MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
March 6, 2002

&

INVESTMENT ADVISORY
COUNCIL MEETING
March 5, 2002

AGENDA
STATE BOARD OF INVESTMENT MEETING
Wednesday, March 6, 2002
9:00 A.M. - Room 125
State Capitol - Saint Paul

		TAB
1.	**Approval of Minutes of December 5, 2001**	
2.	**Report from the Executive Director (H. Bicker)**	**A**
	A. Quarterly Investment Review (October 1, 2001 – December 31, 2001)	
	B. Administrative Report	**B**
	1. Reports on budget and travel.	
	2. Results of FY01 Financial Audit.	
	3. Legislative Update.	
	4. Litigation Update.	
	5. Change in Contract for MnSCU Investment Portfolios.	
	6. Potential Asset Allocation Changes to Certain Non-retirement Funds.	
3.	**Master Custody Review Committee (Peter Sausen)**	**C**
4.	**Reports from the Investment Advisory Council (Jan Yeomans)**	**D**
	A. Stock and Bond Manager Committee	
	1. Review of manager performance.	
	2. Update of the Domestic Equity semi-passive short list.	
	3. Recommendation to adopt the fixed income position paper.	
	4. Recommendation to terminate Zurich Scudder Investments.	
	5. Recommendation to renew investment manager contracts.	
	B. Alternative Investment Committee	**E**
	1. Review of current strategy.	
	2. Review meeting with an existing alternative investment manager.	
	3. Approval of one manager commitment for the Post Retirement Fund: • GMAC	
	4. Pre-approval of the following investment with one existing alternative investment manager for the Basic Retirement Fund: • Warburg Pincus	

Minutes
State Board of Investment
December 5, 2001

The State Board of Investment (SBI) met at 9:00 A.M. Wednesday, December 5, 2001 in Room 125 State Capitol, St. Paul, Minnesota. Governor Jesse Ventura; State Auditor Judith H. Dutcher; State Treasurer Carol C. Johnson; Secretary of State Mary Kiffmeyer and Attorney General Mike Hatch were present. The minutes of the September 5, 2001 Board meeting were approved.

Executive Director's Report
Mr. Bicker, Executive Director, referred members to Tab A of the meeting materials and reported that the Combined Funds had exceeded inflation over the ten year period ending September 30, 2001 (Combined Funds 10.0% vs. inflation 2.7%), slightly trailed the median fund (52nd percentile) and outperformed its composite index (Combined Funds 8.3% vs. Composite 7.6%) for the most recent five year period. He stated that the Basic Funds have exceeded its composite index (Basic Funds 8.7% vs. Composite 8.1%) over the last five years and reported that the Post Fund has outperformed its composite index over the last five years period (Post Fund 7.8% vs. Composite 7.1%).

Mr. Bicker reported that the Basic Fund's assets decreased 9.3% for the quarter ending September 30, 2001 due to negative investment returns and negative net contributions. He said that the asset mix had been rebalanced and is on target. He reported that the Basic Funds outperformed its composite index for the quarter (Basic Funds –8.4% vs. Composite –8.8%) and for the year (Basic Funds –15.2% vs. Composite –16.4%).

Mr. Bicker reported that the market value of the Post Fund's assets decreased 9.8% for the quarter ending September 30, 2001. He said the Post Fund asset mix was also now on target after being rebalanced and that the Post Fund outperformed its composite index for the quarter (Post Fund –9.0% vs. Composite –9.3%) and for the year (Post Fund –15.5% vs. Composite –16.6%).

Mr. Bicker reported that the domestic stock manager group outperformed its target for the quarter (Domestic Stocks –16.3% vs. Wilshire 5000 Investable –16.4%) and for the year (Domestic Stocks –29.2% vs. Wilshire 5000 Investable –29.8%). He said that the International Stock manager group underperformed its composite index for the quarter (International Stocks –15.0% vs. Int'l Composite –14.8%), but outperformed it for the year (International Stocks –28.4% vs. Int'l Composite –29.0%). Mr. Bicker stated that the bond segment slightly underperformed its target for the quarter (Bonds 4.5% vs. Lehman Aggregate 4.6%) and had outperformed it for the year (Bonds 13.4% vs. Lehman Aggregate 13.0%). He concluded his report with the comment that as of September 30, 2001, the SBI was responsible for over $43 billion in assets.

Executive Director's Administrative Report
Mr. Bicker referred members to Tab B of the meeting materials for the quarterly updates on budget and travel.

Mr. Bicker reported that the Post Retirement benefit increase for FY01 will be 4.5%. He said the increase will be payable to eligible retirees effective January 1, 2002.

Mr. Bicker asked Christie Eller, Assistant Attorney General, to update members on the status of three active litigation cases. She stated that in the Mercury case, a final distribution may be made by December 31, 2001. She reported that a motion to dismiss is in the process of being heard in the McKesson case. She said the arguments were not completed and will likely be rescheduled in late January 2002. Ms. Eller stated that the SBI was recently appointed lead plaintiff in a securities case against Broadcom and that as expected, a motion to dismiss the state's claim has been filed.

Mr. Bicker reported that the Legislative Auditor is nearly finished with its financial audit of the SBI and that he is expecting a "clean audit" opinion.

Mr. Bicker stated the SBI's Annual Report for FY01 will be ready for distribution in January 2002.

Mr. Bicker referred members to item #6 in his Executive Director's Report which listed the tentative Board and IAC meeting dates for the calendar year 2002

Mr. Bicker said that the SBI office is moving today and that the office will be located at 60 Empire Drive, Suite 355.

Mr. Bicker distributed a memo to members regarding some minor changes the staff had approved for the TIAA-CREF investment guidelines (see **Attachment A**). He said this was an information item for the Board.

Stock and Bond Manager Committee Report
Ms. Yeomans referred members to Tab C of the meeting materials and noted that the investment managers held their own during the volatile market experienced during the quarter. She said that the Committee completed their annual review of investment manager guidelines and that the only changes being made were "housekeeping" in nature.

Ms. Yeomans stated that the Committee had also updated the Domestic Equity manager short list during the quarter. She noted that the short list is used when the SBI needs to conduct a manager search.

Ms. Yeomans reported that the Committee is recommending that the investment manager contracts be renewed for four of the SBI's current equity managers. Mr. Hatch moved approval of the Committee's recommendation, as stated in the Committee Report which reads: "The Committee recommends that the SBI authorize the Executive Director, with the assistance from SBI's legal counsel, to negotiate and execute five year contract extensions with the following firms, subject to inclusion of a provision which provides for immediate termination: Cohen, Klingenstein & Marks, Inc.; New Amsterdam Partners; Valenzuela Capital Partners, LLC; and Zevenbergen Capital, Inc." Ms. Kiffmeyer seconded the motion. The motion passed.

Alternative Investment Committee Report
Ms. Yeomans referred members to Tab D of the meeting materials and stated that there were no recommendations for new investments from the Committee at this time.

The meeting adjourned at 9:25 A.M.

Respectfully submitted,

Howard J. Bicker

Howard J. Bicker
Executive Director

MINNESOTA STATE BOARD OF INVESTMENT

Capitol Professional Office Building
Suite 200
590 Park Street
St. Paul, MN 55103
(651) 296-3328
FAX (651) 296-9572
E-mail:
minn.sbi@state.mn.us.
www.sbi.state.mn.us

DATE: December 5, 2001

TO: Members, State Board of Investment

FROM: Howard Bicker

SUBJECT: TIAA-CREF investment guideline modifications

The SBI's contract with Teachers Insurance and Annuity Association-College Retirement Equity Fund (TIAA-CREF) to provide investment and administrative services for the State's 529 College Savings Plan, calls for an annual review of the investment guidelines. TIAA-CREF has requested (letter attached) modest changes in the asset allocation guidelines for the Managed Allocation Option and the 100% Equity Option. Staff has reviewed the recommendations and approved the changes, which will be implemented in January 2002. This is provided to the Board as an informational item.

TIAA CREF

Teachers Insurance and Annuity Association
College Retirement Equities Fund
730 Third Avenue, New York, NY 10017-3206
212 490-9000 1 800 842-2733

Anthony R. Roberts
Director, Business Analysis
& Corporate Reporting
Tuition Financing
1 800 842-2733 Extension 4155
Fax: (212) 916-6144

November 19, 2001

Mr. Howard Bicker
Executive Director
Minnesota State Board of Investment
590 Park Street, Suite 200
St. Paul, MN 55103

Re: Minnesota College Savings Plan
2002 Asset Allocation Recommendation

Dear Mr. Bicker:

TIAA-CREF Tuition Financing, Inc. (TFI) has completed its 2002 asset allocation study for the Minnesota College Savings Plan. Based on the results of the asset allocation study, TFI recommends: increasing the equity exposure by five to ten percentage points in each age band except the third youngest age band, and changing the allocation percentages within the equity component of each age-based portfolio for the Managed Allocation Option.

In addition, TFI recommends further diversification of the equity component by adding the TIAA-CREF Institutional Equity Index and the Growth & Income Funds to the equity component of the Managed Allocation Option. While TFI recommends further diversification within the Managed Allocation Option, no further diversification is recommended for the 100% Equity Option. As supported by an efficient frontier analysis, the recommended split should be 80% domestic equities and 20% international equities. Among the domestic equities, the split should be as follows: 45% Equity Index, 20% Growth Equity and 35% Growth and Income.

The rationale for our recommendation is as follows:

- It is our belief that by increasing the equity exposure, account owners would be compensated for assuming additional risk given the level of the projected increase in the expected return relative to the smaller increase in the annualized shortfall risk. Furthermore, it increases the probability of outpacing tuition inflation for all age bands. While this recommendation increases the annualized shortfall risk, it reduces the probability that a shortfall will occur. With respect to further equity diversification, we believe that it allows us to offset some of the risk due to the increase in equity exposure.

- Our recommendation brings Minnesota's asset allocation percentages across each age-based portfolio more inline with other Section 529 programs.

- Empirical study indicates that over a long period of time a well diversified portfolio tends to achieve a given level of return with less volatility than a less diversified portfolio. Adding two additional equity funds will allow the program to achieve broader diversification and further diversify across portfolio managers.

The attached exhibits summarize the recommended changes for the Managed Allocation and the 100% Equity Options.

Sincerely,

Anthony R. Roberts
Director

Cc: Jim Heidlberg
Jack Rayburn
Michael Noone
Bruce Sheinhaus

Attachments

Exhibit 9

Minnesota College Savings Plan
Managed Allocation

Current (2001) Asset Allocation

Beneficiary's Year of Birth	Investment Horizon (n years)	*Growth Equity*	*Growth & Income*	*Equity Index*	*International Equity*	Total Equities	Bond	Money Market Fund
2002-2003	21	*75 0%*	*0.0%*	*0.0%*	*0%*	75%	25%	0%
2000-2001	19	*70 0%*	*0 0%*	*0 0%*	*0%*	70%	30%	0%
1998-1999	17	*65 0%*	*0 0%*	*0.0%*	*0%*	65%	35%	0%
1996-1997	15	*55 0%*	*0 0%*	*0.0%*	*0%*	55%	45%	0%
1994-1995	13	*45 0%*	*0 0%*	*0.0%*	*0%*	45%	55%	0%
1992-1993	11	*40 0%*	*0.0%*	*0 0%*	*0%*	40%	60%	0%
1990-1991	9	*35 0%*	*0 0%*	*0 0%*	*0%*	35%	65%	0%
1988-1989	7	*25 0%*	*0 0%*	*0.0%*	*0%*	25%	70%	5%
1986-1987	5	*15 0%*	*0 0%*	*0.0%*	*0%*	15%	70%	15%
pre-1986	3	*10 0%*	*0 0%*	*0 0%*	*0%*	10%	40%	50%

Recommended 2002 Asset Allocation

Beneficiary's Year of Birth	Investment Horizon (n years)	*Growth Equity*	*Growth & Income*	*Equity Index*	*International Equity*	Total Equities	Bond	Money Market Fund
2002-2003	21	*12 8%*	*22 4%*	*28 8%*	*16%*	80%	20%	0%
2000-2001	19	*12 0%*	*21 0%*	*27 0%*	*15%*	75%	25%	0%
1998-1999	17	*10 4%*	*18 2%*	*23.4%*	*13%*	65%	35%	0%
1996-1997	15	*9 6%*	*16 8%*	*21.6%*	*12%*	60%	40%	0%
1994-1995	13	*8 0%*	*14.0%*	*18.0%*	*10%*	50%	50%	0%
1992-1993	11	*7 2%*	*12 6%*	*16 2%*	*9%*	45%	55%	0%
1990-1991	9	*6 4%*	*11 2%*	*14 4%*	*8%*	40%	60%	0%
1988-1989	7	*4 8%*	*8 4%*	*10.8%*	*6%*	30%	65%	5%
1986-1987	5	*4 0%*	*7 0%*	*9 0%*	*5%*	25%	45%	30%
pre-1986	3	*2 4%*	*4 2%*	*5 4%*	*3%*	15%	35%	50%

Difference in Recommended 2002 Asset Allocation vs. 2001 Asset Allocation

Beneficiary's Year of Birth	Investment Horizon (n years)	*Growth Equity*	*Growth & Income*	*Equity Index*	*International Equity*	Total Equities	Bond	Money Market Fund
2002-2003	21	*-62 2%*	*22 4%*	*28 8%*	*16%*	5%	-5%	0%
2000-2001	19	*-58 0%*	*21 0%*	*27 0%*	*15%*	5%	-5%	0%
1998-1999	17	*-54 6%*	*18 2%*	*23 4%*	*13%*	0%	0%	0%
1996-1997	15	*-45 4%*	*16 8%*	*21 6%*	*12%*	5%	-5%	0%
1994-1995	13	*-37 0%*	*14 0%*	*18 0%*	*10%*	5%	-5%	0%
1992-1993	11	*-32 8%*	*12 6%*	*16 2%*	*9%*	5%	-5%	0%
1990-1991	9	*-28 6%*	*11 2%*	*14 4%*	*8%*	5%	-5%	0%
1988-1989	7	*-20 2%*	*8 4%*	*10 8%*	*6%*	5%	-5%	0%
1986-1987	5	*-11 0%*	*7 0%*	*9 0%*	*5%*	10%	-25%	15%
pre-1986	3	*-7 6%*	*4 2%*	*5 4%*	*3%*	5%	-5%	0%

Exhibit 10

Minnesota College Savings Plan
100% Equity Option

Current (2001) Asset Allocation

Growth & Income	*International Equity*	Total Equities	Bond	Money Market Fund
80.0%	*20%*	100%	0%	0%

Recommended 2002 Asset Allocation

Growth & Income	*International Equity*	Total Equities	Bond	Money Market Fund
80.0%	*20%*	100%	0%	0%

Difference in Recommended 2002 Asset Allocation vs. 2001 Asset Allocation

Growth & Income	*International Equity*	Total Equities	Bond	Money Market Fund
0.0%	*0%*	0%	0%	0%

AGENDA
INVESTMENT ADVISORY COUNCIL MEETING
Tuesday, March 5, 2002
2:00 P.M. - Board Room – First Floor
60 Empire Drive
St. Paul, MN

	TAB
1. Approval of Minutes of December 4, 2001	
2. Report from the Executive Director (H. Bicker)	**A**
A. Quarterly Investment Review (October 1, 2001 – December 31, 2001)	
B. Administrative Report	**B**
1. Reports on budget and travel. 2. Results of FY01 Financial Audit. 3. Legislative Update. 4. Litigation Update. 5. Change in Contract for MnSCU Investment Portfolios. 6. Potential Asset Allocation Changes to Certain Non-retirement Funds.	
3. Master Custody Review Committee (P. Sausen)	**C**
4. Reports from the Investment Advisory Council	**D**
A. Stock and Bond Manager Committee (J. Bohan) 1. Review of manager performance. 2. Update of the Domestic Equity semi-passive short list. 3. Recommendation to adopt the fixed income position paper. 4. Recommendation to terminate Zurich Scudder Investments. 5. Recommendation to renew investment manager contracts.	
B. Alternative Investment Committee (K. Gudorf)	**E**
1. Review of current strategy. 2. Review meeting with an existing alternative investment manager. 3. Approval of one manager commitment for the Post Retirement Fund: • GMAC 4. Pre-approval of the following investment with one existing alternative investment manager for the Basic Retirement Fund: • Warburg Pincus	

Minutes
Investment Advisory Council
December 4, 2001

MEMBERS PRESENT:	Gary Austin; Dave Bergstrom; John Bohan; Doug Gorence; P. Jay Kiedrowski; Han Chin Liu; Malcolm McDonald; Gary Norstrem; Mary Stanton; Mary Vanek; Elaine Voss; and Jan Yeomans.
MEMBERS ABSENT:	Ken Gudorf; Judy Mares; Daralyn Peifer; Mike Troutman and Pam Wheelock.
SBI STAFF:	Howard Bicker; Mansco Perry; Jim Heidelberg; Lois Buermann; Andy Christensen; Tammy Brusehaver-Derby; Debbie Griebenow; John Griebenow; Erol Sonderegger; Charlene Olson; and Carol Nelson.
OTHERS ATTENDING:	Ann Posey, Richards & Tierney; Christie Eller; Diane Drewry, Office of the Governor; Dale Hanke, Robert Heimerl, Lloyd Belford, Jerry Irsfeld, REAM; Conrad deFiebre, Star Tribune;.

Executive Director's Report
Mr. Bicker, Executive Director noted that the SBI office is moving to the new Retirement Systems Building on December 5, 2001 and he said members could take a tour through the space after today's meeting if they wish. He added that a more formal tour will be given after the March 2002 meeting. He referred members to Tab A of the meeting materials and reported that the Combined Funds had exceeded inflation over the ten year period ending September 30, 2001 (Combined Funds 10.0% vs. inflation 2.7%), slightly trailed the median fund (52nd percentile) and outperformed its composite index (Combined Funds 8.3% vs. Composite 7.6%) for the most recent five year period. He stated that the Basic Funds have exceeded its composite index (Basic Funds 8.7% vs. Composite 8.1%) over the last five years and reported that the Post Fund has outperformed its composite index over the last five years period (Post Fund 7.8% vs. Composite 7.1%).

Mr. Bicker reported that the Basic Fund's assets decreased 9.3% for the quarter ending September 30, 2001 due to negative investment returns and negative net contributions. He said that the asset mix had been rebalanced and is on target. He reported that the Basic Funds outperformed its composite index for the quarter (Basic Funds –8.4% vs. Composite –8.8%) and for the year (Basic Funds –15.2% vs. Composite –16.4%). In response to questions from Mr. Kiedrowski, Mr. Bicker clarified that the actuarial data had not been updated yet for 2001 data. Ms. Vanek noted that the funded ratios have improved because of the 5 year smoothing effect.

Mr. Bicker reported that the market value of the Post Fund's assets decreased 9.8% for the quarter ending September 30, 2001. He said the Post Fund asset mix was also now on target after being rebalanced and that the Post Fund outperformed its composite index for the quarter (Post Fund –9.0% vs. Composite –9.3%) and for the year (Post Fund –15.5% vs. Composite –16.6%).

Mr. Bicker reported that the domestic stock manager group outperformed its target for the quarter (Domestic Stocks –16.3% vs. Wilshire 5000 Investable –16.4%) and for the year (Domestic Stocks –29.2% vs. Wilshire 5000 Investable –29.8%). He said that the International Stock manager group underperformed its composite index for the quarter (International Stocks –15.0% vs. Int'l Composite –14.8%), but outperformed it for the year (International Stocks –28.4% vs. Int'l Composite –29.0%). Mr. Bicker stated that the bond segment slightly underperformed its target for the quarter (Bonds 4.5% vs. Lehman Aggregate 4.6%) and had outperformed it for the year (Bonds 13.4% vs. Lehman Aggregate 13.0%). He concluded his report with the comment that as of September 30, 2001, the SBI was responsible for over $43 billion in assets. In response to questions from Mr. Kiedrowski, Mr. Bicker stated that comparing the SBI's performance to the composite index is more appropriate than to the TUCS Median Fund because of differences in asset allocations, investment authority, and whether returns are calculated gross or net of fees.

Executive Director's Administrative Report

Mr. Bicker referred members to Tab B of the meeting materials for the quarterly updates on budget and travel.

Mr. Bicker reported that the Post Retirement benefit increase for FY01 will be 4.5%. He said the increase will be payable to eligible retirees effective January 1, 2002. He stated that he expects a great deal of debate to continue regarding lengthening the amortization period in order to reduce the volatility of the benefit increases. A brief discussion followed with several members commenting that in the private sector benefit increases are much smaller and typically not given annually.

Mr. Bicker asked Christie Eller, Assistant Attorney General, to update members on the status of three active litigation cases. She stated that in the Mercury case, a final distribution may be made by December 31, 2001. She reported that a motion to dismiss is in the process of being heard in the McKesson case. She said the arguments were not completed and will likely be rescheduled in late January 2002. Ms. Eller stated that the SBI was recently appointed lead plaintiff in a securities case against Broadcom and that as expected, a motion to dismiss the state's claim has been filed.

Mr. Bicker reported that the Legislative Auditor is nearly finished with its financial audit of the SBI and that he is expecting a "clean audit" opinion.

Mr. Bicker stated the SBI's Annual Report for FY01 will be ready for distribution in January 2002.

Mr. Bicker referred members to item #6 in his Executive Director's Report which listed the tentative Board and IAC meeting dates for the calendar year 2002.

Mr. Bicker said that the new SBI office is located at 60 Empire Drive, Suite 355. He noted the importance of using the full 9 digit zip code when mailing things to staff.

Mr. Bicker noted that the Board will be informed of some minor changes the staff had approved for the TIAA-CREF investment guidelines.

Stock and Bond Manager Committee Report

Mr. Gorence referred members to Tab C of the meeting materials and noted that the investment managers held their own during the volatile market experienced during the quarter. He reported that the Committee had spent time discussing changes occurring at Alliance and Lincoln and that no changes are being recommended at this time. He said that the Committee completed their annual review of investment manager guidelines and that the only changes being made were "housekeeping" in nature.

Mr. Gorence stated that the Committee had also updated the Domestic Equity manager short list during the quarter.

Mr. Gorence reported that the Committee is recommending that the investment manager contracts be renewed for four of the SBI's current equity managers and he moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Norstrem seconded the motion. The motion passed.

Alternative Investment Committee Report

Mr. McDonald referred members to Tab D of the meeting materials and briefly updated members on a review of two existing managers, Hellman and Friedman and First Reserve. He noted that staff and the Committee are satisfied with the performance of these two managers.

In response to question from Mr. Kiedrowski, Mr. Bicker stated that the alternative investment area hardest hit is venture capital due to poor performance by dot com investments and some energy deals. He said that the SBI has most of its money in private equity or LBO investments. He added that a case could be made that it is a good time to invest. He said that the SBI has a significant amount of unfunded commitments which are available for new investments. Mr. McDonald concurred that there may be interesting investment opportunities. Mr. Bicker noted that the alternative investment fundraising environment has slowed down significantly.

In response to questions from Mr. Gorence and Mr. Bohan, Mr. Bicker stated that existing managers for the Basics will continue to invest unfunded commitments over the next several years and that the Post has room in their allocation for new investments. He said that additional monies should be available as distributions come in and that he believes there will be attractive investment opportunities available when the SBI is ready to invest. Mr. Bicker, Mr. McDonald and Mr. Bohan commented on the difficulties in predicting the timing of takedowns and distributions from alternative investments. Mr. Bicker also stated that staff believes the current allocation to alternative investments is fine and does not need to be changed.

The meeting adjourned at 2:46 P.M.

Respectfully submitted,

Howard J. Bicker
Executive Director

Tab A

LONG TERM OBJECTIVES
Period Ending 12/31/2001

COMBINED FUNDS: $36.4 Billion	Result	Compared to Objective
Provide Real Return (10 yr.) Provide returns that are 3-5 percentage points greater than inflation over the latest 10 year period.	**10.0%** (1)	7.5 percentage points above CPI
Exceed Composite Index (5 yr.) Outperform a composite market index weighted in a manner that reflects the actual asset mix of the Combined Funds over the latest 5 year period.	**8.5%**	0.5 percentage point above composite index
Exceed Median Fund (5 yr.) Provide returns that are ranked in the top half of universe of public and corporate plans over the latest 5 year period.	**58th percentile** (2)	below the median fund in TUCS

BASIC RETIREMENT FUNDS: $17.9 Billion	Result	Compared to Objective
Exceed Composite Index (5 Yr.) Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Basic Funds over the latest 5 year period.	**8.7%**	0.5 percentage point above target

POST RETIREMENT FUND: $18.5 Billion	Result	Compared to Objective
Exceed Composite Index (5 Yr.) Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Post Fund over the latest 5 year period.	**8.2%**	0.5 percentage point above target

(1) Reflects performance of Basic Funds only through 6/30/93, Combined Funds thereafter. Performance is calculated net of fees.

(2) The SBI's stated objective is to rank in the top half (above 50th percentile) of the comparative universe. The SBI will strive to achieve performance which ranks in the top third (above 33rd percentile). Performance is ranked gross of fees.

SUMMARY OF ACTUARIAL VALUATIONS

MSRS, TRA, PERA General Plans
July 1, 2001

	Active (Basics)	Retired (Post)	Total (Combined)
Liability Measures			
1. Current and Future Benefit Obligation	$25.0 billion	$17.5 billion	$42.5 billion
2. Accrued Liabilities	17.1	17.5	34.6
Asset Measures			
3. Current and Future Actuarial Value	$25.8 billion	$17.5 billion	$43.3 billion
4. Current Actuarial Value	17.3	17.5	34.8
Funding Ratios			
Future Obligations vs. Future Assets (3 ÷ 1)	103%	100%	102%
Accrued Liabilities vs. Current Actuarial Value (4 ÷ 2)	101%	100%	100%*

* Ratio most frequently used by the Legislature and Retirement Systems.

Notes:
1. Present value of projected benefits that will be due to all current participants.
2. Liabilities attributed to past service calculated using entry age normal cost method.
3. Present value of future statutory contributions plus current actuarial value
4. Same as required reserves for Post; Difference between actual returns and actuarially expected returns spread over five years.

Actuarial Assumptions:

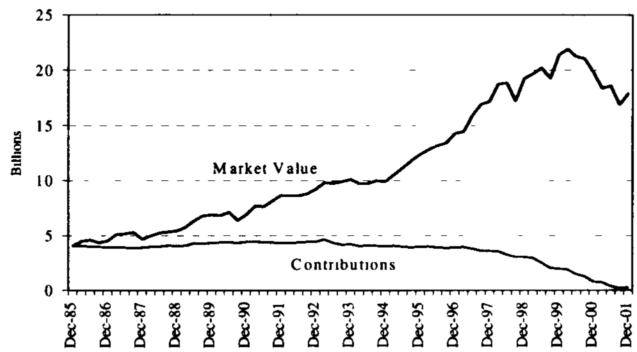
Salary Growth: 6.5%, resulting from a graded rate future increase assumption
Interest/Discount Rate: 8.5% Basics, 6.0% Post
Full Funding Target Date: 2031

EXECUTIVE SUMMARY

Basic Retirement Funds (Net of Fees)

Asset Growth

The market value of the Basic Funds increased 6.1% during the fourth quarter of 2001. Positive investment returns and positive net contributions accounted for the increase.



Asset Growth
During Fourth Quarter 2001
(Millions)

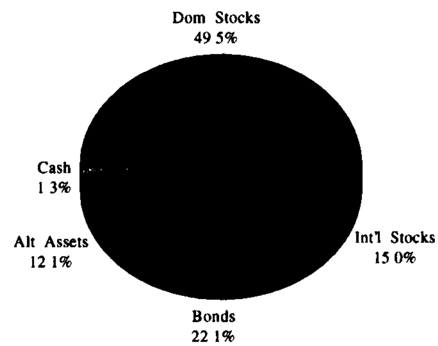
Beginning Value	$ 16,851
Net Contributions	33
Investment Return	990
Ending Value	$ 17,874

Asset Mix

The domestic stock and international stock allocations increased this quarter due to rebalancing from bonds and positive returns.

	Policy Targets	Actual Mix 12/31/2001	Actual Market Value (Millions)
Domestic Stocks	**45.0%**	49.5%	$8,856
Int'l. Stocks	**15.0**	15.0	2,678
Bonds	**24.0**	22.1	3,945
Alternative Assets*	**15.0**	12.1	2,170
Unallocated Cash	**1.0**	1.3	225
	100.0%	100.0%	$17,874

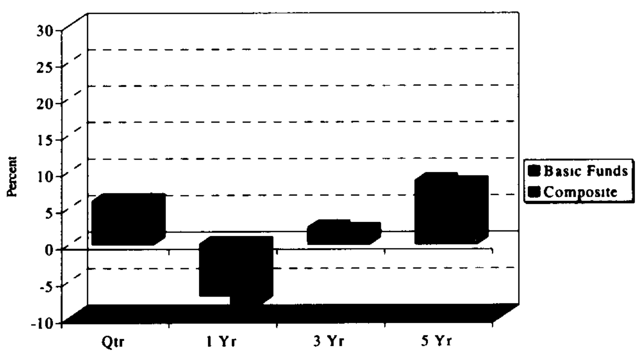
* Any uninvested allocation is held in domestic stocks



Fund Performance (Net of Fees)

The Basic Funds matched its composite market index for the quarter and outperformed for all other time periods shown.

	Period Ending 12/31/2001			
			Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Basics	**5.9%**	**-7.0%**	**2.3%**	**8.7%**
Composite	5.9	-8.0	1.8	8.2



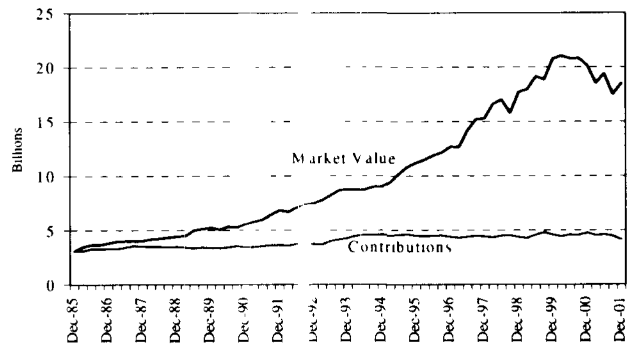
EXECUTIVE SUMMARY

Post Retirement Fund (Net of Fees)

Asset Growth

The market value of the Post Fund increased by 5.5% during the fourth quarter of 2001. Positive investment returns accounted for the increase.

	Asset Growth During Fourth Quarter 2001 (Millions)
Beginning Value	$17,505
Net Contributions	-337
Investment Return	1,307
Ending Value	$18,475

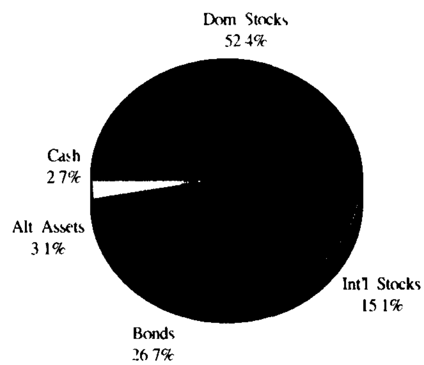


Asset Mix

The domestic stock and international stock allocations increased this quarter due to rebalancing from bonds and positive returns.

	Policy Targets	Actual Mix 12/31/2001	Actual Market Value (Millions)
Domestic Stocks	**50.0%**	52.4%	$9,689
Int'l Stocks	**15.0**	15.1	2,780
Bonds	**27.0**	26.7	4,930
Alternative Assets*	**5.0**	3.1	581
Unallocated Cash	**3.0**	2.7	495
	100.0%	100.0%	$18,475

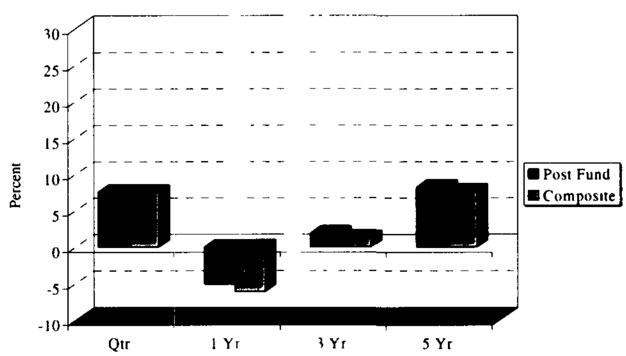
* Any uninvested allocation is held in bonds



Fund Performance (Net of Fees)

The Post Fund outperformed its composite index for all periods shown.

	Period Ending 12/31/2001			
		Annualized		
	Qtr	1 Yr.	3 Yr	5 Yr
Post	**7.6%**	**-5.1%**	**1.9%**	**8.2%**
Composite	7.5	-6.1	1.3	7.7



EXECUTIVE SUMMARY
Stock and Bond Manager Performance
(Net of Fees)

Domestic Stocks

The domestic stock manager group (active, semi-passive and passive combined) slightly trailed its target for the quarter and outperformed its target for the year.

Period Ending 12/31/2001				
			Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Dom. Stocks	**12.5%**	**-11.1%**	**-1.5%**	**9.3%**
Wilshire 5000 Investable*	12.6	-11.7	-1.3	9.3

* Restated to incorporate the Wilshire 5000 Investable Index beginning 7/1/99. From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments.

International Stocks

The international stock manager group (active and passive combined) outperformed its target for all time periods shown.

Period Ending 12/31/2001				
			Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Int'l. Stocks	**8.5%**	**-19.8%**	**-2.9%**	**1.2%**
Composite Index*	8.2	-20.1	-4.1	0.0

* The international benchmark is EAFE Free plus Emerging Markets Free (EMF). The weighting of each index fluctuates with market capitalization. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE-Free/13% EMF. On 5/1/96 the portfolio began transitioning from 100% EAFE Free to the 12/31/96 fixed weights. 100% EAFE-Free prior to 5/1/96.

Bonds

The bond manager group (active and passive combined) outperformed its target for all time periods shown.

Period Ending 12/31/2001				
			Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Bonds	**0.5%**	**9.3%**	**6.7%**	**7.7%**
Lehman Agg.	0.0	8.4	6.3	7.4

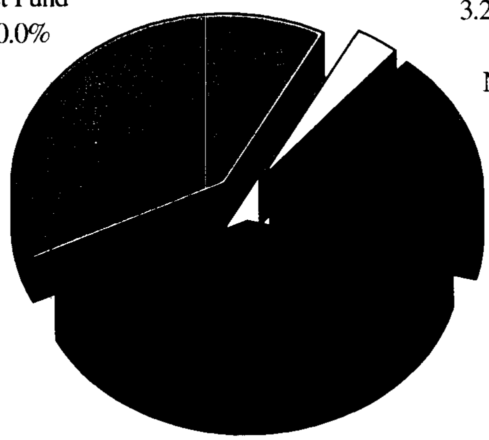
Wilshire 5000 Investable: The Wilshire 5000 Investable stock index reflects the performance of a broad range of publicly traded stocks of companies domiciled in the U.S. It does not include the smallest and least liquid securities in the W5000 that generally are not owned by large pension plans.

Lehman Aggregate: The Lehman Brothers Aggregate Bond Index reflects the performance of the broad bond market for investment grade (BAA or higher) bonds, U.S. treasury and agency securities, and mortgage obligations with maturities greater than one year.

EAFE-Free: The Morgan Stanley Capital International (MSCI) index of 21 stock markets in Europe, Australasia and the Far East. EAFE-Free includes only those securities foreign investors are allowed to hold.

Emerging Markets Free: The Morgan Stanley Capital International index of 26 markets in developing countries throughout the world. Emerging Markets Free includes only those securities foreign investors are allowed to hold.

EXECUTIVE SUMMARY
Funds Under Management



	12/31/2001 Market Value (Billions)
Retirement Funds	
Basic Retirement Funds	$17.9
Post Retirement Fund	18.5
Supplemental Investment Fund	1.5
Non Retirement Funds*	
Assigned Risk Plan	0.3
Permanent School Fund	0.5
Environmental Trust Fund	0.3
Tobacco Prevention Fund	0.5
Medical Education Fund	0.6
State Cash Accounts	6.1
Total	$46.2

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT
Fourth Quarter 2001
(October 1, 2001 - December 31, 2001)

Table of Contents

VARIOUS CAPITAL MARKET INDICES

	Period Ending 12/31/2001				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity					
Wilshire 5000	12.4%	-11.0%	-0.7%	9.7%	12.3%
Dow Jones Industrials	13.8	-5.5	4.6	11.1	14.7
S&P 500	10.7	-11.9	-1.0	10.7	12.9
Russell 2000	21.1	2.5	6.4	7.5	11.5
Domestic Fixed Income					
Lehman Aggregate*	0.0	8.4	6.3	7.4	7.2
Lehman Gov't./Corp.	0.1	8.5	5.9	7.4	7.3
3 month U.S. Treasury Bills	0.5	3.8	4.9	5.0	4.7
International					
EAFE**	7.0	-21.4	-5.0	0.9	4.5
Emerging Markets Free***	26.6	-2.6	4.0	-5.8	3.0
Salomon Non U.S. Gov't. Bond	-4.0	-3.5	-3.8	0.1	4.8
Inflation Measure					
Consumer Price Index****	-0.9	1.6	2.5	2.2	2.5

* Lehman Brothers Aggregate Bond index. Includes governments, corporates and mortgages.

** Morgan Stanley Capital International index of Europe, Australasia and the Far East (EAFE).

*** Morgan Stanley Capital International Emerging Markets Free index.

**** Consumer Price Index (CPI) for all urban consumers, also known as CPI-U.

FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

The U.S. stock market, as represented by the Wilshire 5000, returned 12.4% in the fourth quarter. The market recovered sharply from the 15.9% decline experienced in the third quarter, with only the telecommunications and utilities sectors posting negative returns. Technology was the best performing sector, returning in excess of 30%, as investors bid up prices on expectations for improved earnings. The consumer discretionary, industrial, and materials sectors also posted double-digit returns for the quarter. Growth stocks outperformed value and small stocks outperformed large during the quarter.

Performance among the different Wilshire Style Indices for the quarter is shown below:

Large Value	8.3%
Small Value	20.0
Large Growth	14.3
Small Growth	27.0

The Wilshire 5000 declined 11.0% for the year ending December 31, 2001.

DOMESTIC BONDS

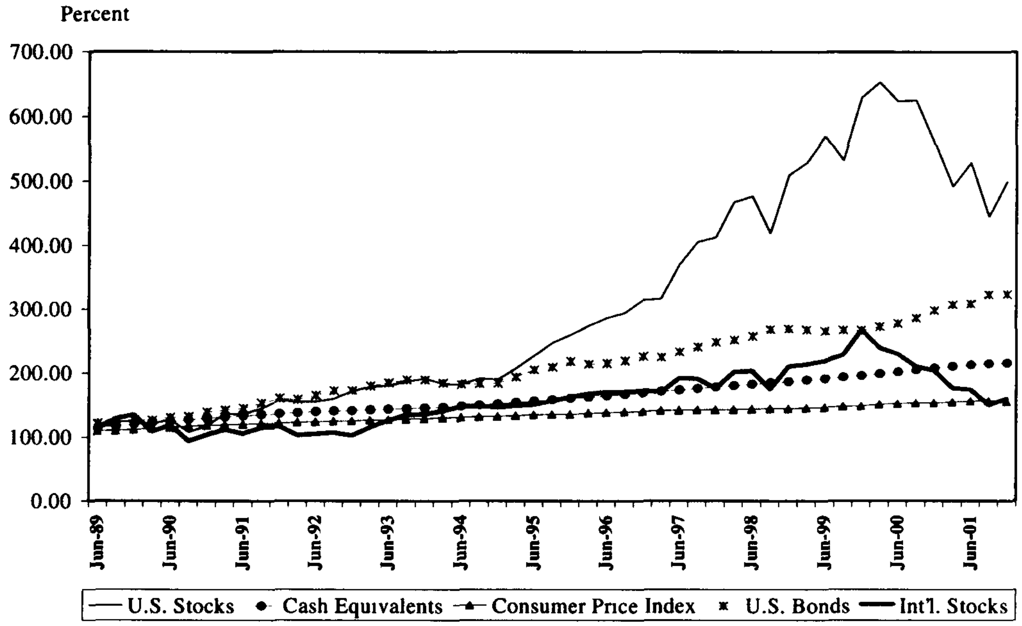
The bond market was generally flat during the fourth quarter. Despite another 75 basis points of fed easing, intermediate and long interest rates actually rose during the quarter as the market factored in better-than-expected economic data and the potential for a mid-2002 recovery. As a result, Treasury and Agency securities declined 0.6% over the quarter. Performance of the spread sectors (Mortgages and Corporates) generally advanced during the quarter, offsetting the weak performance in the Government sector.

Overall, the Lehman Brothers Aggregate Bond Index returned 0.0% for the quarter. The Lehman Aggregate sector returns for the quarter were:

Treasury/Agency	-0.6%
Credit	0.9
Mortgages	0.1

The Lehman Aggregate returned 8.4% for the year ending December 31, 2001.

PERFORMANCE OF CAPITAL MARKETS
Cumulative returns



Indices used are: Wilshire 5000 Stock Index for U.S. Stocks; 3 month Treasury Bills for Cash Equivalents; Consumer Price Index; Lehman Brothers Aggregate Bond Index for U.S. Bonds; and the Morgan Stanley's Index of Europe, Australasia and the Far East (EAFE) for International Stocks.

FINANCIAL MARKETS REVIEW

INTERNATIONAL STOCKS

In aggregate, developed international stock markets (as measured by the EAFE index) provided a return of 7.0% for the quarter The quarterly performance of the five largest stock markets is shown below:

United Kingdom	6 6%
Japan	-5 9
France	11 6
Switzerland	4 1
Germany	17 0

The EAFE index decreased by 21 4% during the last year.

The EAFE index is compiled by Morgan Stanley Capital International (MSCI) and is a measure of 21 markets located in Europe, Australasia and the Far East The major markets listed above comprise about 72% of the value of the international markets in the index.

EMERGING MARKETS

Emerging markets (as measured by MSCI Emerging Markets Free index) provided a return of 26.6% for the quarter. The quarterly performance of the five largest stock markets in the index is shown below:

Korea	56.1%
Taiwan	53 1
Mexico	19.2
Brazil	32 6
South Africa	0.8

The Emerging Markets Free index decreased by 2.6% during the last year.

The Emerging Markets Free (EMF) index is compiled by MSCI and measures performance of 26 stock markets in Latin America, Asia, Africa and Eastern Europe. EMF includes only those securities foreign investors are allowed to hold. The markets listed above comprise about 57% of the value of the international markets in the index

REAL ESTATE

Real estate has been hurt somewhat by the slowdown in the economy over the last several months and is expected to return to a moderate growth phase in the latter half of 2002. Real estate returns through this period are generally expected to be overall positive with strong cashflows and yields in excess of any value declines. Overall, the real estate downturn should be modest as the fundamental factors that influence real estate returns never became grossly unbalanced.

PRIVATE EQUITY

U.S. private equity firms raised $99.6 billion for private equity limited partnerships of all types, from venture capital to buyouts in 2001 That represents a 42.8% decrease from the revised prior year total of $174 billion and marks an end to seven consecutive years of increases in funds raised.

RESOURCE FUNDS

During the fourth quarter of 2001, West Texas Intermediate crude oil averaged $20.53 per barrel, down from an average price of $26 60 during the third quarter of 2001. With the recent downward trend, oil companies are re-evaluating their spending plans.

COMBINED FUNDS

The "Combined Funds" represent the assets of both the Basic and Post Retirement Funds. While the Combined Funds do not exist under statute, the Board finds it instructive to review asset mix and performance of all defined benefit pension assets under its control. This more closely parallels the structure of other public and corporate pension plan assets and therefore allows for more meaningful comparison with other pension fund investors.

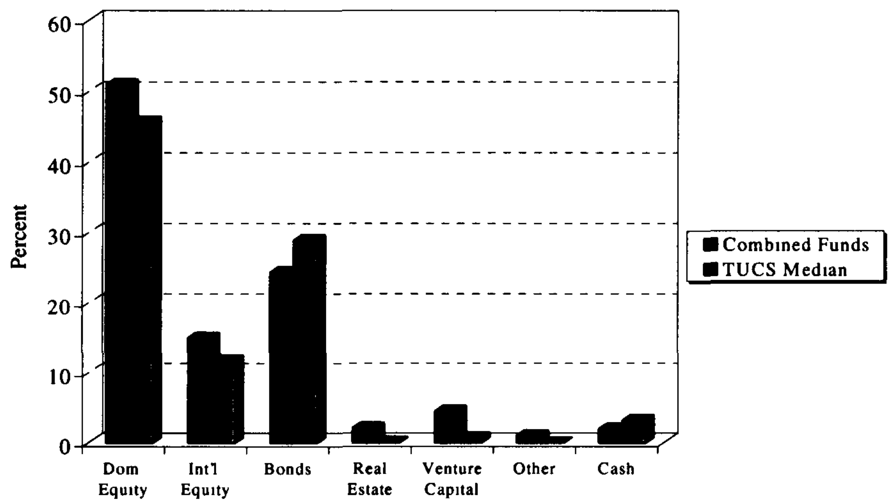
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over $1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

On December 31, 2001, the actual asset mix of the Combined Funds was:

	$ Millions	%
Domestic Stocks	$18,545	51.0%
International Stocks	5,458	15.0
Bonds	8,875	24.4
Alternative Assets	2,751	7.6
Unallocated Cash	720	2.0
Total	$36,349	100.0%

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bond and other assets of the public and corporate funds in TUCS over $1 billion are shown below:



	Dom. Equity	Int'l Equity	Bonds	Real Estate	Venture Capital	Other	Cash
Combined Funds	**51.0%**	**15.0%**	**24.4%**	**2.1%**	**4.5%**	**1.0%**	**2.0%**
Median Allocation in TUCS*	45.7	11.7	29.0	0.1	0.7	0.0	3.2

* Public and corporate plans over $1 billion.

COMBINED FUNDS
Performance Compared to Other Pension Funds

While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance

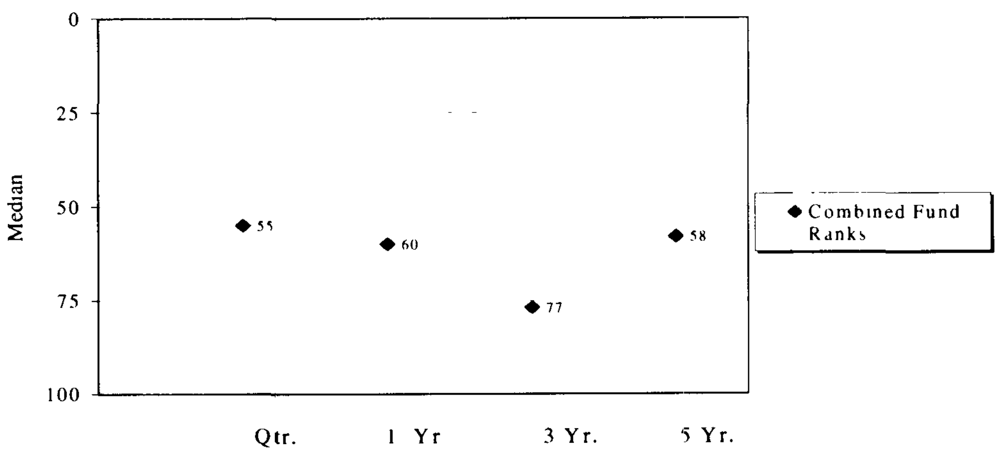
— **Differing Allocations.** Asset allocation will have a dominant effect on return The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison. In addition, it appears that many funds do not include alternative asset holdings in their reports to TUCS. This further distorts comparisons among funds.

— **Differing Goals/Liabilities.** Each pension fund structures its portfolio to meet its own liabilities and risk tolerance. This will result in different choices on asset mix Since asset mix will largely determine investment results, a universe ranking is not relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds in Trust Universe Comparison Service (TUCS) are shown below

The SBI's returns are ranked against public and corporate plans with over $1 billion in assets All funds in TUCS report their returns gross of fees.

The SBI's stated performance objective is that the Combined Funds will rank in the top half of the universe (above the 50th percentile) over the most recent five year period. The SBI will strive to achieve performance which ranks in the top third (above the 33rd percentile).



Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr.	5 Yr.
Combined Funds Percentile Rank in TUCS*	55th	60th	77th	58th

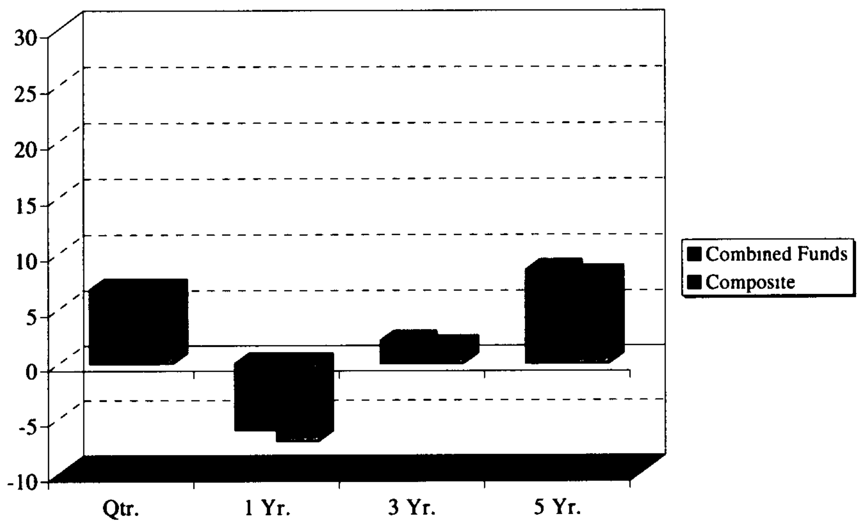
* Compared to public and corporate plans greater than $1 billion, gross of fees.

COMBINED FUNDS
Performance Compared to Composite Index

The Combined Funds' performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the asset allocation of the Combined Funds:

	Market Index	Combined Funds Composite* 4Q01
Domestic Stocks	Wilshire 5000 Investable	49.1%*
Int'l. Stocks	Int'l. Composite	15.0
Bonds	Lehman Aggregate	26.9*
Alternative Assets	Real Estate Funds	2.1*
	Private Equity Funds	4.2*
	Resource Funds	0.7*
Unallocated Cash	3 Month T-Bills	2.0
		100.0%

* Alternative asset, bond and domestic equity weights are reset in the composite at the start of each month to reflect the amount of unfunded commitments in alternative asset classes. The above Combined Funds Composite weighting was as of the beginning of the quarter.



Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yr. (Annualized)
Combined Funds**	6.7%	-6.0%	2.1%	8.5%
Composite Index	6.7	-7.1	1.6	8.0

**Includes performance of Basic Funds through 6/30/93, Basic and Post Funds thereafter. Actual returns are reported net of fees.

This page intentionally left blank.

BASIC RETIREMENT FUNDS

Investment Objectives

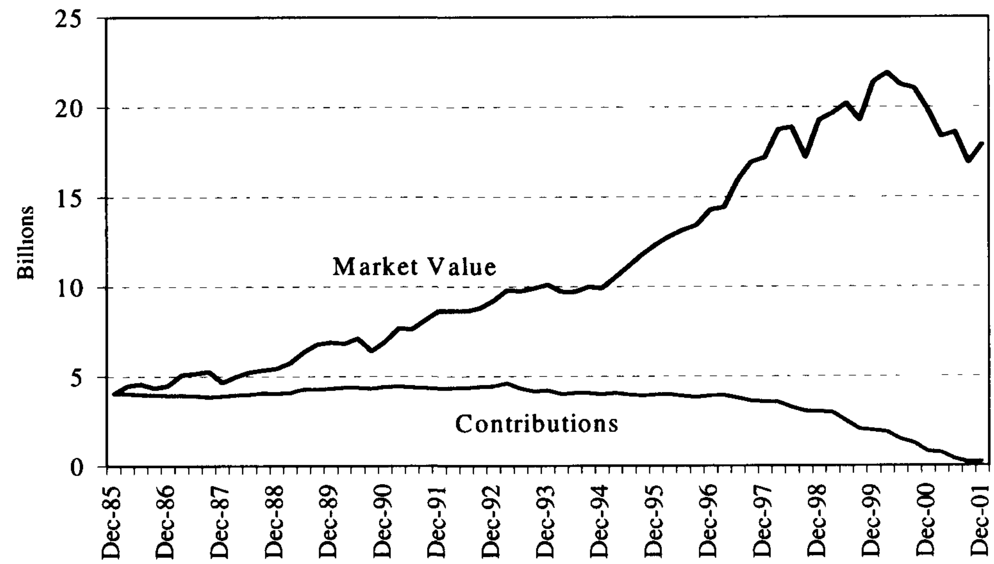
The Basic Retirement Funds are composed of the retirement assets for currently working participants in eight statewide retirement funds. The Funds serve as accumulation pools for the pension contributions of public employees and their employers during the employees' years of active service. Approximately 300,000 public employees participate in the Basic Funds.

Employee and employer contribution rates are specified in state law as a percentage of an employee's salary. The rates are set so that contributions plus expected investment earnings will cover the projected cost of promised pension benefits. In order to meet these projected pension costs, the Basic Retirement Funds must generate investment returns of at least 8.5% on an annualized basis, over time.

Normally, pension assets will accumulate in the Basic Retirement Funds for thirty to forty years during an employee's years of active service. This provides the Basic Funds with a long investment time horizon and permits the Board to take an aggressive, high expected return investment policy which incorporates a sizeable equity component in order to meet or exceed its actuarial return target.

Asset Growth

The market value of the Basic Funds increased 6.1% during the fourth quarter of 2001. Positive investment returns and positive net contributions accounted for the increase.



Last Five Years
In Millions

	12/96	12/97	12/98	12/99	12/00	3/01	6/01	9/01	Latest Qtr. 12/01
Beginning Value	$12,338	$14,275	$17,146	$19,244	$21,365	$19,807	$18,329	$18,575	$16,851
Net Contributions	-59	-337	-539	-1,065	-1,186	-66	-366	-173	33
Investment Return	1,996	3,208	2,637	3,186	-372	-1,412	612	-1,551	990
Ending Value	$14,275	$17,146	$19,244	$21,365	$19,807	$18,329	$18,575	$16,851	$17,874

BASIC RETIREMENT FUNDS
Asset Mix

The long-term asset allocation of the Basic Funds is based on the superior performance of common stocks over the history of the capital markets. The asset allocation policy is designed to add value to the Basic Funds over their long-term investment time horizon.

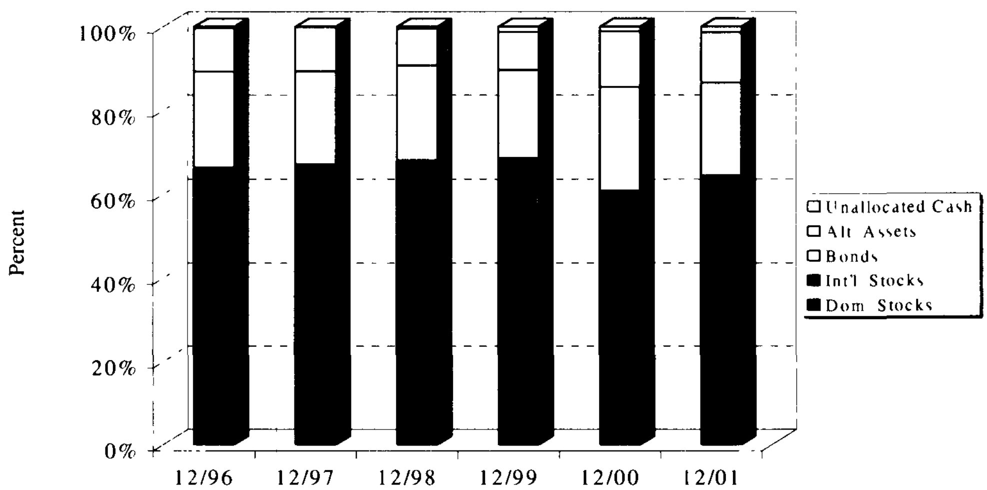
Domestic Stocks	45.0%
Int'l. Stocks	15.0
Bonds	24.0
Alternative Assets*	15.0
Unallocated Cash	1.0

* Alternative assets include equity-oriented real estate, venture capital and resource funds. Any uninvested allocation is held in domestic stocks.

In October 1995, the Board revised its long term asset allocation targets for the Basic Funds, increasing international stocks from 10% to 15% and decreasing domestic stocks from 50% to 45%. The change was implemented over several quarters.

Over the last year, the allocation to domestic stocks increased due to rebalancing even with negative returns. The international stock allocation decreased due to negative returns, despite rebalancing from bonds.

During the quarter, the domestic stock and international stock allocation increased due to rebalancing from bonds and positive returns. The allocation to bonds decreased due to the rebalancing and flat returns.



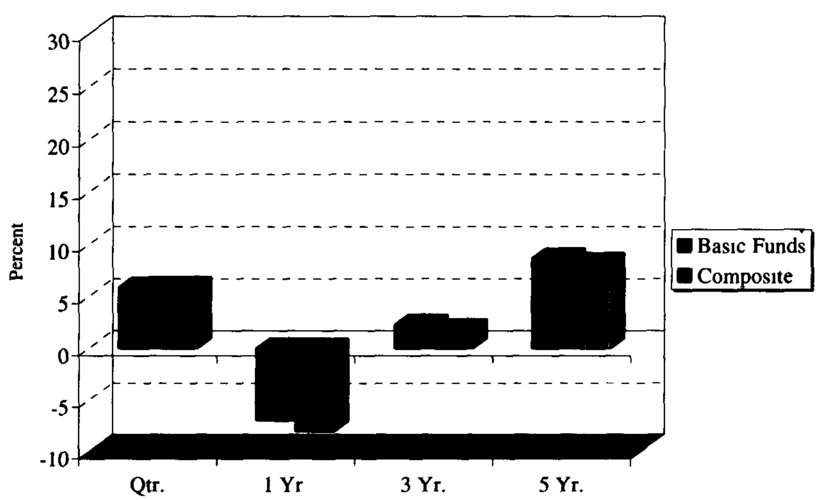
	Last Five Years								Latest Qtr.
	12/96	**12/97**	**12/98**	**12/99**	**12/00**	**3/01**	**6/01**	**9/01**	**12/01**
Domestic Stocks	52.0%	53.6%	53.8%	51.9%	44.3%	42.7%	47.9%	42.8%	49.5%
Int'l. Stocks	14.5	13.6	14.4	16.8	16.6	14.4	13.9	13.2	15.0
Bonds	22.8	22.2	22.6	21.0	24.7	28.5	24.2	27.9	22.1
Real Estate	3.9	4.1	3.7	3.5	4.1	4.5	3.9	4.1	3.4
Private Equity	5.5	5.0	4.4	4.8	8.0	8.2	7.6	8.3	7.4
Resource Funds	1.0	1.4	0.7	0.8	1.2	1.4	1.6	1.6	1.3
Unallocated Cash	0.3	0.1	0.4	1.2	1.1	0.3	0.9	2.1	1.3
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

BASIC RETIREMENT FUNDS
Total Fund Performance (Net of Fees)

The Basic Funds' performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the long-term asset allocation of the Funds:

	Basics Target	Market Index	Basics Composite* 4Q01
Domestic Stocks	45.0%	Wilshire 5000 Investable	48.1%*
Int'l. Stocks	15.0	Int'l Composite	15.0
Bonds	24.0	Lehman Aggregate	24.0
Alternative Assets	15.0	Real Estate Funds	3.8*
		Private Equity Funds	6.9*
		Resource Funds	1.2*
Unallocated Cash	1.0	3 Month T-Bills	1.0
	100.0%		100.0%

* Alternative asset and domestic stock weights are reset in the composite at the start of each month to reflect the uninvested portion of the allocation to alternative assets. The above Basic Funds Composite weighting was as of the beginning of the quarter.



Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yr. (Annualized)
Basic Funds**	**5.9%**	**-7.0%**	**2.3%**	**8.7%**
Composite Index	5.9	-8.0	1.8	8.2

**Returns are reported net of fees.

Effective July 1, 1993, the Basic and Post Funds share the same domestic stock, international stock, and bond managers. See page 15 for the performance of these asset pools. Performance of the Basic Funds' alternative assets is on page 16.

POST RETIREMENT FUND

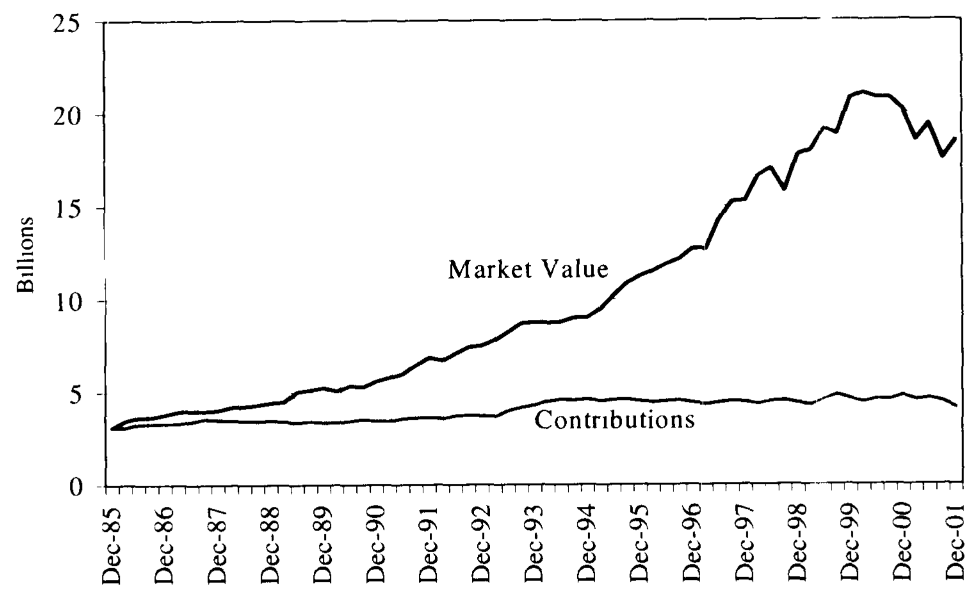
The Post Retirement Investment Fund contains the pension assets of retired public employees covered by statewide retirement plans. Approximately 95,000 retirees receive monthly annuities from the assets of the Fund.

Upon an employee's retirement, a sum of money sufficient to finance the fixed monthly annuity is transferred from accumulation pools in the Basic Funds to the Post Fund. In order to support promised benefits, the Post Fund must "earn" at least 6% on its invested assets on an annualized basis. If the Post Fund exceeds this earnings rate, excess earnings are used to finance permanent benefit increases for eligible retirees.

The post retirement benefit increase formula is based on the total return of the Fund. As a result, the Board maintains a long-term asset allocation strategy for the Post Fund which incorporates a substantial commitment to common stocks.

Asset Growth

The market value of the Post Fund increased by 5.5% during the fourth quarter of 2001. Positive investment returns accounted for the increase.



Last Five Years
In Millions

	12/96	12/97	12/98	12/99	12/00	3/01	6/01	9/01	Latest Qtr. 12/01
Beginning Value	$11,216	$12,705	$15,273	$17,743	$20,768	$20,153	$18,507	$19,397	$17,505
Net Contributions	-94	23	-45	211	167	-236	91	-165	-337
Investment Return	1,583	2,545	2,515	2,814	-782	-1,410	799	-1,727	1,307
Ending Value	$12,705	$15,273	$17,743	$20,768	$20,153	$18,507	$19,397	$17,505	$18,475

POST RETIREMENT FUND
Asset Mix

The Board adopted an asset allocation strategy for the Post Fund in fiscal year 1993 which reflects the post retirement benefit increase formula enacted by the Legislature. Throughout fiscal year 1993, the actual asset mix of the Post Fund moved toward a 50% allocation to common stocks. In fiscal year 1994, the Board added allocations to international stocks and alternative investments.

Domestic Stocks	50.0%
Int'l. Stocks	15.0
Bonds	27.0
Alternative Assets*	5.0
Unallocated Cash	3.0
	100.0%

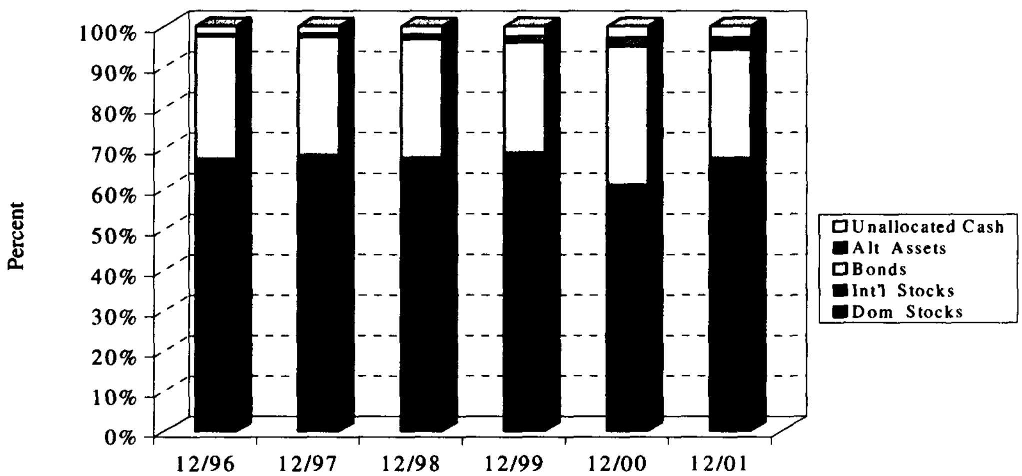
* Alternative assets include yield oriented investment vehicles. Any uninvested allocation is held in bonds.

The large allocation to common stocks allows the Fund to increase the long-term earning power of its assets and allow the Fund to focus on generating higher long-term total rates of return.

In October 1995, the Board revised its long term asset allocation targets for the Post Fund, increasing international stocks from 10% to 15% and decreasing bonds from 32% to 27%.

Over the last year, the allocation to domestic stocks and international stocks has increased due to rebalancing, despite negative returns. The bond allocation has decreased due to rebalancing.

The domestic stock allocation and international stock allocation increased over the quarter due to rebalancing and positive returns. The bond allocation decreased over the quarter due to rebalancing.



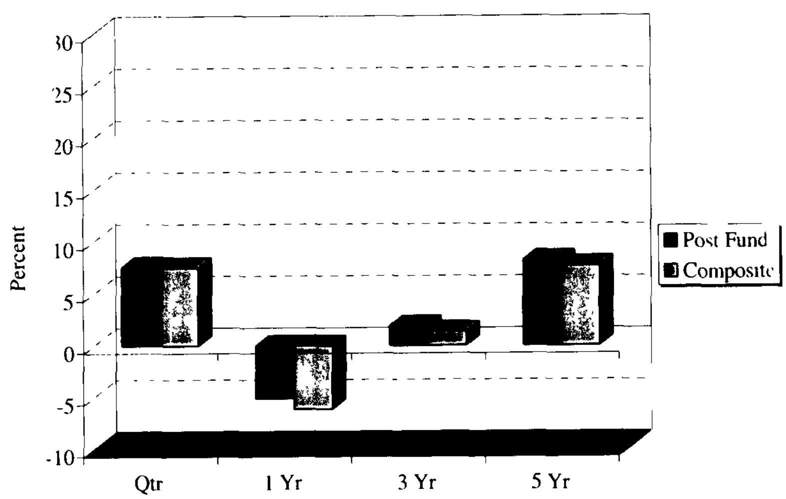
	Last Five years								Latest Qtr.
	12/96	**12/97**	**12/98**	**12/99**	**12/00**	**3/01**	**6/01**	**9/01**	**12/01**
Dom. Stocks	52.7%	54.7%	53.2	52.0%	47.5%	46.5%	52.6%	46.3%	52.4%
Int'l. Stocks	14.6	13.6	14.5	16.9	13.5	14.5	14.2	13.3	15.1
Bonds	30.2	29.1	29.2	27.2	34.0	35.1	28.8	33.3	26.7
Alt. Assets	0.6	0.9	1.1	1.5	2.3	2.5	3.4	3.8	3.1
Unallocated Cash	1.9	1.7	2.0	2.4	2.7	1.4	1.0	3.3	2.7
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

POST RETIREMENT FUND
Total Fund Performance (Net of Fees)

The Post Fund's performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the long-term asset allocation of the Fund:

Asset Class	Post Target	Market Index	Post Composite* 4Q01
Domestic Stocks	50.0%	Wilshire 5000 Investable	50 0%
Int'l. Stocks	15 0	Int'l. Composite	15 0
Bonds	27 0	Lehman Aggregate	29 9*
Alternative Assets	5 0	Real Estate Funds	0.4*
		Private Equity Funds	1.5*
		Resource Funds	0.2*
Unallocated Cash	3.0	3 Month T-Bills	3 0
	100.0%		100 0%

*Alternative assets and bond weights are reset in the composite at the start of each month to reflect the uninvested portion of the allocation to alternative assets The above Post Fund Composite weighting was as of the beginning of the quarter.



Period Ending 12/31/2001

	Qtr.	1 Yr.	Annualized 3 Yr.	5 Yr.
Post Fund**	**7.6%**	**-5.1%**	**1.9%**	**8.2%**
Composite Index	7.5	-6.1	1.3	7.7

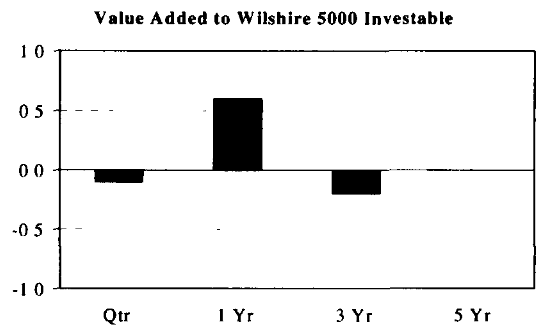
** Returns are reported net of fees.

Effective July 1, 1993, the Basic and Post Funds share the same domestic stock, international stock, and bond managers. See page 15 for the performance of these asset pools.

STOCK AND BOND MANAGERS
Performance of Asset Pools (Net of Fees)

Domestic Stocks

Target: Wilshire 5000 Investable
Expectation: If one-third of the pool is actively managed, one-third is semi-passively managed, and one-third is passively managed, the entire pool is expected to exceed the target by +.18 - .40% annualized, over time.



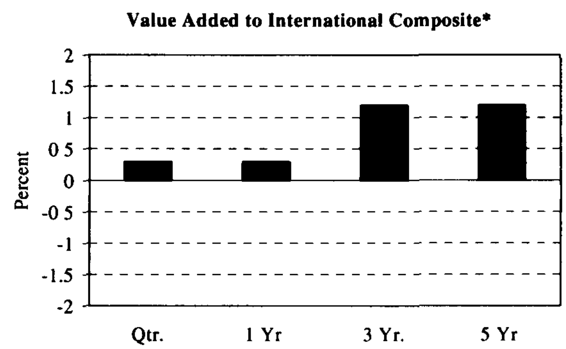
Period Ending 12/31/2001

		Annualized		
	Qtr.	**1 Yr.**	**3 Yrs.**	**5 Yrs.**
Domestic Stocks	**12.5%**	**-11.1%**	**-1.5%**	**9.3%**
W5000 Investable*	12.6	-11.7	-1.3	9.3

* Restated to incorporate the Wilshire 5000 Investable Index beginning 7/1/99. W5000 prior to 7/1/99.

International Stocks

Target: Composite of EAFE-Free and Emerging Markets Free*
Expectation: If at least one-third of the pool is managed actively and at least one-third is passively managed, the entire pool is expected to exceed the target by +.25%-.75% annualized, over time.



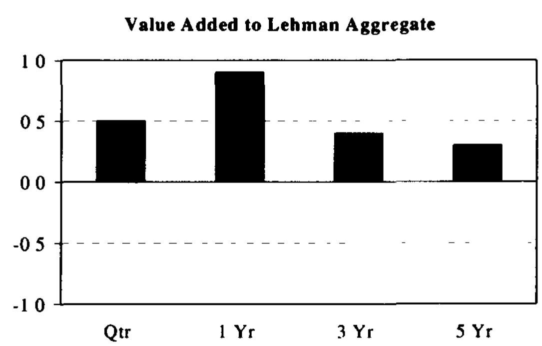
Period Ending 12/31/2001

		Annualized		
	Qtr.	**1 Yr.**	**3 Yr.**	**5 Yrs.**
Int'l. Stocks	**8.5%**	**-19.8%**	**-2.9%**	**1.2%**
Composite Index*	8.2	-20.1	-4.1	0.0

* The international benchmark is EAFE Free plus Emerging Markets Free (EMF). The weighting of each index fluctuates with market capitalization. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE-Free/13% EMF. On 5/1/96 the portfolio began transitioning from 100% EAFE to the 12/31/96 fixed weights. 100% EAFE-Free prior to 5/1/96.

Bonds

Target: Lehman Brothers Aggregate Bond Index
Expectation: If half of the pool is actively managed and half is managed semi-passively, the entire pool is expected to exceed the target by +.20-.35% annualized, over time.



Period Ending 12/31/2001

		Annualized		
	Qtr.	**1 Yr.**	**3 Yrs.**	**5 Yrs.**
Bonds	**0.5%**	**9.3%**	**6.7%**	**7.7%**
Lehman Agg.	0.0	8.4	6.3	7.4

ALTERNATIVE ASSET MANAGERS
Performance of Asset Pools
(Net of Fees)

Real Estate Pool (Basic Funds only)

Expectation: Real estate investments are expected to exceed the rate of inflation by 3-5% annualized, over the life of the investment.

The SBI began its real estate program in the mid-1980's and periodically makes new investments. Some of the existing investments, therefore, are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2001		Annualized	
	Qtr.	Yr.	3 Yrs.	5 Yrs.
Real Estate	**-0.6%**	**7.1%**	**11.1%**	**14.9%**
Inflation	-0.9	1.6	2.5	2.2

Private Equity Pool (Basic Funds only)

Expectation: Private equity investments are expected to provide annualized returns at least 3% greater than historical public equity returns, over the life of the investment. This equates to an absolute return of approximately 13-14% annualized

The SBI began its private equity program in the mid-1980's and periodically makes new investments. Some of the existing investments, therefore, are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2001		Annualized	
	Qtr.	Yr.	3 Yrs.	5 Yrs.
Private Equity	**-9.6%**	**-20.2%**	**14.0%**	**14.6%**

Resource Pool (Basic Funds only)

Expectation: Resource investments (primarily oil and gas) are expected to exceed the rate of inflation by 3-5% annualized, over the life of the investment.

The SBI began its resource program in the mid-1980's and periodically makes new investments. Some of the existing investments, therefore, are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2001		Annualized	
	Qtr.	Yr.	3 Yrs.	5 Yrs.
Resource Funds	**-17.5%**	**-13.0%**	**5.6%**	**7.3%**

Yield Oriented Pool (Post Fund only)

Expectation: Yield oriented investments are expected to provide annualized returns at least 2% greater than historical public debt returns over the life of the investment. This equates to an absolute return of 10-11% annualized.

The SBI made its first commitment to the alternative investment program for the Post Fund in March 1994. Some of the existing investments, therefore, are relatively immature and returns may not be indicative of future results

	Period Ending 12/31/2001		Annualized	
	Qtr.	Yr.	3 Yrs.	5 Yrs.
Yield Oriented	**0.8%**	**7.1%**	**12.9%**	**12.9%**

SUPPLEMENTAL INVESTMENT FUND

The Minnesota Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to state and local public employees. The different participating groups use the Fund for a variety of purposes:

1. It functions as the investment manager for all assets of the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan and Hennepin County Supplemental Retirement Plan.

2. It is one investment vehicle offered to employees as part of the state's Deferred Compensation Plan, the Individual Retirement Account Plan and College Supplemental Retirement Plan.

3. It serves as an external money manager for a portion of some local police and firefighter retirement plans.

A wide diversity of investment goals exists among the Fund's participants. In order to meet those needs, the Fund has been structured much like a "family of mutual funds." Participants may allocate their investments among one or more accounts that are appropriate for their needs, within the statutory requirements and rules established by the participating organizations. Participation in the Fund is accomplished through the purchase or sale of shares in each account.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. They are net of investment management fees.

On December 31, 2001 the market value of the entire Fund was $1.5 billion.

Investment Options

	12/31/2001 Market Value (In Millions)
Income Share Account – a balanced portfolio utilizing both common stocks and bonds.	$571
Growth Share Account – an actively managed, all common stock portfolio.	$247
Common Stock Index Account – a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	$316
International Share Account – a portfolio of non U.S. stocks that incorporates both active and passive management.	$36
Bond Market Account – an actively managed, all bond portfolio.	$127
Money Market Account – a portfolio utilizing short-term, liquid debt securities.	$97
Fixed Interest Account – a portfolio of guaranteed investment contracts (GIC's) and GIC type investments which offer a fixed rate of return for a specified period of time.	$95

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

INCOME SHARE ACCOUNT

Investment Objective

The primary investment objective of the Income Share Account is similar to that of the Combined Funds. The Account seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility.

Asset Mix

The Income Share Account is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

	Target	Actual
Stocks	60.0%	62.7%
Bonds	35.0	33.6
Unallocated Cash	5.0	3.7
	100.0%	100.0%

Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yr. (Annualized)
Total Account	**7.4%**	**-3.8%**	**2.4%**	**9.2%**
Composite*	7.5	-3.7	2.2	9.0

* 60% Wilshire 5000/35% Lehman Aggregate Bond Index/5% T-Bills Composite.

GROWTH SHARE ACCOUNT

Investment Objective

The Growth Share Account's investment objective is to generate above-average returns from capital appreciation on common stocks.

Asset Mix

The Growth Share Account is invested primarily in the common stocks of US companies. The managers in the account also hold varying levels of cash.

Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yr. (Annualized)
Total Account	**12.6%**	**-10.8%**	**-1.9%**	**9.1%**
Composite*	12.6	11.7	-1.3	9.3

* 100% Wilshire 5000 Investable since July 1999. 100% Wilshire 5000 from November 1996 to June 1999. 95% Wilshire 5000/5% T-Bills Composite through October 1996.

COMMON STOCK INDEX ACCOUNT

Investment Objective and Asset Mix

The investment objective of the Common Stock Index Account is to generate returns that track those of the U.S. stock market as a whole. The Account is designed to track the performance of the Wilshire 5000 Investable, a broad-based equity market indicator.

The Account is invested 100% in common stock.

Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yr. (Annualized)
Total Account	**12.2%**	**-11.8%**	**-0.6%**	**9.9%**
Wilshire 5000 Investable*	12.6	11.7	-1.0	9.5

* Wilshire 5000 through June 2000. Wilshire 5000 Investable thereafter.

INTERNATIONAL SHARE ACCOUNT

Investment Objective and Asset Mix

The investment objective of the International Share Account is to earn a high rate of return by investing in the stock of companies outside the U.S. At least one-third of the Account is "passively managed" and is designed to track the return of 21 markets included in the Morgan Stanley Capital International index of Europe, Australasia and the Far East (EAFE-Free). The remainder of the Account is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value.

Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr. (Annualized)	5 Yrs. (Annualized)
Total Account	**8.5%**	**-19.7%**	**-2.8%**	**1.3%**
Composite*	8.2	20.1	-4.1	0.0

* The international benchmark is EAFE Free plus Emerging Markets Free (EMF). The weighting of each index fluctuates with market capitalization. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE-Free/13% EMF. On 5/1/96 the portfolio began transitioning from 100% EAFE Free to the 12/31/96 fixed weights. 100% EAFE-Free prior to 5/1/96.

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

BOND MARKET ACCOUNT

Investment Objective
The investment objective of the Bond Market Account is to exceed the return of the broad domestic bond market by investing in fixed income securities.

Asset Mix
The Bond Market Account invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years.

	Period Ending 12/31/2001			
		Annualized		
	Qtr.	**1 Yr.**	**3 Yr.**	**5 Yr.**
Total Account	**0.5%**	**9.4%**	**6.7%**	**7.7%**
Lehman Agg.	0.0	8.4	6.3	7.4

MONEY MARKET ACCOUNT

Investment Objective
The investment objective of the Money Market Account is to purchase short-term, liquid debt securities that pay interest rates that are competitive with those available in the money market.

Asset Mix
The Money Market Account is invested entirely in high quality short-term investments such as U.S. Treasury Bills, bank certificates of deposit, repurchase agreements, and high grade commercial paper. The average maturity of these investments is 30 to 60 days.

	Period Ending 12/31/2001			
		Annualized		
	Qtr.	**1 Yr.**	**3 Yr.**	**5 Yr.**
Total Account	**0.7%**	**4.3%**	**5.4%**	**5.5%**
3 month T-Bills	0.5	3.8	4.9	5.0

FIXED INTEREST ACCOUNT

Investment Objectives
The investment objectives of the Fixed Interest Account are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer term investments than typically found in a money market account.

Asset Mix
The assets in the Account are **invested primarily in stable value instruments** such as insurance company investment contracts, bank investment contracts, and security backed contracts. These instruments are issued by highly rated U.S. financial institutions, typically have maturities of 3-6 years and are rated "A" or better at the time of purchase. The interest rate credited will change, reflecting the blended interest rate available from all investments in the account including cash reserves which are maintained to provide liquidity. The Fixed Interest Benchmark in the 3 year Constant Maturity Treasury Bill +30 basis points.

	Period Ending 12/31/2001			
		Annualized		
				Since
	Qtr.	**1 Yr.**	**3 Yr.**	**5 Yr.**
Total Account	**1.5%**	**6.3%**	**6.3%**	**6.3%**
Benchmark*	0.9	4.3	5.5	5.7

* The Fixed Interest Benchmark is the 3 year Constant Maturity Treasury Bill +30 basis points.

ASSIGNED RISK PLAN

Investment Objectives
The Assigned Risk Plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of on-going claims and operating expenses.

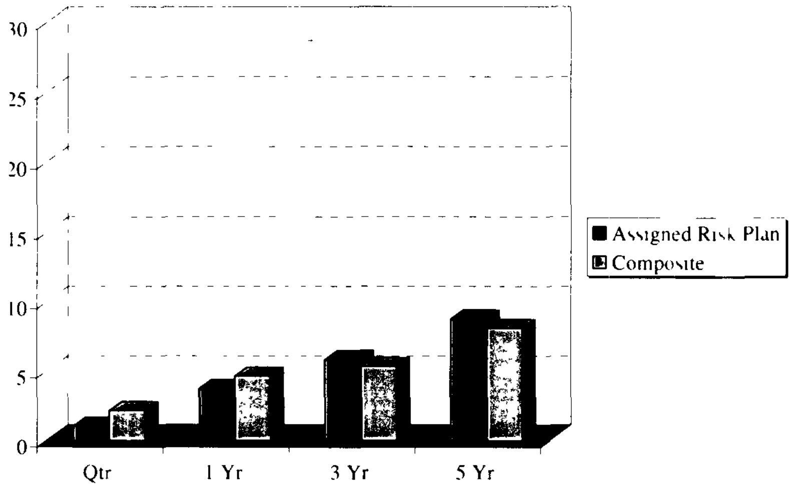
Asset Mix
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The actual asset mix will fluctuate in response to changes in the Plan's liability stream

	12/31/2001 Target	12/31/2001 Actual
Stocks	20 0%	21 9%
Bonds	80 0	78 1
Total	100 0%	100 0%

Investment Management
Voyageur Asset Management manages the bond segment of the Fund GE Investment Management manages the equity segment

Performance Benchmarks
A custom benchmark has been established for the fixed income portfolio It reflects the duration of the liability stream and the long-term sector allocation of Voyageur Asset Management Since July 1, 1994, the equity benchmark has been the S&P 500 index The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets

Market Value
On December 31, 2001 the market value of the Assigned Risk Plan was $344 million



Period Ending 12/31/2001

	Qtr.	1 Yr. (Annualized)	3 Yr. (Annualized)	5 Yr. (Annualized)
Total Fund*	1.0%	3.8%	5.9%	8 8%
Composite	2 2	4 7	5 4	8.1
Equity Segment*	9.9	-8 2	3 5	13 3
Benchmark	10.7	-11 9	-1.0	10.7
Bond Segment*	-1 0	6 4	5 6	6.5
Benchmark	0.1	8 7	6 7	7 1

* Actual returns are calculated net of fees.

PERMANENT SCHOOL FUND

Investment Objectives
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is used to offset expenditures on school aid payments to local school districts.

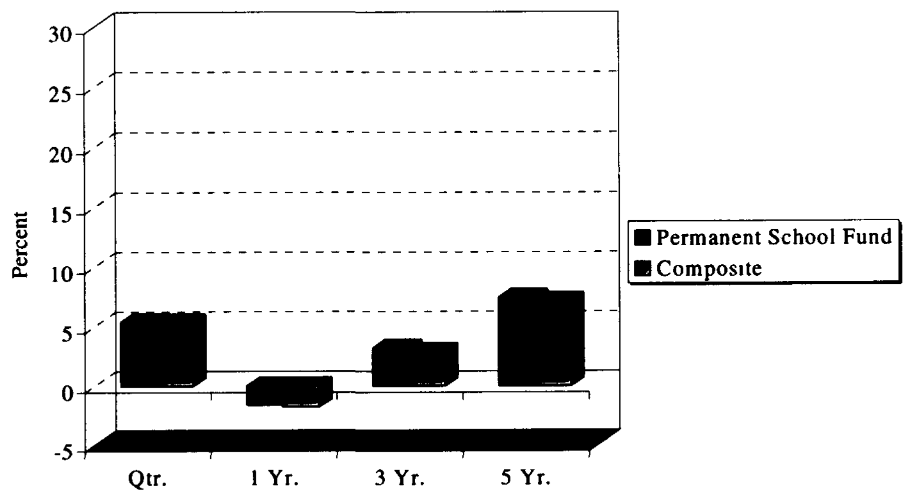
Asset Mix
Effective with FY98, the Permanent School Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds provide portfolio diversification and a more stable stream of current income.

	12/31/2001 Target	12/31/2001 Actual
Stocks	50.0%	52.0%
Bond	48.0	46.3
Unallocated Cash	2.0	1.7
Total	100.0%	100.0%

Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

Investment Management
SBI staff manages all assets of the Permanent School Fund. The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions.

Market Value
On December 31, 2001 the market value of the Permanent School Fund was $536 million.



	Period Ending 12/31/2001			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Total Fund (1) (2)	**5.4%**	**-1.6%**	**3.2%**	**7.4%**
Composite	5.3	-1.8	2.9	7.2
Equity Segment (1) (2)	**10.3**	**-12.0**	**-1.0**	**N/A**
S&P 500	10.7	-11.9	-1.0	N/A
Bond Segment (1)	**0.5**	**9.2**	**6.8**	**7.7**
Lehman Aggregate	0.0	8.4	6.3	7.4

(1) Actual returns are calculated net of fees.
(2) Equities were added to the asset mix effective July 28, 1997. Prior to that date the fund was invested entirely in bonds. The composite Index has been weighted accordingly.

ENVIRONMENTAL TRUST FUND

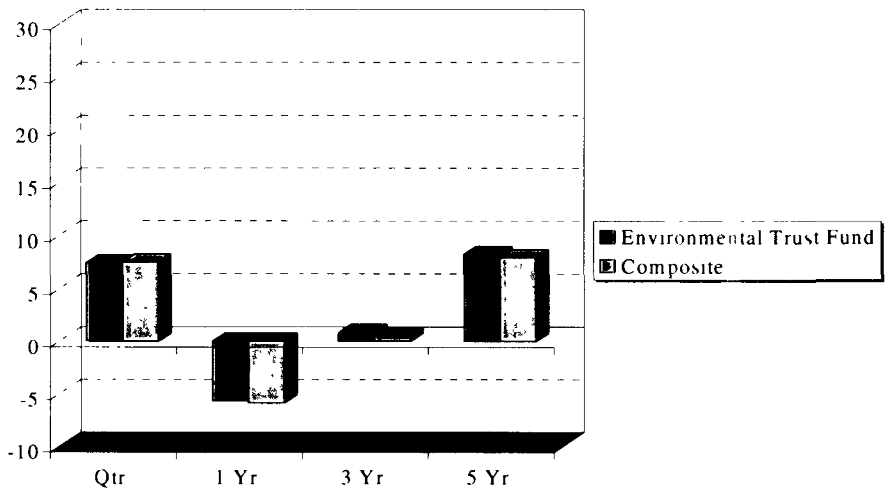
Investment Objective
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending.

Asset Mix
The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. As of July 1, 1999, the asset allocation changed from 50% stocks/50% fixed income to 70% stocks /30% fixed income

	12/31/2001 Target	12/31/2001 Actual
Stocks	70.0%	71.5%
Bonds	28.0	27 8
Unallocated Cash	2.0	0 7
Total	100.0%	100.0%

Investment Management
SBI staff manage all assets of the Environmental Trust Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500.

Market Value
On December 31, 2001 the market value of the Environmental Trust Fund was $299 million.



	Period Ending 12/31/2001			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
Total Fund*	7.4%	-5 6%	0.8%	8.2%
Composite	7.5	-5.8	0.5	7.9
Equity Segment*	10 4	-12.0	-1 0	10.8
S&P 500	10.7	-11.9	-1.0	10.7
Bond Segment*	0 5	9.2	6.8	8.0
Lehman Agg	0.0	8.4	6.3	7.4

* Actual returns are calculated net of fees.

TOBACCO PREVENTION FUND

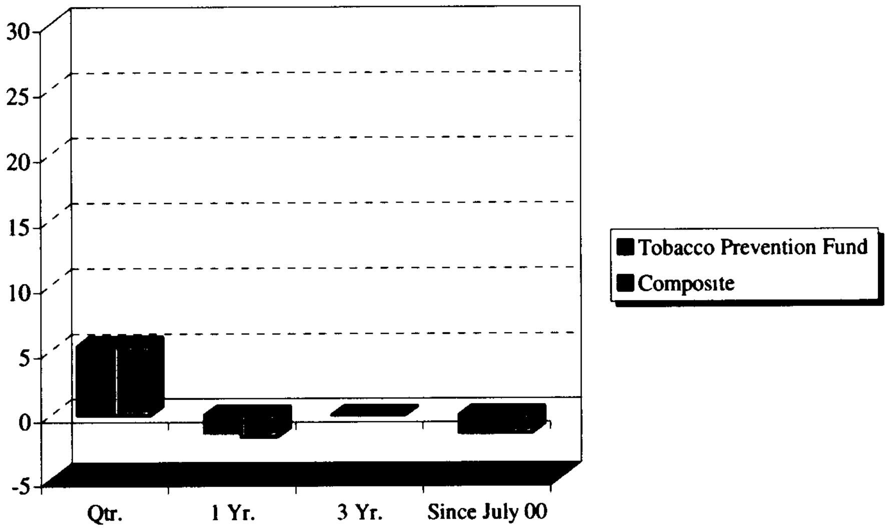
Investment Objectives
The investment objective of the Tobacco Prevention Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending.

Asset Mix
The Fund is invested in a balanced portfolio of stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

Investment Management
SBI staff manages all assets of the Tobacco Prevention Fund.

Market Value
On December 31, 2001 the market value of the Tobacco Prevention Fund was $520 million.

	12/31/2001 Target	12/31/2001 Actual
Stocks	50.0%	47.4%
Bonds	50.0	52.3
Unallocated Cash	0.0	0.3
Total	100.0%	100.0%



Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr.	Since 7/1/00
Total Fund*	5.3%	-1.3%	N/A	-1.4%
Composite	5.3	-1.7	N/A	-1.4
Equity Segment*	10.4	-11.9	N/A	-13.5
S&P 500	10.7	-11.9	N/A	-13.5
Bond Segment*	0.5	9.3	N/A	11.0
Lehman Agg.	0.0	8.4	N/A	10.7

* Actual returns are calculated net of fees.

MEDICAL EDUCATION FUND

Investment Objectives
The investment objective of the Medical Education Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending

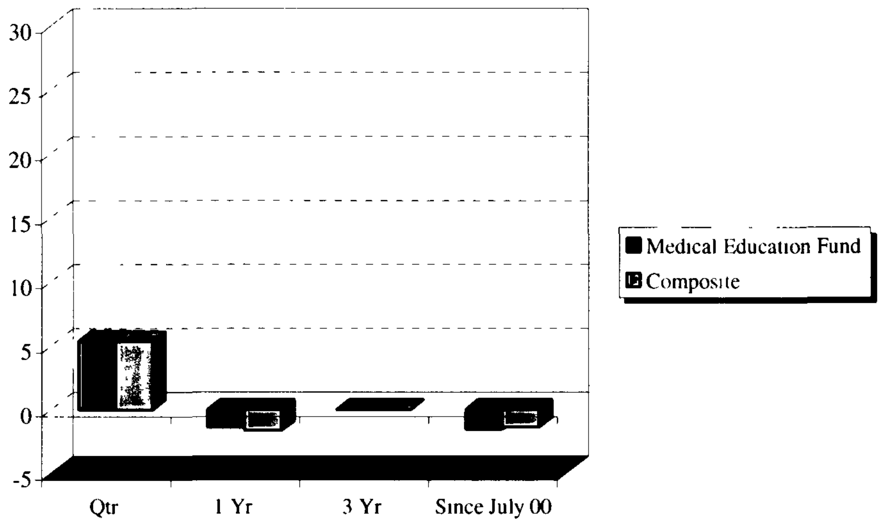
Asset Mix
The Fund is invested in a balanced portfolio of stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

Investment Management
SBI staff manages all assets of the Medical Education Fund.

Market Value
On December 31, 2001 the market value of the Medical Education Fund was $326 million

At the end of December, the initial deposit of $216 million was received for the Academic Health Center Account. The assets were invested in January and the returns will be reported as a separate account in the first quarter board folder

	12/31/2001 Target	12/31/2001 Actual
Stocks	50 0%	47 4%
Bonds	50.0	52.3
Unallocated Cash	0 0	0 3
Total	100 0%	100 0%



Period Ending 12/31/2001

	Qtr.	1 Yr.	3 Yr.	Since 7/1/00
Total Fund*	5.4%	-1.4%	N/A	-1.6%
Composite	5.3	-1.7	N/A	-1.4
Equity Segment*	10.4	-11.9	N/A	-13.5
S&P 500	10.7	-11.9	N/A	-13.5
Bond Segment*	0.5	9.3	N/A	11.0
Lehman Agg.	0.0	8 4	N/A	10.7

* Actual returns are calculated net of fees.

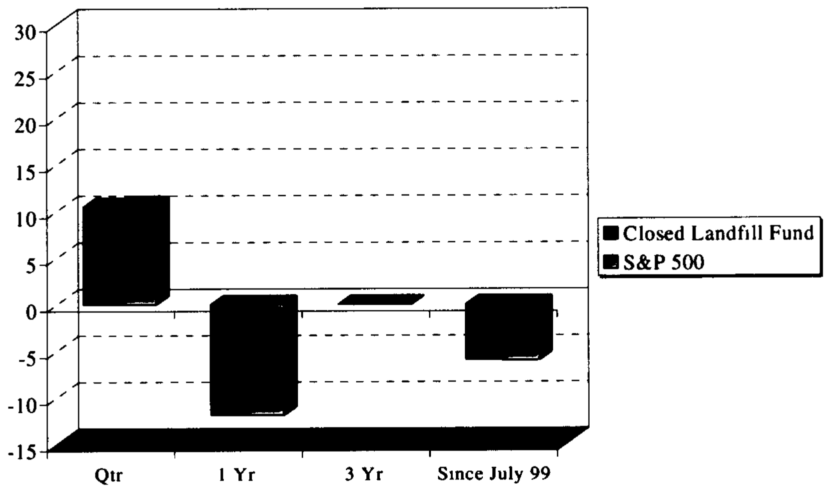
CLOSED LANDFILL INVESTMENT FUND

Investment Objectives
The investment objective of the Closed Landfill Investment Fund is to generate high returns from capital appreciation. The Fund will be used by the Commissioner of the PCA (Pollution Control Agency) to pay for the long-term costs of maintaining the integrity of landfills in Minnesota once they are closed. However, by statute, the assets of the Fund are unavailable for expenditure until after fiscal year 2020.

Asset Mix
Effective July 1999, the Closed Landfill Investment Fund is invested entirely in common stock. Given the long time horizon of this Fund and the lack of need for any short or mid-term withdrawals, this strategy will maximize the long-term gain of the Fund.

Investment Management
SBI staff manage all assets of the Closed Landfill Investment Fund. The assets are managed to passively track the performance of the S&P 500 index.

Market Value
On December 31, 2001, the market value of the Closed Landfill Investment Fund was $13.3 million.



