possess many favorable investment attributes and are to be considered as upper-medium-grade obligations. Factors giving security to principal and interest payments are considered adequate, but elements may be present which suggest a susceptibility to impairment some time in the future.
- BBB** Bonds, which are rated BBB, are considered as medium-grade obligations, i.e. they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and have speculative characteristics as well.
- BB** Bonds, which are rated BB, are judged to have speculative elements, i.e. their future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate, and thereby not well safeguarded during both good and bad times in the future.
- B** Bonds, which are rated B, generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms in the contract may be small over any long period of time.
- C** Bonds, which are rated C, are the lowest rated class of bonds, and can be regarded as having extremely poor prospects of ever attaining any real investment standing.

Average credit spreads over US Treasury Bonds at 22 November 2001 (basis points)

AAA	AA	A	BBB	High Yield
47	59	123	220	818



A. DEFINITIONS OF RISK MEASURES

Volatility	<p>A risk measure that indicates how much the portfolio's return is fluctuating over time. A higher volatility means a higher uncertainty in returns.</p> <p><i>Calculated as the historical standard deviation of portfolio returns from their mean. A volatility of for example 5 % indicates that the annual return will with a probability of 67 % fall within +/- 5 % from the mean.</i></p>
Value-at-Risk (VaR)	<p>A risk measure that indicates the maximum amount the portfolio could lose over a certain time horizon, with a given level of confidence.</p> <p><i>Several estimation methodologies exist. IFAD uses a methodology where each asset class has a benchmark index assigned to it as a proxy for its risk. The risk of each asset class is calculated as the volatility of several years of the index returns. The Value-at-Risk of the overall portfolio takes into account the correlation between the asset classes composing the portfolio.</i></p>
Sharpe Ratio	<p>A measure for risk-adjusted return that compares the portfolio's return to its risk level. The Sharpe Ratio is useful for comparing portfolios with different risk levels. The more positive the Sharpe ratio, the better the risk-adjusted return.</p> <p><i>Calculated as the portfolio's return less risk-free return and divided by the portfolio's volatility.</i></p>

B. RETURN AND RISK ASSUMPTIONS

Table 3 shows historical yearly returns together with average return and risk figures for the asset classes composing the three portfolio options. The applied assumption for average future returns is shown together with average historical return, average bond yields and equity returns for the last ten years as well as current bond yields.

Regarding equities, the assumed average future return equals the historical average return for the past thirty years.

Unlike equity returns, bond returns are not mean reverting according to empirical research. The current bond yield level, which effectively is the expected average return on bonds, is at a historically low level. The assumption for future bond returns is therefore above the current bond yield level but below the historical nominal returns, particularly due the prevailing lower inflation environment.

IFAD has been in contact with a number of investment managers in order to obtain their best estimates of future bond returns. Estimates differed according to varying economic scenarios. Those eventually selected were based on the assumption of a return to moderate growth.

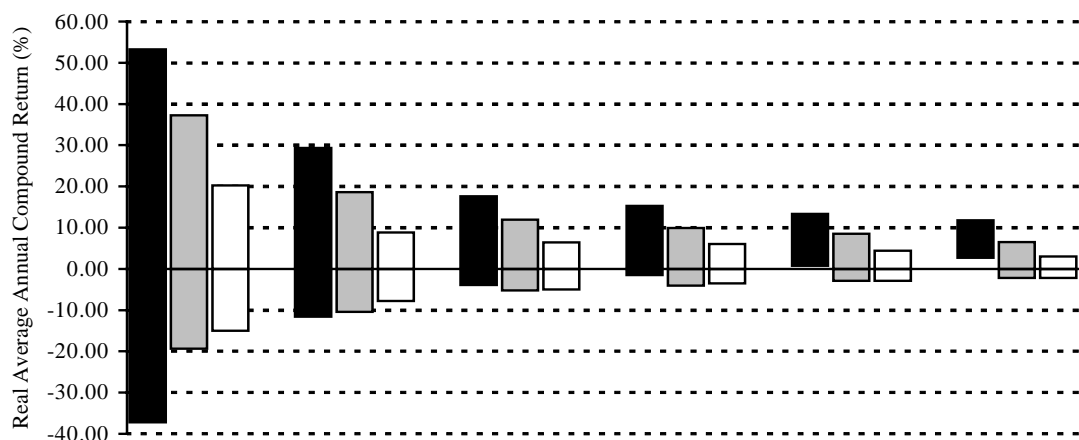
The standard deviations presented in the table were calculated on the historical data and were applied when computing the three portfolio options.