	Period Ending 12/31/2001			
	Qtr.	**1 Yr.**	**3 Yr.**	**Since 7/1/99**
Total Fund (1)	**10.5%**	**-11.9%**	N/A	**-5.9%**
S&P 500 (2)	10.7	-11.9	N/A	-6.0

(1) Actual returns are calculated net of fees.
(2) The benchmark of the fund is the S&P 500. The portfolio was initially invested in mid July 1999. The benchmark was adjusted to reflect this mid month starting period.

STATE CASH ACCOUNTS

Description
State Cash Accounts represent the cash balances in more than 400 separate accounts that flow through the Minnesota State Treasury These accounts range in size from $5,000 to over $400 million.

Most accounts are invested by SBI staff through two short-term pooled funds

1. Trust Fund Pool contains the temporary cash balances of certain trusts and retirement-related accounts.

2. Treasurer's Cash Pool contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and non dedicated cash in the State Treasury.

In addition, each State of Minnesota bond sale requires two additional pools; one for bond proceeds and one for the debt reserve transfer.

Because of special legal restrictions, a small number of cash accounts cannot be commingled. These accounts are invested separately.

Investment Objectives

Safety of Principal. To preserve capital

Competitive Rate of Return. To provide a high level of current income

Liquidity. To meet cash needs without the forced sale of securities at a loss

Asset Mix
The SBI maximizes current income while preserving capital by investing all cash accounts in high quality, liquid short term investments. These include U.S Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

Investment Management
All state cash accounts are managed by the SBI investment staff. As noted above, most of the assets of the cash accounts are invested through two large commingled investment pools.

Period Ending 12/31/2001

	Market Value (Millions)	Qtr.	1 Yr.	Annualized 3 Yr.	Annualized 5 Yr.
Treasurer's Cash Pool*	**$5,217**	**0.7%**	**5.2%**	**5.8%**	**5.7%**
Custom Benchmark**		0 6	5 2	5 3	5 3
Trust Fund Cash Pool*	**$64**	**0.6**	**4.4**	**5.4**	**5.6**
Custom Benchmark***		0 5	3.7	4.7	4 9
3 month T-Bills		0 5	3 8	4.9	5 0

* Actual returns are calculated net of fees.

** Beginning in January 1997, the Treasurer's Cash Pool is measured against a blended benchmark consisting of the Lehman Brother's 1 to 3 year Government Index for the first $2.0 billion and the IBC all Taxable Money Fund Index for the balance of the portfolio From April 1993 through December 1996, the benchmark was 75% State Street Short Term Investment Fund/25% 1-3 year Treasuries.

*** Beginning in January 1997, the Trust Fund Pool is measured against the IBC All Taxable Money Fund Index. From April 1993 through December 1996, the benchmark was 75% State Street Short Term Investment Fund/25% 1-3 year Treasuries

MINNESOTA STATE BOARD OF INVESTMENT

Composition of State Investment Portfolios By Type of Investment

Market Value December 31, 2001 (in Thousands)

	Cash and Short term Securities	Bonds Internal	Bonds External	Stocks Internal	Stocks External	External Int'l	Alternative Assets	Total
BASIC RETIREMENT FUNDS:								
Teachers Retirement Fund	69,625	0	1,496,734	0	3,360,107	1,015,764	823,660	6,765,890
	1.03%		22.12%		49.66%	15.01%	12.18%	100%
Public Employees Retirement Fund	54,555	0	956,384	0	2,146,954	649,178	525,965	4,333,036
	1.26%		22.07%		49.55%	14.98%	12.14%	100%
State Employees Retirement Fund	41,259	0	885,635	0	1,988,134	601,155	487,057	4,003,240
	1.03%		22.12%		49.66%	15.02%	12.17%	100%
Public Employees Police & Fire	52,867	0	491,258	0	1,102,810	333,458	270,181	2,250,574
	2.35%		21.83%		49.00%	14.82%	12.00%	100%
Highway Patrol Retirement Fund	2,317	0	49,739	0	111,658	33,762	27,354	224,830
	1.03%		22.12%		49.66%	15.02%	12.17%	100%
Judges Retirement Fund	281	0	6,029	0	13,534	4,092	3,316	27,252
	1.03%		22.12%		49.66%	15.02%	12.17%	100%
Correctional Employees Retirement	2,478	0	53,189	0	119,402	36,104	29,251	240,424
	1.03%		22.12%		49.66%	15.02%	12.17%	100%
Public Employees Correctional	1,786	0	5,986	0	13,437	4,063	3,285	28,557
	6.26%		20.96%		47.05%	14.23%	11.50%	100%
TOTAL BASIC FUNDS	225,168	0	3,944,954	0	8,856,036	2,677,576	2,170,069	17,873,803
	1.26%		22.07%		49.55%	14.98%	12.14%	100%
POST RETIREMENT FUND	495,224	0	4,929,542	0	9,688,727	2,780,535	580,841	18,474,869
	2.68%		26.68%		52.44%	15.05%	3.15%	100%
TOTAL BASIC AND POST	720,392	0	8,874,496	0	18,544,763	5,458,111	2,750,910	36,348,672
	1.98%		24.41%		51.02%	15.02%	7.57%	100%

	Cash and Short term Securities	Bonds Internal	Bonds External	Stocks Internal	Stocks External	External Int'l	Alternative Assets	Total
MINNESOTA SUPPLEMENTAL FUNDS:								
Income Share Account	21,399 3.75%	191,773 33.58%	0	0	357,830 62.67%	0	0	571,002 100%
Growth Share Account	0	0	0	0	246,476 100.00%	0	0	246,476 100%
Money Market Account	27,304 100.00%	0	0	0	0	0	0	27,304 100%
Common Stock Index	0	0	0	0	315,662 100.00%	0	0	315,662 100%
Bond Market Account	0	0	127,353 100.00%	0	0	0	0	127,353 100%
International Share Account	0	0	0	0	0	36,292 100.00%	0	36,292 100%
Fixed Interest Account	1,275 1.34%	0	94,129 98.66%	0	0	0	0	95,404 100%
Money Market Deferred Comp	70,029 100.00%	0	0	0	0	0	0	70,029 100%
TOTAL SUPPLEMENTAL FUNDS	120,007 8.06%	191,773 12.87%	221,482 14.87%	0	919,968 61.76%	36,292 2.44%	0	1,489,522 100%
TOTAL RETIREMENT FUNDS	840,399 2.22%	191,773 0.51%	9,095,978 24.04%	0	19,464,731 51.44%	5,494,403 14.52%	2,750,910 7.27%	37,838,194 100%

	Cash and Short Term Securities	Bond Internal	Bond External	Stock Internal	Stock External	External Int'l	Alternative Assets	Total
ASSIGNED RISK PLAN	17,799 5.17%	0	252,452 73.42%	0	73,609 21.41%	0	0	343,860 100%
ENVIRONMENTAL FUND	1,997 0.67%	83,141 27.81%	0	213,787 71.52%	0	0	0	298,925 100%
PERMANENT SCHOOL FUND	8,809 1.64%	248,427 46.32%	0	279,053 52.04%	0	0	0	536,289 100%
TOBACCO SETTLEMENT POOL	218,745 20.60%	400,720 37.74%	0	442,352 41.66%	0	0	0	1,061,817 100%
CLOSED LANDFILL INVESTMENT	17 0.13%	0	0	13,296 99.87%	0	0	0	13,313 100%
TREASURERS CASH	5,180,200 100.00%	0	0	0	0	0	0	5,180,200 100%
HOUSING FINANCE AGENCY	150,994 48.92%	157,638 51.08%	0	0	0	0	0	308,632 100%
MINNESOTA DEBT SERVICE FUND	58,562 24.57%	179,758 75.43%	0	0	0	0	0	238,320 100%
MISCELLANEOUS ACCOUNTS	176,350 47.76%	162,822 44.10%	0	30,044 8.14%	0	0	0	369,216 100%
GRAND TOTAL	6,653,872 14.41%	1,424,279 3.08%	9,348,430 20.24%	978,532 2.12%	19,538,340 42.30%	5,494,403 11.89%	2,750,910 5.96%	46,188,766 100%

Tab B

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: February 26, 2002

TO: Members, State Board of Investment

FROM: Howard Bicker

1. **Reports on Budget and Travel**

   A report on the SBI's administrative budget for the period ending January 31, 2002 is included as **Attachment A.**

   A report on travel for the period from November 16, 2001 - February 15, 2002 is included as **Attachment B.**

2. **Results of FY01 Financial Audit**

   The Office of the Legislative Auditor has completed its audit of SBI operations for Fiscal Year 2001. I am pleased to report that the SBI received a "clean opinion" on its financial statements. See **Attachment C.**

3. **Legislative Update**

   A summary of legislative activity of interest to the SBI is in **Attachment D.**

4. **Litigation Update**

   The SBI is involved in class action and securities litigation suits. SBI legal counsel will give the Board a verbal update on the status of the litigation at the Board meeting on March 6, 2002.

5. **Change in Contract for MnSCU Investment Portfolios**

   In 1997, the SBI entered into a contract with the Minnesota State Colleges and Universities (MnSCU) to transfer the investment of bond issue related assets to the SBI. MnSCU is restructuring its bond portfolio and SBI staff is requesting the authority to enter into a new contract to reflect current requirements.

   RECOMMENDATION:

   Staff recommends that the Board authorize the Executive Director, with assistance from legal counsel, to enter into a contract with MnSCU to carry out the necessary investments of MnSCU bond issue related assets.

6. Potential Asset Allocation Changes to Certain Non-retirement Funds

As a result of the impending state budget concerns, there has been discussion within the State Legislature of using assets from some of the Funds managed by the SBI to support a portion of the potential budget deficit. The Funds most often mentioned are the Tobacco Endowment Funds and the Assigned Risk Plan. Other Funds may be affected. While the SBI is responsible for the investment of the assets of these Funds, other state agencies have certain operational responsibilities regarding these Funds.

If the Legislature decides it necessary to use these funds, it may become necessary for the SBI to liquidate some or all of these assets immediately to ensure that the "targeted" amount of assets is available. Currently, the Funds are invested in equity and/or fixed income securities according to policy position papers approved by the SBI. As it may become necessary to convert some or all of these assets to cash several months prior to the proceeds being used for the anticipated budgetary purposes, staff is recommending that the SBI authorize the Executive Director, in consultation with Board deputies, to alter the asset allocation of the Funds which may be subject to legislative action, as deemed necessary. Staff believes this will allow all concerned the greatest flexibility in the event the Funds' asset allocations need to be altered.

RECOMMENDATION:

Staff recommends that the SBI authorize the Executive Director, in consultation with Board deputies, to alter the asset allocation of Funds that may be subject to full or partial liquidation as a result of legislative budget actions.

ATTACHMENT A

STATE BOARD OF INVESTMENT
FISCAL YEAR 2002 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR TO DATE THROUGH JANUARY 31, 2002

ITEM	FISCAL YEAR 2002 BUDGET	FISCAL YEAR 2002 EXPENDITURES
PERSONAL SERVICES		
FULL TIME EMPLOYEES	$ 1,871,000	$ 1,009,645
SEVERENCE PAYOFF	20,000	0
WORKERS COMPENSATION INSURANCE	1,000	395
MISCELLANEOUS PAYROLL	1,000	4,898
SUBTOTAL	**$ 1,893,000**	**$ 1,014,938**
STATE OPERATIONS		
RENTS & LEASES	130,000	66,665
REPAIRS/ALTERATIONS/MAINTENANCE	30,000	7,797
PRINTING & BINDING	20,000	1,806
PROFESSIONAL/TECHNICAL SERVICES	35,000	0
COMPUTER SYSTEMS SERVICES	13,000	5,175
COMMUNICATIONS	30,000	11,918
TRAVEL, IN-STATE	3,000	165
TRAVEL, OUT-STATE	65,000	24,834
SUPPLIES	50,000	20,518
EQUIPMENT	50,000	1,113
EMPLOYEE DEVELOPMENT	15,000	7,832
OTHER OPERATING COSTS	42,000	6,950
SUBTOTAL	**$ 483,000**	**$ 154,773**
TOTAL GENERAL FUND	**$ 2,376,000**	**$ 1,169,711**

ATTACHMENT B

STATE BOARD OF INVESTMENT

Travel Summary by Date
SBI Travel November 16, 2001 – February 15, 2002

Purpose	Name(s)	Destination and Date	Total Cost
Manager Monitoring: **Emerging Equity Manager:** Holt-Smith & Yates Advisors	L. Buermann	Madison, WI 11/19	$249.45
Conference: IMN Fixed Income Summit sponsored by Information Management Network	M. Menssen	Palm Beach, FL 12/4-12/7	$104.00
Manager Monitoring: **External Equity Manager:** Franklin Portfolio Associates **Manager Search:** **External Equity Managers:** David L. Babson; Boston Partners, Fidelity; Grantham, Mayo & Van Otterloo; Wellington	J. Matz	Boston, MA 12/10-12/12	$465.60
Conference: National Association of State Investment Professionals (NASIP)	M. Menssen L. Buermann	Orlando, FL 1/6-1/9	$3,696.93 $2,~~546.~~93
Conference: Public Funds Summit sponsored by Opal Financial Group	C. Johnson	Phoenix, AZ 1/9-1/12	$1,618.08
Conference: Emerging Markets Forum sponsored by Elkind Economics, Inc.	L. Buermann	Dallas, TX 1/16-1/17	$1,218.40
Manager Monitoring: **International Manager:** Montgomery Asset Mgmt. **Emerging Markets Manager:** Capital International **Manager Search:** **International Manager:** Barclays Global Investors	S. Gleeson	San Francisco, CA Los Angeles, CA 1/23-1/28	$1,335.75

Purpose	Name(s)	Destination and Date	Total Cost
Manager Monitoring: Alternative Investment Manager: GMAC; Lend Lease **Manager Search: Alternative Investment Manager:** GMAC	A. Christensen	Atlanta, GA 1/23-1/24	$463.00
Meeting: Oregon Public Employees Retirement System Meeting	H. Bicker	Portland, OR 1/24-1/25	$1,229.86
Manager Monitoring: Alternative Investment Manager: SCF Partners; First Reserve	J. Griebenow	Houston, TX 1/29-1/30	$1,170.50
Conference: Western Asset Fixed Income Seminar	M. Perry	Monterey, CA 1/30-2/4	$835.58

ATTACHMENT C

OLA OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA • James Nobles, Legislative Auditor

Report on Compliance and Internal Control Over Financial Reporting Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Senator Ann H. Rest, Chair
Legislative Audit Commission

Members of the Legislative Audit Commission

Members of the Minnesota State Board of Investment

Howard J. Bicker, Executive Director
Minnesota State Board of Investment

We have audited the financial statements of the Supplemental Investment Fund and the Post Retirement Investment Fund of the Minnesota State Board of Investment as of and for the year ended June 30, 2001, and have issued our report thereon dated November 30, 2001. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Compliance

As part of obtaining reasonable assurance about whether the Minnesota State Board of Investment's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

Internal Control over Financial Reporting

In planning and performing our audit, we considered the Minnesota State Board of Investment's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

This report is intended solely for the information and use of the Legislative Audit Commission and the Minnesota State Board of Investment, and is not intended to be and should not be used by anyone other than these specified parties.

James R. Nobles
Legislative auditor

Claudia J. Gudvangen, CPA
Deputy Legislative auditor

End of Fieldwork: November 30, 2001

Report Signed On: January 9, 2002

Status of Prior Audit Issues As of November 30, 2001

Most Recent Audit

December 29, 2000, Legislative Audit Report 00-55 covered the fiscal year ended June 30, 2000. The audit scope included the investment functions material to the State of Minnesota's financial statements and the Supplemental Investment Fund and the Post Retirement Investment Fund included in the Minnesota State Board of Investment's Annual Report. We audit SBI on an annual basis. There were no reportable issues in the last audit report.

State of Minnesota Audit Follow-Up Process

The Department of Finance, on behalf of the Governor, maintains a quarterly process for following up on issues cited in financial audit reports issued by the Legislative Auditor. The process consists of an exchange of written correspondence that documents the status of audit findings. The follow-up process continues until Finance is satisfied that the issues have been resolved. It covers entities headed by gubernatorial appointees, including most state agencies, boards, commissions, and Minnesota state colleges and universities. It is not applied to audits of the University of Minnesota, any quasi-state organizations, such as metropolitan agencies or the State Agricultural Society, the state constitutional officers, or the judicial branch.

ATTACHMENT D

Bills of Interest to the Minnesota State Board of Investment
2002 Legislative Session
Includes Action Through 2/22/02

Description of Bill	HF/SF # and Author	Current Status
State Agency Budget Bill - SBI budget reduction	HF 351	Awaits Governor's action
Tobacco Endowment Funds - Tobacco used as cash flow back-up	HF 351 article 13, section 6	Awaits Governor's action
Transferring Assigned Risk Plan surplus	HF 351 article 13, section 9	Awaits Governor's action
Reduction in Professional-Technical contracts	HF 351 article 10, sec. 36 and 37	Awaits Governor's action
Transferring State Treasurer's duties	SF 2963 (Rest) HF 2761 (Erickson)	On General Orders in Senate Referred to House State Government Finance

Tab C

COMMITTEE REPORT

DATE: February 26, 2002

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: Master Custody Review Committee

The SBI's contract with State Street Bank for master custody services expires on April 30, 2003. It is the SBI's practice to review the contract through a request for proposal (RFP) on at least a five-year basis.

At its September 5, 2001 meeting the State Board of Investment authorized a Master Custodian Review Committee and directed staff to send out Requests For Proposals (RFP's). The RFP was announced in the State Register on November 19, 2001. RFP's were sent to the seven leading master custody providers in the industry as well as two additional local banks. Responses were received from seven vendors:

Bank of New York	New York
Deutsche Bank	Dallas
J. P. Morgan / Chase	New York
Mellon Bank	Boston
State Street Bank and Trust	Boston
U S Bank	Minneapolis
Wells Fargo	Minneapolis

The responses were evaluated by the committee for the vendor's adherence to the RFP requirements, the perceived ability of the vendor to meet the needs of the SBI for these services over the next five years, and the cost of the services proposed by the vendor.

A summary of the review process and the individual responses are attached.

CONCLUSION:

Based on its review of the RFP responses, the Committee concluded that State Street Bank and Trust should remain the SBI's custodian.

- **Services.** The Committee believes that State Street will continue to provide "state of the art" custodial services. The quality of its product and services equals or exceeds that of all other respondents.

- **Fees.** On a gross fee basis, State Street's fee proposal was the lowest that included all the services required by the SBI. On a net fee basis, State Street will guarantee the SBI a zero net fee. This means that the SBI will be credited with securities lending income at least sufficient to cover all gross fees for the five-year life of the contract. In addition, the proposed fee represents a reduction from the current contract.

- **Securities Lending.** State Street will provide the SBI with a higher level of indemnification on its securities lending program than all other respondents.

RECOMMENDATION:

Based on the results of the RFP, the Committee unanimously recommends that the Board authorize the Executive Director, with the assistance of SBI counsel, to negotiate and execute a contract with State Street Bank and Trust Company, Boston MA, for Master Custodial services for a five year period ending April 30, 2008.

Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligation on the State Board of Investment and neither the State of Minnesota, the State Board of Investment or its Executive Director have any liability for reliance by State Street Bank and Trust Company upon this approval. Until a formal agreement is executed by the Executive Director on behalf of the SBI, further due diligence and negotiations may result in the imposition of additional terms and conditions on State Street Bank and Trust or reduction or termination of the commitment.

Tab D

COMMITTEE REPORT

DATE: February 26, 2002

TO: Members, State Board Investment
Members, Investment Advisory Council

FROM: Stock and Bond Manager Committee

The Stock and Bond Manager Committee met on February 19, 2002 to consider the following agenda items:

- Review the manager performance for the period ending December 31, 2001.
- Update of the Domestic Equity semi-passive short list.
- Recommendation to adopt the fixed income position paper.
- Recommendation to terminate Zurich Scudder Investments.
- Recommendation to renew investment manager contracts.

Action is required by the SBI / IAC on the last three items.

INFORMATION ITEMS:

1. **Review of manager performance for the period ending December 31, 2001.**

- *Domestic Equity Managers*

For the period ending December 31, 2001, the **Domestic Equity Manager Program** out-performed the Wilshire 5000 Investable during the year, under-performed over the quarter and the three-year period, and matched the index over the five-year time period. The **current managers** out-performed the Aggregate Benchmark during the three and five-year time periods, but under-performed during the quarter and the one-year period.

Time period	Total Program	Wilshire 5000 Investable
Quarter	12.5%	12.6%
1 Year	-11.1	-11.7
3 Years	-1.5	-1.3
5 Years	9.3	9.3

Current Mgrs. Only	Aggregate Benchmark
12.5%	14.0%
-10.9	-9.7
0.0	-0.6
10.9	10.0

The performance evaluation reports for the domestic equity managers start on the **blue page A-1** of this Tab.

- ***Fixed Income Managers***

For the period ending December 31, 2001, the **Fixed Income Manager Program** and the **current managers** out-performed the Lehman Aggregate and Aggregate Benchmark, respectively, over all time periods.

Time period	Total Program	Lehman Aggregate
Quarter	0.5%	0.0%
1 Year	9.3	8.4
3 Years	6.7	6.3
5 Years	7.7	7.4

Current Mgrs. Only	Aggregate Benchmark
0.5%	0.0%
9.4	8.4
6.7	6.3
7.8	7.4

The performance evaluation reports for the fixed income managers start on the **blue page A-33** of this Tab.

- ***International Equity Managers***

For the period ending December 31, 2001, the **International Equity Program** and the **equity managers** (excluding the currency overlay) outperformed the composite index over all time periods.

Time Period	Total* Program	Composite Index**
Quarter	8.5	8.2
1 Year	-19.8	-20.1
3 Year	-2.9	-4.1
5 Year	1.2	0.0

Equity*** Mgrs. Only
8.5
-19.8
-3.0
0.7

* Includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00.

** The international benchmark is EAFE-Free plus Emerging Markets Free. The weighting of each index fluctuates with market capitalization From 12/31/96 to 6/30/99, the benchmark was fixed at 87% EAFE-Free/13% Emerging Markets Free. On 5/1/96, the portfolio began transitioning from 100% EAFE-Free to the 12/31/96 fixed weights. Prior to 5/1/96, the benchmark was 100% EAFE-Free.

*** Includes impact of terminated managers, but excludes impact of currency overlay.

The performance evaluation reports for the international equity managers start on the **blue page A-47** of this Tab.

2. **Update of the Domestic Equity semi-passive short list.**

The SBI has established a Manager Monitoring Program to identify a short list of potential candidates intended to serve as the starting point for any manager search deemed necessary in the future. These firms are monitored on an ongoing basis to ensure that the SBI is familiar with the best investment managers in the industry. Up to ten firms may be identified for each asset class. The firms currently identified for the domestic equity semi-passive manager short list are shown below:

Potential Semi-Passive Domestic Equity Managers

Aeltus Investment Management
Fidelity Management Trust Company
Goldman Sachs Asset Management
T. Rowe Price Associates
Wellington Management Company

Summary level information on these firms begins on **page 7**, and detailed manager reports begin on **page 9.**

ACTION ITEMS:

3. **Recommendation to adopt the fixed income position paper.**
Staff presented a fixed income position paper that reviewed three extended sectors of the fixed income market for their suitability for additional investment within the bond program: U.S. High Yield, Non-dollar, and Emerging Market Debt (EMD). In the paper, staff concluded that additional investment in the U.S. High Yield and Non-dollar sectors has the potential to increase expected return while maintaining the bond program's effectiveness as a diversification to equity investments. However, with regards to EMD, staff concluded that an investment in this sector was not advisable for the bond program given the sector's equity-like risk and return profile. Staff recommended the expansion of the program's current tactical approach to investment in the U.S. High Yield and Non-dollar sectors rather than deploying a strategic, or constant exposure, approach as the best way to increase exposure to these sectors.

Currently, selected active managers are allowed to invest up to 10% of their portfolios in the U.S. High Yield and/or Non-dollar sectors. Semi-passive managers are not allowed to invest tactically in either sector. Under the recommendation, selected active managers could invest up to 15% of their portfolios in both the U.S. High Yield and Non-dollar sectors, subject to a combined 20% maximum in the extended sectors. Selected semi-passive managers could also invest in these sectors tactically, subject to a 5% maximum in each sector (10% overall extended sector maximum). Staff, with the concurrence of the Stock and Bond Manager Committee, should have the discretion to grant authority to individual managers based on the manager's experience and expertise. The committee concurred with staff's recommendation.

The position paper which delineates staff's recommendation begins on **page 25**.

RECOMMENDATION:

The Committee recommends that the SBI adopt the attached position paper regarding investment in extended sectors of the fixed income market and authorize staff to proceed with the implementation plan outlined in the recommendation section of the paper.

4. **Recommendation to terminate Zurich Scudder Investments.**
In September 2001, Zurich Scudder Investments (ZSI) announced that they would be sold by their parent company, Zurich Financial, to Deutsche Bank. Recently, Staff was informed of the details of Deutsche Bank's plan to integrate ZSI with Deutsche Asset Management (DAM), which is expected to become effective in April 2002. The proposed changes are significant. Top management within the combined organization will change notably, the composition of the portfolio management team will change completely and will be relocated to London from New York, and the analysts will be reassigned (and in some instances relocated) into newly organized sector teams which will report on companies using a different valuation emphasis and new reporting template. Staff has had numerous conversations with senior management at ZSI and DAM. Based on these conversations, staff believes the investment process and philosophy of the combined organization will be different from ZSI's current approach. Staff is concerned by the significant changes to the organization and investment process, and believes the SBI portfolio could be adversely impacted by these changes. The Committee concurred with Staff's recommendation.

RECOMMENDATION:

The Committee recommends that the SBI terminate its relationship with Zurich Scudder Investments for investment management services in the International Equity Program.

5. **Recommendation to renew investment manager contracts.**
The contracts of five (5) managers will expire in the next few quarters. Currently, the standing of each of these managers is satisfactory. Staff recommends renewal of each of these contracts for a five-year period with an immediate termination clause. All other terms and conditions of the contracts are expected to remain unchanged.

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with the assistance from SBI's legal counsel, to negotiate and execute five year contract extensions with the following firms, subject to inclusion of a provision which provides for immediate termination:

Semi-Passive Domestic Equity Managers
Barclays Global Investors
Franklin Portfolio Associates, LLC
J.P. Morgan Investment Management, Inc.

Assigned Risk Plan
GE Asset Management

Stable Asset Manager
Galliard Capital Management

POTENTIAL MANAGER SUMMARY
SEMI-PASSIVE DOMESTIC EQUITY
As of September 2001

[redacted]									
Aeltus	41,048	Large Cap	6,543	60	SP500	No	No	250-400	<2.00%
Fidelity	897,659	Risk Controlled	149	2	W5000	Yes	Yes	200-400	1.75-2.00%
Goldman	271,188	Enhanced Index	15,075	38	SP500	No	No	200-300	1.50%
T. Rowe Price	140,430	Systematic Equity	10,244	67	SP500	No	Yes	350-400	1.00-2.00%
Wellington	281,097	Enhanced US Intersection	5,133	10	SP500	No	Yes	>125	1.25-2.00%

Attachment B
SUMMARY OF MANAGER PERFORMANCE

AELTUS ENHANCED EQUITY	-13.2	-10.9	-0.3	6.9	11.9	17.3	13.9	14.6	0.48	Sep-91
S&P 500	-11.8	-10.3	-0.9	5.9	10.9	16.1	13.1	13.6		
Assets: 6,543	(1 4)	(0.6)	0.6	1.0	1.0	1.2	0.8	1.0		
FIDELITY SELECT TOTAL MARKET	-10.8	-7.2	1.3	6.4	10.7	15.6	13.7	16.2	0 32	Sep-90
WILSHIRE 5000	-11.0	-10.9	-0.7	4.9	9.7	14.8	12.3	14.6		
Assets: 149	0.2	3.7	2.0	1.5	1.0	0.8	1.4	1.6		
GOLDMAN SACHS CORE ENHANCED	-10.2	-9.6	0 0	6.2	11.2	16.5	13.3	14.6	0 28	Nov-91
S&P 500	-11.8	-10.3	-0.9	5.9	10.9	16.1	13 1	14.2		
Assets. 15,075	1.6	0.7	0.9	0.3	0.3	0.4	0.2	0.4		
T. ROWE PRICE SYSTEMATIC	-11.7	-10.3	-0.8	6.0	11.0	16.1		13.8	1.10	Mar-92
S&P 500	-11.8	-10.3	-0.9	5.9	10.9	16.1		13 7		
Assets· 10,244	0.1	0.0	0.1	0.1	0 1	0.0		0.1		
WELLINGTON US INTERSECTION	-9.0	-7.8	1.4	8.4	13.1	17 4		17.4	0.89	Jun-94
S&P 500	-11.8	-10.3	-0.9	5.9	10.9	16.1		16.1		
Assets. 5,133	2.8	2.5	2.3	2.5	2.2	1.3		1.3		

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm's Name: **Aeltus Investment Management, Inc.**

Name of Product: **Enhanced Equity**

Investment Style: **Large Cap, Mid Cap, and Small Cap Core**

Investment Philosophy:
We believe that long-term superior price appreciation is inextricably tied to Positive Business Momentum (PBM), defined as combination of strong business fundamentals and sustainability. It is a company's business fundamentals (profit margin, revenue trends) that drive earnings and earnings momentum. We believe consistently improving (or deteriorating) earnings and earnings estimates play a critical role in determining whether a stock will outperform or underperform. Furthermore, we believe that an assessment of PBM should include relative price considerations in order to avoid overvalued stocks.

The development of our Enhanced Strategies was a result of internal research and backtesting that showed our quantitative models can effectively identify both the existence of PBM and the absence of PBM. Our research and experience proves that a strategy that focuses on the tails of the distribution (emphasizing potential outperformers and avoiding potential underperformers) provides significant alpha. Furthermore, we believe that by owning the rest of the stocks in the benchmark at essentially market weight and constraining sector weights, we can create a portfolio with benchmark-like portfolio and risk characteristics which provides a value-added alternative to pure indexing and more consistent results than most active managers.

Investment Process:
The investment process begins with a quantitative evaluation of every issue in the benchmark. Our proprietary model employs advanced analytical techniques to examine over 30 bottom-up investment factors, searching for those that independently and together add the highest level of value (alpha) in determining stock price performance. We have currently identified five factors which have the greatest predictive ability and a sound fundamental basis for identifying positive business momentum at a reasonable price: growth reliability, earnings momentum, estimate revision, price/free cash flow and price momentum.

Once the model, which is run bi-weekly, has evaluated individual companies on the above factors, an overall rank is developed and expressed on a decile basis. We will then purchase approximately 85% to 90% of the companies in the benchmark, significantly overweighting well-ranked stocks (top two deciles) and underweighting poorly ranked (8^{th} & 9^{th} decile) stocks. We do not own bottom decile stocks. We currently weight our portfolios as follows:

Decile Rank	Portfolio Weighting (relative to S&P 500 Index)
1	170% Significant Overweight
2	135% Modest Overweight
3-7	100% Equal Weight
8	95% Modest Underweight
9	40% Significant Underweight
10	0 % Not owned

The systematic nature of our approach enables us to remove emotion from the management process, as all investment decisions are strictly based upon results from quantitative modeling. Qualitative judgments do not play a part in any purchase or sale decisions.

There are five key components of our risk management strategy:

1. Strict adherence to the rankings of stocks by an extremely robust and predictive model.
2. Avoidance of stock specific risk:
   - We own a significantly large number of stocks (85%-90% of the issues);
   - Some 50% of these stocks are market weighted (deciles 3-7);
   - Another 20% stocks (deciles 8 and 9) are owned (but underweighted relative to the benchmark) even though the model predicts they are likely to underperform;

   This has lead to extremely low levels of tracking error and very high R^2 to the benchmark.

3. Sector constraints: We limit sector weights to +/- 35% of the relative Index sector weight. (In practice, we rarely bump against these limits, with normal maximum under/overweighting averaging 20%).
4. Avoidance of Market Timing: Market timing is not a part of the process and cash is held to a minimum level (0-2%).
5. Equity-Based Strategy: we do not utilize option or derivative based strategies or fixed income alternatives in the process.

Sell decisions are inherent to our systematic investment discipline, and are implemented as part of a regular rebalancing process, which occurs every two weeks. Stocks are sold based entirely on quantitative rank. Stocks are sold only if the rank changes by one "category", in order to maintain the weightings described above. Turnover in the portfolio will average approximately 100% annually.

We do not use a committee approach to equity investing. All equity research is conducted by the Enhanced Portfolio Management Team, which is headed by Hugh Whelan and our Quantitative Research Team, which is headed by Peter Swank.

Ownership:
Aeltus is an independently managed subsidiary of ING Groep N.V. ING is one of the largest integrated financial service organizations in the world offering asset management, insurance,

banking, and other related services to institutions, individuals, and corporations around the world.

Key business and investment professionals participate in an equity- oriented program to ensure that they have ownership incentives that are directly linked to the overall profitability, growth, and success of our firm.

Firm's total assets under management:	$41,048 mm
Assets under management in this product:	$6,543 mm
Number of Accounts in this product:	60
Number of Portfolio Managers on this product:	3
Number of Analysts on this product:	3

Largest Accounts:

Affinity	
Public Client	$462
Public Client	$405
Corporate Client	$378
Corporate Client	$314
Taft-Harley Client	$256

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm's Name: **Fidelity Management Trust Company**

Name of Product: **Select Total Market**

Investment Style: **All-Cap Core**

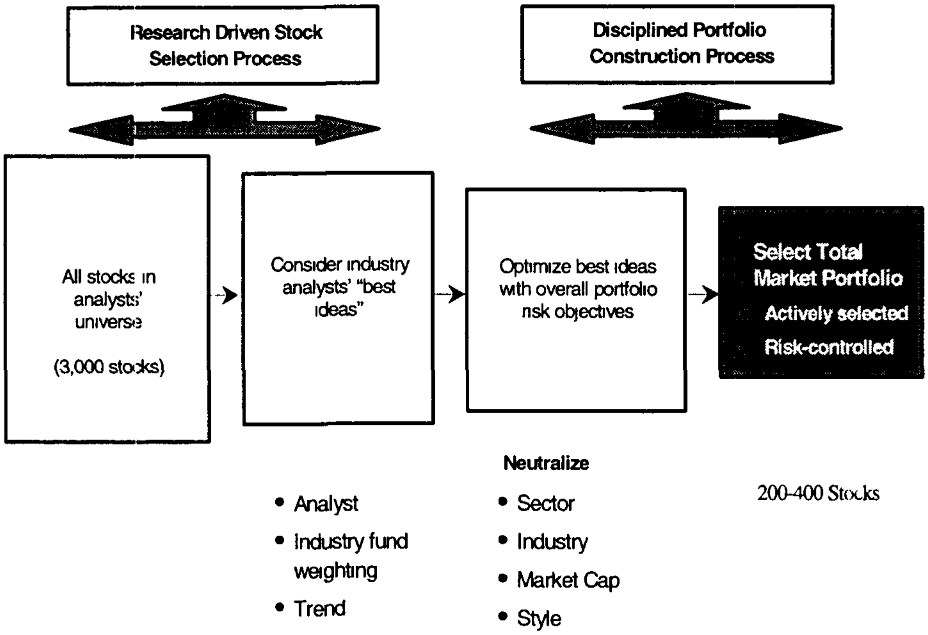
Investment Philosophy:
It is our belief that equity markets are semi-efficient and that inefficiencies or anomalies exist within the marketplace. Fidelity's objective is to exploit these inefficiencies and add value to a benchmark using vigorous fundamental research. The breadth and depth of our proprietary research capabilities provide us with an information advantage.

We believe the greatest potential for achieving value-added is through specific stock selection. In addition, we believe that structuring active stock selection within a risk-controlled portfolio will deliver value over and above a benchmark.

The Select Total Market product is an All-Cap Core discipline that rests on the same foundation as Fidelity's equity investment philosophy, a philosophy that is based on a clear understanding of the potential for added value from consistently good stock selection. Bottom-up stock selection focuses on companies with persistent, above-average earnings growth and strong financial characteristics as well as valuation close to or below the market.

The Select discipline is an active, risk-controlled discipline. The risk control feature ensures that the Select portfolio maintains characteristics and sector weights similar to those of a specified benchmark. The primary driver of active returns is stock selection.

Investment Process:
The Select investment process consists of two distinct parts: 1) Research-driven stock selection process, and 2) Disciplined portfolio construction process.



Research

As a fundamental bottom-up investment manager, Fidelity focuses on company research with extensive local research coverage in Boston, London, Tokyo and Hong Kong. Given the globalization of companies, worldwide research coverage is important in understanding the impact of foreign events on U.S. markets. Industry specialists are grouped under the seven major Fidelity sectors and assignments are based on this global research structure. Sector teams work together analyzing common industry factors, and also coordinate with sector teams in the other regions. Our U.S. equity research team follows a universe of approximately 3,000 securities. The analysts visit companies, develop earnings models, write company and industry reports, and rate stocks as to their relative and absolute attractiveness. The major focus is on individual company and industry research.

The investment discipline follows a fundamental bottom-up approach. Our analysts rank these companies based on frequent on-site visits, competitive analysis and quantitative analysis. Additionally, researching and meeting with a company's suppliers, distributors, and competitors are important component, of the assessment process. In most cases, we already have other analysts covering these companies. This greatly increases our competitive advantages, as few firms can match the breadth and depth of our research process. Analysts also thoroughly review company financial statements, and analyze fundamental quantitative measures such as price to earnings, price to book, price to cash flow, return on equity, beta, and yield.

Portfolio Construction

The portfolio manager incorporates the analysts' "best ideas" into the portfolio. The portfolio manager can call upon the services of these industry-focused analysts responsible for researching companies in the U.S. This breadth of research resources enables the portfolio manager's investment team to make more informed investment decisions.

In constructing the portfolio, the portfolio manager takes into consideration risk characteristics relative to the benchmark. Moderate constraints on market cap, style, industry, and sector exposures ensure that consistent value is added to the portfolio through security selection. Thus, security selection driven by fundamental company research is the primary contributor to value-added.

Ownership:

Fidelity Management Trust Company	
Describe Ownership	Fidelity Management Trust Company (FMTC) is a wholly-owned subsidiary of Fidelity Management Research (FMR Corp.).
Percent firm owned by employees	FMR Corp. is 100% owned by its employees.
Number of employees with ownership stake	Fidelity is employee owned (51%) and family-owned (49%).

Firm's Total Assets under Management	$69,989.8 million
Assets under management in this product:	$149.4 million
Number of Accounts in this product:	2
Number of Portfolio Managers on this product:	1
Number of Fundamental Analysts on this product:	71

Largest Accounts:

Client Type	Assets (US$M)	Inception Date
Corporate	$146.6 million	1/31/1986
Insurance	$2.8 million	10/2/2000

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm's Name: **Goldman, Sachs & Co. Asset Management Group**

Name of Product: **CORE Large Cap Equity – Enhanced Index**

Investment Style: **Large Cap Market (S&P 500)**

Investment Philosophy:
The CORE^{SM} ("Computer-Optimized, Research-Enhanced") strategy is a bottom-up approach to equity investing based on the belief that markets are not entirely efficient and that active management can add value in the long run. Successful active management, however, requires comprehensive analysis of all the relevant data, careful risk management, and discipline and objectivity. Our approach is to combine traditional fundamental analysis with sophisticated quantitative modeling and to carefully construct, and manage the risk in, our portfolios. We believe that this process can provide positive excess returns over a given benchmark over time.

Investment Process:
The CORE strategy is designed to capture a variety of market inefficiencies. To effect this, the CORE process evaluates a broad universe of stocks every day with a combination of quantitative and qualitative analysis. The CORE quantitative model, which we developed and continue to enhance, is based on practical, intuitive, theoretically sound factors that have been thoroughly tested for statistical validity (i.e., we avoid "data mining"). The five CORE quantitative investment criteria are ***Relative value, Momentum, Research, Profitability*** and ***Earnings quality***. Each of these criteria has demonstrated a positive correlation with future stock returns—i.e., predictive power—over time. The intuition behind them can be found in typical human behavioral patterns. Studies have shown that in equity markets, investor sentiment can push stocks to excessive levels (of both over- and under-valuation) when new market information confirms prior beliefs. Eventually, the true value of the stock is realized, which is the value-based investment strategy rationale. Conversely, investors tend to under-react to information that contradicts their prior beliefs, resulting in a gradual—rather than immediate—shift in the consensus view and the responding price movement. This phenomenon creates the basis for momentum-based strategies. During speculative periods, investors may temporarily price companies based on market hype rather than true fundamentals or potential. Eventually, however, market volatility and shake-outs will lead investors to more substantive criteria to evaluate companies. The CORE process opts for companies with strong profit margins, efficiency, and cash-based sources of earnings, all of which indicate performance that is sustainable beyond speculative periods. Thorough, continual analysis allows the CORE process to exploit systematic market inefficiencies brought about by investor behavior.

In addition to the quantitative factors described above, the CORE process also evaluates companies based on the opinions of fundamental research analysts. This allows us to incorporate the expertise of human research analysts while limiting the human error inherent in their analysis. We also use consensus research data in addition to the opinions of GS&Co. analysts. Based on extensive research, both our own and external, we've concluded that there are a number of benefits to using consensus opinions rather than relying on individual analysts. These include: broader coverage, less individual analyst bias, more timely information, and more accurate estimates. According to research, a statistical combination of the mean estimate and the most recent estimate is, on average, more accurate than any individual estimate.[1] By evaluating each stock from many angles, we may develop a better overall picture of the stock's attractiveness (e.g. we would not be likely to purchase a stock which might be perceived as attractive from a pricing standpoint if the company's growth prospects and momentum indicators are weak).

Ownership

Goldman, Sachs & Co. ("GS&Co." or "the Firm") is a limited partnership organized under the laws of New York. In May of 1999, GS&Co.'s principal owner, The Goldman Sachs Group, L.P. ("Group LP") and its general partner merged into The Goldman Sachs Group, Inc. ("GSG Inc."), in connection with an initial public offering of shares of GSG Inc. GSG Inc. has succeeded to all of the assets and liabilities of Group LP and its general partner. Upon the merger of Group LP into GSG Inc., GSG Inc. became the parent company of the Goldman Sachs group of companies. None of our other operating companies were changed as a result of this merger or the initial public offering of shares.

Major Shareholders

Below is a table of major shareholders as of August 9, 2000. The remaining shares are owned by the general public.

[1] Stickel [*Journal of Accounting Research*, 1990]

Share Holders	Number of Shares	Share (%)
GS Shareholders*	248,934,000	51.3%
Janus Capital	21,989,000	4.5%
Sumitomo Bank	14,744,000	3.0%
Fidelity Management	12,303,000	2.5%
Putnam Investment	9,136,000	1.9%
AIM Advisors	6,483,000	1.3%
JP Morgan Chase	6,210,000	1.3%
Goldman Sachs	5,604,000	1.2%
Kamehameha	5,455,000	1.1%
Jennison	4,440,000	0.9%

* This figure includes Managing Director's only
Data Source: Bloomberg (As of August 9, 2001)

Firm's total assets under management	$271,188.0MM
Assets under management in this product	$15,074.6MM
Number of Accounts in this product	38
Number of Portfolio Managers on this product	5
Number of Analysts on this product	7

Largest Accounts:

Client Type	Assets under Management ($MM)
Public	2,084.8
Public	1,891.5
Union	1,652.6
Corporate	711.3
Corporate	466.5

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm's Name: **T. Rowe Price Associates, Inc.**

Name of Product: **T. Rowe Price Completion Fund Strategy**

Investment Style: **Customized Strategy for Minnesota State Board of Investment**

Investment Philosophy:
Our Completion Fund Strategy is based on the belief that the use of both fundamental research and quantitative methods in equity investing can produce consistent, incremental outperformance against a benchmark over full market cycles, while providing for risk control.

Investment Process:
We are proposing a customized Completion Fund Strategy for the Minnesota State Board of Investment. This Strategy combines the use of quantitative techniques to manage risk compared to the quarterly benchmark with the fundamental research of our equity research team, comprised of 52 research analysts and 13 portfolio manager/analysts. The resulting portfolio is designed to consistently add incremental return to your benchmark, while maintaining a comparable risk profile.

The Completion Fund Strategy is managed using the recommendations of approximately 30 equity analysts, combined with the risk control of our systematic equity investment team. Individual portfolio holdings are primarily determined by the analysts who select companies within the industries they follow. Industry allocations will be similar to the relative industry weightings in the Minnesota State Board of Investment's benchmark. The objective is to achieve out-performance through stock selection while neutralizing any industry and factor bets.

We have developed a number of quantitative tools to assist in the investment management process. These tools are used to ensure that our portfolios have strong fundamental characteristics, to understand factor bets in portfolios, to manage risk control, and to perform additional screening. For example, we use an optimizer (the ITG Engine) which incorporates BARRA factors, TRP research, etc., as a screening technique. However, the driver behind our investment decisions is portfolio management team analysis.

Ownership:
T. Rowe Price Group is a publicly traded U.S. based corporation. Employees own a significant amount of outstanding shares.

	(as of 9/30/01)
Firm's total assets under management:	$140,430 million
Assets under management in this product:	$10,244 million
Number of Accounts in this product:	67
Number of Portfolio Managers on this product:	6
Number of Analysts on this product:	30

Largest Accounts:

Following are T. Rowe Price's five largest tax-exempt institutional separate accounts, described by account type, and their respective account assets (as of 9/30/01):

1. Common Trust Fund	$2,088.7 million
2. Public	$373.4 million
3. Taft-Hartley	$216.2 million
4. Common Trust Fund	$121.8 million
5. Public	$40.5 million

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm's Name: **Wellington Management Company, llp**

Name of Product: **Enhanced Index US Intersection**

Investment Style: **Large Cap Core**

Investment Philosophy:
The objective of the Enhanced Index US Intersection Portfolio is to provide long-term total returns consistently in excess of the S&P 500 Index while managing the tracking risk relative to the benchmark. The Portfolio combines fundamental research provided by Wellington Management's global industry analysts with quantitative valuation techniques in a disciplined framework.

Investment Process:
The Enhanced Index US Intersection Portfolio is structured to be suitable as a US core equity investment or an alternative to passive investment management, with its universe and portfolio construction tailored toward the S&P 500 Index. The Portfolio attempts to add value by combining Wellington Management's proprietary fundamental research and quantitative valuation approach in a disciplined framework. The combination of these two distinct approaches historically has achieved greater value added than either separately. The complementary nature of fundamental research and quantitative analysis also improves the consistency of added value. In addition, the disciplined portfolio construction process ensures that the portfolio holdings and characteristics are consistent with the benchmark over time and avoids surprises from unintended, unrewarded exposures within the Portfolio.

Fundamental research is provided by Wellington Management's global industry analysts. Wellington Management has made fundamental research a distinct career path, not a training ground for portfolio managers. Consequently, Wellington Management's analysts are among the most seasoned and well respected in the industry. Each analyst is responsible for a specific industry, applying various techniques to develop earnings forecasts and investment ratings for each covered stock in that industry. Since each industry has its own unique dynamics, valuation techniques vary from analyst to analyst.

The quantitative valuation process uses multiple factors to determine a security's attractiveness. The factors can be grouped loosely into "valuation" and "timeliness" categories. The quantitative analysis favors stocks that appear to be both inexpensive according to the valuation factors and timely according to the earnings and price momentum factors. The weight of each factor varies by industry.

The Portfolio is constructed to maximize the expected outperformance relative to the benchmark based upon the combined rating of the fundamental and quantitative analyses while controlling tracking risk. Over the long run, the Portfolio will be close to neutral relative to the benchmark in terms of investment style, industry, sector and size or capitalization range. The portfolio construction process explicitly focuses on active stock selection decisions versus the benchmark, so that tracking risk is controlled and unintended "bets" are minimized.

Ownership:	100% owned by 68 active partners
Firm's total assets under management:	$281,097 million
Assets under management in this product:	$5,133
Number of Accounts in this product:	10
Number of Portfolio Managers on this product:	2
Number of Analysts on this product:	53

Largest Accounts:	**As of 9/30/01**
Account Type	**Dollar Amount (millions)**
Public Fund	$4,361million
Mutual Fund, Sub-advisory	409
Corporate	119
Corporate	53
Corporate	51

DRAFT

Extended Investment Sectors in the Fixed Income Program

Erol Sonderegger, CFA
Minnesota State Board of Investment
February 2002

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The State Board of Investment (SBI) fixed income program has had limited tactical exposure to the U.S. below investment grade and investment grade international bond sectors since the mid-1990s. The program has had no material exposure to Emerging Market Debt (EMD). This report provides a review of each of these sectors, termed "extended sectors". The review includes basic market characteristics, an in-depth review of risk-return characteristics and a discussion of the suitability of each sector for additional investment.

Our review of each sector concludes that each extended sector has sufficient size and liquidity for additional investment. Further, each can potentially provide risk-return benefits when added to a traditional U.S. Core fixed income portfolio such as the SBI's bond program. However, because of the equity-like nature of some of the sectors, a significant additional allocation would reduce the overall bond portfolio's effectiveness as an equity hedge, resulting in higher risk at the total portfolio level. The program's current allocation has resulted in a successful program that has met both its performance and diversification goals. However, staff concludes that given the significant potential of the extended sectors to improve expected returns and reduce the overall bond portfolio's risk, an additional allocation should be evaluated. A quantitative study conducted by staff identified several alternative portfolio allocations using the extended sectors. The combination of the U.S. High Yield and Non-dollar sectors with Core U.S. fixed income provides some measure of increased expected return, although risk at the total portfolio level would increase as well.

Staff also considered the impact of an increased allocation to these sectors on investment management and custody fees, and on the program's legal support needs. For all three sectors, management fees would increase if specialty managers were hired. On average specialty managers in these sectors have higher fees than U.S. Core managers. The custody issue is only relevant to the EMD sector, where investment in this sector could cause additional custodial fees. Lastly, both the High Yield and EMD sectors could require additional legal resources as more investments in these sectors could generate credit events that affect the portfolio.

Staff recommends that the current tactical investment strategy for U.S. High Yield and Non-dollar sectors be expanded. The recommendation expands tactical limits for selected existing active and semi-passive managers, subject to review of each manager's capabilities in the extended sectors. Staff believes that this change will add some incremental value, and minimize additional cost, while maintaining the overall objectives of the fixed income program.

Currently, the SBI has authorized selected active fixed income managers to invest up to 10% of the assets in its portfolio in U.S. Below Investment Grade bonds and up to 10% in Non-dollar fixed income. Staff recommends that active managers be allowed, subject to a review of each manager's capability, to invest up to 15% in U.S. Below Investment Grade bonds, and up to 15% in Non-dollar fixed income, subject to a combined maximum of 20% of the manager's assets. Additionally, staff recommends that the fixed income program's semi-passive managers, subject to a review of investment capability, be allowed to invest up to 5% in U.S. Below Investment Grade and up to 5% in Non-dollar fixed income.

INTRODUCTION

In 1988, the State Board of Investment (SBI) received authority to invest in international securities. This authority includes investment in international fixed income securities. In 1994, the Legislature authorized the SBI to invest in non-rated and below investment grade fixed income instruments. Both authorities are subject to investment limits as a percentage of total investments: no more than 5% of the total fund may be invested in below investment grade or non-rated securities, while the limit on international securities falls within the 35% maximum for alternative investments.

To date, investment in these extended sectors of the fixed income market has been handled on a limited, tactical basis by some of the program's existing fixed income managers deemed by the SBI to have expertise in either or both sectors. While the performance contribution of this strategy has been positive, the total allocation to the sectors has been small and the program has essentially retained a traditional U.S. Core profile. In addition, the continued evolution of the fixed income market since 1994 creates the need to review the current policy. This paper provides a review of the below investment grade corporate, non-U.S. dollar and emerging market sectors of the fixed income market, outlines the Program's actual investment experience in the sectors and recommends an allocation policy and management structure for the fixed income program.

SECTION ONE: MARKET BACKGROUND

What Are the "Extended Sectors" of the Fixed Income Market?

For the purposes of this review, the term *"extended sectors"* refers to sectors of the fixed income market that fall outside the traditional, investment-grade universe of U.S. fixed income securities as represented by the Lehman Aggregate Index. Specifically, this review focuses on the following three extended sectors: *1) U.S. Below Investment Grade Corporate Debt; 2) Non-U.S. Government and Corporate Debt; and 3) Emerging Market Debt.* Each of these markets has grown in size in recent years relative to the core sectors of the fixed income market represented in the Lehman Aggregate Bond Index (Corporates, Morgages, Treasuries, Agencies, and Asset Backed securities). To give some sense of the relative size of the extended sector markets, a market capitalization weighted index combining the Lehman

Aggregate Index sectors with these three extended sectors would have the following weightings as of June 30, 2001: U.S. Core Fixed Income 45.6%, U.S. Below Investment Grade Corporate Bonds 2.2%, Non-U.S. Government and Corporate Debt 50.9%, and Emerging Market Debt 1.3%.[1]

The following sections provide a brief description of each extended sector under consideration. This description is intended to provide basic background and to outline the risk-return profile of each extended sector, both separately and with respect to a Lehman Aggregate-based fixed income portfolio. The profiles form the basis of the subsequent allocation recommendation.

Sector #1 - Non-Investment Grade U.S. Corporate Debt

Definition and Background

Non-investment grade, or *high yield*, bonds are corporate bonds rated below BBB (or its equivalent) by a major rating agency (See Exhibit 1). The rating agencies analyze the financial condition of a corporation and then assign quality ratings to its bonds, assessing the capacity of the company to meet the financial obligations of its existing debt. With investment grade companies (rated AAA, AA, A, or BBB), this capacity is very high and the risk of default is low. With securities of non-investment grade companies, the uncertainty associated with receiving all interest and principal payments is greater. Therefore, investors demand higher yields as compensation for this increased credit risk.

Before the evolution of the high yield market in the late-1970s, high yield bonds existed primarily as a private market dominated by insurance companies. Companies without an investment grade rating, looking to finance their capital structure with debt, generally turned to this private placement market as an alternative to bank loan financing. In addition to the well-established private market, a small public market of "fallen angel" high yield bonds existed as early as 1971. "Fallen angel" refers to the bonds of issuers that have lost their investment grade rating due to business or financial deterioration.

[1] Source: Lehman Brothers, Richards & Tierney.

Exhibit 1: Corporate Bond Ratings – Investment Grade and High Yield

	Moody's	S&P	General Definition
Investment Grade	Aaa	AAA	Highest quality, extremely strong capacity to meet obligations
	Aa	AA	Slightly less strong than AAA; very strong capacity to meet commitments.
	A	A	Issuer is somewhat susceptible to changes in circumstances and economic conditions, ability to meet obligations is strong
	[illegible]	[illegible]	[illegible] to meet obligations; [illegible] conditions are more likely to [illegible]
Speculative Grade	Ba	BB	Less vulnerable than other speculative grade issues Faces major ongoing uncertainties which could lead to inadequate capacity to meet obligations
	B	B	[illegible] will likely impair the [illegible] to meet its financial commitment
	Caa	CCC	Currently vulnerable to nonpayment, issuer is dependent upon favorable business, financial and economic conditions to meet its obligations
	[illegible]	[illegible]	Currently [illegible]
	C	C	Issuer may still be current, but a nonpayment event is imminent
	[illegible]	[illegible]	[illegible]

Source: Bloomberg

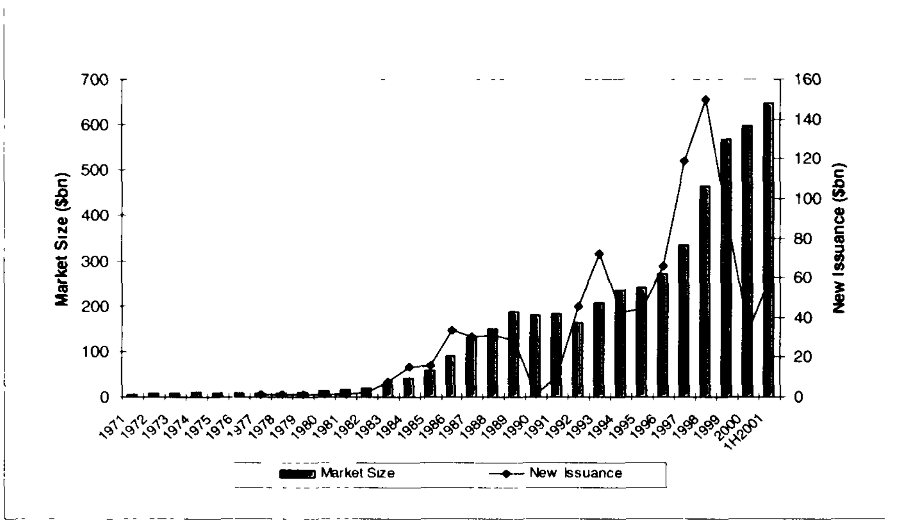
In the late-1970s, below investment grade issuers began to tap the public securities market with the help of investment banks such as Drexel Burnham Lambert. Drexel sought out small and mid-sized companies that needed access to debt capital to grow their businesses, and aggressively marketed the new supply of bonds to investors. Drexel emphasized portfolio diversification and modern portfolio theory, showing that a well-diversified portfolio of higher yielding bonds could exhibit a better risk-return profile than a less diversified portfolio of *higher* overall quality. Issuance of public high yield debt was limited to several billion dollars annually until the mid-1980s. At that time, issuance of high yield debt ballooned as a result of the increase in leveraged acquisitions and buyouts and growing investor demand for high yield on the heels of excellent historical returns. By the end of the 1980s, the high yield market had grown to $250 billion in size.[2]

The aggressive, highly leveraged offerings of the 1980s fell on hard times during the economic slowdown of 1990. Also investor appetite for high yield securities fell as a result of the Savings and Loan crisis and changes in insurance company regulations governing high yield investments. These factors led to exceptionally poor performance in the sector in 1989 and 1990 as high yield issuers defaulted in record numbers and investors dumped high yield investments. The high yield market recovered after the early-1990s. The economy emerged from recession in 1992, new high yield bond issuance slowed, allowing the market to better absorb existing supply, and default rates fell back down to historically average levels. Despite

[2] Altman High Yield Bond and Default Study, Salomon Smith Barney, July 2001

poor returns in 1990 and the negative impacts of the Asian debt crisis in 1997 and the Russia default in 1998, the U.S. high yield sector managed to post the best 10-year return (averaging 305 basis points per year over Treasuries) of any sector of the U.S fixed income market.[3]

Exhibit 2: Growth of the U.S. Corporate High Yield Market



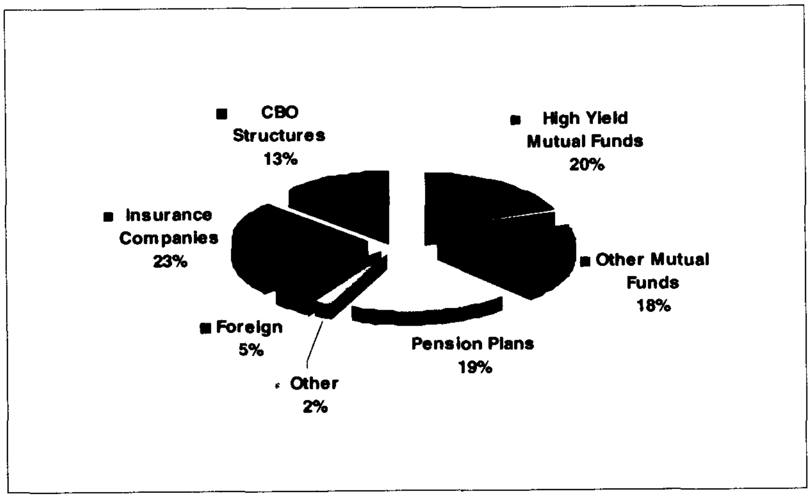
Source Salomon Smith Barney, Altman High Yield Bond and Default Study, July 2001

The High Yield Market Today

As presented in Exhibit 2, the public U.S. corporate high yield market has nearly tripled in size since 1992 to nearly US$650 billion of par value outstanding as of June 2001. High yield bonds now represent approximately 30% of all outstanding publicly traded corporate debt, or about 7% of all outstanding public debt securities.[4] Ownership and participation in the high yield market has broadened somewhat since the early-1990s. Although still dominated by institutional players, the considerable growth in ownership of mutual fund participants and securitized investment vehicles like collateralized bond obligations (CBOs) has increased market liquidity and created a more diverse market with respect to investor demand. Although Exhibit 3 below is somewhat dated, it clearly shows a diversity of ownership across a range of institutional players.

[3] Lehman Brothers, The U.S. Dollar-Denominated Universal Index, January 2000
[4] Based on composition of the Lehman Aggregate Bond Index as of June 30, 2001.

Exhibit 3: High Yield Ownership as of December 31, 1998



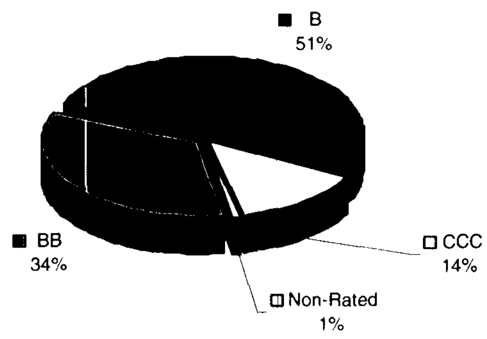
Source DLJ/Credit Suisse First Boston

From a quality perspective, as shown in Exhibit 4, the majority of high yield bonds fall into the top two rating categories (BB and B). Although the period from 1992-1996 saw an overall increase in corporate credit quality as firms de-leveraged their balance sheets and benefited from a strong economy, new high yield issuer credit quality has trended lower in recent years. In January 2001, the percentage of new high yield issuers rated BB was only 28.3%, the lowest level recorded by Moody's in 80 years and only half of the long-term average of 53.8% of issuers.[5] Further, a recent study by Salomon Smith Barney shows that 21% of the high yield market is distressed (defined as priced to yield being more than 1000 basis points greater than comparable Treasuries).[6] Both of these statistics highlight that credit cycles are cyclical in nature; credit quality of issuers tends to deteriorate at the end of an economic expansion and through the trough of the cycle (as it has done in 2000 and 2001), and improves in the early and middle stages of the subsequent expansion.

---

[5] Default and Recovery Rates of Corporate Bond Issuers: 2000, Moody's Investors Service, February 2001
[6] Altman High Yield Bond and Default Study, Salomon Smith Barney, July 2001

Exhibit 4: High Yield Market Breakdown by Quality



Source Bear Sterns High Yield Index as of November 30, 2001

The dramatic expansion in high yield issuance since 1980 has improved the industry diversification of the market. There are now some 1,200 non-investment grade issuers across 11 major industry sectors. Exhibit 5 highlights the distribution of securities in a representative index across these sectors.

Exhibit 5: High Yield Market Breakdown by Industry Sector

Industry Sector	Pct of Index
Basic Materials	9%
Capital Goods-Manufacturing	11%
Consumer Cyclical	21%
Consumer Non-Cyclical	12%
Energy	6%
Finance	3%
Media	17%
Technology	3%
Telecommunication	11%
Transportation	3%
Utility	3%
	100%

Source Bear Sterns High Yield Index as of November 30, 2001

The market continues to have a strong intermediate maturity bias, with fully 70% of issuance in the 7-year to 10-year range, and another 21% between 3 and 5 years to maturity. The shorter nature of the high yield sector, relative to investment grade corporate bonds, is related to the increased credit risk and uncertainty associated with below investment grade issuers. In general, the yield compensation that investors demand for extending long-term credit (beyond 10 years) to a high yield issuer is so expensive relative to shorter maturities that most issuers prefer to offer bonds ten years and in. One benefit of the high yield market being "shorter" than the investment grade market is that the high yield market is generally less impacted by changes in the overall level of interest rates than the broader market. The generally high coupons that high yield securities offer also aid this effect.

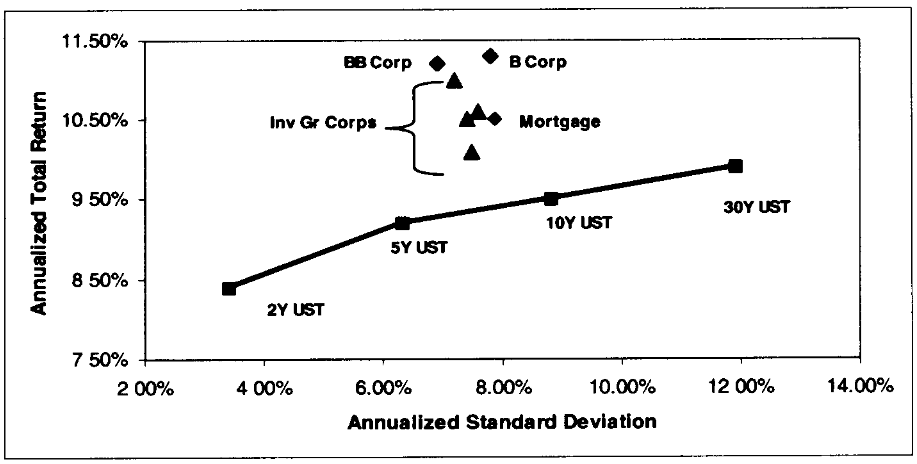
The Case for an Allocation to High Yield

The rationale for investing in high yield, as with any sector or asset class, is grounded in modern portfolio theory. In order to be attractive the sector should provide attractive returns for a given level of risk. Further, the sector's profile should be unique enough – i.e. relatively uncorrelated with other assets – so as to provide diversification benefits that can be expected to lower overall portfolio risk per unit of return. The high yield sector can be shown to exhibit both of these characteristics relative to a traditional Core-only fixed income portfolio. The tradeoff for these benefits is increased price volatility, added default and liquidity risks.

Risk Versus Return

Since industry-recognized indices were developed in the early-1980's, high yield bonds have offered a higher total return than investment grade bonds or other traditional fixed income asset classes. Interestingly, the marginal increase in return volatility from high yield has been less than would be implied by the increase in total return, particularly in the higher quality sectors of the high yield market. In other words, high yield has offered a superior risk-return profile relative to other credit sectors of the U.S. fixed income market. As Exhibit 6 shows, BB-rated and B-rated corporate bonds have exhibited a better risk-return profile than Treasuries or investment-grade corporates.

Exhibit 6: Corporate and Mortgage Return Versus Risk Relative to Treasuries, 1980 to 2001

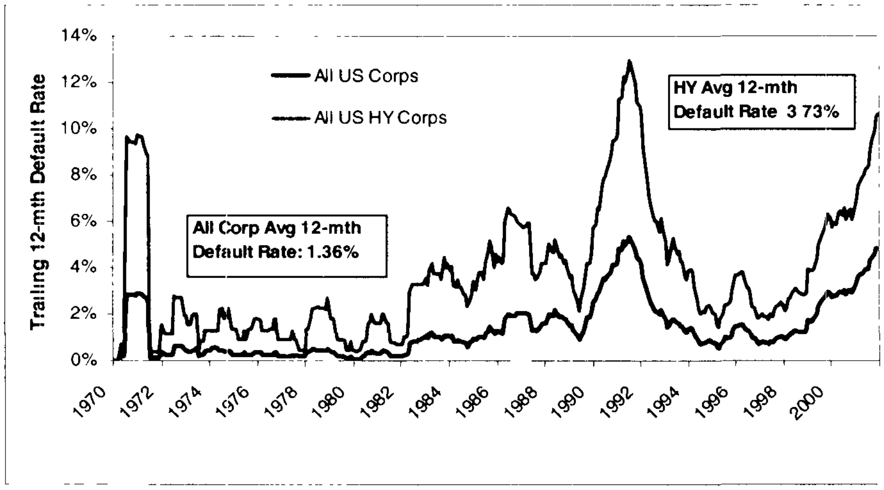


Source: Morgan Stanley Investment Management, Salomon Smith Barney

Default Risk and Breakeven Premia

Default risk, or the risk that an issuer will fail to make timely interest and principal payments, is the most significant risk facing the high yield investor. High yield issuers are indeed more likely to experience default than investment grade issuers. Exhibit 7 shows the trailing 12-month default rate over time and the long-run average annual default experience as represented by Moody's.

Exhibit 7: Long-term Average and 12-month Trailing Default Rates, 1970-2000



Source Moody's Investor Service

While default rates are important, they represent an incomplete picture of credit losses. As creditors, bondholders are entitled to some priority of claim on the issuers assets in the event of default. The amount ultimately returned to bondholders as a result of this claim is termed *recovery*. Therefore real credit losses to an investor are equal to *defaults minus recovery*. Exhibit 8 shows long-term average recoveries and net credit losses across the quality spectrum.

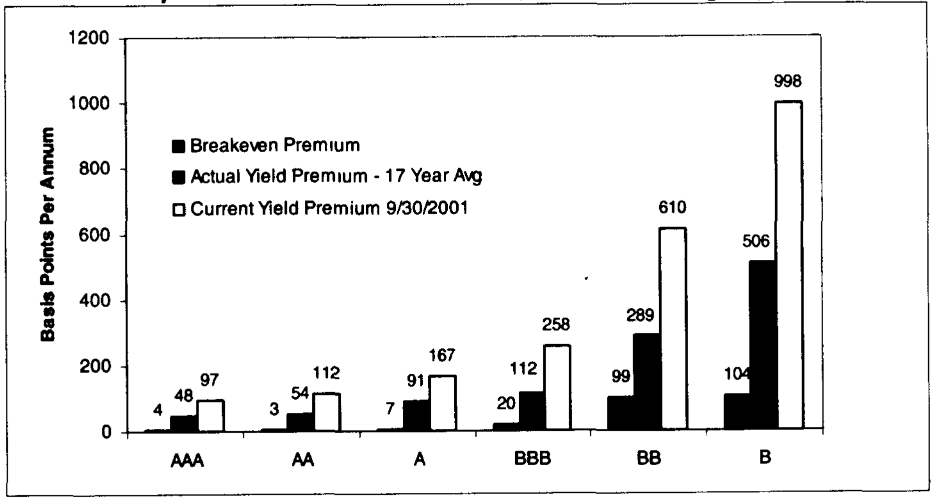
Exhibit 8: Average Annual Defaults, Recoveries And Net Credit Losses

Corporate Sector	Average Annual Default Rate	Average Annual Loss	Market-Implied Average Recovery
AAA	0 00%	0 00%	-
AA	0 08%	0 04%	50 00%
A	0 08%	0 04%	50 00%
BBB	0 30%	0 16%	46 67%
BB	1 43%	0 76%	46 85%
B	4 48%	2 37%	47 10%
All High Yield	2 95%	1 95%	33 90%

Source Morgan Stanley Investment Mgmt, Moody's Investor Service, Salomon Smith Barney

With historical average credit losses for the high yield sector identified, one can calculate the minimum yield investors should require to own high yield rather than Treasuries. This yield determines the breakeven premium. The more investors are compensated above the breakeven premium, the more attractive the high yield sector becomes, *provided that investors believe that future default loss experience over their investment horizon will be similar to the historical average.*

Exhibit 9: Corporate Bond Breakeven Premia, 17 Years Ending September 30, 2001



Source: Morgan Stanley Investment Management

Exhibit 9 above demonstrates that high yield investors historically have been rewarded handsomely for bearing the incremental risks associated with high yield. On average, investors in BB-rated and B-rated credits have received 1.9% and 4.0%, respectively, in yield *above* that required to compensate for actual credit losses. Because uncertainty around default expectations and issue-specific risks are greater for lower-rated issuers, investors require more and more compensation above expected losses in order to be enticed to hold lower quality bonds. This excess premium can be a source of significant return for an investor willing to "ride out" periods of uncertainty or higher actual default losses.

Exhibit 9 also highlights that the current premium for high yield exceeds the historical average premium. In effect, high yield is historically cheap and analysis points to the fact that high yield expected returns at these yield levels can withstand a significant deterioration in default losses before falling to or below Treasury breakeven levels. A recent study by Morgan Stanley Investment Management postulates that if, from October 2001 levels, defaults reach 9.5% per year for the next two years and then return to the historical average (3.7%), high yield would still achieve a 5.9% annual excess return over Treasuries over the next seven years.[7] To put this study in perspective, during the credit crisis of 1990-1991, trailing 12-month default rates were above 9.5% for 15 months.[8] In essence, the current downturn would need to lead to higher default rates than those observed in 1990-1991 to outstrip the yield advantage currently priced into the sector.

Liquidity and Market Segmentation

Although default risk is the primary risk (and source of yield premia) for high yield, liquidity risk is another source of risk and potential return for the high yield investor. Despite the market's large size and coverage by brokerage houses, the market remains an institutional market where nearly all trading takes place person-to-person over the phone. Bid-ask spreads are wider than in investment grade markets, and because of the additional credit risk involved, brokerage firms are less likely to maintain significant inventory. All of these factors contribute to increased liquidity risk relative to the investment grade corporate market. Investors willing to bear this risk can reasonably expect to capture the incremental return such risk offers.

Correlation Among Returns

High yield bonds consistently have exhibited low to moderate correlations with other fixed income and equity sectors, which suggests that there would be diversification benefits from adding high yield to a traditional fixed income portfolio. However, given high yield's higher correlation with equities, it is likely that an allocation to high yield would marginally reduce the fixed income program's effectiveness as a diversification to equities.

Exhibit 10: Correlation of Monthly Returns of Selected U.S. Asset Classes, August 1983 – November 2001

	High Yield	Broad US Fixed Inc	Inv Grade Credit	Mortgage-Backed	10-Year Treasuries	Large Stocks	Broad Stocks	Small Stocks
High Yield[1]	-	0.387	0.500	0.389	0.280	0.501	0.534	0.559
Broad US Fixed Income	0.387	-	0.973	0.939	0.965	0.249	0.222	0.092
Investment Grade Credit	0.500	0.973	-	0.910	0.919	0.308	0.290	0.178
Mortgage-Backed	0.389	0.939	0.910	-	0.854	0.232	0.208	0.084
10-Year US Treasuries	0.280	0.965	0.919	0.854	-	0.205	0.172	0.037
Large Stocks[2]	0.501	0.249	0.308	0.232	0.205	-	0.985	0.799
Broad Stocks[3]	0.534	0.222	0.290	0.208	0.172	0.985	-	0.879
Small Stocks[4]	0.559	0.092	0.178	0.084	0.037	0.799	0.879	-

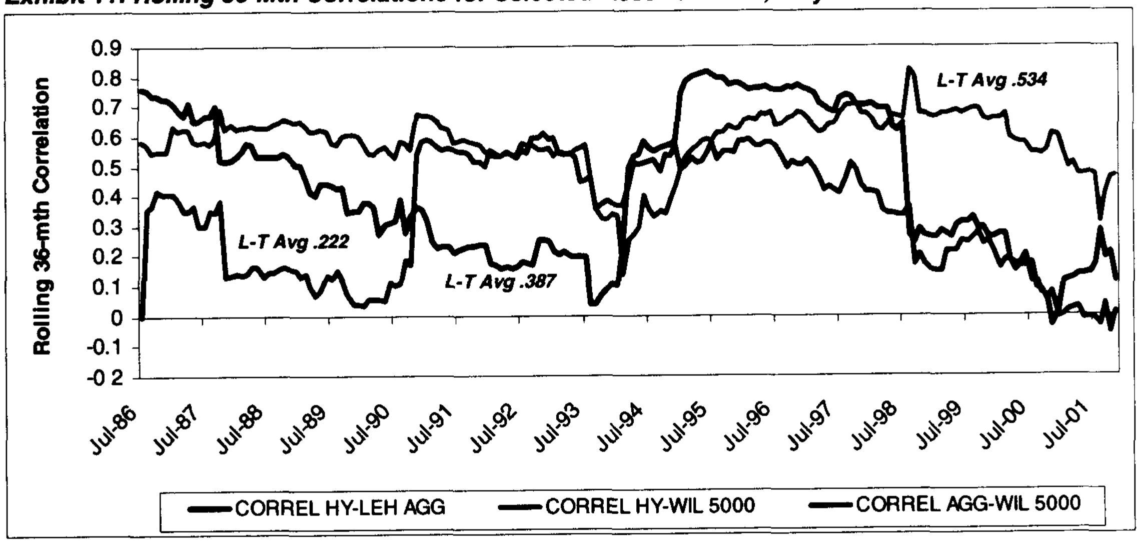
[1]Lehman High Yield Index
[2]S&P 500 Index
[3]Wilshire 5000 Index
[4]Russell 2000 Index

Source Lehman Brothers, Standard & Poor's, Frank Russell, Wilshire Associates, Salomon Smith Barney

[7] Morgan Stanley Investment Management
[8] Source. Moody's Investor Service

From Exhibit 10 above, high yield returns have in fact displayed low correlation with broad U.S. fixed income (38.7% correlated) and moderate correlation with broad U.S. equities (53.4% correlated) over long time periods. While over equally long future periods correlations may trend around the long-term average, in the short-run correlations can be unpredictable. Exhibit 11 depicts this risk by showing the variance in rolling 36-month correlations over time. Over 36-month periods, high yield returns have shown a wide range of correlations with stocks (.82 to .14) and other bonds (.81 to -.03). Clearly the risk of correlation instability must be taken into consideration when making a decision to allocate to the sector.

Exhibit 11: Rolling 36-Mth Correlations for Selected Asset Classes, July 1986 – Nov 2001



Source: Lehman Brothers, Wilshire Associates

High Yield Portfolio Management

The long-term return on a portfolio of high yield bonds can be represented as follows:

Risk-Free Return + Yield Spread – Credit Losses

In essence, the return from high yield is equal to the return from a riskless asset plus some compensation for credit, liquidity and other risks less *actual* credit losses. To achieve superior returns, an active manager must try to improve yield spread, reduce credit losses, or some combination of both. This emphasis on credit research and relative value is the foundation of active high yield portfolio management. While different active managers clearly bring their unique style(s) to bear on their particular approach to the sector, intense credit research is a common theme of success in the marketplace.

MSBI High Yield Experience Review

In January 1996, the MSBI authorized certain active managers to invest in the high yield sector opportunistically, up to a maximum of 10% of their portfolios. Quality was limited to B- or better to avoid what was viewed as the riskiest part of the sector. The three active managers currently investing in high yield (American Express, Morgan Stanley, and Western Asset) have consistently maintained an allocation to the asset class. However, since these managers account for only about one-third of the program's fixed income assets and their high yield limit has been capped at 10% of their portfolios, a material allocation to high yield has not occurred.

Because the managers have flexibility with the size of their allocation to the high yield sector (from zero to 10%), the managers have two sources of added value: the sector bet and security selection within the sector. All three managers have actively used both "bets" to attempt to add value. The practice of investing opportunistically in high yield has added value to the program. Comparing the managers' actual performance with a passive 5% allocation to an appropriate high yield benchmark (BB and B rated HY bonds), the managers have added between 6 basis points and 48 basis points of relative value annually. Compared with a Lehman Aggregate benchmark, two of the three managers added value with their high yield investments. Exhibit 12 below shows the performance of the managers' high yield allocations since 1996.

Exhibit 12: MSBI High Yield: Value Added From An Opportunistic Approach

	Value Added in Basis Points Above the Lehman Aggregate Index*						
	1996	**1997**	**1998**	**1999**	**2000**	**2001YTD****	**Avg Annual**
American Express Asset Mgmt.	132	-85	-147	92	32	3	-7
Morgan Stanley Dean Witter	183	32	-63	59	31	-46	23
Standish, Ayer & Wood***	64	13	-71	-138	*-5*	*n/a*	*n/a*
Western Asset Management	63	75	56	101	57	-37	35
Benchmark Comparison:							
Lehman High Yield Index Value Added Relative to the Lehman Aggregate****	39	15	-28	16	81	-35	-13

** The value added numbers presented show how each manager's decisions in the High Yield sector (sector weight and security selection) have benefited the portfolio relative to the benchmark A positive number means that the manager's overall returns have been helped by their High Yield management, while a negative number means that High Yield has hurt performance*
*** Year-to-date through 9/30/2001*
**** Standish, Ayer & Wood was terminated in June 2001*
***** This benchmark information is presented to help the reader assess each manager's High Yield sector value added For example, in 1996 Morgan Stanley's high yield management added 183 basis points to performance while a passive allocation to the High Yield index would have added only 39 basis points The benchmark numbers are based on a 5% passive allocation to the Lehman High Yield BB-B Index*

Source Individual managers, Lehman Brothers

Cost Considerations

The two major cost considerations related to an investment in the high yield sector are increased fees and increased legal work. Investment management fees for a U.S. High Yield mandate are approximately three times higher than for a U.S. Core mandate (41 bp/year versus 15/bp/year).[9] Any assets managed in a dedicated high yield portfolio would incur this incremental cost. Custody fees would not be impacted by an increased allocation to High Yield from other fixed income sectors.

The increased likelihood of credit events, including defaults, in the high yield sector relative to investment grade credit increases the need for additional legal support. On average, about 3.7% of high yield issuers defaulted in any 12-month period from 1970 to 2001. In a portfolio of 100 issuers, one can expect 3 to 4 defaults annually. While in practice managers can avoid default or workout situations by selling distressed bonds in the marketplace (albeit at a deep discount), each default event in the portfolio has the *potential* to require legal opinion and/or an amount of representation to insure that the pension plans' interests are fully represented. To a large extent, investment managers involved with the default event can be expected to provide legal opinion and effort in these situations. However, if the SBI wishes to take more direct actions in these cases, additional legal resources will be necessary to adequately address events as they arise.

Extended Sector #2 - Non-U.S. Dollar Debt

Definition and Background

U.S.-based equity investors have long looked abroad for total return opportunities and for diversification benefits. Increasingly, fixed income investors are looking for the same twin advantage. The largest and most accessible market in this sector is investment grade sovereign debt. The market itself has been around in some form for centuries, as governments have long issued debt as a form of financing. The practice of investing in the bonds of numerous foreign governments as part of a portfolio, however, took root from the advent of modern portfolio theory, the communication advances of the late-20th century and the continuing globalization of financial markets and infrastructure.

Today's market of investment grade non-dollar debt is significant for its size and diversity. Beyond the U.S. market, there are more than 22 countries with well-established, accessible government bond markets with a total market capitalization exceeding U.S.$5 trillion,

[9] Source: Investorforce.com and MSBI staff.

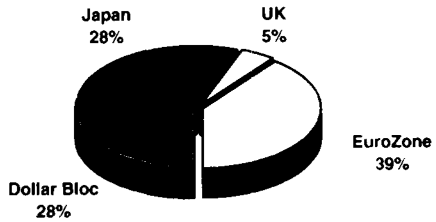
or about half of all investment grade fixed income worldwide. Each national market has a range of maturities, which form the countries' unique local interest rate yield curves. Exhibit 13 provides a snapshot of the market from a country and region or "bloc" perspective. It highlights the fact that although the universe of investable markets has grown significantly in the past 20 years, the market remains dominated by a limited number of industrialized nations that are characterized by high per capita output, productivity and income. Not surprisingly, bonds of these countries tend to have very high credit quality.

Exhibit 13: World Government Bond Market Profile as of October 31, 2001

	Market Weighting	Credit Rating	Yield to Maturity*
Japan	28 2%	AA	0.7%
Dollar Bloc	**27.6%**		
United States	24 4%	AAA	4 3%
Canada	2 8%	AAA	4 5%
Australia	0 4%	AAA	5 2%
United Kingdom	4 8%	AAA	4 6%
EuroZone	**39.4%**		
Germany	8 5%	AAA	4 1%
Italy	8 4%	AA	4 2%
France	7 9%	AAA	4 1%
Spain	3 4%	AA+	4 2%
Belgium	2 8%	AA+	4 3%
Netherlands	2 3%	AAA	4 2%
Austria	1 2%	AAA	4 3%
Greece	1 2%	A	4 4%
Denmark	1 1%	AAA	4 3%
Sweden	0 8%	AAA	4 6%
Portugal	0 6%	AA	4 3%
Switzerland	0 6%	AAA	3 0%
Finland	0 6%	AA+	4 1%
Ireland	0 2%	AAA	4 5%
Total Market	100 0%	AAA-	3 3%

Average yield of the country's bonds represented in the index

Breakdown By Region



Source Salomon World Government Bond Index

Exhibit 14: Selected Country Economic and Market Data as of December 2001

Country	Nominal YoY% GDP Growth	Inflation Rate (%)	Unemploy. Rate	10-Year Bond Yield	Country Credit Rating
Japan	1 6%	-1 0%	5 5%	1 4%	AA
United States	-1.3%	1 9%	5.7%	5 1%	AAA
Germany	0 4%	1.7%	9 5%	4 9%	AAA
Italy	4 3%	2.3%	9 3%	5.2%	AA
France	2 3%	1 2%	9 0%	5.0%	AAA
United Kingdom	2 3%	0 9%	3 2%	5.0%	AAA
Spain	2 6%	2 7%	9 2%	5.1%	AA+
Belgium	1 5%	2 2%	7 0%	5.1%	AA+
Canada	-0 6%	0.7%	7 5%	5.4%	AAA
Netherlands	0.4%	4 2%	2 0%	5.0%	AAA

Source Bloomberg

Exhibit 14 highlights the diversity of economic and investment conditions among the major bond markets. It underscores the chief opportunity and chief challenge of international bond portfolio management: striving to understand and make judgments about 18 to 25 different economies and bond markets simultaneously and dynamically. Although the non-dollar government bond market is more established, it should be noted that the non-dollar corporate and asset-backed securities market are the fastest growing sectors of the non-dollar asset class. This is particularly true in Europe, where corporations are increasingly adopting the U.S. model of direct bond issuance via the capital markets as a primary source of capital funding.

For the U.S.-based investor, currency risk is an important consideration for all international asset classes. Since most foreign governments and corporations issue bonds denominated in their country's local currency, investing in foreign bonds means gaining long exposure to a foreign currency. Since exchange rates are extremely volatile over short and intermediate time periods, this exposure can dramatically affect returns in any given period. This risk can be hedged away with derivative contracts, but not without incurring costs.

The Case for An Allocation to International Bonds

Investors expand their portfolios into international bond markets for the same reasons that they diversify their domestic equity portfolios with international stocks: more excess return opportunities combined with the potential to reduce overall portfolio volatility because of the diversifying effects of international asset exposure.

Return versus Risk

From 1975 to 2000, currency hedged non-U.S. bonds have outperformed U.S. bonds by about 1.2% per year (10.2% versus 9.0%). While some return advantage over U.S. bonds is consistent with a liquidity premium effect (as compensation for lower liquidity in foreign markets), a more conservative estimate is that the long-run return on foreign bonds is about the same as that for U.S. bonds.[10] So, from a return perspective, international bonds are basically equivalent to, or interchangeable with, U.S. bonds.

The attractiveness of the sector comes instead from lower volatility around the expected mean return. Indeed, hedged non-U.S. bonds displayed about 25% less risk than a U.S. bond portfolio from 1975 to 2000. Similar results from the period from 1987 to 2001 are outlined in Exhibit 15 below. Even holding returns equal over either time period, the lower risk of hedged non-U.S. bonds translates into a higher Sharpe ratio, meaning that non-U.S. bonds are more risk-return efficient than U.S. bonds. Note that not hedging non-U.S. bonds increases risk

[10] The reasoning behind such an estimate is that *real* interest rates (nominal rates less inflation) are fairly stable through time and across currencies, and it is these rates that drive bond returns in the long run.

dramatically, as the bond returns inherit the volatility of the underlying currencies. The hedging decision is addressed in a following section.

Exhibit 15: Sharpe Ratios – U.S. and Non-U.S. Bonds, Stocks
January 1987 – December 2001

	US Treasury Bills	Non-US Govt Bonds[1]	Non-US Govt Bonds Hdgd[1]	Broad US Fixed Income[2]	10-Year US Treasuries	Large US Stocks[3]	International Stocks[4]
Annualized Return	5 5%	5 6%	8 1%	8 6%	8 1%	14 4%	4 6%
Annualized Standard Deviation	0 5%	9 2%	3 3%	4 0%	6 6%	14 2%	17 1%
Sharpe Ratio	N/A	0 02	0 82	0 79	0 39	0 63	(0 05)

[1] JP Morgan Non-US Govt Bond Index, Hedged or Unhedged
[2] Lehman Aggregate Bond Index
[3] S&P 500 Index
[4] MSCI EAFE Free Index

Source JP Morgan, Lehman Brothers, Standard & Poors, Morgan Stanley
The Sharpe Ratio is a measure of return per unit of risk It is calculated as (Return of Asset Class – Return T-Bills)/Standard Deviation of Asset Class Returns

Correlation with other assets

An attractive quality of non-U.S. fixed income is its relatively low correlation with other fixed income sectors and with both U.S. and foreign equities. Low correlations make it more likely that an allocation to non-U.S. bonds would reduce overall portfolio risk. Exhibit 16 below shows the long-term historical correlations of non-U.S. bonds with other asset classes. Although historical correlations have been low, the risk that such trends may not continue must be considered.

Exhibit 16: Correlation of Non-U.S. Government Bonds With Selected Asset Classes
January 1988 - November 2001

	Non-US Govt Bonds	Non-US Govt Bonds Hdgd	Broad US Fixed Income	10-Year US Treasuries	Large US Stocks	Broad US Stocks	International Stocks
Non-US Govt Bonds[1]	-	0 304	0 280	0 319	0 067	0 045	0 453
Non-US Govt Bonds - Hedged[1]	0 304	-	0 590	0 589	0 293	0 263	0 268
Broad US Fixed Income[2]	0 280	0 590	-	0 964	0 319	0 284	0 143
10-Year US Treasuries	0 319	0 589	0 964	-	0 258	0 213	0 088
Large Stocks[3]	0 067	0 293	0 319	0 258	-	0 980	0 578
Broad Stocks[4]	0 045	0 263	0 284	0 213	0 980	-	0 582
International Stocks[5]	0 453	0 268	0 143	0 088	0 578	0 582	-

[1] JP Morgan Non-US Govt Bond Index Hedged or Unhedged
[2] Lehman Aggregate Bond Index
[3] S&P 500 Index
[4] Wilshire 5000 Stock Index
[5] MSCI EAFE Free Index

Source JP Morgan, Lehman Brothers, Salomon Smith Barney, Standard & Poors, Wilshire Associates, Morgan Stanley

Hedged or Unhedged?

At this time, the SBI is not strategically hedging its international equity exposure. One reason for this approach is due to the significant costs associated with active hedging (20-30 basis points per year). Furthermore, there is a belief that such hedging is not needed over sufficiently long investment horizons, where the net return impact of currency fluctuations is expected to be zero.[11] In addition, currency-hedged international investments, both equity and fixed income, are more highly correlated with U.S. stocks and bonds, and therefore do not offer the same attractive risk-diversifying benefits as unhedged investments. These factors do not preclude an individual manager from hedging *opportunistically.* Indeed there are times when hedging a specific currency makes sense despite the associated cost. However, his or her benchmark would be unhedged to reflect the strategic bias to not hedging. Staff believes the same non-hedging policy should be applied in the case of international fixed income investments.

MSBI Experience: Morgan Stanley Investment Management

MSBI has since late-1994 authorized an active fixed income manager, Morgan Stanley, to invest tactically up to 10% of the manager's portfolio in non-U.S. bonds. Over the 7-year period ended September 2001, the manager has added 12 basis points of annualized incremental return above the Lehman Aggregate Index. Nearly all of the incremental return came from the sector decision, i.e. the decision to invest outside the U.S. market. This experience, although limited, demonstrates that a non-U.S. allocation can add value to the fixed income program.

Cost Considerations

Cost issues for an allocation to non-dollar debt are minimal. From a fee perspective, management fees do run about twice the average fee for a U.S. Core mandate (36 bp/year versus 15 bp/year). Custody expenses would be unaffected, however, there is the potential for lost securities lending income if the SBI does not wish to pool its non-dollar bond collateral with other lenders.[12] While legal issues could arise, staff expects these situations to be rare owing to the typically very high credit quality of non-dollar government issuers (A – AAA). Staff expects that the frequency of legal involvement would be the same or less than with the current U.S. Core portfolio. However, given the cross-border nature of these investments, it is likely that any legal issue that does occur would be more complicated than a similar issue occurring in the U.S. domestic market.

---

[11] Currency fluctuations are essentially random with a long-run mean (expected value) of zero. Therefore the return impact from currency over long time periods should, in effect, net to zero. Essentially, if an investor can afford to wait out near-term volatility there's no compelling reason to hedge.

[12] The plan has typically required that all collateral associated with the plan's lending of securities be held separately from other lenders' collateral. This would not be possible in the case of non-dollar lending, since State Street runs all non-dollar lending out of a single euro-based collateral pool.

Sector #3 - Emerging Market Debt

Market Definition and Background

Emerging market debt ("EMD") refers to the sovereign and corporate debt of developing, or emerging, countries. The government and corporate bonds of such countries are generally considered *speculative* given the unique economic, political and other risks that face such nations as they develop their economies. The investment community considers EMD as distinct from other speculative fixed income such as U.S. corporate high yield securities because of its unique risk and reward characteristics.

Prior to 1989, the EMD market was dominated by large commercial banks with direct lending programs to emerging market countries. Throughout the 1970s, many fast-growing EM countries – particularly in Latin America – borrowed vast amounts of money from commercial banks to finance their continued expansion. Sophisticated commercial banks in the U.S., Europe and Asia were eager to lend to these emerging credits because of the significant yield premiums such loans could command, and out of their belief in the long-term credit worthiness of the EM economies. Also during this time, a market began to develop among the major banks to trade specific loans among themselves in an attempt to better diversify their exposures.

The economic slowdown of the late-1970s, combined with high interest rates and collapsing commodity prices, put a serious strain on the EM countries' ability to service their large debt burdens. By 1982, several countries, including Mexico and the Philippines, had defaulted on their loan balances; these countries and their lenders worked unsuccessfully for the following six years to come to agreement on a restructuring plan. Finally, in 1989 the U.S. government developed and helped finalize a major restructuring plan that came to be known as the Brady Plan, after its chief proponent then U.S. Treasury Secretary Nicolas Brady.

Under the program, non-performing loans were replaced with new, freely tradable bonds (called Brady bonds). A certain amount of the original loan balance was forgiven through a combination of below market interest rates on the new debt and/or a discount of the original principal amount of the debt. Lenders received a freely tradable asset whose principal and interest payments were partially secured by holdings in U.S. Government bonds. In return for debt relief, borrower nations agreed to certain financial and economic reforms.

The Brady Plan was very successful in several important respects. First, it allowed the participating countries to negotiate substantial reductions in their overall levels of debt and interest payments. Second, it succeeded in diversifying sovereign risk away from commercial bank portfolios to a more diversified set of investors throughout the financial and investment communities. Third, it encouraged many Emerging Market countries to adopt and pursue ambitious economic reform programs. Finally, the Brady Plan has enabled many Emerging Market countries to regain access to the international capital markets for their financing needs.[13] Since the first Brady restructuring of Mexico's debt in 1990 more than 11 other nations have participated in the program. Exhibit 17 highlights the nations that have participated in Brady-type restructuring.

Exhibit 17: Brady Plan Restructurings

Country	Year Completed	Country	Year Completed
Costa Rica	1990	Bulgaria	1994
Mexico	1990	Dominican Republic	1994
Morocco	1990	Poland	1994
Venezuela	1990	Ecuador	1995
Uruguay	1991	Croatia	1996
Nigeria	1992	Panama	1996
Philippines	1992	Solvenia	1996
Argentina	1993	Peru	1997
Jordan	1993	Vietnam	1998
Brazil	1994		

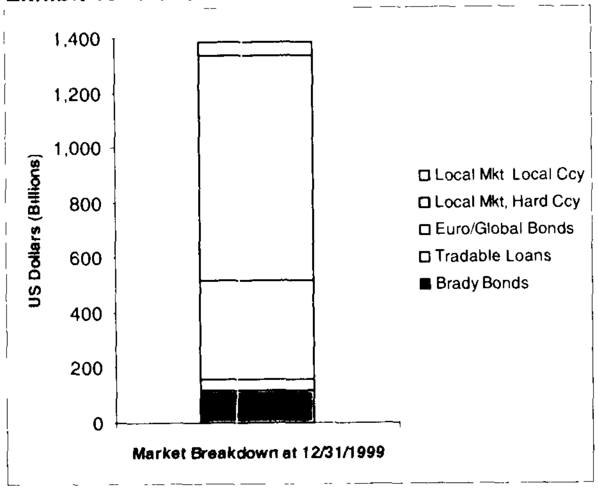
Source: Bloomberg, BradyNet.com

The EMD Market Today

Since its formal beginnings with the Brady restructuring of 1990, the EM debt market has expanded both in terms of size and diversification. The market capitalization of the sector is now over U.S.$1.4 trillion, with domestic debt making up 70% (U.S.$966 billion) of the sector and external debt (U.S. dollar- or euro-denominated) making up about 30% (U.S.$419 billion). The market is comprised of five major security segments, as outlined in Exhibit 18 below.