Table 3: Yearly Asset Class Returns 1970-2000 and Average Return and Risk
(Nominal Local Currency Terms)

Asset Class	Cash	Global Government Bonds	Diversified Fixed-Interest	Global Inflation Indexed Bonds	Global Equities
Benchmark Index	91-Days Treasury Bills	JP Morgan Global Government Bonds Index	Salomon Brothers Broad Investment Grade (BIG) Index	Bridgewater Inflation Linked Data	MSCI World (1988 onwards: MSCI AC World)
1970	6.8	-	-	-	-6.1
1971	4.7	-	-	12.2	13.0
1972	4.3	-	-	11.8	19.6
1973	7.6	-	-	9.2	-19.9
1974	8.5	-	-	10.9	-28.6
1975	6.1	-	-	15.1	32.3
1976	5.3	-	-	19.4	11.0
1977	5.7	-	-	12.4	-6.9
1978	8.1	-	-	14.1	5.8
1979	11.3	-	-	9.7	9.4
1980	13.1	-	-	16.0	19.4
1981	16.0	-	6.5	11.5	-2.3
1982	11.8	-	31.8	12.0	11.6
1983	9.6	-	8.2	11.1	21.6
1984	10.6	-	15.0	9.0	7.5
1985	8.2	-	22.3	9.6	25.3
1986	6.4	13.5	15.4	8.9	27.2
1987	6.2	4.5	2.6	9.9	-1.5
1988	7.4	7.1	8.0	8.2	25.9
1989	9.0	9.1	14.4	10.6	24.0
1990	8.2	7.0	9.1	9.4	-22.7
1991	5.7	14.9	16.0	9.3	15.5
1992	3.6	9.7	7.6	8.8	-1.7
1993	3.2	14.5	9.9	9.5	23.9
1994	4.6	-3.5	-2.8	9.9	-0.1
1995	5.9	17.1	18.5	5.3	15.1
1996	5.4	7.6	3.6	8.2	14.3
1997	5.5	9.5	9.6	8.1	20.0
1998	5.1	10.1	8.7	10.1	16.6
1999	5.1	-1.2	-0.8	12.2	28.3
2000	6.3	8.3	11.6	8.7	-11.7
Return					
Average Historical Return (%)	7.3	8.5	10.8	10.7	9.2
Average Bond Yield/Equity Return Last 10 Years (%)	4.7	5.7	6.6	5.9 a)	12.0
Current Bond Yield (%) b)	2.4	3.8	5.0	5.2 c)	-
Assumption for average future return (%)	3.0	5.3	6.3	5.3	9.2
Risk					
Standard Deviation (%)	2.9	5.6	8.0	2.8	15.9

- a) Historical bond yields not available. Average bond yield 5.9 calculated as (Average global bond return last 10 year/Average global inflation indexed bond return last 10 years)*Average global bonds yield last 10 years
- b) As of 30 September 2001.
- c) The current yield represents the real yield of 3.2 % on US Treasury inflation indexed bonds plus 2 % inflation assumption to make the return nominal.

Range of Real Returns for Equities, Bonds, and Cash 1900-2000



1-Year 5-Year 10-Year 15-Year 20-Year 25-Year
Periods Periods Periods Periods Periods Periods

Equities

	<u>1-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>	<u>20-Year</u>	<u>25-Year</u>
	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>
	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>
High	53.27%	29.38%	17.66%	15.24%	13.28%	11.78%
Average	9.05%	7.31%	6.83%	6.62%	6.52%	6.58%
Low	-37.29%	-11.62%	-3.93%	-1.54%	0.77%	2.71%
	[1954]	[1928]	[1958]	[1999]	[1999]	[1999]
	[1931]	[1920]	[1920]	[1920]	[1981]	[1981]

Bonds

	<u>1-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>	<u>20-Year</u>	<u>25-Year</u>
	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>
	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>
High	37.27%	18.61%	11.95%	9.91%	8.54%	6.49%
Average	2.69%	2.36%	2.20%	2.01%	1.81%	1.76%
Low	-19.41%	-10.48%	-5.22%	-4.07%	-2.91%	-2.16%
	[1982]	[1986]	[1991]	[1935]	[1940]	[1945]
	[1917]	[1920]	[1981]	[1981]	[1981]	[1981]

Cash

	<u>1-Year</u>	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>	<u>20-Year</u>	<u>25-Year</u>
	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>	<u>Periods</u>
	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>	<u>Ending</u>
High	20.21%	8.82%	6.42%	6.05%	4.35%	2.99%
Average	1.31%	1.21%	1.11%	1.00%	0.91%	0.85%
Low	-15.01%	-7.78%	-5.00%	-3.58%	-2.90%	-2.15%
	[1921]	[1932]	[1930]	[1934]	[1939]	[1932]
	[1946]	[1919]	[1950]	[1951]	[1952]	[1957]

Sources: Bureau of Labor Statistics, Common-Stock Indexes (Cowles Commission), Federal Reserve, Global Financial Data, Salomon Smith PeriodsBarney, and Standard & Poor's.