[13] Source: Bradynet.com

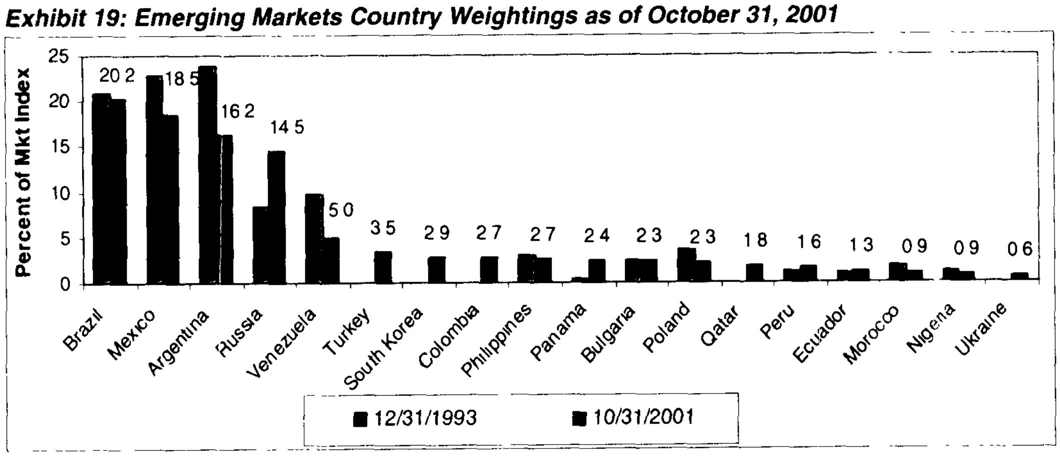
Exhibit 18: Tradable EMD universe as of December 31, 1999



Source AIMR Core-Plus Bond Management Conference Proceedings October 2000, Choosing the Plus in Core Plus

Today's broad-based EMD indexes include bonds from up to 30 developing countries. In contrast, in December 1993 the dominant emerging markets index represented only eight countries. The diversification of the market can be seen in Exhibit 19. The exhibit also shows that the major economies of Latin America still constitute a significant portion of the market. As with the non-dollar asset class, EM corporate debt – issued in U.S.$ or in local currency – is a growing part of the EM market.

Exhibit 19: Emerging Markets Country Weightings as of October 31, 2001



Source JP Morgan (Emerging Markets Bond Index Plus "EMBI+")

Market liquidity is reasonably good, particularly in the benchmark, U.S. dollar-denominated issues of the larger countries. Market participants generally feel that the market in these bonds is more liquid than that for U.S. high yield corporate bonds. From a credit quality perspective, a large portion of the countries in the investable market is rated between BB to B by a major rating agency. However, there are an increasing number of crossover credits that have achieved investment grade status, some earning as high as a BBB+ rating. The migration of certain EM issuers upwards in the quality spectrum has led to a more robust quality spectrum within EM debt. Exhibit 20 shows the credit quality of selected emerging markets.

Exhibit 20: Credit Quality of Selected Emerging Market Issuers as of December 2001

Country	LT Issuer Rating
Investment Grade	
South Korea	BBB+
Poland	BBB+
Qatar	BBB+
Medium Quality - Speculative	
Philippines	BB+
Colombia	BB
Panama	BB
Morocco	BB
Brazil	BB-
Mexico	BB-
Peru	BB-
Lower Quality - Moderately Speculative	
Russia	B+
Bulgaria	B+
Turkey	B-
Venezuela	B
Ukraine	B
Poor Quality - Highly Speculative	
Ecuador	CCC+
Argentina	CC
Nigeria	Not Rated

Source: Bloomberg

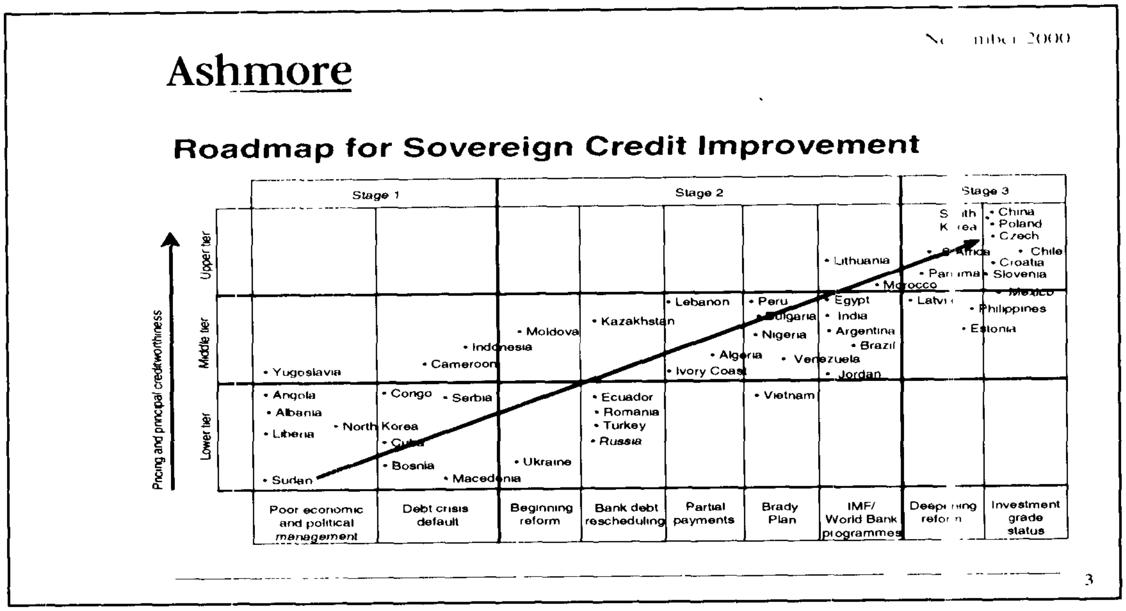
The Case for an Allocation to EMD

Investing in emerging market economies – in debt or equity securities – requires a healthy appetite for risk and a sufficiently long investment horizon. While the sector has shown enormous total return potential, the risk to principal and the volatility of investment returns over any specific horizon are equally formidable. Despite the amount of short-term or market risk present in the market, a case can be made for the addition of the asset class into a traditional fixed income portfolio.

EMD Investment Themes

A common strategic investment theme behind an investment in EMD is that it is a pure play in the continued globalization of trade and financial markets, and the belief the fast-growing, developing economies will benefit most – on a relative basis with the rest of the world – from this continued integration. Empirical evidence suggests that as emerging economies move further into the mainstream in terms of trade, industrialization and market infrastructures their economies become less risky. In addition, the increased political stability that often results from a more solid economic footing also improves a nation's credit profile. Emerging market investors hope to capitalize on this general trend toward improving credit quality. Exhibit 21 below plots selected credits at various stages in the development-creditworthiness cycle.

Exhibit 21: The Sovereign Credit Improvement Cycle, November 2000



Source Ashmore Investment Management Limited

The credit quality of many EM countries has generally improved over the past decade, following the upward trend outlined in Exhibit 21. Defaults and restructurings have certainly occurred, but with less frequency than the countries' ratings would imply for a similarly rated U.S. corporation (.5% average annual default rate for EMD, 3.7% for high yield Corporates).[14] Unfortunately, the relatively short history of investable Emerging Market bonds (major EM indices were established in 1990) means that historical averages have limited usefulness in predicting future outcomes. Generally, however, market risk rather than default risk has dominated the risks associated with EMD. Market risk and event risk for EMD are closely related; both are caused by investor uncertainty and concern about world events and their impacts on emerging economies. This uncertainty often results in rapid and massive swings in prices for bonds, as investors rush to exit or enter a market that may be affected by the newest piece of news or data. Because of the uncertainty this volatility itself creates, investors typically demand extra compensation for investing in this sector. Investors who are able to tolerate sustained volatility may find the risk-reward profile of EMD compelling over long time periods.

[14] Source: Ashmore Investment Management Limited, Moody's Investor Service

Risk and Return

EMD has provided equity-like returns over its history as an investable fixed income sector, posting annualized returns of 13.1% per year from 1990 to 2001. This compares with 7.6% for the Lehman Aggregate and 13.3% for the Wilshire 5000 index over the same period. In a recent study by Bridgewater Associates, emerging market bonds were shown to have returned 700 basis points per year over U.S. Treasuries for the period from January 1987 to December 1999.[15] Exhibit 22 shows the performance of EMD relative to other asset classes since the inception of major EMD indexes.

Exhibit 22: Average Annual Returns of Selected Asset Classes

													Annualized	
	1990*	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001**	5 Years	10 Years
Emerging Market Bonds	22.7	39.9	4.5	43.9	-16.4	26.8	34.6	16.9	-7.0	20.9	14.0	1.8	9.0	13.1
Lehman Aggregate	9.8	16.0	7.4	9.8	-2.9	18.5	3.6	9.7	8.7	-0.8	11.6	9.1	7.4	7.6
Non-US Govt Bonds, Hdgd	7.0	10.9	6.0	13.9	-5.1	18.2	12.2	11.3	12.1	2.5	9.7	6.9	8.5	8.8
US High Yield Bonds	-8.1	46.2	15.8	17.1	-1.0	19.2	11.4	12.8	1.9	2.4	-5.9	5.7	3.3	7.8
International Stocks	-4.4	12.2	-12.2	32.7	7.8	11.3	6.1	1.6	20.1	26.7	-14.2	-22.1	0.4	4.9
S&P 500 Index	-0.1	30.5	7.6	10.1	1.3	37.6	23.0	33.4	28.6	21.0	-9.1	-12.6	10.1	14.1

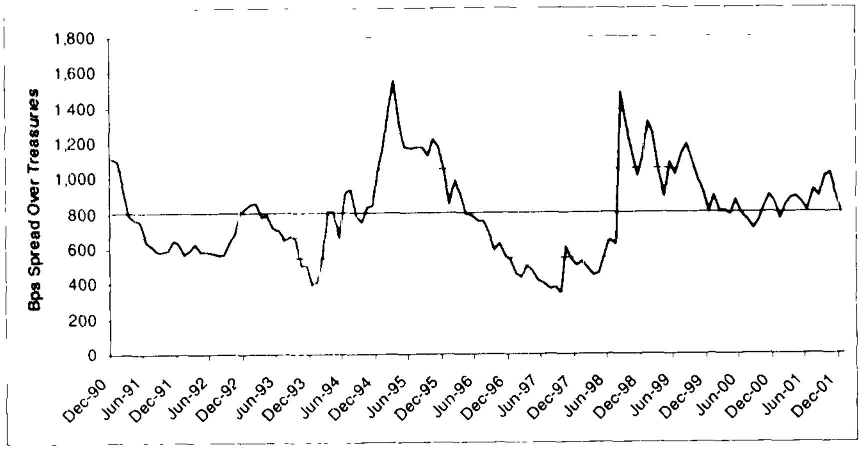
** April 1990 - December 1990*
*** Year-to-date through November 2001*

Source: Salomon Smith Barney, Lehman Brothers, JP Morgan, Standard & Poors, Morgan Stanley

However, along with the strong returns the market has exhibited a tremendous amount of price volatility. As can be seen in Exhibit 23, the yield spread of emerging market bonds relative to U.S. Treasuries has traded within a wide range from +400 basis points to +1,600 basis points since 1991, with an average spread of 803 basis points. This underlying price volatility resulted in an average annual standard deviation of returns for EMD of 15.4%, about four times that of the Lehman Aggregate and more than both the S&P500 and Wilshire 5000 equity indexes. However, despite the high volatility, EMD ranks among the most attractive asset classes – equity or fixed income – in terms of reward per unit of risk. Exhibit 24 compares the returns, risks and Sharpe ratios of various sectors and asset classes.

[15] Bridgewater Associates, 'The Optimal Passive Bond Portfolio", January 2000

Exhibit 23: JP Morgan EMBI Spread versus U.S. Treasuries



Source Bloomberg

Exhibit 24: Return, Risk and Sharpe Ratios of Selected Asset Classes, April 1990 – November 2001

	Three-Month Treasury Bill	10-Year Treasuries	Lehman Inv Grade Credit	Lehman High Yield	Emerging Market Bonds	S&P 500 Stocks	Wilshire 5000 Stock Index
Annualized Return	5 02%	7 95%	8 89%	9.23%	15 94%	13 45%	12 81%
Annualized Standard Deviation	0 36%	6 49%	4 64%	7 73%	15 41%	14 59%	15 01%
Sharpe Ratio	N/A	0 45	0 83	0 54	0 71	0 58	0 52

Source Salomon Smith Barney, Lehman Brothers, Standard & Poors, Wilshire Associates

Correlation of Returns

An important quality of emerging market bonds is their historically low, and sometimes negative, correlation with other fixed income sectors. Low correlations allow for the potential of EMD to reduce overall portfolio risk when combined with other sectors. Exhibit 25 shows the long-term historical correlations of EMD with selected sectors and asset classes. While the average long-term correlations of EMD with the Lehman Aggregate are low (25% correlated), this historical average may not persist in the future, both as emerging economies develop and with the continued advancement of economic globalization and integration. EMD return correlation to equities, however, has been higher. Over the time period in Exhibit 25, EMD exhibited a 53% correlation with U.S equities.

Exhibit 25: EMD Return Correlations with Selected Asset Classes, April 1990 – November 2001

	Emerging Mkt Bonds	Non-US Govt Bonds Hdgd	US High Yield Bonds	Broad US Fixed Income	10-Year US Treasuries	Large US Stocks	Broad US Stocks	International Stocks
Emerging Market Bonds[1]	-	0 262	0 405	0 254	0 170	0 522	0 534	0 406
Non-US Govt Bonds, Hedged[2]	0 262	-	0 247	0 591	0 600	0 179	0 155	0 268
US High Yield Bonds[3]	0 405	0 247	-	0 387	0 280	0 501	0 534	0 319
Broad US Fixed Income[4]	0 254	0 591	0 387	-	0 955	0 258	0 238	0 143
10-Year US Treasuries	0 170	0 600	0 280	0 955	-	0 224	0 197	0 088
Large Stocks[5]	0 522	0 179	0 501	0 258	0 224	-	0 985	0 578
Broad Stocks[6]	0 534	0 155	0 534	0 238	0 197	0 985	-	0 582
International Stocks[7]	0 406	0 268	0 319	0 143	0 088	0 578	0 582	-

[1]Salomon Smith Barney Brady Bond Index
[2]JP Morgan Non-US Govt Bond Index, Hedged
[3]Lehman High Yield Bond Index
[4]Lehman Aggregate Bond Index
[5]S&P 500 Index
[6]Wilshire 5000 Index
[7]MSCI EAFE Free Index

Source Salomon Smith Barney, JP Morgan, Lehman Brothers, Standard & Poors, Wilshire Associates, Morgan Stanley

Cost Considerations

Introducing an allocation to emerging market debt into the fixed income program may result in additional costs to the program. These potential costs can be grouped into the three categories: increased fee expenses, lost securities lending income, and increased legal work.

Increased fee expenses – Investment management fees for an EMD product average about 4 times more than for a U.S. Core mandate (65 bp/year versus 15 bp/year).[16] This additional cost would be incurred if a specialist EMD manager were hired to manage a sector portfolio. Custody fees from the MSBI's custodian, State Street Bank, are based on a flat-fee scale. However, the current contract contains language limiting the SBI's investment in so-called Group E emerging market countries. The limits are based on transaction volume as well as total value of assets invested in these countries.[17] Based on the composition of the JP Morgan Emerging Markets Bond Index Plus (EMBI+), Group E countries are approximately 35% of the publicly traded EMD market. Based on a hypothetical portfolio allocation to EMD of 5% of fixed income assets (approx. $450 million), the market value cap for Group E countries could be an issue. Exceeding this cap will result in additional custody expense.

Lost securities lending income – EMD securities do not participate in State Street's securities lending program. Since funding for an allocation to EMD would come from other lending-eligible fixed income securities, an EMD allocation will reduce the program's overall income from securities lending.

[16] Source: Investorforce.com and MSBI staff.
[17] Group E country limits are 3,000 transactions/year and total asset value of $200 million. Source: State Street Bank, Boston MA.

Increased legal work – Investment in EMD securities is accompanied by the potential for credit events that impact the portfolio. These credit events, whether it is a default situation or a bond covenant issue, may require legal action. The program can expect and require a level of legal expertise and effort from its investment managers to aid in these situations, and to this end staff recommends that legal capabilities be a specific criterion for manager searches and evaluations as it relates to EMD. However, from a fiduciary perspective, relying solely on the manager's legal opinion and effort may not be sufficient. As a result, the program may need to work with the Attorney General's office to "budget" for additional legal resources if a significant allocation to EMD is considered.

SECTION TWO: DEVELOPING AN ALLOCATION RECOMMENDATION

The above sections have provided background and insight into three extended sectors of the fixed income market. At issue is whether additional investments in these sectors will be of net benefit to the bond program. To answer this question, we need to understand the program's current allocation and address how further investment in each or all sectors will impact the expected risk and return profile of the program. We start with a qualitative approach, and then supplement with quantitative analysis from an optimizer program. The optimizer program takes certain assumptions about the risk, return and correlation of sectors and asset classes and develops a range of efficient portfolios, each with the lowest risk for a given level of return. For presentation purposes, in this section staff presents the median (or middle) risk portfolio within the range of efficient portfolios when discussing optimization results.

Simply put, the current fixed income program works. The program has an industry-accepted asset class target, the Lehman Aggregate, with a 50%-50% allocation of assets to *Core–Active* and *Core–Semi Passive* managers. The goals of the program are generally agreed to be:

- *To serve as a diversifier to equities*
- *To provide a deflationary hedge*
- *To achieve higher risk-adjusted returns than the asset class target*

From a performance perspective, the program has been successful, outperforming the Lehman Aggregate by 37 basis points per year, *net of fees*, since inception (1984) and exceeding the median TUCS plan sponsor over $1 billion in size (top 40th percentile) over five years ending

September 30, 2001, the longest time period available. In addition, the program's Core fixed income profile means it is well positioned as a deflation hedge and as an equity diversifier.

So, why change? Indeed, the hurdle rate for changing or tweaking this successful program should be higher than for a program with less impressive historical results. That said, our review of the extended sector markets has shown that adding investments in each of the sectors to a Core bond portfolio has the potential to increase expected returns. At the same time, we've also shown that such investments have the potential to diversify a fixed income portfolio and lower overall risk. Exhibit 26 provides a brief recap of the sectors under consideration. The common themes among these sectors include diversification opportunity, enhanced return potential, and the fact that these sectors are increasingly mainstream markets. If it can be demonstrated that additional investment in extended sectors can reasonably be expected to produce higher expected returns with an acceptable level of incremental risk, staff believes that an increased allocation should be considered.

Exhibit 26: Recap of Extended Asset Classes Under Consideration

[redacted]

Major US market
Increased return opportunity above core fixed income
Higher risk
Default losses are uncertain

[redacted]

Huge worldwide market with vast opportunity set
Currency risk must be addressed
Similar return characteristics as US bonds, somewhat lower risk

[redacted]

Equity-like returns
Low default risk, high market risk
High levels of price and return volatility
A bet on the continued globalization and harmonization of world economies

Quantitative Analysis

To construct a quantitative basis for our recommendation, staff conducted an optimization exercise similar to that used for previous asset allocation studies. An optimization analysis uses certain assumptions about the risk, return and correlation profiles of each asset class under consideration. The output from an optimizer is a set of unique portfolios consisting of specific weightings in each asset class. These portfolios represent the most efficient combinations of each asset at different overall risk levels; in other words, each portfolio produced by the optimizer maximizes expected return for each unit of expected risk.

Staff conducted the analysis to create hypothetical portfolios combining all of the extended sectors under consideration with Core U.S. bonds, and to simulate the effects of adding investments in these sectors to the fixed income program. Initially, the optimizer was run with few "constraints" or limitations on the program's ability to allocate freely across the asset classes. In subsequent exercises, staff limited the maximum holdings allowed in each extended sector to constrain the expected tracking error of the hypothetical portfolios.

The basic assumptions used in the optimization exercise are summarized in Exhibits 28a-c below. The return, risk and correlation assumptions for each asset class were derived by staff using a combination of three elements: 1) long-run observable averages, 2) the key assumptions in staff's 1995 asset allocation study (See Appendix A), and 3) staff judgment regarding future expectations. Staff considers the investment horizon of the Combined Funds to be very long, stretching beyond 20 years. The long-run observable average returns and risks for key asset classes as published by Ibbotson Associates are presented in Exhibit 27.

Exhibit 27: Long Run Historical Returns and Standard Deviations

Sector	**Beg Date**	**End Date**	**Average Annual Return (%)**	**Annual Standard Deviation (%)**
Domestic Stocks - S&P 500	Jan-26	Dec-01	10 7	22.0
Domestic Stocks - Wilshire 5000	Jan-71	Dec-01	12 2	18 1
Int'l Stocks - MSCI EAFE Free	Jan-88	Dec-01	4.9	18.2
Domestic Bonds - LB Aggregate Bond	Jan-76	Dec-01	9 3	6.7
US High Yield Bonds - LB Hi-Yld	Jul-83	Dec-01	9.6	7.9
Non-US Bonds ML Non-US$ Gvt Unhedged	Jan-86	Dec-01	8.9	11 5
Non-US Bonds - JPM US$ Hedged Non-U S. Gvt	Jan-86	Dec-01	8.3	3 9
EM Bonds - JPM-EMBI (Emerging)Composite	Jan-91	Dec-01	15 6	18 5
U.S Inflation	Jan-26	Dec-01	3 1	1.9
U.S. 30 Day T-Bill	Jan-26	Dec-01	3.8	0.9

Source Ibbotson Associates

Staff employed assumptions of 8% for both the expected nominal return and standard deviation of U.S. bonds. While these assumed values might differ from the observed value over a specific time period, staff believes that over the long run the assumed levels of risk and return are appropriate over a 20-25 year horizon.[18] Non-U.S. bonds were assumed to have no long-run premium above U.S. bonds, based largely on economic research that points to the fact that long run real interest rates across the developed world should be equivalent. Increasing return premiums were assigned to U.S. High Yield (1% premium over U.S. investment grade bonds) and EMD (1.5% premium over U.S. investment grade bonds). Again, the assumptions were assigned based on a combination of historical averages and staff judgment regarding future

[18] Given more recent market data (last 10 years), an argument can be made for a higher return assumption and a lower standard deviation assumption for US bonds. However, staff believes this would be in error because the past 10 years of generally falling interest rates have led to higher returns and lower volatility than can reasonably be expected to persist into the future

expectations. The assumptions represent staff's best estimates based on our analysis. However, the assumptions may prove to be inaccurate over the long-term, resulting in investment performance that may differ from expectations. Alternatively, the assumptions may be accurate over the long run but over the near term performance and volatility of returns may diverge substantially from assumed long-run average levels.

Exhibit 28a: Optimization Inputs – Long Run Return and Risk Assumptions

	Expected Return	Standard Deviation
Broad US Bonds	8.0%	8.0%
Non-US Bonds, Unhedged	8.0%	11.0%
Non-US Bonds, Hedged	7.8%	7.0%
US High Yield Bonds	9.0%	10.0%
Emerging Market Debt	9.5%	17.0%

Exhibit 28b: Optimization Inputs – Correlation of Long Run Returns Among Asset Classes

	Broad US Bonds	Non-US Bonds Unh	Non-US Bonds Hdg	US High Yield Bonds	Emerging Market Debt
Broad US Bonds	-	0.45	0.75	0.50	0 25
Non-US Bonds, Unhedged	0.45	-	0.55	0.30	0.20
Non-US Bonds, Hedged	0.75	0 55	-	0.40	0.15
US High Yield Bonds	0.50	0.30	0.40	-	0.30
Emerging Market Debt	0.25	0.20	0.15	0.30	-

Exhibit 28c: Optimization Inputs – Initial Constraints

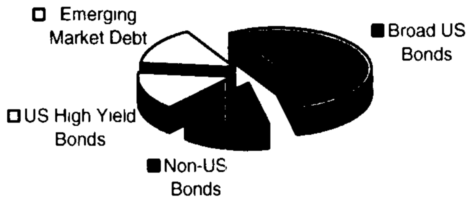
	Min. Holding	Max. Holding	
Broad US Bonds	0%	100%	
Non-US Bonds, Unhedged	0%		*15% Combined Maximum*
Non-US Bonds, Hedged	0%		
US High Yield Bonds	0%	15%	
Emerging Market Debt	0%	15%	

Exercise #1: Baseline With Minimal Constraints

The first optimization exercise was constrained only with respect to the maximum allocation to each asset class. Exhibit 28c shows the initial constraints. The optimizer was not required to allocate a minimum amount to any asset class. The maximum percentage for the extended sectors was capped at 15% each to start. With these inputs, the optimizer constructed a range of optimal portfolios. The median risk portfolio is shown in Exhibit 29.

Exhibit 29: Expected Outcomes from Optimal Portfolio Exercise #1

Exercise #1: Optimal Portfolio	
Broad US Bonds	55.0%
Non-US Bonds	15.0%
(6% unhedged, 9% hedged)	
US High Yield Bonds	15.0%
Emerging Market Debt	15.0%
Expected Return	8.36%
Standard Deviation	7.29%
Sharpe Ratio	1.15



The optimizer "sold" 45% of the U.S. bond portfolio and "bought" 15% each of the U.S. high yield, non-dollar, and EMD sectors. The resulting portfolio gained 36 basis points of expected return, and risk (expressed as standard deviation of returns) *decreased* by 71 basis points relative to a 100% U.S. Core bond portfolio.

Exercise #2: Real-World Constraints

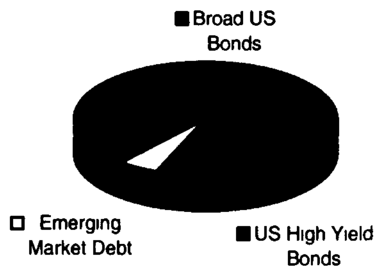
Exercise #2 added more realistic constraints on the maximum allocations to the extended sectors. First, an overriding constraint was established to cap the maximum combined allocation to all extended sectors at 20%; this effectively forced a minimum 80% allocation to Core U.S. fixed income. Furthermore, within the boundary of the 20% cap, EMD was limited to 5% of assets, and combined non-dollar (hedged and unhedged) was capped at 15%. U.S. High Yield was also capped at 15%. Despite lower allocations to the extended sectors, the optimal portfolio in Exercise #2 still provides 23 basis points higher yield than the base case portfolio and has 45 basis points less expected risk. Exhibits 30a and 30b review the constraints applied and expected outcomes of Exercise #2.

Exhibit 30a: Optimization Constraints for Exercise #2

	Min. Holding	**Max. Holding**
Broad US Bonds	80%	100%
Non-US Bonds, Unhedged	0%	15% Combined Maximum
Non-US Bonds, Hedged	0%	
US High Yield Bonds	0%	15%
Emerging Market Debt	0%	5%

Exhibit 30b: Expected Outcomes from Optimal Portfolio Exercise #2

Exercise #2: Optimal Portfolio	
Broad US Bonds	80.00%
Non-US Bonds	0.00%
US High Yield Bonds	15.00%
Emerging Market Debt	5.00%
Expected Return	8.23%
Standard Deviation	7.55%
Sharpe Ratio	1.09



Exercise #3 – Integrating With the Total Program

The initial optimization exercises paint a picture of extended sector allocations as reducing risk and increasing expected return within the fixed income program. Naturally, the optimizer allocated significant assets to the EMD sector due to its higher relative return and its low correlation with U.S. fixed income, which resulted in risk diversification within the model. Upon review of the data, staff concluded that EMD and US High Yield might have been favored largely because of their low correlations with U.S. Core fixed income. This characteristic allowed the higher return of these asset classes to be "passed through" to the optimal portfolio, while the risk was mitigated by the low correlations. Unfortunately, if these lower correlations are not present in a total portfolio context, i.e. when equities are included, then the true benefits of an extended sector allocation may be less attractive. To test our concern, staff conducted a third optimization exercise that included the fixed income allocation and the entire program. Using the Combined Funds' current policy asset allocation as a baseline portfolio, staff used the optimizer to build a range of efficient portfolios keeping the equity, alternative and total fixed income weightings constant but allowing for various combinations of Core fixed income, High Yield, Non-dollar and EMD sectors within the fixed income weighting. In essence, the analysis created an efficient sector allocation for fixed income while taking into account how the rest of the portfolio was invested. The assumptions used in the analysis, presented below in Exhibits 31a-c, were kept consistent with earlier exercises and with the assumptions used in staff's 1995 asset allocation study (see Appendix A).

Exhibit 31a: Optimization Inputs – Long Run Return and Risk Assumptions, Exercise #3

	Expected Return	**Standard Deviation**
Domestic Stocks	11 0%	17 0%
International Stocks, Unhedged	11 3%	19 0%
Emerging Market Stocks	14 0%	23 0%
Private Equity	14 0%	23 0%
Real Assets	9 0%	12 0%
Yield-Oriented	10 0%	13 0%
Broad US Bonds	8 0%	8 0%
Non-US Bonds, Unhedged	8 0%	11 0%
US High Yield Bonds	9 0%	10 0%
Emerging Market Debt	9 5%	17 0%
Cash (U S T-Bill)	5 5%	3 0%

Exhibit 31b: Optimization Inputs – Correlation of Long Run Returns Among Asset Classes, Exercise #3

	Domestic Stocks	**Intl Stocks, Unhedged**	**Emerging Stocks**	**Private Equity**	**Real Assets**	**Yield Oriented**	**Domestic Bonds**	**Non-U.S. Bonds, Unhedged**	**U.S. HY Bonds**	**EMD**	**Cash - U.S. T-BILL**
Domestic Stocks	-	0 45	0 30	0 50	0 30	0 45	0 35	0 10	0 55	0 50	-0 10
Intl Stocks, Unh	0 45	-	0 30	0 15	0 25	0 30	0 20	0 45	0 30	0 40	-0 10
Emerging Stocks	0 30	0 30	-	0 00	0 30	0 00	-0 20	0 20	0 30	0 35	-0 10
Private Equity	0 50	0 15	0 00	-	0 30	0 40	0 15	0 00	0 50	0 50	-0 10
Real Assets	0 30	0 25	0 30	0 30	-	0 15	0 20	0 10	0 20	0 25	0 30
Yield Oriented	0 45	0 30	0 00	0 40	0 15	-	0 60	0 00	0 20	0 20	0 20
Domestic Bonds	0 35	0 20	-0 20	0 15	0 20	0 60	-	0 45	0 50	0 25	0 10
Non-U S Bonds, Unhedged	0 10	0 45	-0 20	0 00	0 10	0 00	0 45	-	0 30	0 20	0 10
U S HY Bonds	0 55	0 30	0 30	0 50	0 20	0 20	0 50	0 30	-	0 15	0 10
EMD	0 50	0 40	0 35	0 50	0 25	0 20	0 25	0 20	0 15	-	0 20
Cash - U S T-Bill	-0 10	-0 10	-0 10	-0 10	0 30	0 20	0 10	0 10	0 10	0 20	-

Exhibit 31c: Optimization Constraints for Exercise #3

Asset Class/Sector	**Min. Holding**	**Max. Holding**
Domestic Stocks	44.6%	44 6%
International Stocks, Unhedged	12 0%	12.0%
Emerging Market Stocks	1.2%	1.2%
Private Equity	5 1%	5.1%
Real Assets	2 7%	2.7%
Yield-Oriented	1.0%	1.0%
Broad US Bonds	***17.0%***	***30.7%***
Non-US Bonds, Unhedged	***0.0%***	***10.0%***
US High Yield Bonds	***0.0%***	***10.0%***
Emerging Market Debt	***0.0%***	***1.5%***
Cash (U S T-Bill)	2 7%	2.7%

The results are presented in Exhibit 32 below. On a total program basis, the median risk optimal portfolio allocates 7.2% to the U.S. High Yield sector and 6.5% to the Non-dollar sector, and it achieves 7 basis points of incremental expected return. The portfolio has no allocation to EMD. Total portfolio risk increases by 13 basis points, to 10.94% per year. The increase in risk is the result of increasing the allocation to an asset with a high equity correlation (U.S. High Yield) while at the same time reducing the allocation to an asset with good diversification qualities (U.S. Core). While the allocation to Non-dollar offsets this effect somewhat, the net result is increased portfolio risk. These results validate staff's concern about the conclusions drawn from the first two optimization exercises. Based on the last exercise, it is clear that equity correlations must be considered as a key driver of the overall risk/return potential of the extended sectors.

Exhibit 32: Optimized Total Portfolio Versus Baseline Policy Asset Allocation

		Current	Optimal Portfolio	Difference
Domestic Stocks		44.6%	44.6%	
International Stocks		13.2%	13.2%	
Developed	*12 0%*			
EMD	*1.2%*			
Alternative Assets		8.8%	8.8%	
Private Equity	*5.1%*			
Real Assets	*2.7%*			
Yield-Oriented	*1.0%*			
Bonds		30.7%	30.7%	
US IG	*30.7%*		*17.0%*	*-13.7%*
US HY	*0.0%*		*7.2%*	*+7.2%*
International	*0.0%*		*6.5%*	*+6.5%*
EMD	*0.0%*		*0.0%*	*0.0%*
Cash		2.7%	2.7%	*0.0%*
		100.0%	100 0%	
Expected Return		10.09%	10.16%	*+ 7 bp*
Risk/Standard Deviation		+/-10.81%	+/-10.94	*+ 13 bp*

More or Less Risk? Assumption Risk and Tracking Error

Both optimization exercises show that allocations to the more volatile U.S. High Yield and EMD sectors can actually reduce the bond portfolio's volatility over a long investment horizon. This outcome is due to the low return correlations assumed between the extended sectors and U.S. investment grade bonds (HY 50%, EMD 25%). As noted in earlier sections, the risk exists that such low correlations may not persist into the future; higher correlation of returns would translate into higher overall portfolio risk. Even more important, however, is that the low correlations to fixed income assets are accompanied by higher correlations to equities. The higher equity correlation can substantially change the relative risk profile of the extended sectors when viewed in a total portfolio context, making them net contributors to portfolio risk. This is particularly evident in the EMD sector.

Another way to view the risk of changing the program's allocation is to examine the historical tracking error of the proposed allocation relative to the program's current benchmark.

For the 11 ½-year period ended September 30, 2001, a hypothetical passive portfolio with the allocation presented in Exercise #2 (80% Core, 15% HY, 5% EMD) exhibited 1.54% of annual tracking error relative to the Lehman Aggregate index. This means that in any 12-month period, the performance of the Exercise #2 Portfolio fell within +/-1.54% of the performance of the Lehman Aggregate index about 67% of the time. About 33% of the time, the annual return difference is greater than +/-1.54%. It is important to note that this hypothetical portfolio is composed of index returns and therefore does not include active management risk. In practice, such a portfolio when actively managed would be likely to have even higher tracking error relative to the Lehman Aggregate Index.

In contrast, the current bond program exhibited 0.52% of tracking error (about one-third of the Exercise #2 portfolio's tracking error) versus the Lehman Aggregate over the same time period. Although the tracking errors compared here result from different sources, i.e. the hypothetical portfolio's tracking error comes from passive allocation to riskier asset classes while the current portfolio's tracking error comes from managers taking active risk within their portfolios, the results do point out the degree of fluctuation (or risk) that a portfolio as presented in Exercise #2 would create within the bond program relative to its historical experience.

SECTION THREE: TACTICAL VERSUS STRATEGIC

Thus far, staff has presented research and analysis that point to the potential benefits of additional investment in three extended sectors of the fixed income market: US High Yield, Non-dollar and EMD. Each of the sectors considered were shown to be sizable, liquid markets offering unique risk and return opportunities relative to U.S. Core fixed income. The optimization analysis presented in this study concluded that the addition of U.S. High Yield and EMD to a U.S. Core bond portfolio is expected to have the most positive results in terms of increasing expected return and reducing overall bond portfolio risk. However, in a total portfolio context that recognizes the impact of return correlations relative to equities, the optimization analysis showed that the EMD sector was less attractive than the other sectors because of its tendency to add risk to the total portfolio. Alternatively, the Non-dollar sector was shown to have more value in a total portfolio context than initially predicted by a bond-only optimization.

In reaching its conclusion on the optimal program structure for the extended sectors in the bond program, staff considered the tactical option relative to a strategic, dedicated allocation approach. The strategic approach involves setting a dedicated allocation to one or more extended sectors. The allocation becomes fully strategic with the adoption of a new asset class target that incorporates the extended sector allocation. Staff considered this approach, along with the concept of hiring dedicated sector managers to manage the strategic extended sector mandates.

In a strategic approach, the tradeoffs for the potential opportunity to add return and reduce long-term risk are near-term volatility relative to a U.S. Core portfolio, and the risk that future risk-return results for the extended sectors are less advantageous than assumed. In addition, the custody cost issues surrounding investment in certain EMD countries, as well as the potential for increased legal support for High Yield and EMD credit events must also be weighed against the potential added return. There are also costs associated with retaining new managers to manage assets in the extended sectors. The introduction of new managers presents the risk that the selected managers may fail to perform adequately relative to their benchmarks. In addition, if new managers or mandates are created, the program will face one-time transactions and other costs related to transitioning assets among managers and mandates. Finally, any potential for return enhancement and risk reduction within the fixed income program from investment in the extended sectors must be validated within the context of the total portfolio. Given the higher correlations of some extended sectors with equities, the benefit of risk reduction within the bond program could be lost if the bond program's usefulness as a diversifier to equities is reduced.

The strategic option was ultimately rejected, because the costs (management fees, custody expenses, legal costs, etc.) and risks (increased price volatility, default risk, geopolitical issues, liquidity, etc.) of the option were viewed to outweigh the expected benefit. In contrast to the strategic option, the enhanced tactical structure is low-cost and introduces minimal additional expected tracking error relative to the program's asset class target. Furthermore, the asset class target remains the Lehman Aggregate, which has performed well as an equity hedge since the program's inception.

Benefits of the Tactical Alternative

Using tactical allocation has the potential to generate approximately 5 basis points of incremental annual expected return for the bond program. The main benefit of the enhanced tactical strategy is that it adds this incremental return with very little incremental cost. Besides being inexpensive, the proposed change is administratively simple since it requires no changes to the program's asset class target or to managers' benchmarks.

With a tactical allocation strategy, the allocation decision is dynamic and discretion rests with the program's investment managers. The decision to allocate to each sector is based on the manager's judgment of the value the sector will provide over the investment horizon. This authority gives the managers the ability to rotate among more sectors of the market with the goal of finding value at the right times. This opportunity may be a source of value added separate from the benefits of a long-term (strategic) allocation.

Limitations

Because not all of the program's managers have the expertise to invest tactically in the extended sectors, the tactical allocation alternative places limits on the program's maximum achievable allocation to these markets. A drawback of the tactical approach is that it relies on the abilities of the program's existing managers. Staff believes that all of the managers are capable and expects them to perform well in a core mandate, using their unique areas of expertise to outperform their Lehman Aggregate benchmark. However, they were selected for their abilities as Core managers. It is possible that some of the current managers do not have a specialist focus in one or more of the extended sectors and may not be authorized by the SBI to participate in the tactical allocation.

The enhanced tactical recommendation is affected by the potential for increased legal costs. Under the tactical approach, the bond program's maximum exposure to U.S. High Yield would be high enough that additional legal resources may be required from time to time to handle credit issues. However, limiting managers to only higher quality credits within the High Yield sector (BB and B rated issues) as part of their investment guidelines should minimize involvement in true default events.

SECTION FOUR: CONCLUSION

Based on the qualitative and quantitative analysis, staff concludes that the potential benefits of an allocation to U.S. High Yield and Non-dollar are significant enough to justify additional investment. With respect to EMD, staff believes that the sector may offer an attractive risk-return profile. However, staff concludes that the EMD asset class is too volatile, and ultimately too equity-like, for it to be a good fit for a fixed income program among whose primary goal is equity diversification. Staff believes that EMD should not be included in the bond program at this time. Staff recognizes the potential risks that accompany an additional investment to the U.S. High Yield and Non-dollar sectors, including some increase in near-term volatility and the potential for underperformance. However, staff expects an additional allocation, if properly executed, can add enough value to compensate for these risks over the long-term.

Based on these findings, staff recommends increasing the program's exposure to the extended sectors though the expansion of the tactical investment approach already in place for US High Yield and Non-dollar. The key factors in staff's conclusion include the relative low cost of the tactical approach, ease of implementation, and the prospect of some degree of increased performance without a significant increase in the costs and risks associated with a major shift towards a dedicated allocation.

Implementation Approach: Recommendation

Staff recommends the expansion of the program's overall exposure to the US High Yield and Non-dollar extended sectors through expanded use of the tactical investment strategy already in place. Specifically, staff proposes that the program's existing managers be allowed to invest a larger percent of their portfolio in one or more of these sectors. The SBI would conduct a detailed review of all of the managers to determine their ability to invest and add value in the extended sectors. This review may result in more of the program's existing managers being granted investment authority in one or more of these sectors. Exhibit 33 outlines a proposal for new tactical investment targets under this recommendation. Under the proposal, the tactical authority of active-mandate managers in U.S. High Yield and Non-dollar would be raised to 15% of each participating manager's total assets from 10% currently. To limit overall risk, a combined extended sector cap would be set at 20% of total portfolio assets. For the semi-passive managers, sector caps would be set at 5% each with a 10% maximum on the combined extended sector allocation.

Exhibit 33: Tactical Guidelines Under Recommendation

	[illegible] Allocation		[illegible] Allocation				
	Core	**Tactical**	**Core**	**Tactical**	**Change**	**Tactical**	**Change**
Broad US Bonds	100.00%		100.00%	***Active***		***Semi-Passive***	
Non-US Bonds	0.00%	**10.00%**	0.00%	**15.00%**	**+5%**	**5.00%**	**+5%**
US High Yield Bonds	0.00%	**10.00%**	0.00%	**15.00%**	**+5%**	**5.00%**	**+5%**
			Combined Maximum	**20.00%**		**10.00%**	

The fixed income asset class target would continue to be the Lehman Aggregate index. This is consistent with the tactical investment approach of this recommendation, which favors investment in broad U.S. fixed income unless the value offered by the other sectors is particularly attractive. In addition, the Lehman Aggregate would remain the benchmark for all fixed income managers. A review of each manager's extended sector capabilities would take place.

APPENDIX A: Basics, Post and Combined Funds Asset Allocation Review, July 1995

Exhibit A1: Risk/Return

Sector/Asset Class	Real Return*	Nominal Return**	Standard Deviation
Equities			
Domestic Stocks	6.50%	11.00%	17.00%
International Stocks, Unhedged	6.75%	11.25%	19.00%
International Stocks, Hedged	6.55%	11.05%***	17.00%
Emerging Market Stocks	9.50%	14.00%	23.00%
Alternative Assets			
Private Equity	9.50%	14.00%	23.00%
Real Assets	4.50%	9.00%	12.00%
Yield-Oriented	5.50%	10.00%	13.00%
Fixed Income			
Broad US Bonds	3.50%	8.00%	8.50%
Non-US Bonds, Unhedged	3.50%	8.00%	12.00%
Non-US Bonds, Hedged	3.30%	7.8%***	5.00%
Cash Equivalents	1.00%	5.50%	3.00%
Inflation		4.50%	

* Real Return = Nominal Return minus Inflation
** Nominal Return is the long term (20+ years) expected return.
*** Unhedged Return minus assumed hedging cost of 20 basis points.

Exhibit A2: Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11
1 US Stocks	1.00										
2 Intl Stocks - Unh	0.45	1.00									
3 Intl Stocks - Hedg	0.60	0.80	1.00								
4 Emerging Mkts	0.30	0.30	0.30	1.00							
5 Priv Equity	0.50	0.15	0.25	0.00	1.00						
6 Real Assets	0.30	0 25	0.25	0.30	0.30	1.00					
7 Yield Oriented	0.45	0.30	0.35	0.00	0.40	0.15	1.00				
8 US Bonds	0.35	0.20	0.25	-0.20	0.15	0.20	0.60	1.00			
9 Intl Bonds - Unh	0.10	0.60	0.30	-0.20	0.00	0.10	0.00	0.40	1.00		
10 Intl Bonds - Hedg	0.30	0.20	0.40	-0.20	0.05	0.10	0.30	0.75	0.25	1.00	
11 Cash Equiv	-0.10	-0.10	0.00	-0.10	-0.10	0.30	0.20	0.10	-0.10	0.60	1.00

Source: Staff Position Paper approved at October 1995 SBI meeting. Attachment A: Assumptions Used in Simulations, page 11.

STATE BOARD OF INVESTMENT

Stock Manager Evaluation Reports

Fourth Quarter, 2001

COMBINED RETIREMENT FUNDS
DOMESTIC STOCK MANAGERS
Periods Ending December, 2001

	Quarter		1 Year		3 Years		5 Years		Since Inception (1)		Market Value	Pool
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	(in millions)	%
Active Managers												
Alliance Capital	13 7	10 0	-13 7	-15.3	0 9	-0 7	18 0	12 9	18 0	13 2	$938 5	4 8%
Brinson Partners	14 9	13 9	5 2	-11 0	-0 1	2 3	8 0	10 9	12 7	13 3	$688 3	3 5%
Cohen, Klingenstein & Marks	9 4	18 9	-25 0	-11 2	-4 2	0 2	9 6	11 4	14 7	14 6	$644 4	3 3%
Forstmann-Leff	15 5	19 1	-10 3	-2 5	2 8	11 5	14 3	13 5	14 0	13 2	$673 1	3 5%
Franklin Portfolio	16 6	16 5	-6 6	-5 4	5 1	3 3	12 1	11 0	14 2	13 2	$627 6	3 2%
GeoCapital	27 2	35 8	-24 1	-1 8	-4 3	2 5	2 1	4 0	10 1	11 6	$659 8	3 4%
Lincoln	15 9	18 3	-30 4	-18 1	-11 9	-7 2	4 4	9 3	10 9	13 2	$582 9	3 0%
New Amsterdam Partners	14 7	25 0	-3 3	3 7	8 5	12 2	17 0	16 7	17 4	17 5	$345.5	1 8%
Oppenheimer	8 0	11 8	-7 0	-9 5	4 6	4 7	13 0	13 5	16 1	15 0	$691 1	3 6%
Emerging Managers (2)	15 7	21 9	-8 0	2 2	2 9	9 2	12 1	15 3	14 6	17 4	$739 7	3 8%
Semi-Passive Managers												
Barclays Global Investors	10 6	11.3	-7 8	-9 7	-3 2	-4 2	8 2	8 0	14 3	13 6	$2,402.9	12 3%
Franklin Portfolio	10 3	11 3	-9 0	-9 7	-4 8	-4 2	7 7	8 0	13 2	13 6	$1,853 9	9 5%
JP Morgan	10 8	11 3	-8 7	-9 7	-3 5	-4 2	8 6	8 0	14 1	13 6	$2,157 8	11 1%
Passive Manager												
Barclays Global Investors	12 2	12.6	-11.8	-11 7	-0 7	-1 0	9 8	9 5	13 0	12 8	$6,459 3	33 2%
									Since 1/1/84			
Current Aggregate	12 5	14 0	-10 9	-9 7	0 0	-0 6	10 9	10 0	14 9	12 5	$19,464 7	100 0%
Historical Aggregate (3)	**12.5**	**14.0**	**-11.1**	**-9.9**	**-1.5**	**-0.8**	**9.3**	**9.7**	**13.1**	**13.4**		
Wilshire 5000 Investable (4)		12 6		-11 7		-1 3		9 3		13 3		
Wilshire 5000		12 4		-11 0		-0 7		9 7		13 6		

(1) Since retention by the SBI Time period varies for each manager
(2) Aggregate of emerging manager group. The benchmark reflects a composite of the individual manager customized benchmarks since inception of the program on 4/1/94
(3) Includes the performance of terminated managers
(4) Restated to incorporate the Wilshire 5000 Investable Index beginning 7/1/99
From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments
Prior to 11/1/93, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa

ALLIANCE CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Jack Koltes | **Assets Under Management: $938,497,011**

Investment Philosophy

Alliance searches for companies likely to experience high rates of earnings growth, on either a cyclical or secular basis. Alliance invests in a range of medium to large growth and cyclically sensitive companies. There is no clear distinction on the part of the firm as to an emphasis on one particular type of growth company over another. However, the firm's decision-making process appears to be much more oriented toward macroeconomic considerations than is the case with most other growth managers. Accordingly, cyclical earnings prospects, rather than secular, appear to play a larger role in terms of stock selection. Alliance is not an active market timer, rarely raising cash above minimal levels.

Staff Comments

Alliance outperformed for the quarter and year. During the quarter, Alliance beat the benchmark in nearly every sector. Stock selection within telecommunications services and technology was particularly strong. However, Alliance underweighted the strongly performing technology sector offsetting the positive stock selection somewhat. Another strong contributor to relative performance was a consumer discretionary overweight. Alliance has positioned the portfolio in a "barbell" fashion, with a mix of steady growth stocks and higher growth more cyclical stocks in technology and brokerage. The SBI's portfolio manager did not own Enron stock.

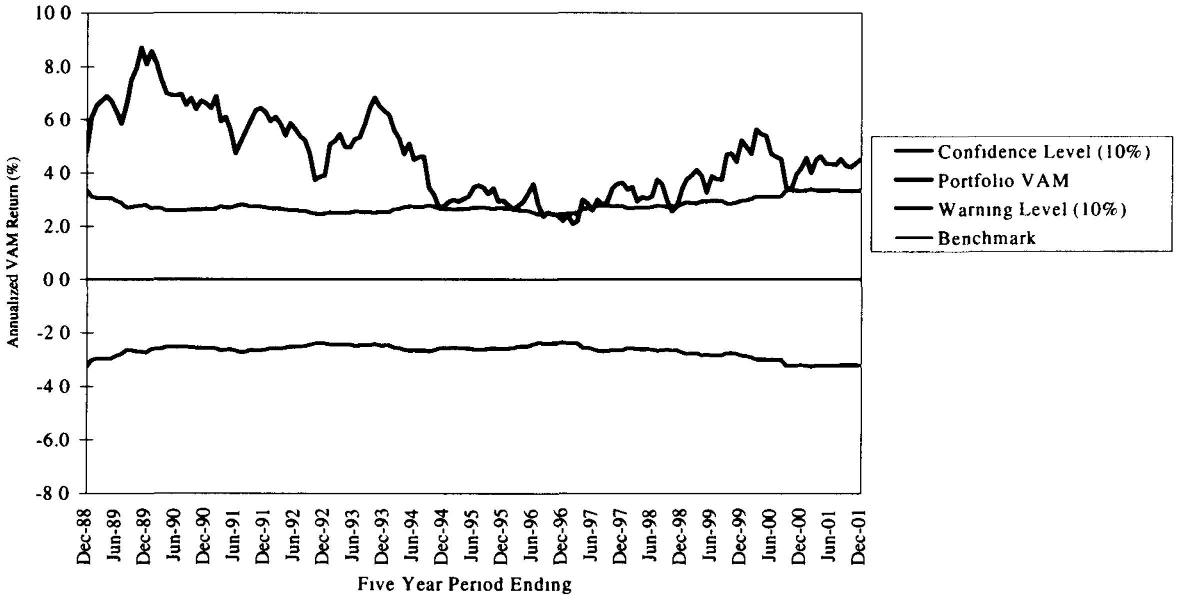
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	13.7%	10.0%
Last 1 year	-13.7	-15.3
Last 2 years	-13.7	-13.3
Last 3 years	0.9	-0.7
Last 4 years	11.3	7.9
Last 5 years	18.0	12.9
Since Inception (1/84)	18.0	13.2

Recommendation

No action required.

ALLIANCE CAPITAL MANAGEMENT
Rolling Five Year VAM



BRINSON PARTNERS
Periods Ending December, 2001

Portfolio Manager: John Leonard **Assets Under Management: $688,320,323**

Investment Philosophy

Brinson Partners uses a relative value approach to equity investing. They believe that the market price will ultimately reflect the present value of the cash flows the security will generate for the investor. They focus on a bottom-up stock selection process to provide insight into finding opportunistic investments Brinson uses their own discounted free cash flow model as their primary analytical tool for estimating the intrinsic value of a company.

Staff Comments

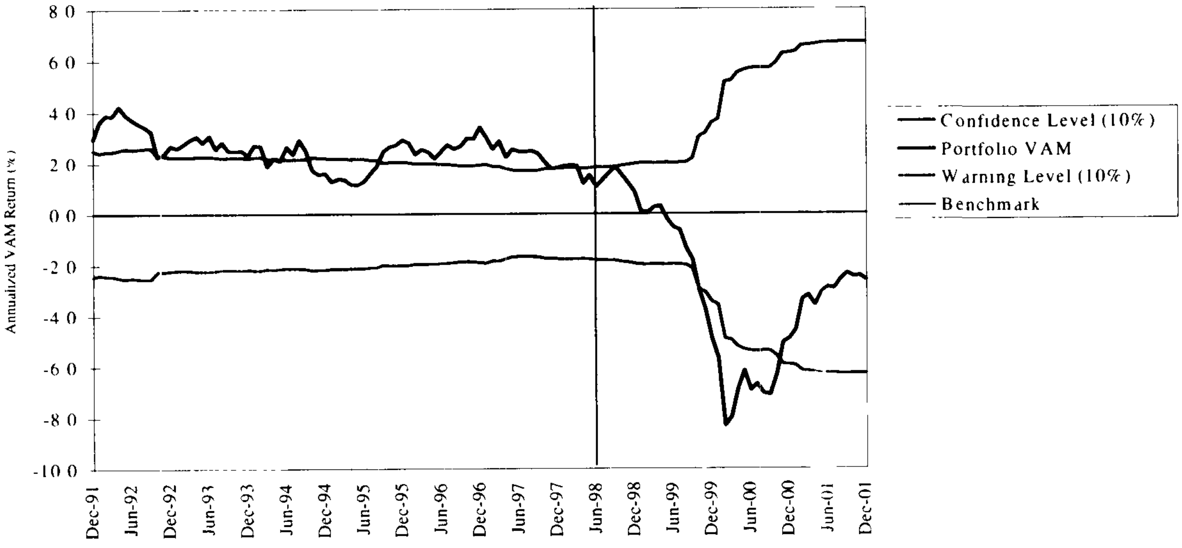
Brinson outperformed for the quarter, in spite of growth outperforming value Stock selection was strong but negative sector allocations, especially an underweight in technology, offset a large portion of this. Over the past year, Brinson significantly outperformed due to stock selection, a value tilt, and a size underweight During the quarter, staff met with John Leonard, our portfolio manager, at the SBI's office to review the portfolio and discuss Brinson's future strategy After the fourth quarter rally, Brinson believes the market to be overvalued and our portfolio continues to be positioned defensively with overweights in healthcare, industrials, materials, and financials

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	14 9%	13 9%
Last 1 year	5 2	-11 0
Last 2 years	4.4	-6.1
Last 3 years	-0 1	2 3
Last 4 years	4 0	6 2
Last 5 years	8 0	10.9
Since Inception (7/93)	12.7	13 3

Recommendation

No action required



Note Area to the left of vertical line includes performance prior to retention by the SBI

COHEN KLINGENSTEIN & MARKS INCORPORATED
Periods Ending December, 2001

Portfolio Manager: George Cohen **Assets Under Management: $644,352,630**

Investment Philosophy

Cohen Klingenstein & Marks Inc. (CKM) seeks to outperform the market by focusing on two variables: 1) economic cycles; and 2) security valuation. Within economic cycles, they believe that stocks exhibit predictable patterns that reflect changing expectations on corporate profits and interest rates. Similarly, they believe that stock prices normally reflect earnings expectations. CKM exploits short run inefficiencies through an unbiased process that relates the price of a stock to the consensus earnings expectations.

Staff Comments

Cohen's portfolio underperformed their benchmark over the past quarter and year. Poor stock selection in technology and financials caused most of the quarter's shortfall. Cohen's moderate over-weight in technology, initiated earlier this year as valuations fell, was not enough to offset their negative stock selection. Over the past year, their underperformance is a mix of poor stock selection across several sectors and their overweight in technology.

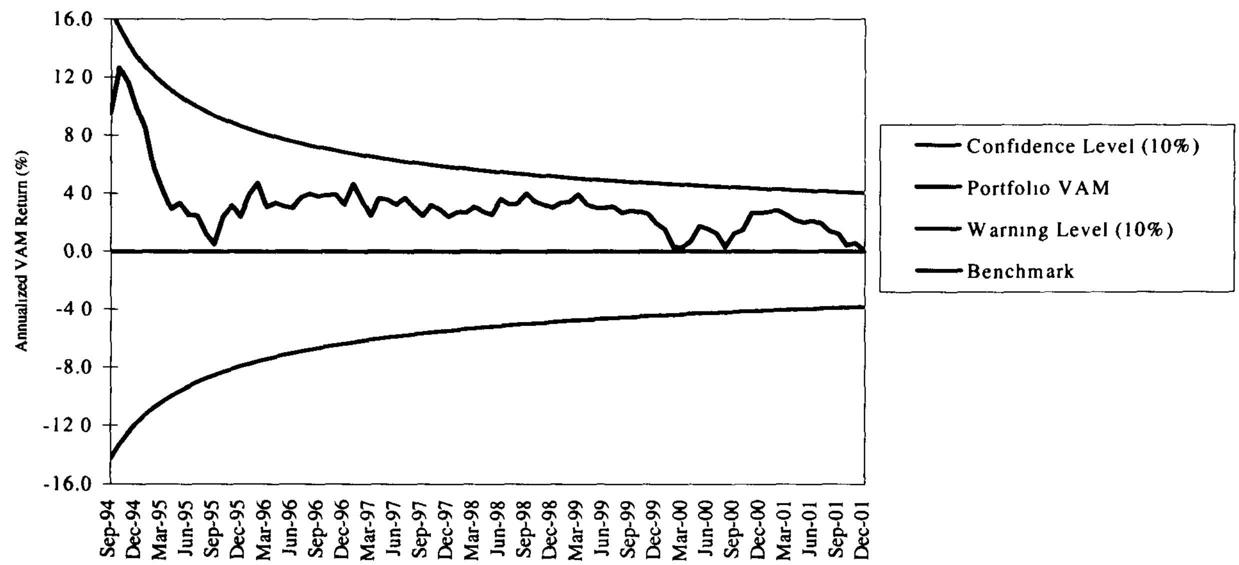
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.4%	18.9%
Last 1 Year	-25.0	-11.2
Last 2 Years	-16.1	-11.6
Last 3 Years	-4.2	0.2
Last 4 Years	5.0	7.2
Last 5 Years	9.6	11.4
Since Inception (4/94)	14.7	14.6

Recommendation

No action required.

COHEN KLINGENSTEIN & MARKS
Cumulative Tracking



FORSTMANN-LEFF ASSOCIATES
Periods Ending December, 2001

Portfolio Manager: Bill Harnisch **Assets Under Management: $673,054,252**

Investment Philosophy

Forstmann-Leff is a classic example of a "rotational" manager The firm focuses initially on sector weighting decisions. Based upon its macroeconomic outlook, the firm will move aggressively into and out of equity sectors over the course of a market cycle. The firm tends to purchase liquid, medium to large capitalization stocks

Staff Comments

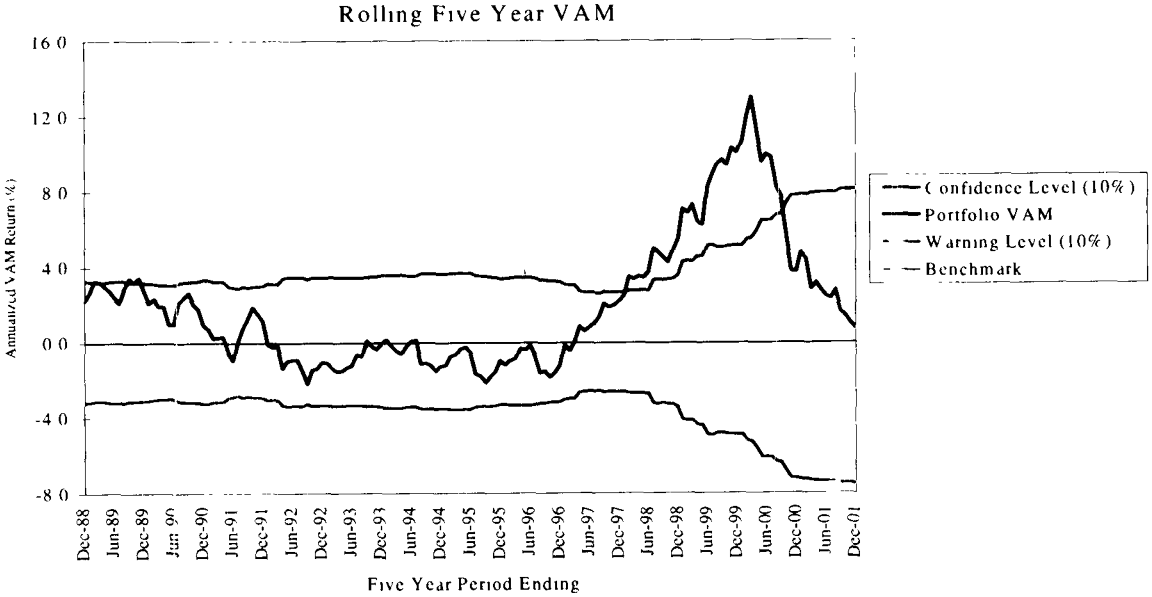
Forstmann lagged the benchmark over the quarter and year due to both poor stock selection and sector allocation decisions. In consumer discretionary a very large positive contribution from Best Buy, Forstmann's largest holding, was offset by negative contributions from several other stocks in the sector, most notably AOL Time Warner and Barnes & Noble. Symbol Technologies, Forstmann's second largest holding, also performed well during the quarter.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	15.5%	19.1%
Last 1 year	-10.3	-2.5
Last 2 years	-11.3	7 3
Last 3 years	2 8	11.5
Last 4 years	9 1	11.1
Last 5 years	14 3	13.5
Since Inception (1/84)	14.0	13.2

Recommendation

No action required



FRANKLIN PORTFOLIO ASSOCIATES
Periods Ending December, 2001

Portfolio Manager: John Cone | **Assets Under Management: $627,575,389**

Investment Philosophy
Active

Franklin believes that rigorous and consistent application of fundamentally based valuation criteria will produce value added investment returns. Franklin builds a portfolio by using a series of more than 30 integrated computer models that value a universe of 3500 stocks. Their models rank each security based on fundamental momentum, relative value, future cash flow, and supplementary models, then a composite ranking provides one ranked list of securities reflecting their relative attractiveness. Stocks that fall below the median ranking are sold and proceeds reinvested in stocks from the top deciles in the ranking system. Franklin uses the BARRA E3 risk model to monitor the portfolio's systematic risk and industry weightings, relative to the selected benchmark, to achieve a residual risk of 4.0 to 4.5 percent for the active portfolio.

Staff Comments

Staff visited Franklin in their Boston office during the quarter to review the firm's investment process and perform annual due diligence. The firm also visited St. Paul to discuss the details of some enhancements they are making to their quantitative process. These include grouping the 45 factors in their model into seven themes and optimizing each group separately, standardizing raw data across all factors, incorporating estimates where some data is unavailable, and reducing turnover in alpha forecasts. Franklin's objective is to improve the robustness of their process, while simplifying and increasing its flexibility. Staff believes these model adjustments are minimal but do represent an enhancement to Franklin's process and should therefore benefit the portfolio over time.

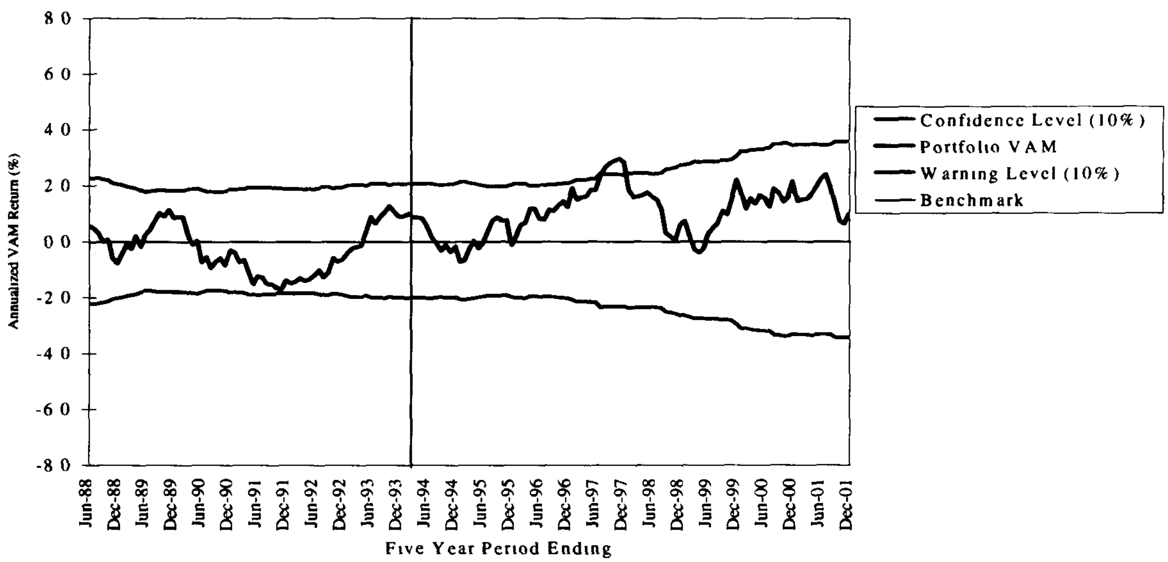
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	16.6%	16.5%
Last 1 year	-6.6	-5.4
Last 2 years	-4.1	-2.6
Last 3 years	5.1	3.3
Last 4 years	6.4	6.9
Last 5 years	12.1	11.0
Since Inception (4/89)	14.2	13.2

Recommendation

No action required.

FRANKLIN PORTFOLIO ASSOCIATES - Active
Rolling Five Year VAM



Note Area to the left of vertical line includes performance prior to retention by the SBI

GEOCAPITAL CORP.
Periods Ending December, 2001

Portfolio Manager: Barry Fingerhut | **Assets Under Management: $659,831,578**

Investment Philosophy

GeoCapital invests primarily in small capitalization equities with the intent to hold them as they grow into medium and large capitalization companies The firm uses a theme approach and individual stock selection analysis to invest in the growth/technology and special situation areas of the market. In the growth/technology area, GeoCapital looks for companies that will have above average growth due to good product development and limited competition. In the special situation area, the key factors are corporate assets, free cash flow, and a catalyst that will cause a positive change in the company The firm generally stays fully invested, with any cash positions due to a lack of attractive investment opportunities

Staff Comments

GeoCapital's absolute portfolio return benefited from the strong rally in small cap growth stocks during the quarter, but the firm lagged their benchmark in every sector except for healthcare. A technology underweight combined with poor technology stock selection were particularly damaging. A larger than average cash position over the quarter, the result of a contribution in October, also detracted. Geo used the contribution to increase the growth companies in the portfolio relative to special situation companies. The past year's underperformance is a mix of negative stock selection and sector allocation decisions, especially in technology

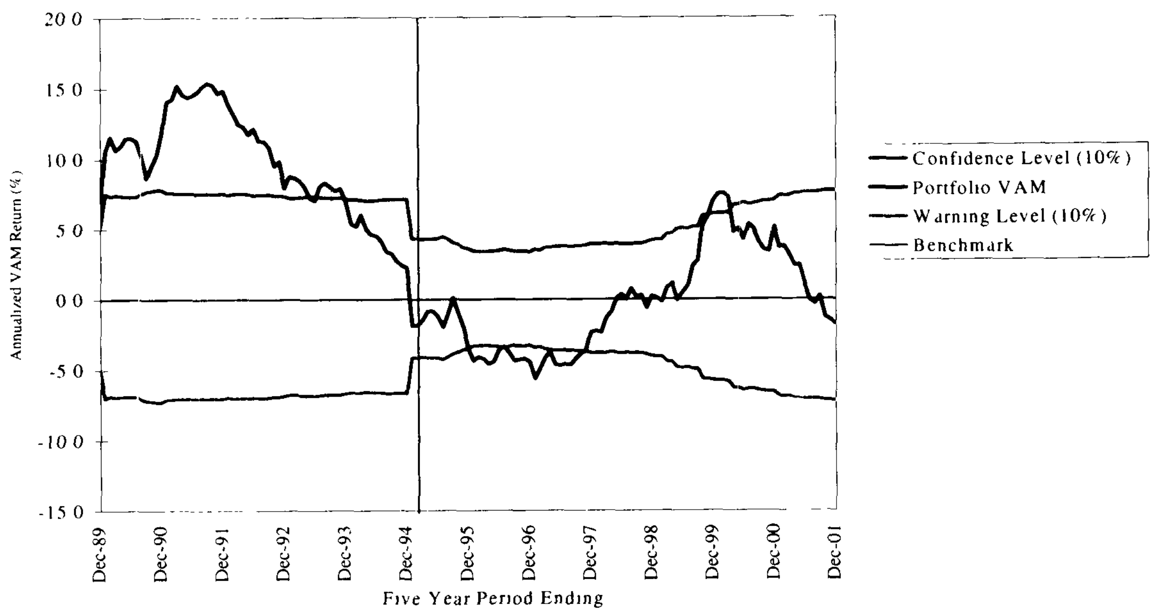
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	27.2%	35.8%
Last 1 year	-24.1	-1 8
Last 2 years	-26 0	-7 6
Last 3 years	-4 3	2.5
Last 4 years	-1.6	1.5
Last 5 years	2.1	4.0
Since Inception (4/90)	10.1	11.6

Recommendation

No action required

GEOCAPITAL CORP
Rolling Five Year VAM



Note Scale differs from other VAM graphs
Area to the left of vertical line includes performance prior to retention by the SBI

LINCOLN CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: David Fowler **Assets Under Management: $582,944,492**

Investment Philosophy

Lincoln Capital concentrates on established medium to large capitalization companies that have demonstrated historically strong growth and will continue to grow. The firm uses traditional fundamental company analysis and relative price/earnings valuation disciplines in its stock selection process. In addition, companies held by Lincoln generally exhibit premium price/book ratios, high return on equity, strong balance sheets and moderate earnings variability.

Staff Comments

Lincoln continues to lag their benchmark. During the quarter the two largest detractors were poor healthcare stock selection and a technology underweight. Over the past year, negative stock selection in technology remains the culprit. Staff visited with Dave Fowler and John Cole from Lincoln in our office during the quarter to review the portfolio and receive an update on the organization. Their healthcare analyst left the firm to join a hedge fund and Lincoln expects to hire a replacement shortly. In addition, several more clients ended their relationship with Lincoln and the firm expects a few more clients to leave this year due to poor performance. They have gained a mutual fund client, Ariel Premier Growth Fund to begin February 2002. As of December 2001, Lincoln managed $6 billion in equity products.

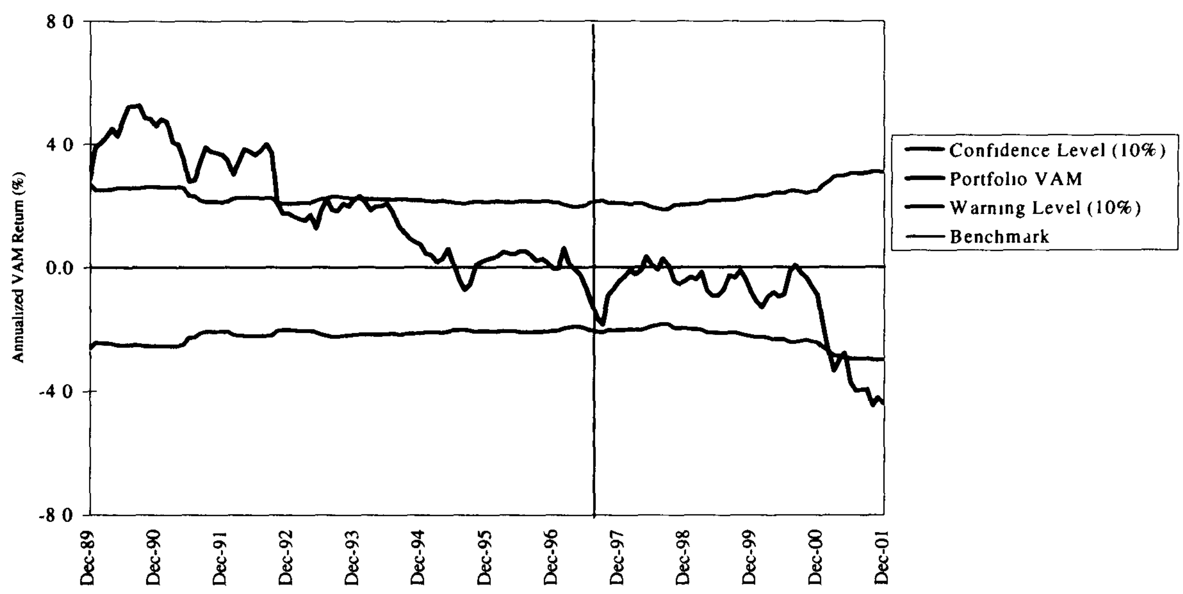
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	15.9%	18.3%
Last 1 year	-30.4	-18.1
Last 2 years	-26.5	-21.4
Last 3 years	-11.9	-7.2
Last 4 years	-0.7	3.7
Last 5 years	4.4	9.3
Since Inception (7/93)	10.9	13.2

Recommendation

Staff continues to closely monitor Lincoln's investment process and organizational stability and will report any change in our recommendation to remain with Lincoln. At this time, staff believes Lincoln can add value over time.

LINCOLN CAPITAL MANAGEMENT - Domestic Equity
Rolling Five Year VAM



Note. Area to the left of vertical line includes performance prior to retention by the SBI

NEW AMSTERDAM PARTNERS
Periods Ending December, 2001

Portfolio Manager: Michelle Clayman **Assets Under Management: $345,503,484**

Investment Philosophy

New Amsterdam Partners believes that investment results are evaluated by actual return, and therefore, investment opportunities should be evaluated by expected return They believe that all valid techniques depend on forecasts of the amounts and timing of future cash flows Thus, the firm focuses on forecasted earnings growth, yield, price-to-book ratio, and forecasted return on equity They believe that the disciplined application of their valuation techniques, in conjunction with sound financial analysis of companies, is the key to understanding and maximizing investment returns

Staff Comments

New Amsterdam experienced their worst relative quarter in our history with the firm. This comes in New Amsterdam's first quarter in our regular domestic equity program after being promoted from the emerging manager program. The two largest detractors were poor healthcare stock selection and a significant underweight in technology A larger than average cash position over the quarter, the result of a contribution in October, also detracted Underperformance over the past year is the result of the large shortfall in the fourth quarter

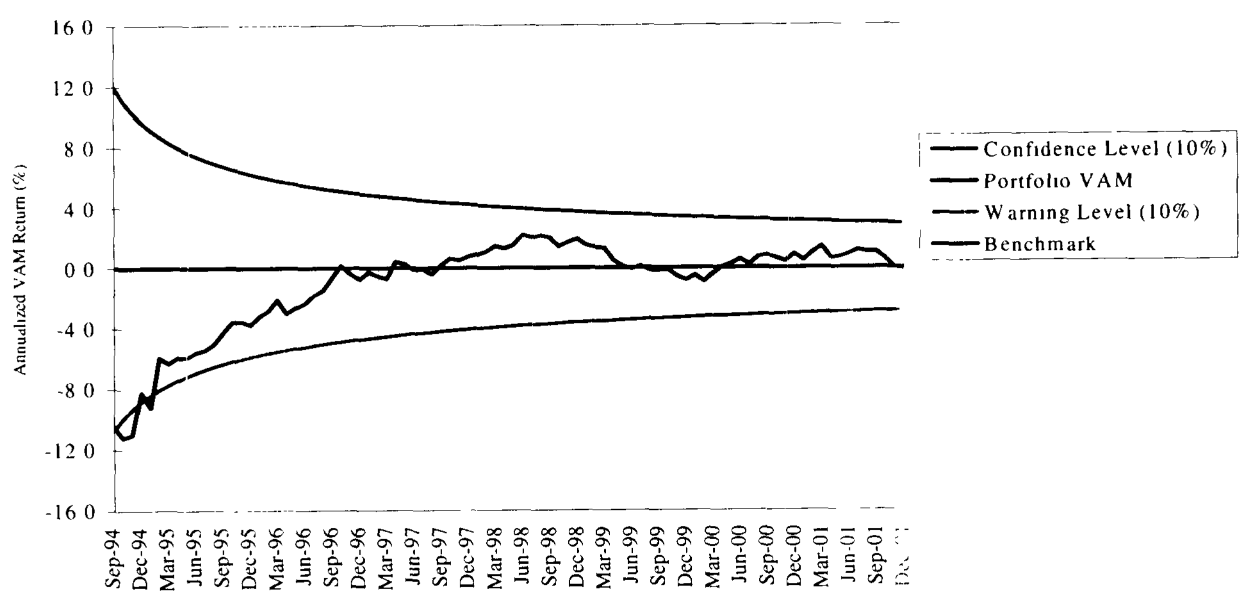
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	14 7%	25.0%
Last 1 Year	-3 3	3.7
Last 2 Years	5 5	3.4
Last 3 Years	8 5	12.2
Last 4 Years	12 7	13.7
Last 5 Years	17 0	16.7
Since Inception (4/94)	17 4	17.5

Recommendation

No action required.

NEW AMSTERDAM PARTNERS
Cumulative Tracking



OPPENHEIMER CAPITAL
Periods Ending December, 2001

Portfolio Manager: John Lindenthal | **Assets Under Management: $691,065,968**

Investment Philosophy

Oppenheimer's objectives are to: 1) preserve capital in falling markets; 2) manage risk in order to achieve less volatility than the market; and 3) produce returns greater than the market indices, the inflation rate and a universe of comparable portfolios with similar objectives. The firm achieves its objectives by purchasing securities considered to be undervalued on the basis of known data and strict financial standards and by making timely changes in the asset mix. Oppenheimer focuses on five key variables when evaluating companies: management, financial strength, profitability, industry position, and valuation.

Staff Comments

Oppenheimer lagged the benchmark during the quarter but remains ahead over the past year. Negative sector allocations were the primary reason for the quarter's shortfall, though stock selection was slightly negative as well. The two largest detractors were a significant technology underweight and a significant overweight in the poorly performing telecommunications services sector. The largest contributor to relative performance was an underweight in the utilities sector. Over the past year, Oppenheimer's technology underweight was a positive contributor to relative performance.

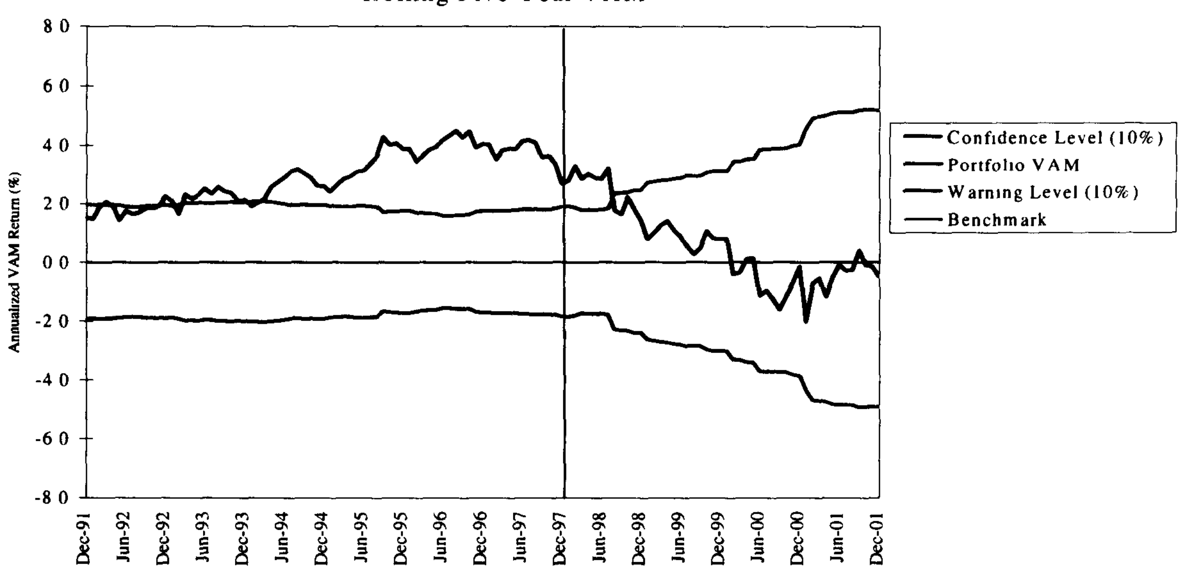
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.0%	11.8%
Last 1 year	-7.0	-9.5
Last 2 years	1.7	-0.1
Last 3 years	4.6	4.7
Last 4 years	8.6	9.3
Last 5 years	13.0	13.5
Since Inception (7/93)	16.1	15.0

Recommendation

No action required.

OPPENHEIMER CAPITAL
Rolling Five Year VAM



Note Area to the left of vertical line includes performance prior to retention by the SBI

BARCLAYS GLOBAL INVESTORS
Periods Ending December, 2001

Portfolio Manager: Rhonda Vitanye | **Assets Under Management: $2,402,883,694**

Investment Philosophy
Semi-Passive

The Core Alpha Model desegregates individual equity returns for each of the 3500 stocks in their universe into fundamental, expectational, and technical components. The fundamental factors look at measures of underlying company value including earnings, book value, cash flow, and sales. These factors help identify securities that trade at prices below their true economic value. The expectational factors incorporate future earnings and growth rate forecasts made by over 2500 security analysts The technical factors provide a measure of recent changes in company fundamentals, consensus expectations, and performance. Estimated alphas are then calculated and are used in a portfolio optimization algorithm to identify the optimal portfolio.

Staff Comments

Nancy Feldkircher was promoted within the Barclay's organization and will no longer be our portfolio manager. Rhonda Vitanye, who has been on the team managing our portfolio for several years, is now our primary portfolio manager Ms. Vitanye visited staff at our office during the quarter to review Barclay's investment process and past performance. BGI lagged the benchmark for the quarter due to negative stock selection, particularly in technology where BGI underweight IBM and Cisco, which performed well over the quarter. BGI remains well ahead of the benchmark for the past year on positive stock selection and positive returns to risk factors.

Quantitative Evaluation

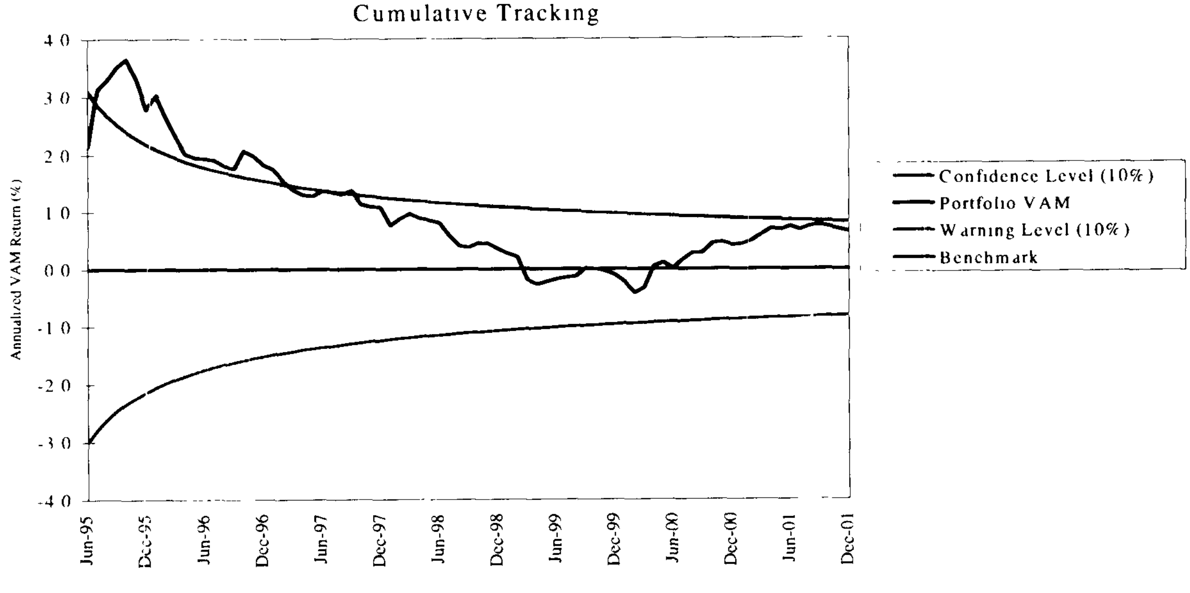
	Actual	Benchmark*
Last Quarter	10.6%	11.3%
Last 1 year	-7.8	-9.7
Last 2 years	-10.9	-13.1
Last 3 years	-3.2	-4.2
Last 4 years	2.4	2.1
Last 5 years	8.2	8.0
Since Inception (1/95)	14.3	13.6

* Completeness Fund

Recommendation

No action required

BARCLAYS GLOBAL INVESTORS - SEMI-PASSIVE
Cumulative Tracking



FRANKLIN PORTFOLIO ASSOCIATES
Periods Ending December, 2001

Portfolio Manager: John Cone **Assets Under Management: $1,853,913,574**

Investment Philosophy
Semi-Passive

Franklin believes that rigorous and consistent application of fundamentally based valuation criteria will produce value added investment returns. Franklin builds a portfolio by using a series of more than 30 integrated computer models that value a universe of 3500 stocks. Their models rank each security based on fundamental momentum, relative value, future cash flow, and supplementary models. A composite ranking then provides one ranked list of securities reflecting their relative attractiveness. Stocks that fall below the median ranking are sold, and proceeds are reinvested in stocks from the top deciles in the ranking system. They use the BARRA risk model to monitor the portfolio's systematic risk and industry weightings relative to the selected benchmark. For this semi-passive mandate, they seek to achieve a residual risk of 1.5% or less. The firm remains fully invested at all times.

Staff Comments

Franklin lagged their benchmark during the quarter but remains ahead for the year. During the quarter, the two largest detractors were a slight technology underweight and negative stock selection in financials. Moderately negative stock selection across several other sectors was offset by strong selection in the consumer discretionary sector. Over the past year, exposure to the earnings yield risk factor was the largest contributor to relative performance offset somewhat by negative sector and stock selection decisions.

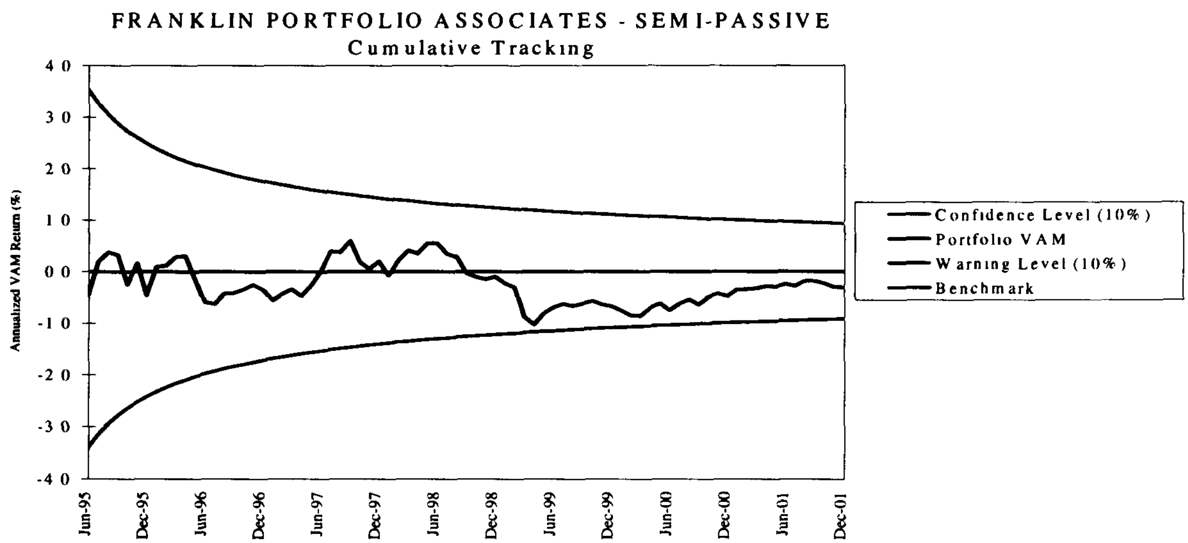
Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	10.3%	11.3%
Last 1 year	-9.0	-9.7
Last 2 years	-12.5	-13.1
Last 3 years	-4.8	-4.2
Last 4 years	1.4	2.1
Last 5 years	7.7	8.0
Since Inception (1/95)	13.2	13.6

* Completeness Fund

Recommendation

No action required.



J.P. MORGAN INVESTMENT MANAGEMENT, INC.
Periods Ending December, 2001

Portfolio Manager: Tim Devlin **Assets Under Management: $2,157,780,580**

Investment Philosophy
Semi-Passive

J.P Morgan believes that superior stock selection is necessary to achieve excellent investment results To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast the earnings and dividends for the 650 stock universe and enter them into a stock valuation model that calculates an expected return for each security. The stocks are ranked according to their expected return within their economic sectors The most undervalued stocks are placed in the first quintile. The portfolio includes stocks from the first four quintiles, always favoring the highest ranked stocks whenever possible. Stocks in the fifth quintile are sold. In addition, the portfolio closely approximates the sector, style, and security weightings of the index chosen by the plan sponsor The firm remains fully invested at all times.

Staff Comments

JP Morgan lagged the benchmark during the quarter on negative stock selection in technology and consumer staples. Over the past year JP Morgan remains ahead of the benchmark due to positive stock selection in 12 of 19 economic sectors

Quantitative Evaluation

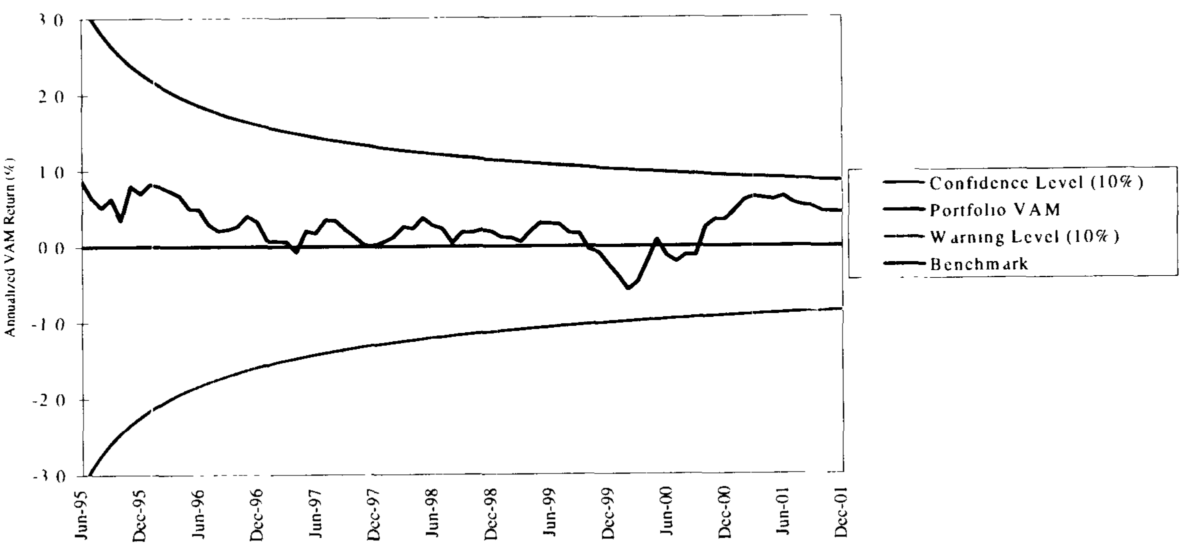
	Actual	Benchmark*
Last Quarter	10 8%	11 3%
Last 1 year	-8 7	-9.7
Last 2 years	-11.2	-13 1
Last 3 years	-3 5	-4.2
Last 4 years	2 9	2.1
Last 5 years	8.6	8.0
Since Inception (1/95)	14 1	13.6

* Completeness Fund

Recommendation

No action required

JP MORGAN - SEMI-PASSIVE
Cumulative Tracking



BARCLAYS GLOBAL INVESTORS
Periods Ending December, 2001

Portfolio Manager: Amy Schioldager **Assets Under Management: $6,459,260,123**

Investment Philosophy
Passive

Barclays Global Investors passively manages the portfolio against the Wilshire 5000 Investable by minimizing tracking error and trading costs, and maximizing control over all investment and operational risks. Their strategy is to invest across the broad market while excluding smaller, illiquid securities from the investment universe. An optimized approach is taken to security selection. The optimizer weighs the cost of a trade against its contribution to expected tracking error to determine which trades should be executed.

Staff Comments

BGI's passive account underperformed over the quarter and past year. During the quarter, performance was hurt by a slight underweight in technology as a result of their optimization process. BGI purchased additional technology names in early November to reduce their misweight. However, a slight underweight hurt in November and December since technology continued to perform well.

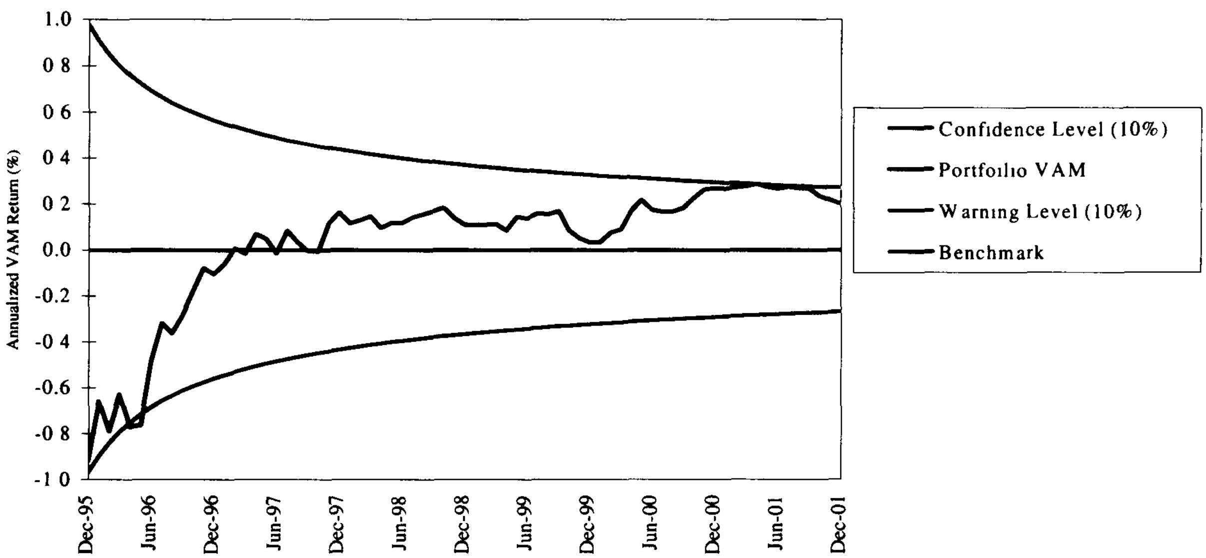
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	12.2%	12.6%
Last 1 year	-11.8	-11.7
Last 2 years	-10.8	-11.3
Last 3 years	-0.7	-1.0
Last 4 years	4.9	4.6
Last 5 years	9.8	9.5
Since Inception (7/95)	13.0	12.8

Recommendation

No action required.

BARCLAYS GLOBAL INVESTORS - PASSIVE
Cumulative Tracking



STATE BOARD OF INVESTMENT

Emerging Stock Manager Evaluation Reports

Fourth Quarter, 2001

COMBINED RETIREMENT FUNDS
EMERGING EQUITY MANAGERS
Periods Ending December, 2001

	Quarter		1 Year		3 years		5 Years		Since Inception (1)		Market	Pool
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (in millions)	%
Active Managers												
Artemis	19 7	24.9	5.8	11.9					-12.5	1.7	$41.2	5 6%
Bay Isle Financial	12.1	11.9	-1.6	-5 9					0.2	1 1	$50 1	6.8%
Earnest Partners	4.7	21.3	-0 4	11.5					-4 5	17.2	$47 0	6.4%
Holt-Smith & Yates	19.4	21.8	-1 7	4 6					-5.7	1.5	$46.4	6.3%
Next Century Growth	27.8	27.6	-22.8	-5 5					-28 3	-16.7	$30.7	4.2%
Peregrine Capital	15.4	18.8	12.6	22.9					24.5	27.5	$126.7	17.1%
Valenzuela Capital	6.7	17.9	-7.7	4.5	0.8	7.6	7 2	10.6	12.3	13.5	$73.6	9.9%
Voyageur-Chicago Equity	15.4	18.7	-19.4	-12 0					-9.8	-12 8	$43.5	5.9%
Winslow-Small Cap	25.3	26.9	-6.1	4.6					-10 9	-10 3	$147.8	20.0%
Zevenbergen Capital	13.5	25.7	-29 0	-3.2	-5.2	8.1	11.3	16.2	14.0	17 8	$132.8	18.0%
											$739.7	**100.0%**
									Since 4/1/94			
Current Aggregate	15.7	21.9	-7.7	3.1	4.8	11.4	14.6	16.0	16.5	17.3		
Historical Aggregate (2)	**15.7**	**21.9**	**-8.0**	**2.2**	**2.9**	**9.2**	**12.1**	**15.3**	**14.6**	**17.4**		

(1) Since retention by the SBI. Time period varies for each manager.

(2) Includes the performance of terminated managers.

ARTEMIS INVESTMENT MANAGEMENT, LLC
Periods Ending December, 2001

Portfolio Manager: Joyce Capuano **Assets Under Management: $41,172,913**

Investment Philosophy

Artemis believes that excess rates of return above benchmark indices are derived from investments in companies that initiate and embrace change in their businesses. They want to identify those small cap companies that they believe (1) have catalysts that can accelerate future earnings and cash flow growth rates; and (2) are attractively valued relative to their respective peer groups. In order to implement their investment philosophy, they use relative value analysis, which is a bottom-up, stock picking approach driven by fundamental research and frequent meetings with company managements. The portfolio is diversified in terms of growth rates and opportunities for exposure in all economic sectors.

Staff Comments

Artemis underperformed for the quarter with the largest negative contributions resulting from poor stock selection in the healthcare and consumer discretionary sectors. Underperformance over the past year is a mix of negative sector allocations and poor stock selection. During the quarter, the junior member of the portfolio management team left Artemis to join a hedge fund. The firm also hired a senior research analyst.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	19.7%	24.9%
Last 1 Year	5.8	11.9
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-12.5	1.7

Recommendation

No action required.

VAM Graph will be drawn for period ending 6/30/02.

BAY ISLE FINANCIAL CORP.
Periods Ending December, 2001

Portfolio Manager: William Schaff **Assets Under Management: $50,128,666**

Investment Philosophy

Bay Isle Financial believes that companies with strong fundamentals and management will outperform and that these companies can be found at a discount to fair value. To capitalize on these ideas, they perform rigorous fundamental analysis on cash flow growth and balance sheet strength and evaluate a company's business, major competitors and management strength. Bay Isle closely monitors risk levels relative to the benchmark and the portfolio is diversified across most industry sectors.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	12.1%	11.9%
Last 1 Year	-1.6	-5.9
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	0.2	1.1

Staff Comments

Stillwell Financial acquired 100% of Bay Isle at the end of the quarter. Bay Isle has had a marketing agreement with Berger, a subsidiary of Stillwell, since prior to our hiring of the firm and staff was aware of the possibility of a sale to Stillwell. Bay Isle performed well relative to the benchmark over the past year on strong stock selection in industrials, energy and technology as well as an underweight in telecommunications services and utilities.

Recommendation

Staff believes the sale to Stillwell will not materially affect Bay Isle. The firm will be left to run as an independent subsidiary and Bill Schaff will remain CEO reporting to the COO of Stillwell.

VAM Graph will be drawn for period ending 6/30/02.

EARNEST PARTNERS, LLC
Periods Ending December, 2001

Portfolio Manager: Paul Viera **Assets Under Management: $46,999,751**

Investment Philosophy

Earnest Partners utilizes its proprietary Return Pattern Recognition model and rigorous fundamental review to identify stocks with the most attractive relative returns. They have identified six performance drivers – valuation measures, operating trends, market trends, growth measures, profitability measures and macroeconomic measures – and have done extensive research to determine which combination of performance drivers, or return patterns, precede out-performance for stocks in each sector. They select stocks whose return patterns suggest favorable performance and control risk using a statistical program designed to measure and control the prospects of substantially under-performing the benchmark. The portfolio is diversified across industry groups.

Staff Comments

Earnest performed poorly relative to their benchmark during the quarter and past year due to a mix of negative sector and stock selection as well as maintaining a significantly larger capitalization portfolio relative to the benchmark in a year where small and mid capitalization stocks outperformed large.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	4.7%	21.3%
Last 1 Year	-0.4	11.5
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-4.5	17.2

Recommendation

No action required.

VAM Graph will be drawn for period ending 6/30/02.

HOLT-SMITH & YATES ADVISORS
Periods Ending December, 2001

Portfolio Manager: Kristin Yates **Assets Under Management: $46,390,634**

Investment Philosophy

Holt-Smith & Yates invest in companies demonstrating superior growth in earnings over a long period of time. They use bottom-up fundamental analysis, focusing on historical and forecasted sales and earnings trends, profit margin trends, debt levels and industry conditions. They seek to purchase large-cap companies that meet their strict valuation criteria and that have superior fundamentals to that of the benchmark Companies must currently have a five year projected growth rate of over 20% and a PEG (P/E ratio to growth rate) ratio of below 150% They hold concentrated portfolios, industry positions are limited to one stock per industry, and the portfolio has low turnover

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	19 4%	21.8%
Last 1 Year	-1 7	4 6
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-5 7	1 5

Staff Comments

Staff visited Holt-Smith & Yates in their Madison office to review their custom benchmark construction process, investment process, and philosophy. The firm's underperformance during the quarter is the result of poor stock selection in consumer staples, technology, healthcare and financials offset somewhat by positive industrial stock selection.

Recommendation

No action required

VAM Graph will be drawn for period ending 6/30/02.

NEXT CENTURY GROWTH INVESTORS, LLC
Periods Ending December, 2001

Portfolio Manager: Thomas Press and Don Longlet **Assets Under Management: $30,740,603**

Investment Philosophy

Next Century Growth's (NCG) goal is to invest in the highest quality and fastest growing companies in America. They believe that growth opportunities exist regardless of the economic cycle. NCG uses fundamental analysis to identify companies that will surpass consensus earnings estimates which they believe to be the number one predictor of future out-performance. Their investment process focuses on growth companies that have superior top line revenue growth (15% or greater), high profitability, and strong balance sheets that are well poised to outperform the market. NCG believes in broad industry diversification; sector exposures are limited to twice the benchmark weighting and individual positions to five percent.

Staff Comments

Next Century generated strong absolute returns over the quarter, benefiting from the small growth rally. Performance matched the benchmark as strong stock selection in technology and consumer discretionary names offset weak healthcare selection. Next Century's decision to become more defensive after the terrorist attacks hurt their relative performance as some of the more aggressive growth stocks they rotated out of performed exceptionally well in the fourth quarter. Underperformance over the past year is largely the result of the underperformance in the third quarter as Next Century's aggressive growth portfolio was hit hard in the wake of the terrorist attacks.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	27.8%	27.6%
Last 1 Year	-22.8	-5.5
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-28.3	-16.7

Recommendation

No action required.

VAM Graph will be drawn for period ending 6/30/02.

PEREGRINE CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Doug Pugh and Tasso Coin **Assets Under Management: $126,673,487**

Investment Philosophy

Peregrine's Small Cap Value investment process begins with the style's proprietary valuation analysis, which is designed to identify the small cap value stocks most likely to outperform. The valuation analysis identifies the most under-priced securities on a sector-by-sector basis. Drawing on thirty years of data, the analysis looks at different combinations of sixty fundamental factors most relevant in each independent sector, to identify stocks that offer significant value relative to the companies' underlying fundamentals The focus of the team's fundamental research is to determine if one or more of the style's "Value Buy Criteria" are present - these include short-term problems, unrecognized assets, take-over potential, and catalysts for change. The portfolio is diversified and sector weights are aligned closely to the benchmark This allows stock selection to drive performance

Staff Comments

Peregrine lagged the benchmark over the past quarter on weak stock selection in technology, utilities, and healthcare offset somewhat by positive selection in energy and industrials A larger than average cash position over the quarter, the result of a contribution in October, also detracted Over the past year, Peregrine has lagged as a result of weak stock selection across several sectors, especially within the industrial and consumer discretionary sectors Peregrine believes stocks in these sectors to be the most attractively valued stocks and believes they will benefit significantly as the economy improves

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	15 4%	18 8%
Last 1 Year	12 6	22 9
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	24 5	27.5

Recommendation

No action required

Vam Graph will be drawn for period ending 6/30/02.

VALENZUELA CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Tom Valenzuela | **Assets Under Management: $73,597,462**

Investment Philosophy

Valenzuela Capital Management (VCM) believes that stock selection and adherence to valuation analysis are the backbone of superior performance. Their investment philosophy is one of risk averse growth. VCM seeks companies undergoing strong rates of change in earnings, cash flow and returns. These companies are experiencing positive changes in revenues, gross and operating margins and financial structure. To be considered for investment, these stocks must sell at or below market valuations. VCM believes that below-market valuations provide downside protection during weak market periods. In strong markets, the portfolios will be driven by both earnings growth and multiple expansion.

Staff Comments

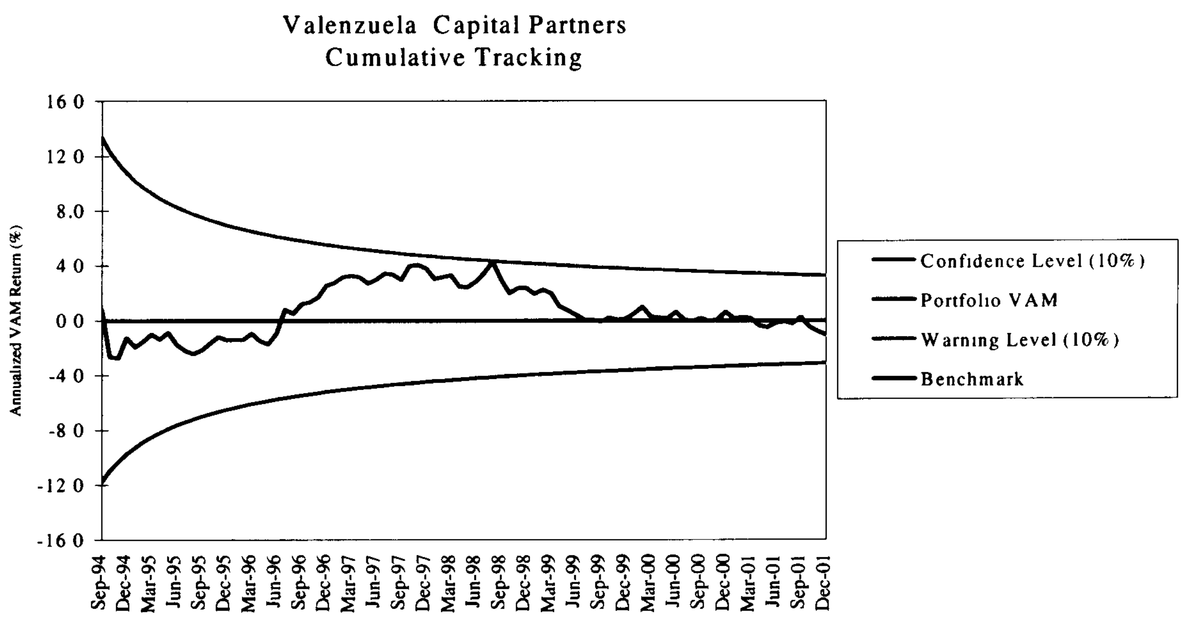
Valenzuela significantly underperformed for the quarter due to a combination of poor stock selection and sector allocations in the financial, healthcare, and consumer discretionary sectors. A larger than average cash position, the result of repositioning the portfolio into some more aggressive stocks during the quarter, also hurt performance. Underperformance over the past year is largely the result of the shortfall experienced this quarter.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.7%	17.9%
Last 1 Year	-7.7	4.5
Last 2 Years	4.8	9.6
Last 3 Years	0.8	7.6
Last 4 Years	0.5	6.3
Last 5 Years	7.2	10.6
Since Inception (4/94)	12.3	13.5

Recommendation

No action required.



VOYAGEUR ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Charles Henderson | **Assets Under Management: $43,472,816**

Investment Philosophy

Voyageur's Large Cap Growth Equity strategy is focused on achieving consistent, superior performance with near-benchmark risk They seek high quality growth companies with exceptional financial strength and proven growth characteristics They believe that sound fundamental analysis reveals those companies with superior earnings achievement and potential. Their screening process identifies companies that over the past five years have had higher growth in sales, earnings, return on equity, earnings stability and have lower debt ratios relative to their benchmark Because they focus on diversification and sector limitations, they believe they can continue to outperform as different investment styles move in and out of favor

Staff Comments

Voyageur lagged the benchmark during the quarter as a result of poor technology stock selection and a large underweight in the sector offset somewhat by positive selection in industrials In technology, Voyageur's holdings underperformed the names in the benchmark. Over the past year Voyageur's underperformance results from negative sector allocations, a residual of their bottom up stock picking process. Stock selection for the year was marginally negative

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	15 4%	18.7%
Last 1 Year	-19 4	-12 0
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-9 8	-12.8

Recommendation

No action required

VAM Graph will be drawn for period ending 6/30/02.

WINSLOW CAPITAL MANAGEMENT

Periods Ending December, 2001

Portfolio Manager: Joseph Docter **Assets Under Management: $147,767,555**

Investment Philosophy

Winslow Capital believes that companies with above average earnings growth rates provide the best opportunities for superior portfolio returns. They look for companies with three to five year records of increased sales and earnings, steady 20-30% growth, low financial leverage with strong cash flow, and significant management ownership. Through internal fundamental research, they calculate projected fundamentals – earnings projections, forecasts of relative P/E ratios, and projected 12-18 month returns – which are used in the valuation model to rank securities. Individual positions do not exceed five percent. The portfolio is diversified across sectors.

Staff Comments

Winslow performed in line with the benchmark during the quarter but has lagged over the past year. During the quarter, strong selection in healthcare was offset by a combination of an underweight and poor stock selection in technology and a larger than average cash position, the result of a contribution in October. Over the past year, poor stock selection in technology, healthcare, and consumer staples caused the portfolio to underperform.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	25.3%	26.9%
Last 1 Year	-6.1	4.6
Last 2 Years	N/A	N/A
Last 3 Years	N/A	N/A
Last 4 Years	N/A	N/A
Last 5 Years	N/A	N/A
Since Inception (7/00)	-10.9	-10.3

Recommendation

No action required.

Vam Graph will be drawn for period ending 6/30/02.

ZEVENBERGEN CAPITAL INC.
Periods Ending December, 2001

Portfolio Manager: Nancy Zevenbergen **Assets Under Management: $132,801,851**

Investment Philosophy

Zevenbergen is an equity growth manager The investment philosophy is based on the belief that earnings drive stock prices while quality provides capital protection. Hence, portfolios are constructed with companies showing above-average earnings growth prospects and strong financial characteristics. They consider diversification for company size, expected growth rates and industry weightings to be important risk control factors Zevenbergen uses a bottom-up fundamental approach to security analysis Research efforts focus on finding companies with superior products or services showing consistent profitability. Attractive buy candidates are reviewed for sufficient liquidity and potential diversification The firm emphasizes that they are not market timers.

Staff Comments

Zevenbergen continues to struggle, lagging the benchmark during the quarter due to poor stock selection in technology telecommunications services, consumer discretionary and healthcare. The firm's underweight in technology also hurt relative performance. Over the past year poor stock selection across these same sectors, concentrated in the first and fourth quarters, caused the shortfall to the benchmark for the past year

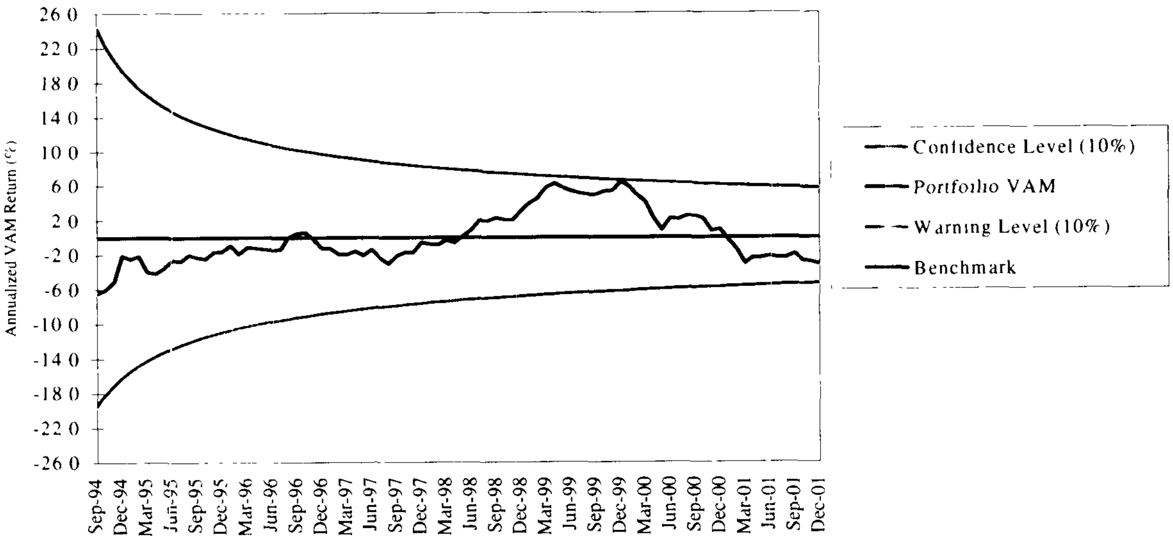
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	13 5%	25.7%
Last 1 Year	-29 0	-3.2
Last 2 Years	-33 8	-10.1
Last 3 Years	-5 2	8.1
Last 4 Years	7 1	13 4
Last 5 Years	11 3	16 2
Since Inception (4/94)	14 0	17 8

Recommendation

No action required

Zevenbergen Capital Management
Cumulative Tracking



STATE BOARD
OF INVESTMENT

Bond
Manager
Evaluation
Reports

Fourth Quarter, 2001

COMBINED RETIREMENT FUNDS
BOND MANAGERS
Periods Ending December, 2001

	Quarter		1 Year		3 Years		5 Years		Since (1) Inception		Market	Pool
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (in millions)	%
Active Managers												
American Express (AMG)	1.1	0.0	8.6	8.4	6.4	6.3	7.7	7.4	7.0	6.9	$795.8	8.8%
Deutsche	0.0	0.0	9.3	8.4					11.0	10.5	$637.6	7 1%
Dodge & Cox	1.1	0.0	10.6	8.4					11.6	10.5	$739.9	8.2%
Metropolitan West	-0.8	0.0	9.8	8.4					9.1	10.5	$295.8	3.3%
Morgan Stanley	1.6	0.0	11.0	8.4	7.0	6 3	7.7	7.4	10.4	10.0	$858.8	9.5%
Western	0.4	0.0	10.6	8.4	7.4	6.3	8.5	7 4	11.2	10.0	$1,246.5	13.8%
Semi-Passive Managers												
BlackRock	-0.2	0.0	8.4	8.4	6 6	6.3	7.8	7.4	7 7	7.4	$1,493.5	16.6%
Goldman	0.5	0.0	8.9	8.4	6.7	6.3	7.6	7.4	7.1	6.8	$1,461.1	16.2%
Lincoln	0.3	0.0	8.7	8.4	6.5	6.3	7.6	7.4	8.6	8.5	$1,473.0	16.4%
											$9,002.0	**100.0%**
									Since 7/1/84			
Current Aggregate	0.5	0.0	9.4	8.4	6.7	6.3	7.8	7.4	10.5	10.0		
Historical Aggregate (2)	**0.5**	**0.0**	**9.3**	**8.4**	**6.7**	**6.3**	**7.7**	**7.4**	**10.0**	**9.9**		
Lehman Aggregate (3)		0.0		8.4		6.3		7.4		9.7		

(1) Since retention by the SBI. Time period varies for each manager.
(2) Includes performance of terminated managers.
(3) Prior to July 1994, this index reflects the Salomon BIG.

AMERICAN EXPRESS ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Jim Snyder **Assets Under Management: $795,786,707**

Investment Philosophy

American Express manages portfolios using a top-down approach culminating with in-depth fundamental research and credit analysis. Five portfolio components are actively managed: duration, maturity structure, sector selection, industry emphasis, and security selection. Duration and maturity structure are determined by the firm's economic analysis and interest rate outlook. This analysis also identifies sectors and industries expected to produce the best risk adjusted return. In-depth fundamental research and credit analysis combined with proprietary valuation disciplines is used to identify attractive individual securities. American Express was retained by the SBI in July 1993.

Staff Comments

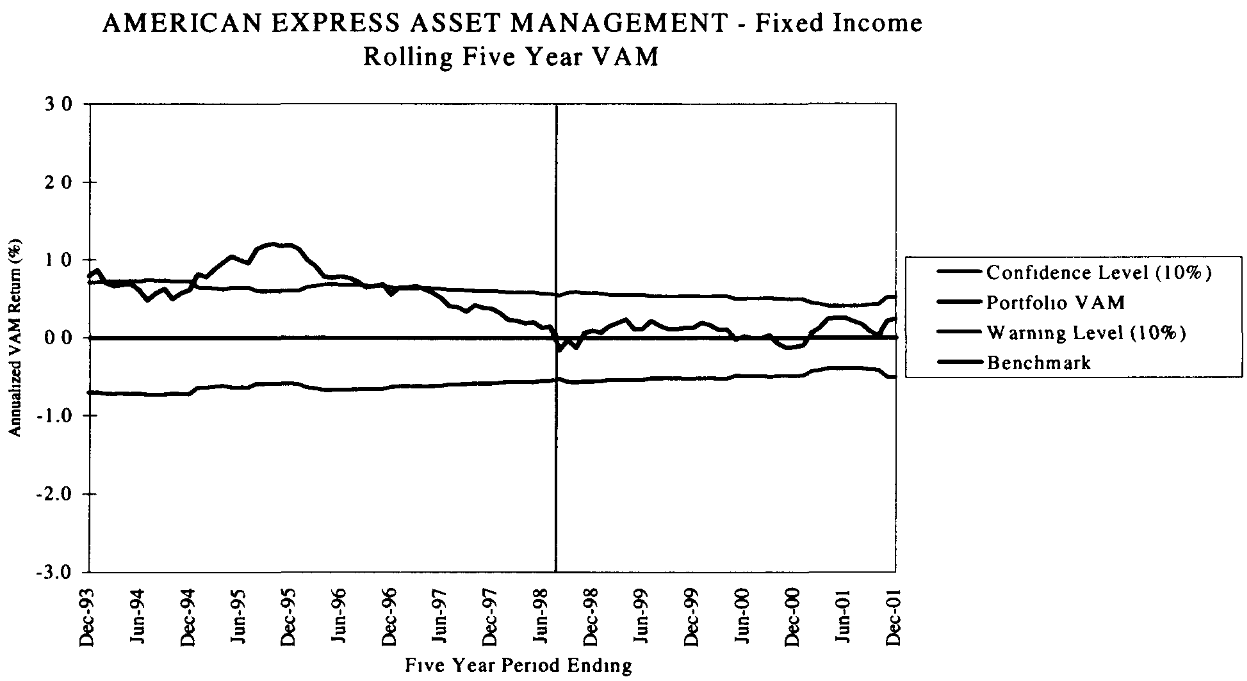
American Express outperformed during the quarter due to the portfolio's overweight to the corporate bond sector and a moderately defensive duration position. Within the corporate sector, the portfolio's allocation to high yield securities was particularly beneficial. Over the last year, the portfolio benefited from a corporate bond overweight, while the defensive duration position detracted from performance as yields generally declined.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.1%	0.0%
Last 1 year	8.6	8.4
Last 2 years	10.1	10.0
Last 3 years	6.4	6.3
Last 4 years	7.1	6.9
Last 5 years	7.7	7.4
Since Inception (7/93)	7.0	6.9

Recommendations

No action required.



Note: Area to the left of the vertical line includes performance prior to retention by the SBI

DEUTSCHE ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Warren Davis | **Assets Under Management: $637,581,877**

Investment Philosophy

Deustche believes there are significant pricing inefficiencies inherent in bond markets and that diligent credit analysis, security structure evaluation, and relative value assessment can be used to exploit these inefficiencies. The firm avoids interest rate forecasting and sector rotation because they believe these strategies will not deliver consistent out performance versus the benchmark over time. The firm's valued added is derived primarily from individual security selection. Portfolio managers and analysts research bonds within their sector of expertise and construct portfolios from the bottom-up, bond by bond. Sector weightings are a byproduct of the bottom-up security selection Deutsche was retained by the SBI in February 2000.

Staff Comments

Deutsche's performance for the quarter matched the benchmark return The portfolio's gains from an overweight to intermediate-term corporate bonds were offset by weak performance in the Agency sector, in which the portfolio was also overweight. Deutsche's planned acquisition of Zurich Scudder Investments continued to move ahead during the quarter Staff will continue to monitor the transaction going forward

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0 0%	0.0%
Last 1 year	9 3	8 4
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	11 0	10.5

Recommendations

No action required.

Tracking graph will be created for period ending 3/31/02.

DODGE & COX INVESTMENT MANAGERS
Periods Ending December, 2001

Portfolio Manager: Dana Emery | **Assets Under Management: $739,872,781**

Investment Philosophy

Dodge & Cox manages a high quality, diversified portfolio of securities that are selected through fundamental analysis. The firm believes that by combining fundamental research with a long-term investment horizon it is possible to uncover inefficiencies in market sectors and individual securities. The firm combines this fundamental research with a disciplined program of risk analysis. To seek superior returns over the long-term, Dodge & Cox emphasizes sector and security selection, strives to build portfolios that have a higher yield than the broad bond market, and analyzes portfolio and individual security risk. Dodge & Cox was retained by the SBI in February 2000.

Staff Comments

Staff met with Dodge & Cox in our St. Paul offices during the quarter to review the portfolio and discuss the firm's investment philosophy for the benefit of new staff. Dodge & Cox's outperformance over the quarter was the result of a below benchmark duration, and a significant overweight to the corporate sector. Over the past year, the portfolio benefited from an overweight to Corporates, an allocation to Treasury inflation-protected securities (TIPS) and from positive issue selection within the corporate and mortgage sectors.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.1%	0.0%
Last 1 year	10.6	8.4
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	11.6	10.5

Recommendations

No action required.

Tracking graph will be created for period ending 3/31/02.

METROPOLITAN WEST ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Tad Rivelle **Assets Under Management: $295,842,865**

Investment Philosophy

MWAM manages portfolios through the application of five value-added strategies duration shifts, yield curve management, sector and security selection, and buy/sell execution strategies. MWAM formulates investment strategies based on their long-term fundamental economic outlook, which is debated and revised quarterly Duration is limited to a one-year band around the benchmark and is determined by the economic outlook The economic outlook combined with quantitative analysis determines yield curve strategies. Sector allocations are determined based on relative value comparisons and the economic outlook MWAM employs proprietary models and credit analysis to select individual securities Metropolitan West was retained by the SBI in February 2000

Staff Comments

Staff met with MetWest in our St. Paul offices during the quarter to review the portfolio and discuss the firm's investment philosophy for the benefit of new staff MetWest's performance during the quarter suffered from issue-specific volatility within the corporate sector, particularly within the auto and insurance sectors Conseco holdings continued to be a source of negative volatility as concerns about the company's businesses persisted during the quarter Over the past year, MetWest's performance benefited from a significant corporate sector overweight

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	-0 8%	0 0%
Last 1 year	9 8	8.4
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	9 1	10.5

Recommendations

No action required

Tracking graph will be created for period ending 3/31/02.

MORGAN STANLEY DEAN WITTER INVESTMENT MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Tom Bennett **Assets Under Management: $858,803,409**

Investment Philosophy

MSDW focuses on four key portfolio decisions: interest-rate sensitivity, yield-curve exposure, credit quality, and prepayment risk. The firm is a value investor, purchasing securities they believe are relatively cheap and holding them until relative values change or until other securities are identified which are better values. In developing interest-rate strategy, the firm relies on value-based criteria to determine when markets are offering generous compensation for bearing interest-rate risk, rather than trying to anticipate interest rates. Value is added in the corporate sector by selecting the cheapest bonds and controlling credit risk through diversification. MSDW has developed significant expertise in mortgage securities, which are often used to replace U.S. Treasuries in portfolios. Morgan Stanley was retained by the SBI in July 1984.

Staff Comments

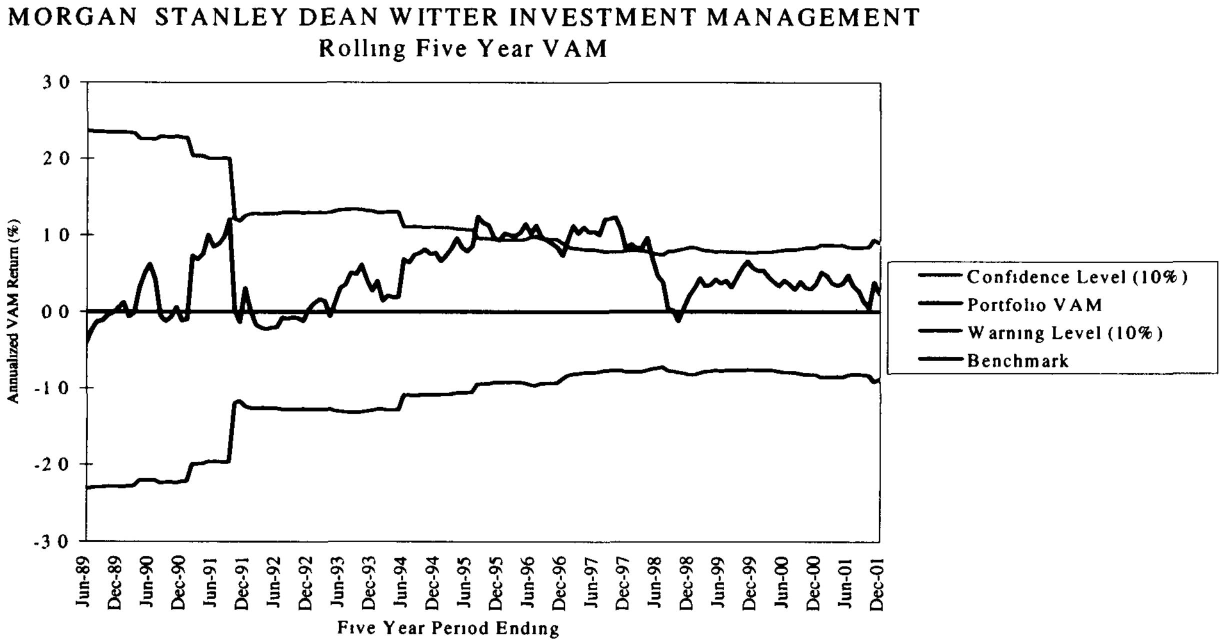
Staff met with Morgan Stanley in our St. Paul offices during the quarter to review the portfolio and discuss the firm's investment philosophy for the benefit of new staff. Morgan Stanley outperformed the benchmark over the quarter due to a defensive duration position and a significant overweight to corporate bonds. Over the full year, the portfolio benefited as corporate bond spreads narrowed and mortgages performed well despite rising prepayments.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.6%	0.0%
Last 1 year	11.0	8.4
Last 2 years	11.0	10.0
Last 3 years	7.0	6.3
Last 4 years	7.1	6.9
Last 5 years	7.7	7.4
Since Inception (7/84)	10.4	10.0

Recommendations

No action required.



WESTERN ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Ken Leech | **Assets Under Management: $1,246,528,777**

Investment Philosophy

Western emphasizes the use of multiple strategies and active sector and issue selection, while constraining interest rate risk. Multiple strategies are proportioned so that results do not depend on one or two opportunities This approach adds consistent value over time and can reduce volatility. Long term value investing is Western's fundamental approach. In making their sector decision, the firm seeks out the greatest long-term value by analyzing all fixed income market sectors and their economic expectations. Individual issues are identified based on relative credit strength, liquidity, issue structure, event risk, and market valuation. Western believes that successful interest rate forecasting is extremely difficult and consequently keeps portfolio duration within a narrow band around the benchmark. Western was retained by the SBI in July 1984

Staff Comments

Western Asset outperformed during the quarter as the result of an overweight to corporate bonds and positive selection within the mortgage sector. The portfolio's allocation to high yield securities added 18 basis points on the quarter Detracting from performance was the portfolio's longer duration relative to the index and an allocation to TIPS; both factors hurt performance as yields rose during the quarter. Over the past year, Western's long duration bet combined with an overweight to the corporate sector led to significant outperformance

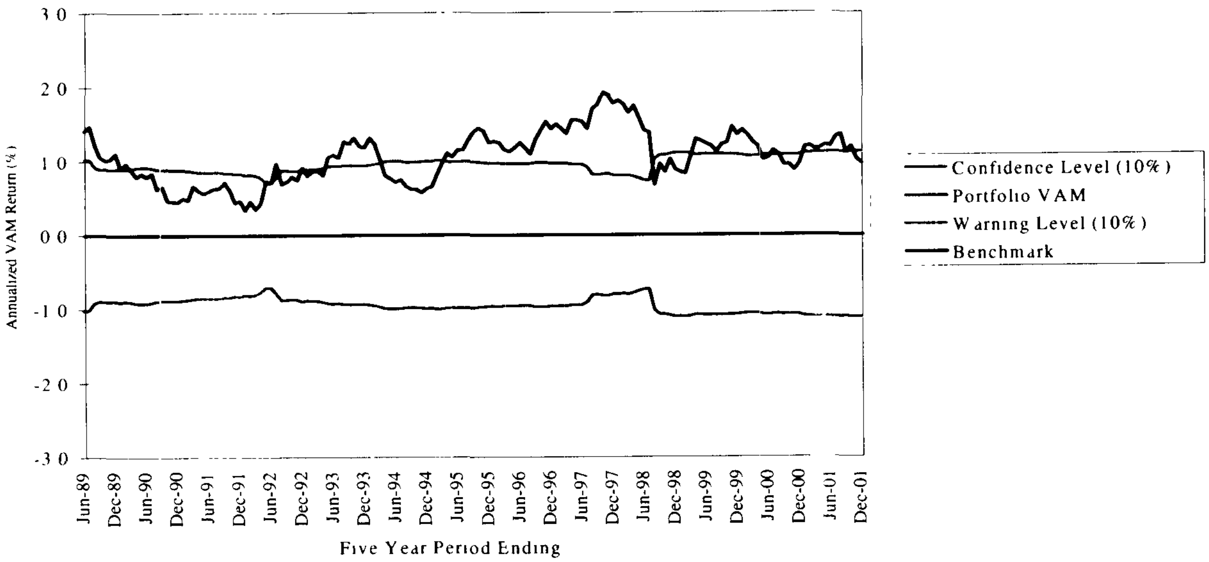
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0 4%	0 0%
Last 1 year	10.6	8.4
Last 2 years	11 1	10.0
Last 3 years	7 4	6.3
Last 4 years	7.5	6.9
Last 5 years	8 5	7.4
Since Inception (7/84)	11 2	10.0

Recommendations

No action required

WESTERN ASSET MANAGEMENT
Rolling Five Year VAM



BLACKROCK FINANCIAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Keith Anderson **Assets Under Management: $1,493,453,172**

Investment Philosophy

BlackRock manages an enhanced index portfolio closely tracking the Lehman Aggregate. The firm's enhanced index strategy is a controlled-duration, sector rotation style, which can be described as active management with tighter duration, sector, and quality constraints. BlackRock seeks to add value through: (i) controlling portfolio duration within a narrow band relative to the benchmark, (ii) relative value sector/sub-sector rotation and security selection, (iii) rigorous quantitative analysis to the valuation of each security and of the portfolio as a whole, (iv) intense credit analysis and review, and (v) the judgment of experienced portfolio managers. Advanced risk analytics measure the potential impact of various sector and security strategies to ensure consistent value added and controlled volatility. BlackRock was retained by the SBI in April 1996.

Staff Comments

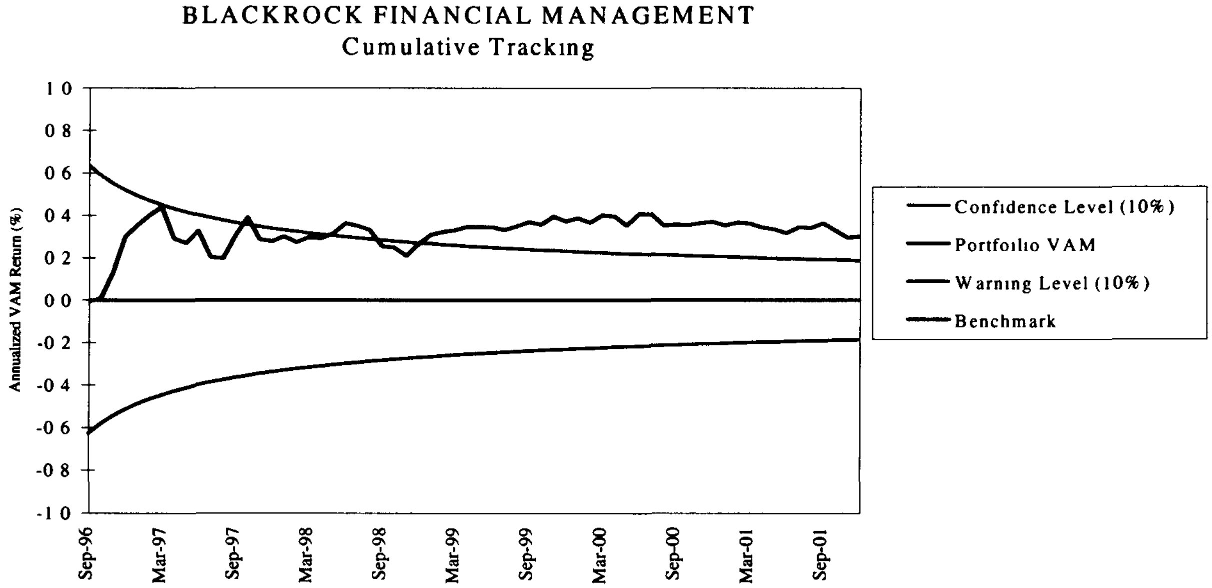
Blackrock underperformed the benchmark over the quarter as the result of an underweight to the corporate sector and an overweight to the mortgage sector, which lagged Treasuries.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	-0.2%	0.0%
Last 1 year	8.4	8.4
Last 2 years	10.2	10.0
Last 3 years	6.6	6.3
Last 4 years	7.2	6.9
Last 5 years	7.8	7.4
Since Inception (4/96)	7.7	7.4

Recommendation

No action required.



GOLDMAN SACHS ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Jonathon Beinner **Assets Under Management: $1,461,140,216**

Investment Philosophy

Goldman manages an enhanced index portfolio closely tracking the Lehman Aggregate. Goldman's process can be viewed as active management within a very risk-controlled framework. The firm relies primarily on sector allocation and security selection strategies to generate incremental return To a lesser degree, term structure strategies are also implemented. Goldman combines long-term strategic investment tilts with short-term tactical trading opportunities. Strategic tilts are based on fundamental and quantitative sector research and seek to optimize the long-term risk/return profile of portfolios. Tactical trades between sectors and securities within sectors are implemented to take advantage of short-term market anomalies Goldman was retained by the SBI in July 1993.

Staff Comments

Goldman outperformed during the quarter as the result of strong issue selection within the mortgage sector and an overweight to corporate bonds with an emphasis on lower quality (A/BBB) The portfolio's longer duration detracted from performance, although this affect was muted by the modest size of the bet. Over the past year, mortgage and asset-backed securities exposure contributed to outperformance, as did an overweight to corporate bonds Goldman's duration strategy detracted from performance over the year.

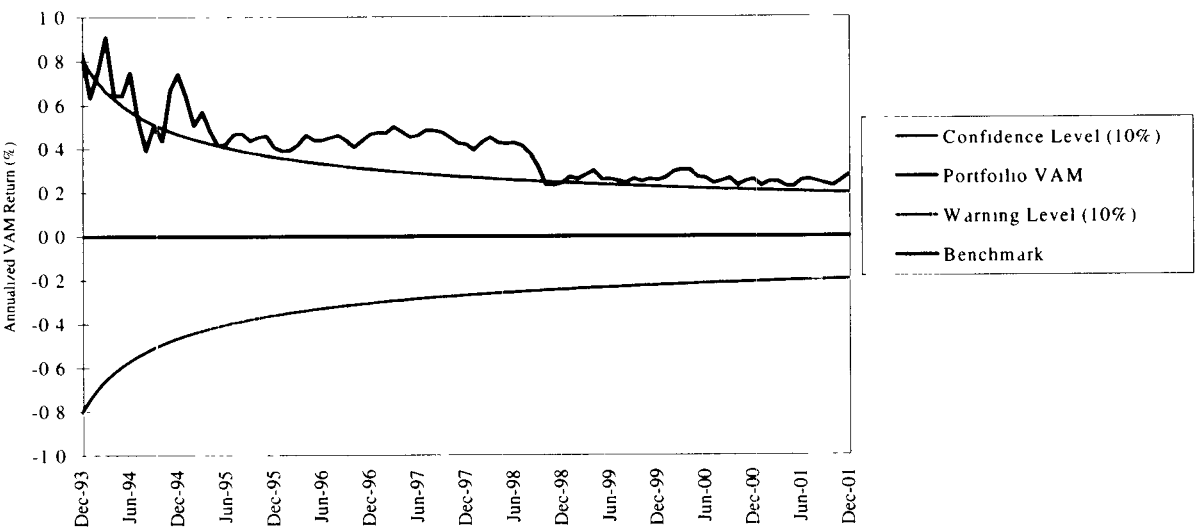
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0.5%	0 0%
Last 1 year	8 9	8.4
Last 2 years	10 4	10.0
Last 3 years	6 7	6 3
Last 4 years	7.0	6.9
Last 5 years	7 6	7 4
Since Inception (7/93)	7.1	6.8

Recommendations

No action required

GOLDMAN SACHS
Cumulative Tracking



LINCOLN CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Andrew Johnson **Assets Under Management: $1,473,007,254**

Investment Philosophy

Lincoln manages an enhanced index portfolio closely tracking the Lehman Aggregate. Lincoln's process relies on a combination of quantitative tools and active management judgment. Explicit quantification and control of risks are at the heart of their process. Lincoln uses proprietary risk exposure measures to analyze 25 interest rate factors, and over 30 spread-related factors. For each interest rate factor, the portfolio is very closely matched to the index to ensure that the portfolio earns the same return as the index for any change in interest rates. For each spread factor, the portfolio can deviate slightly from the index as a means of seeking value-added. Setting target active risk exposures that must fall within pre-established maximums controls risk. To control credit risk, corporate holdings are diversified across a large number of issues. Lincoln was retained by the SBI in July 1988.

Staff Comments

Lincoln outperformed over the quarter as the result of an overweight to the corporate sector and good issue selection within the sector. In addition, Lincoln's strategic overweight to asset-backed securities benefited the portfolio. Over the year, sources of value added were similar to the fourth quarter, as Corporates and Asset-backeds outperformed Treasuries.

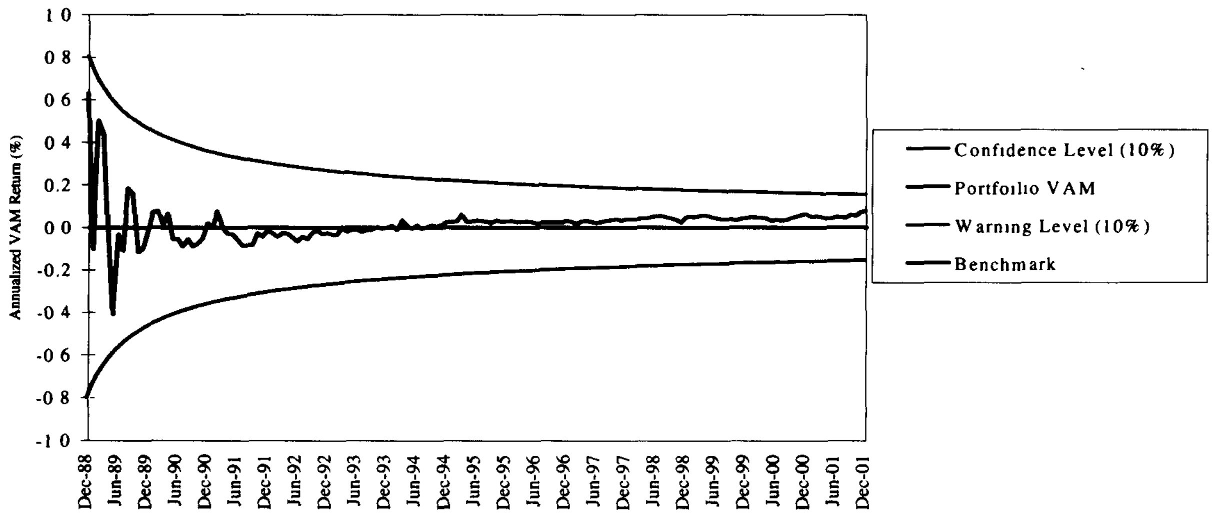
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0.3%	0.0%
Last 1 year	8.7	8.4
Last 2 years	10.3	10.0
Last 3 years	6.5	6.3
Last 4 years	7.1	6.9
Last 5 years	7.6	7.4
Since Inception (7/88)	8.6	8.5

Recommendations

No action required.

LINCOLN CAPITAL MANAGEMENT - Fixed Income
Cumulative Tracking



STATE BOARD OF INVESTMENT

International Manager Evaluation Reports

Fourth Quarter, 2001

COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Periods Ending December, 2001

	Quarter Actual %	Quarter Bmk %	1 Year Actual %	1 Year Bmk %	3 years Actual %	3 years Bmk %	5 Years Actual %	5 Years Bmk %	Since (1) Inception Actual %	Since (1) Inception Bmk %	Market Value (in millions)	Pool %
Active EAFE												
American Express	4.5	6.8	-29.1	-21.6					-25.0	-17.7	$453.8	8.3%
Blairlogie	9.7	6.8	-22.5	-21.6					-18.9	-17.7	$147.4	2.7%
Brinson	6.9	6.8	-15.6	-21.6	1.2	-5.2	5.3	0.8	7.8	5.3	$575.0	10.5%
Invesco	6.2	6.8	-15.0	-21.6					-9.8	-17.7	$522.0	9.5%
Marathon	6.1	7.5	-14.2	-18.5	3.6	-3.0	3.1	0.2	5.7	2.7	$512.2	9.3%
Montgomery	6.6	6.8	-30 8	-21.6					-28.7	-17 7	$236.0	4 3%
T. Rowe Price	8.6	6 8	-21.1	-21.6	-3.1	-5.2	1.6	0.8	5.1	3.2	$495.0	9 0%
Zurich Scudder	6.1	6.8	-24.6	-21.6	-3.3	-5.2	1.5	0.8	5.2	3.2	$381.9	7.0%
Active Emerging Markets												
Alliance Capital	29.3	28.0							-18.3	-13.4	$108.7	2.0%
Capital International	32.5	28 0							-18.9	-13.4	$108.3	2.0%
Montgomery	27.8	28.0	-4.7	-1.5	5.1	4.4	-6.3	-5.6	-5.3	-5.6	$115.9	2.1%
Morgan Stanley	29.5	28.0							-14.7	-13.4	$105.2	1.9%
Schroders	28.5	28.0							-18.0	-13.4	$110.6	2.0%
Passive EAFE												
State Street	6.7	6.8	-21.5	-21.6	-4.9	-5.2	1 1	0.8	6.1	5.8	$1,622.5	29.5%
									Since 10/1/92			
Equity Only (2) (4)	8.5	8.2	-19.8	-20.1	-3.0	-4.1	0.7	0.0	6.2	5.3	$5,494.4	100.0%
Total Program (3) (4)	**8.5**	**8.2**	**-19.8**	**-20.1**	**-2.9**	**-4.1**	**1.2**	**0.0**	**6.6**	**5.3**	**$5,494.4**	

(1) Since retention by the SBI. Time period varies for each manager.
(2) Equity managers only. Includes impact of terminated managers.
(3) Includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00.
(4) As of October 1, 2001 all international benchmarks being reported are the MSCI Provisional indices. The overall international benchmark is EAFE-Free plus Emerging Markets Free (EMF) The weighting of each index fluctuates with market capitalization. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE-Free/13% Emerging Markets Free. On 5/1/96, the portfolio began transitioning from 100% EAFE to the 12/31/96 fixed weights. 100% EAFE-Free prior to 5/1/96.

AMERICAN EXPRESS ASSET MANAGEMENT INTERNATIONAL, INC.
Periods Ending December, 2001

Portfolio Manager: Mark Fawcett **Assets Under Management: $453,823,241**

Investment Philosophy

American Express Asset Management's (AEAM) objective is to identify inefficiencies in market value at the regional, country and stock level. Their investment process concentrates on identifying non-consensus views that they can exploit. AEAM's core international equity approach is a blend of top-down and bottom up styles with an emphasis on large cap growth stocks. They start the decision making process with the development of their geopolitical and macroeconomic outlook. The bottom-up stage of their process begins with real-time relative valuation comparisons of the stocks in their investable universe. The most attractively priced stocks then go through in depth fundamental analysis.

Staff Comments

Staff met with Peter Lamaison, CEO, Mark Burgess, Deputy-CIO, and Claire Barnes, portfolio manager, at SBI offices during the period to discuss performance and changes to the organization. As of the end of March 2002, Peter Lamaison will be retiring. John O'Brian will be named CEO as of April 1, 2002 and Mark Fawcett will remain CIO. Gavin Corr, PM for Europe, will be leaving the organization and his role will be assumed by Mark Burgess.

The portfolio underperformed during the quarter due to an underweight in technology and telecom, which rallied, and due to negative stock selection in financials, consumer staples in Europe, and industrials in Japan. Negative stock selection overall, particularly in Europe, has caused the underperformance for the year, which on the whole has not been a favorable environment for growth-style investing.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	4.5%	6.8%
Last 1 year	-29.1	-21.6
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	-25.0	-17.7

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2002.

BLAIRLOGIE CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: James Smith **Assets Under Management: $147,431,627**

Investment Philosophy

Blairlogie is primarily a top-down manager, but incorporates bottom-up stock selection. They seek to combine qualitative and quantitative judgment, but believe that objective, measurable facts must always be the starting point for making sound investment decisions Blairlogie has developed country and sector models which analyze a broad-based collection of current and historical data The models rank countries and sectors according to their overall score on variables which are grouped into five categories including Value, Macro, Earnings, Monetary and Technical. Regional analysts then select the best companies based on fundamental analysis The objective of the process is to add value over the benchmark consistently in any market environment while controlling risk and volatility Blairlogie's portfolio is broadly diversified in developed markets both by country and by sector, and has a large-cap emphasis

Staff Comments

Staff met with James Smith and Gavin Dobson at SBI offices during the period to discuss performance and the progress of their merger with Brittanic Asset Management (BAM), which was finalized on December 3rd, 2001 As of that date, a controlling interest in Blairlogie was sold to BAM They will acquire the remaining shares as of June 2002, when Blairlogie's name will change to Brittanic Asset Management. Blairlogie is now integrating their staff with the Brittanic team in their Glasgow office. The SBI's portfolio however, will continue to be managed by James Smith using the same investment strategy he developed at Blairlogie. Staff will monitor the progress of the integration of these organizations.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9 7%	6.8%
Last 1 year	-22.5	-21 6
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	-18 9	-17 7

Recommendations

No action required

VAM Graph will be drawn for period ending 3/31/2002.

BRINSON PARTNERS
Periods Ending December, 2001

Portfolio Manager: Thomas Madsen | **Assets Under Management: $575,046,938**

Investment Philosophy

Brinson is a fundamental, long-term, value-oriented investor. Brinson uses a proprietary valuation model to rank the relative attractiveness of individual markets based on fundamental considerations. Inputs include forecasts for growth, inflation rates, risk premiums and foreign exchange movements. Quantitative tools are used to monitor and control portfolio risk, while qualitative judgments from the firm's professionals are used to determine final allocations. Brinson establishes an allocation range around the target index to define the limits of their exposure to individual countries and to assure diversification.

Brinson utilizes currency equilibrium bands to determine which currencies are over or under valued. The firm will hedge to control the potential risk for real losses from currency depreciation.

Staff Comments

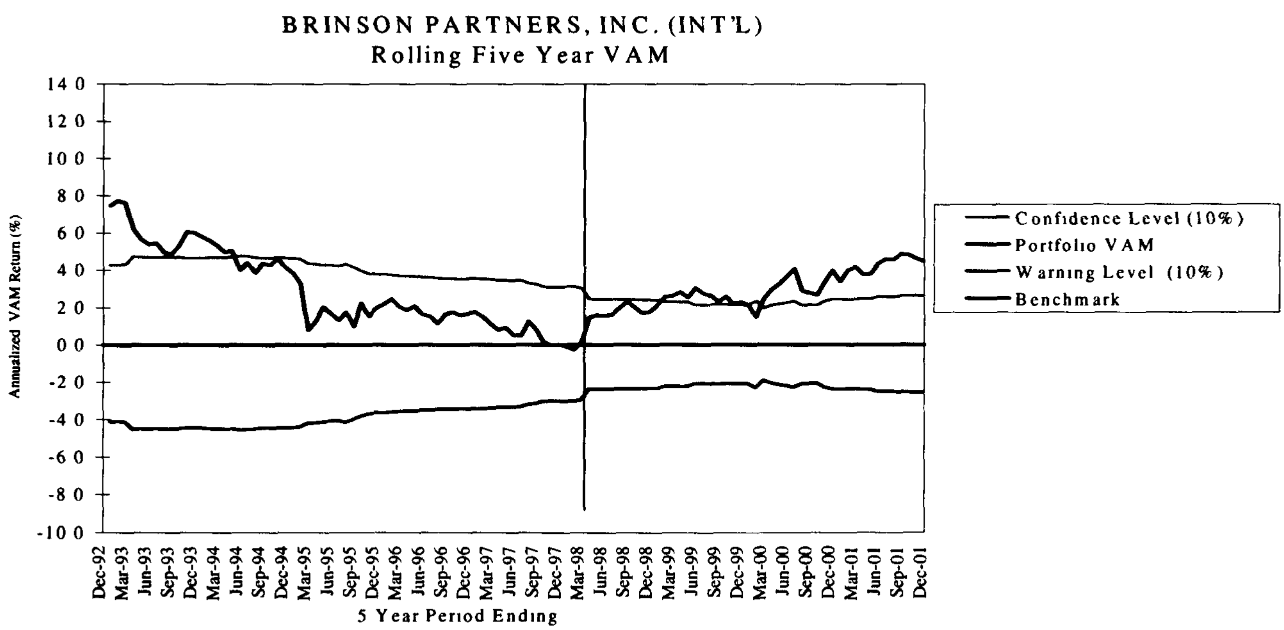
No comments at this time.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.9%	6.8%
Last 1 year	-15.6	-21.6
Last 2 years	-8.9	-18.0
Last 3 years	1.2	-5.2
Last 4 years	5.4	0.6
Last 5 years	5.3	0.8
Since Inception (4/93)	7.8	5.3

Recommendations

No action required.



Note Area to the left of vertical line includes performance prior to retention by the SBI

INVESCO GLOBAL ASSET MANAGMENT
Periods Ending December, 2001

Portfolio Manager: Erik Granade **Assets Under Management: $521,974,836**

Investment Philosophy

INVESCO believes they can add value by identifying and investing in companies whose share price does not reflect the proven and sustainable growth of the company's earnings and assets They also believe that a systematic process that identifies mis-valued companies, combined with a consistently applied portfolio design process, can control the predictability and consistency of returns Portfolios are constructed on a bottom-up basis; they select individual companies rather than countries, themes, or industry groups. This is the first of four cornerstones of their investment approach Secondly, they conduct financial analysis on a broad universe of non-U S companies whose key financial data is adjusted to be comparable across borders and currencies. Third, Invesco believes that using local investment professionals enhances fundamental company research Finally, they manage risk and assure broad diversification relative to clients' benchmarks through a statistics-based portfolio construction approach rather than resorting to country or industry constraints

Staff Comments

No comments at this time

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.2%	6 8%
Last 1 year	-15.0	-21.6
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	-9 8	-17 7

Recommendations

No action required

VAM Graph will be drawn for period ending 3/31/2002.

MARATHON ASSET MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: William Arah **Assets Under Management: $512,192,780**

Investment Philosophy

Marathon uses a blend of flexible, qualitative disciplines to construct portfolios which exhibit a value bias. Style and emphasis will vary over time and by market, depending on Marathon's perception of lowest risk opportunity. Since they believe that competition determines profitability, Marathon is attracted to industries where the level of competition is declining and they will hold a sector position as long as the level of competition does not increase. At the stock level, Marathon tracks a company's competitive position versus the attractiveness of their products or services and attempts to determine whether the company is following an appropriate reinvestment strategy for their current competitive position.

Staff Comments

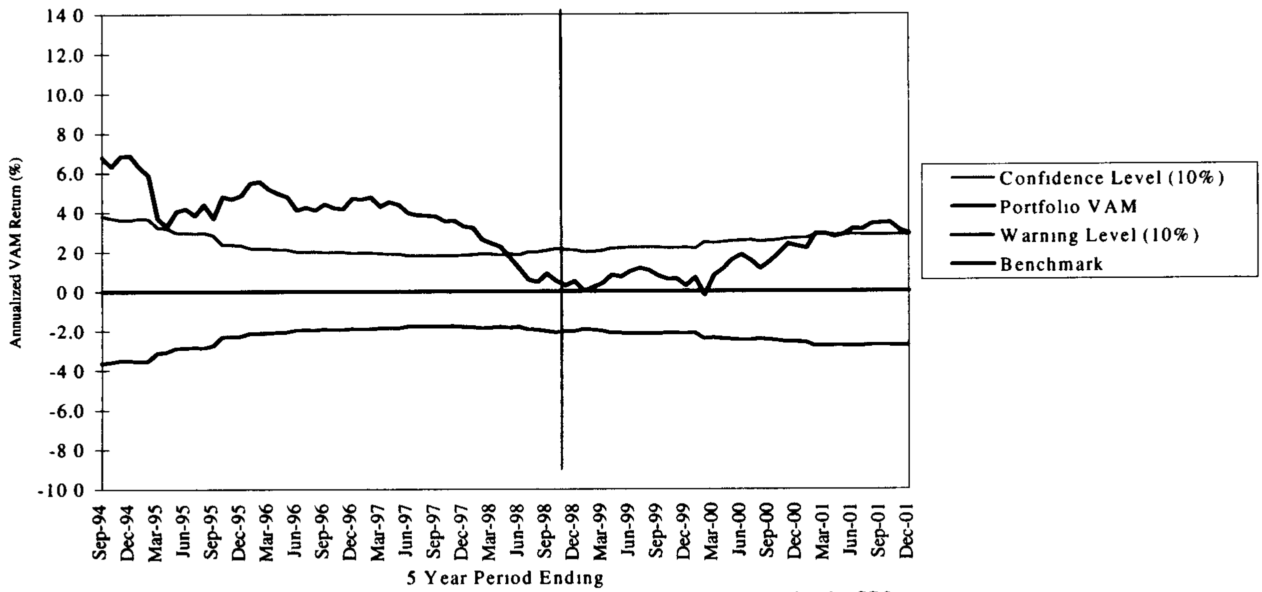
Marathon's portfolio underperformed during the quarter due to its underweight in the technology and telecom sectors, which outperformed. The portfolio's mid-cap and domestically oriented holdings also detracted from performance in Japan, where large-cap exporters drove returns. The portfolio is ahead of its custom benchmark over all longer time periods.

Quantitative Evaluation

	Actual	Custom Benchmark
Last Quarter	6.1%	7.5%
Last 1 year	-14.2	-18.5
Last 2 years	-9.4	-15.3
Last 3 years	3.6	-3.0
Last 4 years	4.9	1.1
Last 5 years	3.1	0.2
Since Inception (11/93)	5.7	2.7

Recommendations

No action required.



Note Area to the left of vertical line includes performance prior to retention by the SBI.

MONTGOMERY ASSET MANAGEMENT, LLC (EAFE)
Periods Ending December, 2001

Portfolio Manager: Oscar Castro **Assets Under Management: $235,984,056**

Investment Philosophy

Montgomery manages a developed markets portfolio for the SBI, in addition to an emerging portfolio. Montgomery believes that a consistent process, centered on accountability, sector specialization and primary, original research provides a sustainable edge in international equity investing. Their international equity investing combines thorough sector and country research with a disciplined bottom-up stock selection process to identify securities with long-term projected earnings growth, attractive valuation versus applicable peers, positive business momentum and the potential to achieve minimum required returns.

Staff Comments

Staff visited Montgomery's San Fransisco office to review the organizational changes and discuss performance. During the quarter, three additional analysts from the EAFE product left to join other organizations. The portfolio narrowly underperformed during the quarter due to holdings in finance and retail. Vestas, a Danish industrial holding, also contributed negatively. The portfolio has underperformed over the one-year time period, which on the whole has not been a favorable environment for growth-style investing. Montgomery is continuing to invest in growth companies using bottom-up stock selection. Staff is concerned by the organizational changes and is monitoring the firm very closely.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.6%	6.8%
Last 1 year	-30.8	-21.6
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/00)	-28.7	-17.7

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2002.

T. ROWE PRICE INTERNATIONAL, INC.
Periods Ending December, 2001

Portfolio Manager: David Warren **Assets Under Management: $494,963,892**

Investment Philosophy

T. Rowe Price believes that world stock markets are segmented. The firm attempts to add value by identifying and exploiting the resulting pricing inefficiencies. In addition, they believe that growth is frequently under priced in the world markets. T. Rowe Price establishes its economic outlook based largely on interest rate trends and earnings momentum. The portfolio management team then assesses the country, industry and currency profile for the portfolio. Within this framework, stock selection is the responsibility of regional portfolio managers. Stocks are selected using fundamental analysis that emphasizes companies with above-market earnings growth at reasonable valuations. Information derived from the stock selection process is a key factor in country allocation as well.

Staff Comments

The portfolio has outperformed the benchmark over all time periods. During the quarter, the portfolio's underweight in Japan and overweight in technology, along with positive stock selection in Switzerland, the Netherlands and Hong Kong contributed positively to performance.

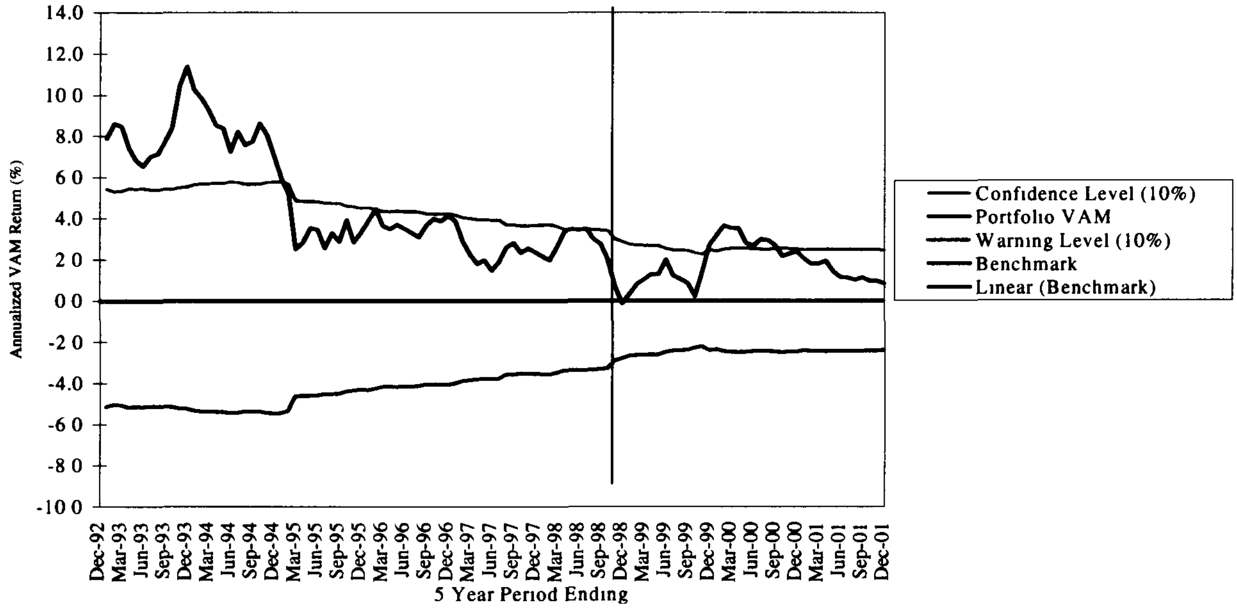
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.6%	6.8%
Last 1 year	-21.1	-21.6
Last 2 years	-17.9	-18.0
Last 3 years	-3.1	-5.2
Last 4 years	1.2	0.6
Last 5 years	1.6	0.8
Since Inception (11/93)	5.1	3.2

Recommendations

No action required.

T. ROWE PRICE INTERNATIONAL
Rolling Five Year VAM



Note. Area to the left of vertical line includes performance prior to retention by the SBI.

ZURICH SCUDDER INVESTMENTS
Periods Ending December, 2001

Portfolio Manager: Theresa Gusman **Assets Under Management: $381,908,028**

Investment Philosophy

Zurich Scudder believes that successful international investing requires knowledge of each country's economy, political environment and financial market obtained through continuous and thorough research of individual markets and securities The investment process focuses on three areas. country analysis, global themes and unique situations. Ideas from all three areas are integrated into Zurich Scudder's research universe. Using their own internal research, the firm seeks companies with potential for earnings and dividend growth, strong or improving balance sheets, superior management, conservative accounting practices and dominant position in growing industries.

Staff Comments

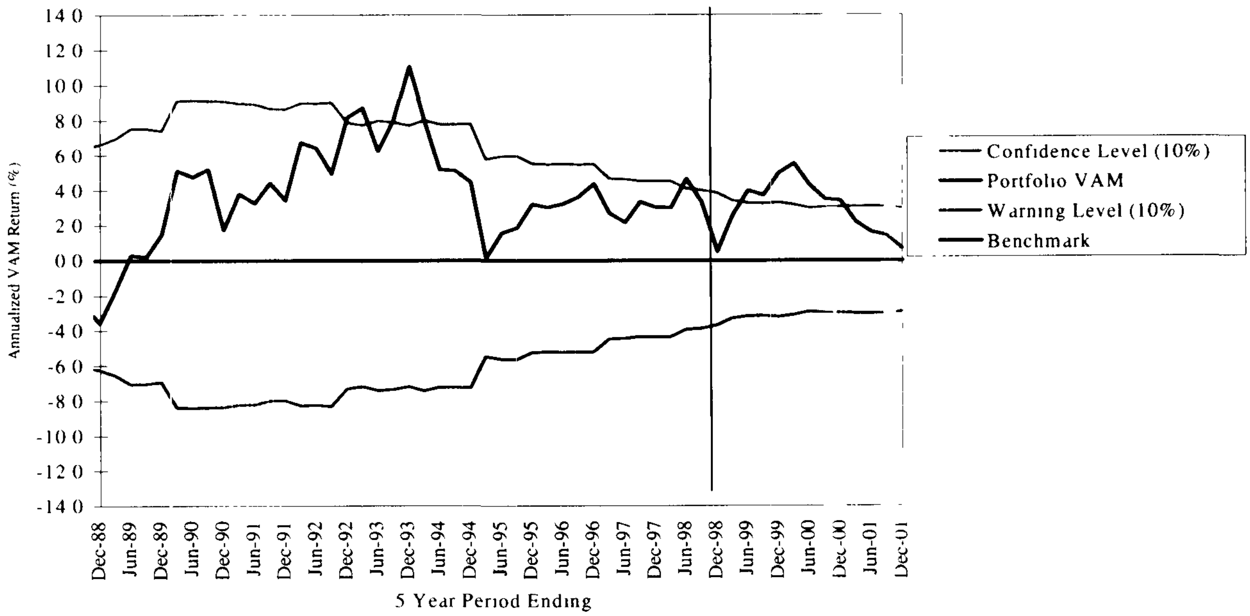
On December 4, 2001, Zurich Financial and Deutsche Bank announced that Deutsche will acquire 100% of Zurich Scudder Investments. The transaction is expected to occur in the first half of 2002. As of February 1st, 2002, the SBI's portfolio will be managed by Irene Chang, who previously managed our portfolio. After the deal closes, one Scudder PM and three Deutsche PM's will join her on the Portfolio Selection Team. This team will relocate to London, and will be responsible for all retail and institutional international equity products. The newly reorganized global research platform of analysts will conduct bottom-up research, but the process has not yet been completely laid out. Staff is concerned by the significant changes to the organization and process and feels there is the risk of a negative impact on the SBI's portfolio.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.1%	6.8%
Last 1 year	-24.6	-21 6
Last 2 years	-20 6	-18 0
Last 3 years	-3.3	-5.2
Last 4 years	0 1	0.6
Last 5 years	1.5	0.8
Since Inception (11/93)	5.2	3.2

Recommendations

Staff recommends termination.



Note Area to the left of vertical line includes performance prior to retention by the SBI

ALLIANCE CAPITAL MANAGEMENT INTERNATIONAL
Periods Ending December, 2001

Portfolio Manager: Edward Baker **Assets Under Management: $108,670,428**

Investment Philosophy

Alliance employs a growth style of investment management. They believe that fundamental research-driven stock selection, structured by industries within regions, will produce superior investment performance. Their strategy emphasizes bottom-up, large capitalization stock selection. Country and industry exposures are a by-product of stock selection. Alliance looks for companies with the best combination of forward-looking growth and valuation attractiveness.

Staff Comments

No comments at this time.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	29.3	28.0
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/01)	-18.3	-13.4

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2003.

CAPITAL INTERNATIONAL, INC.
Periods Ending December, 2001

Portfolio Manager: Shaw Wagner **Assets Under Management: $108,293,963**

Investment Philosophy

Capital International s philosophy is value-oriented, as they focus on identifying the difference between the underlying value of a company and the price of its securities in its home market. Capital International's basic, fundamental, bottom-up approach is blended with macroeconomic and political judgments on the outlook for economies, industries, currencies and markets The team of portfolio managers and analysts each select stocks for the portfolio based on extensive field research and direct company contact

Staff Comments

Staff visited Capital International's West Los Angeles office to review the investment process and discuss performance The portfolio significantly outperformed during the quarter due to technology holdings in Korea and Taiwan An overweight position in Brazil and an underweight position in South Africa and Malaysia also contributed positively.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	32 5	28.0
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/01)	-18.9	-13 4

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2003.

MONTGOMERY ASSET MANAGEMENT, LLC (EMF)
Periods Ending December, 2001

Portfolio Manager: Josephine Jimenez | **Assets Under Management: $115,880,784**

Investment Philosophy

Montgomery believes that successful investing in the emerging markets is best achieved through a combination of creative, independent research within a disciplined investment framework designed to anticipate and control market-specific risk. The firm's team of emerging market's specialists focus on rigorous, fundamental analysis at both the country and stock level to identify strong, rapidly growing companies whose growth rates are not fully reflected in their prices. Excess return is generated through the firm's research effort and captured through effective portfolio construction and risk management processes, employing both quantitative tools and qualitative insights. Quantitative work emphasizes risk management tools designed to construct portfolios of 80-120 securities prudently diversified across countries and sectors. The investment process is designed to achieve excess returns with equal or lower absolute risk than the MSCI Emerging Markets Free Index.

Staff Comments

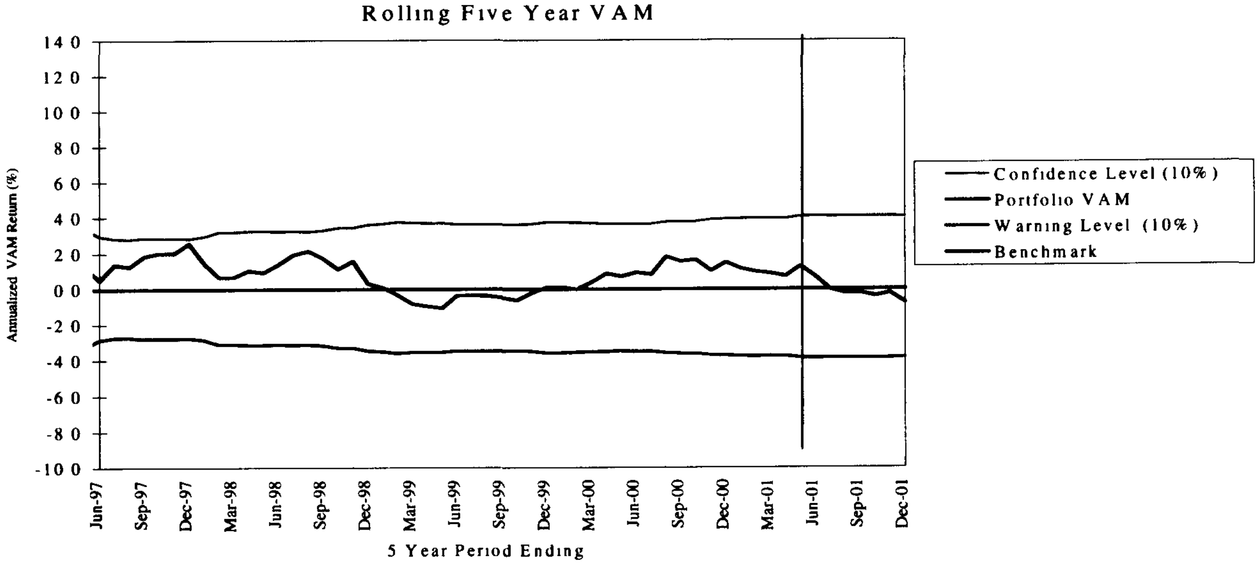
Staff visited Montgomery during the quarter to review the organization and discuss performance. The portfolio narrowly underperformed during the quarter due to holdings in business services, healthcare, and transportation. The portfolio has outperformed over longer time periods. Staff will monitor any further changes to the overall organization.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	27.8%	28.0%
Last 1 year	-4.7	-1.5
Last 2 years	-15.9	-17.3
Last 3 years	5.1	4.4
Last 4 years	-7.4	-4.0
Last 5 years	-6.3	-5.6
Since Inception (5/96)	-5.3	-5.6

Recommendations

No action required.



Note Shaded area includes performance prior to managing SBI account

MORGAN STANLEY INVESTMENT MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Robert Meyer | **Assets Under Management: $105,203,050**

Investment Philosophy

Morgan Stanley's style is core with a growth bias. They follow a top-down approach to country allocation and a bottom-up approach to stock selection. Morgan Stanley's macro-economic and stock selection analyses are qualitative as well as quantitative, concentrating on fundamentals Their top-down analysis highlights countries with improving fundamentals and attractive valuations Their bottom-up approach to stock selection focuses on purchasing companies with strong operating earnings potential at attractive valuations

Staff Comments

Effective January 23, 2002, Robert Meyer, co-head of the Emerging Markets (EM) Equity Group will take on a reduced role in Morgan Stanley's business. As of that date, he will become an Advisory Director and will continue to serve as a mentor to the EM team and will provide guidance on client-specific issues. Narayan Ramachandran will continue as Head of the Emerging Markets Equity Group. He has worked closely with Robert as co-head in this area. Staff will be meeting with the team in the next quarter.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	29 5%	28 0%
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/01)	-14 7	-13 4

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2003.

SCHRODERS INVESTMENT MANAGEMENT NORTH AMERICA INC.
Periods Ending December, 2001

Portfolio Manager: Mark Bridgeman | **Assets Under Management: $110,567,727**

Investment Philosophy

Schroders believes in investing in growth at a reasonable price. They focus on identifying companies that can leverage the superior economic growth in emerging markets to generate above-average growth in earnings and cash flow. Their style aims to generate consistency of performance by taking multiple active positions in what are highly inefficient markets. Schroders uses a combination of top-down analysis and bottom-up stock selection, which varies with the state of development of the market.

Staff Comments

The portfolio narrowly outperformed during the quarter, due to positive stock and country selection in Asia. Technology holdings rallied strongly, and an overweight in Korean financials and an underweight in Malaysia contributed positively to performance.

In December, Schroders named Peter Clark as Head of Emerging Markets, a position he previously held at JP Morgan.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	28.5	28.0
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (3/01)	-18.0	-13.4

Recommendations

No action required.

VAM Graph will be drawn for period ending 3/31/2003.

STATE STREET GLOBAL ADVISORS
Periods Ending December, 2001

Portfolio Manager: Lynn Blake **Assets Under Management: $1,622,460,925**

Investment Philosophy

State Street Global Advisors passively manages the portfolio against the Morgan Stanley Capital International (MSCI) index of 20 markets located in Europe, Australia and the Far East (EAFE) They buy only securities which are eligible for purchase by foreign investors, therefore they are benchmarked against the MSCI EAFE-Free index SSgA fully replicates the index whenever possible because it results in lower turnover, higher tracking accuracy and lower market impact costs The MSCI EAFE-Free reinvests dividends at the Belgian tax rate The portfolio reinvests dividends at the lower U S. tax rate, which should result in modest positive tracking error, over time.

Staff Comments

At SBI instruction, the portfolio transitioned to the Provisional EAFE index as of October 1, 2001. There was slight negative tracking error during the quarter, which is within the range of expectation, due to the underperformance of futures contracts, which track local market indices such as the FT100, CAC40, DAX and Topix.

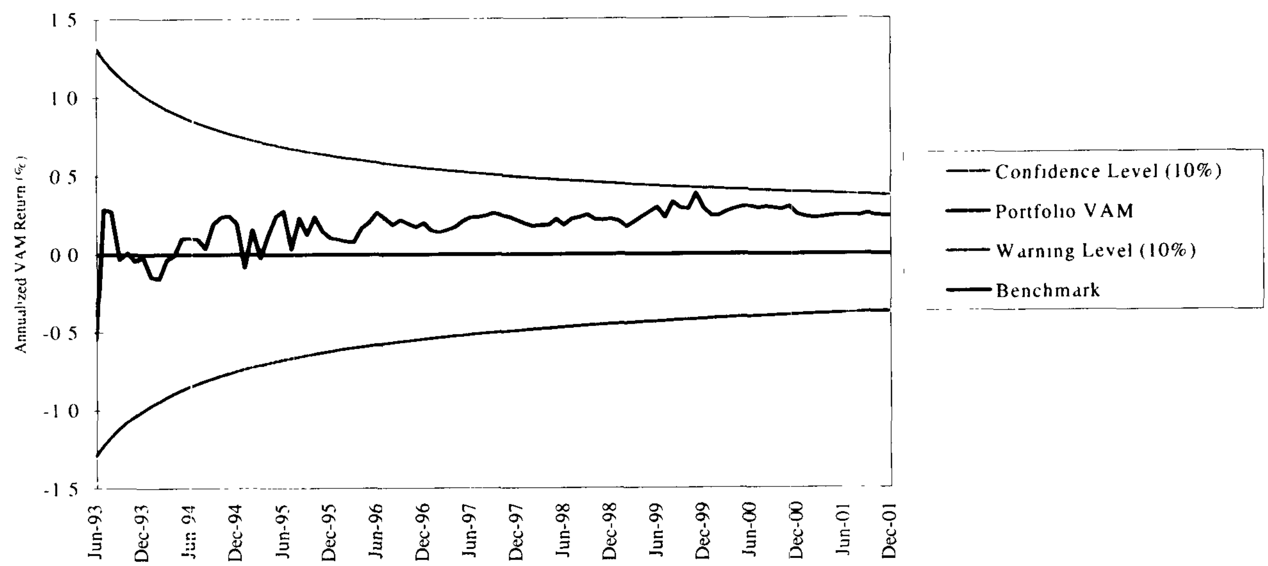
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6 7%	6.8%
Last 1 year	-21.5	-21.6
Last 2 years	-17.9	-18.0
Last 3 years	-4 9	-5 2
Last 4 years	0 9	0.6
Last 5 years	1.1	0 8
Since Inception (10/92)	6.1	5.8

Recommendation

No action required

STATE STREET GLOBAL ADVISORS
Cumulative Tracking



STATE BOARD OF INVESTMENT

Non-Retirement Manager Evaluation Reports

Fourth Quarter, 2001

NON - RETIREMENT MANAGERS
Periods Ending December, 2001

	Quarter		1 Year		3 years		5 Years		Since (1) Inception		Market
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (in millions)
GE Investment Management (S&P 500 Index)*	9.9	10.7	-8.2	-11.9	3.5	-1.0	13.3	10 7	17.6	15.9	$75.4
Voyageur Asset Management (Custom Benchmark)*	-1.0	0.1	6.4	8.8	5.6	6.7	6 5	7 2	7.3	7.4	$268 5
Galliard Capital Management (3 yr. Constant Maturity Treasury + 30 bp)*	1 5	0.9	6 3	4 3	6 3	5.5	6 3	5 7	6 5	5.9	$95 4
Internal Stock Pool (S&P 500 Index)*	10.4	10.7	-12.0	-11 9	-1.0	-1.0	10.8	10.7	13.8	13.8	$978.5
Internal Bond Pool - Income Share (Lehman Aggregate)*(2)	0 6	0.0	9.5	8.4	6.7	6 3	7 8	7.4	8.7	8.3	$191.8
Internal Bond Pool - Trust (Lehman Aggregate)*	0.5	0.0	9.3	8.4	6 8	6.3	7.8	7.4	8 4	7.9	$759.3

* Benchmarks for the Funds are notated in parentheses below the Fund names.

(1) Since retention by the SBI. Time period varies by manager.
(2) Prior to July 1994, the benchmark was the Salomon BIG.

GE ASSET MANAGEMENT - Assigned Risk Plan
Periods Ending December, 2001

Portfolio Manager: Gene Bolton | **Assets Under Management: $75,384,181**

Investment Philosophy
Assigned Risk Plan

GE's Multi-Style Equity program attempts to outperform the S&P 500 consistently while controlling overall portfolio risk through a multiple manager approach. Three portfolio managers with value or growth orientations are supported by a team of analysts. The three portfolios are combined to create a well diversified equity portfolio while maintaining low relative volatility and a style-neutral position between growth and value. All GE managers focus on stock selection from a bottom-up perspective.

Staff Comments

GE underformed the benchmark for the quarter. Quarterly performance declined due to the technology, consumer stable and consumer cyclical sectors. GE outperformed the one-year benchmark primarily due to its outperformance and underweight to the technology sector.

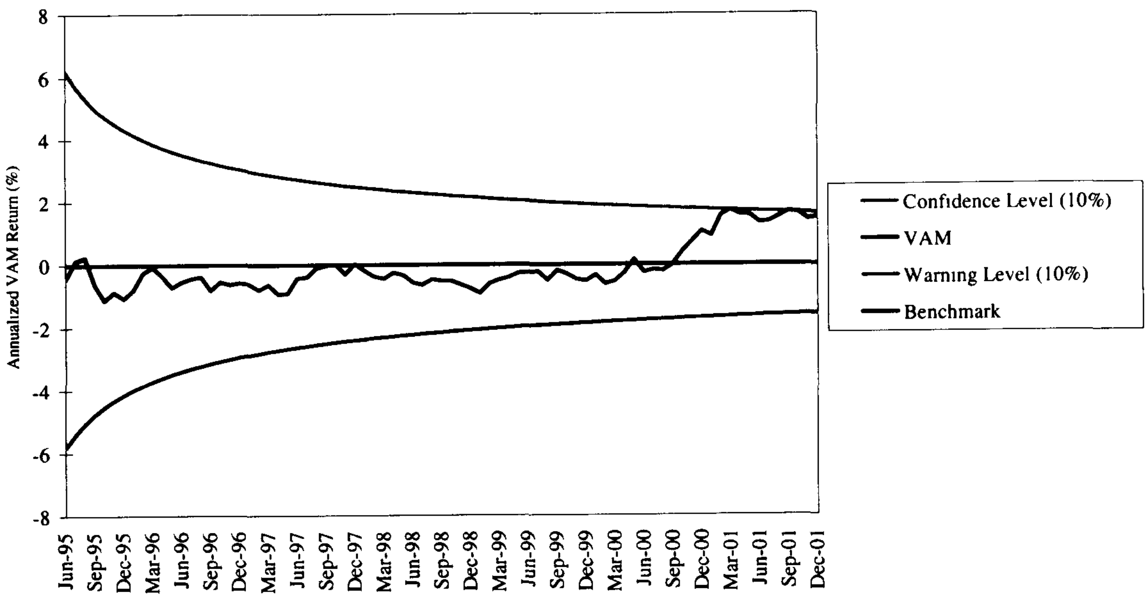
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.9%	10.7%
Last 1 year	-8.2	-11.9
Last 2 years	-4.5	-10.5
Last 3 years	3.5	-1.0
Last 4 years	8.4	5.7
Last 5 years	13.3	10.7
Since Inception (1/95)	17.6	15.9

Recommendation

No recommendation at this time.

GE INVESTMENT MANAGEMENT
Cumulative Tracking



VOYAGEUR ASSET MANAGEMENT - Assigned Risk Plan
Periods Ending December, 2001

Portfolio Manager: Tom McGlinch | **Assets Under Management: $268,475,120**

Investment Philosophy
Assigned Risk Plan

Voyageur uses a top-down approach to fixed income investing Their objective is to obtain superior long-term investment returns over a pre-determined benchmark that reflects the quality constraints and risk tolerance of the Assigned Risk Plan. Due to the specific liability requirement of the plan, return enhancement will focus on sector analysis and security selection Yield curve and duration analysis are secondary considerations.

Staff Comments

Voyageur trailed the quarterly benchmark. The portfolio was significantly impacted by the deterioration in the value of the bonds held in the portfolio The one year underperformance was due to past credit downgrades, portfolio adjustments due to benchmark changes, and the cash transfers that are part of the Assigned Risk Plan.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	-1 0%	0.1%
Last 1 year	6.4	8 8
Last 2 years	7.4	9.1
Last 3 years	5.6	6.7
Last 4 years	6 1	7.0
Last 5 years	6.5	7 2
Since Inception (7/91)	7 3	7 4

*Custom benchmark since inception date

Recommendation

No action required

VAM Graph will be drawn for period ending 3/31/04.

GALLIARD CAPITAL MANAGEMENT
Periods Ending December, 2001

Portfolio Manager: Karl Tourville **Assets Under Management: $95,404,280**

Investment Philosophy

Galliard Capital Management manages the Fixed Interest Account in the Supplemental Investment Fund. The stable value fund is managed to protect principal and provide competitive interest rates using instruments somewhat longer than typically found in money market-type accounts. The manager invests cash flows to optimize yields. The manager invests in high quality instruments diversified among traditional guaranteed investment contracts (GIC's) and alternative investment contracts with U.S. and non-U.S. financial institutions. To maintain necessary liquidity, the manager invests a portion of the portfolio in its Stable Return Fund and in cash equivalents. The Stable Return Fund is a large, daily priced fund consisting of a wide range of stable value instruments that is available to retirement plans of all sizes.

Staff Comments

No comments at this time.

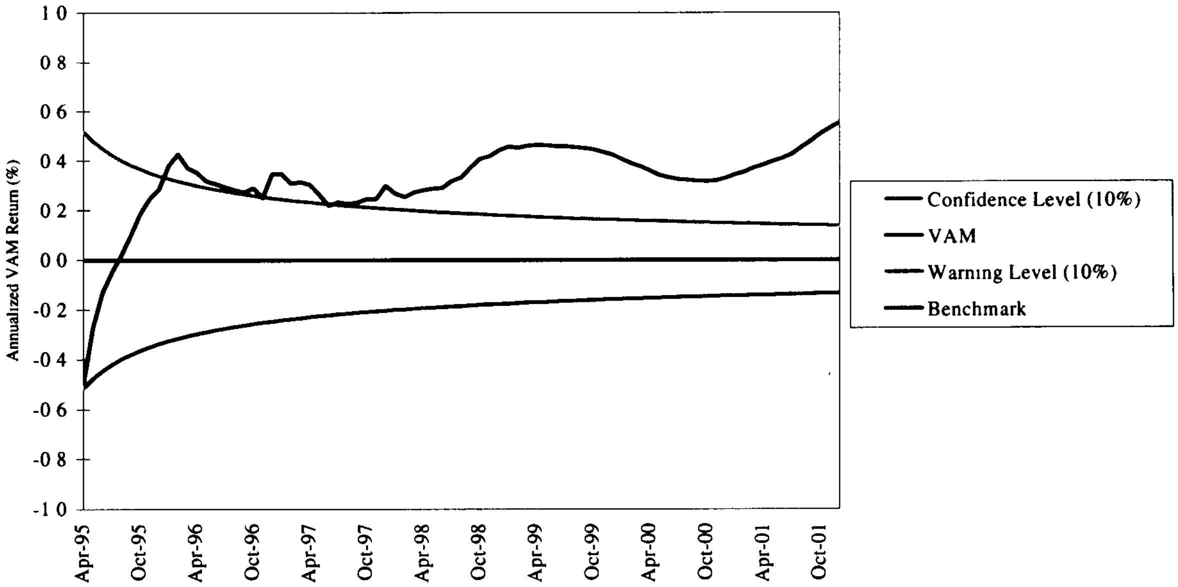
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.5	0.9%
Last 1 year	6.3	4.3
Last 2 years	6.3	5.4
Last 3 years	6.3	5.5
Last 4 years	6.3	5.5
Last 5 years	6.3	5.7
Since Inception (11/94)	6.5	5.9

Recommendation

No action required.

Galliard Capital Management
Cumulative Tracking



INTERNAL STOCK POOL - Trust/Non-Retirement Assets
Periods Ending December, 2001

Portfolio Manager: Mike Menssen **Assets Under Management: $978,524,859**

Investment Philosophy
Environmental Trust Fund
Permanent School Fund
Tobacco Endowment Funds

The current manager assumed responsibility for the account in December 1996 The Internal Equity Pool is managed to closely track the S&P 500 Index The strategy replicates the S&P 500 by owning all of the names in the index at weightings similar to those of the index The optimization model's estimate of tracking error with this strategy is approximately 10 basis points per year

Staff Comments

The internal stock pool underperformed the quarterly benchmark due to a cashflow received when the funds were rebalanced in October

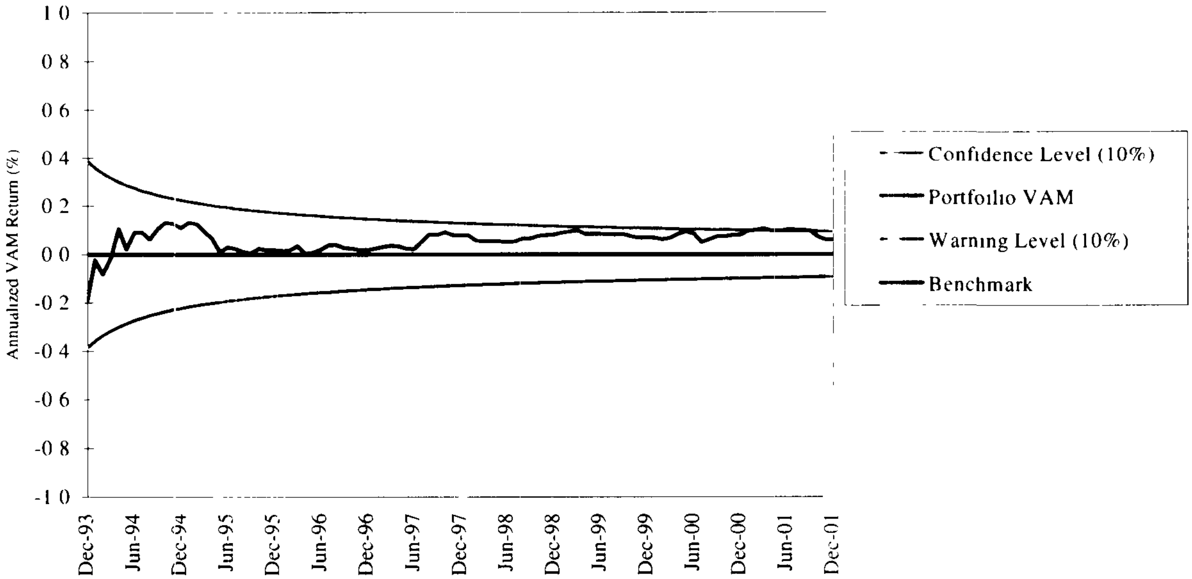
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	10.4%	10 7%
Last 1 year	-12 0	-11.9
Last 2 years	-10.5	-10 5
Last 3 years	-1.0	-1 0
Last 4 years	5.7	5 7
Last 5 years	10.8	10 7
Since Inception (7/93)	13.8	13.8

Recommendation

No action required

INTERNAL STOCK POOL
Trust/Non-Retirement Assets
Cumulative Tracking



INTERNAL BOND POOL - Income Share Account
Periods Ending December, 2001

Portfolio Manager: Mike Menssen | **Assets Under Management: $191,774,077**

Investment Philosophy
Income Share Account

The current manager assumed responsibility for this portfolio in December 1996. The investment approach emphasizes sector and security selection. The approach utilizes sector trading and relative spread analysis of both sectors and individual issues. The portfolio weightings in mortgage and corporate securities are consistently equal to or greater than the market weightings. The portfolio duration remains close to the benchmark duration but may be shortened or lengthened depending on changes in the economic outlook.

Staff Comments

The internal bond pool outperformed the quarterly benchmark due to an underweight in treasuries and an overweight in the corporate and mortgage sectors.

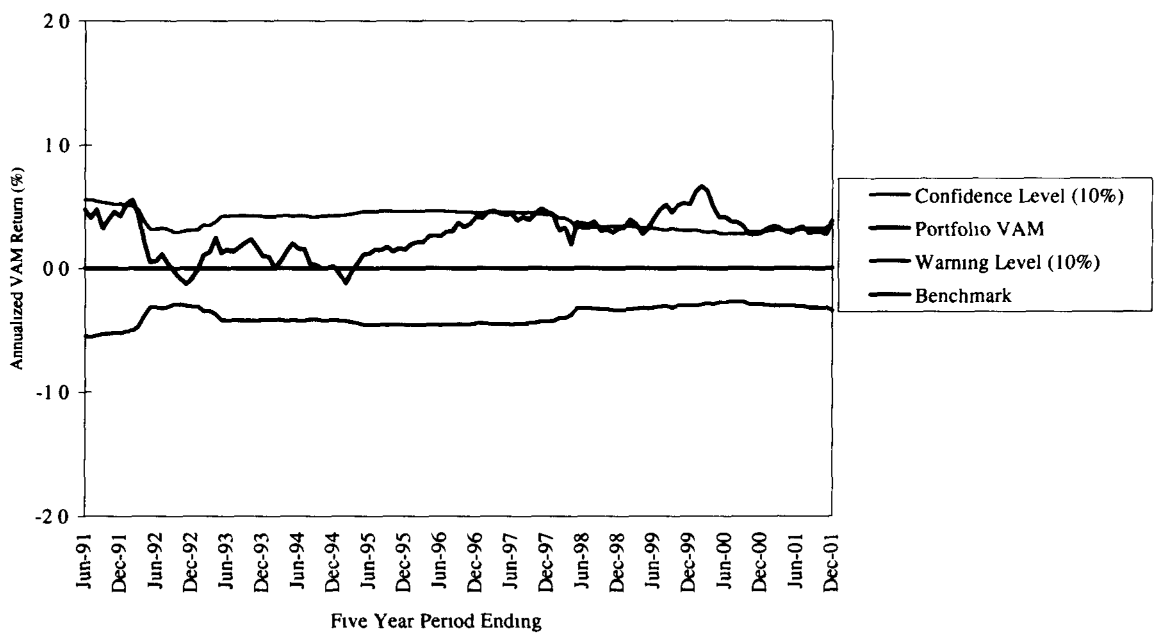
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0.6%	0.0%
Last 1 year	9.5	8.4
Last 2 years	10.4	10.0
Last 3 years	6.7	6.3
Last 4 years	7.2	6.9
Last 5 years	7.8	7.4
Since Inception (7/86)	8.7	8.3

Recommendation

No action required.

INTERNAL BOND POOL - INCOME SHARE ACCOUNT
Rolling Five Year VAM



INTERNAL BOND POOL - Trust/Non-Retirement Assets
Periods Ending December, 2001

Portfolio Manager: Mike Menssen **Assets Under Management: $759,290,498**

Investment Philosophy
Environmental Trust Fund
Permanent School Trust Fund
Tobacco Endowment Funds

The current manager assumed responsibility for the portfolio in December 1996. The internal bond portfolio's investment approach emphasizes sector and security selection The approach utilizes sector trading and relative spread analysis of both sectors and individual issues. The portfolio weightings in mortgage and corporate securities are consistently equal to or greater than the market weightings The portfolio duration remains close to the benchmark duration but may be shortened or lengthened depending on changes in the economic outlook

Staff Comments

The internal bond pool outperformed the quarterly benchmark due to an underweight in treasuries and an overweight in the corporate and mortgage sectors.

Quantitative Evaluation

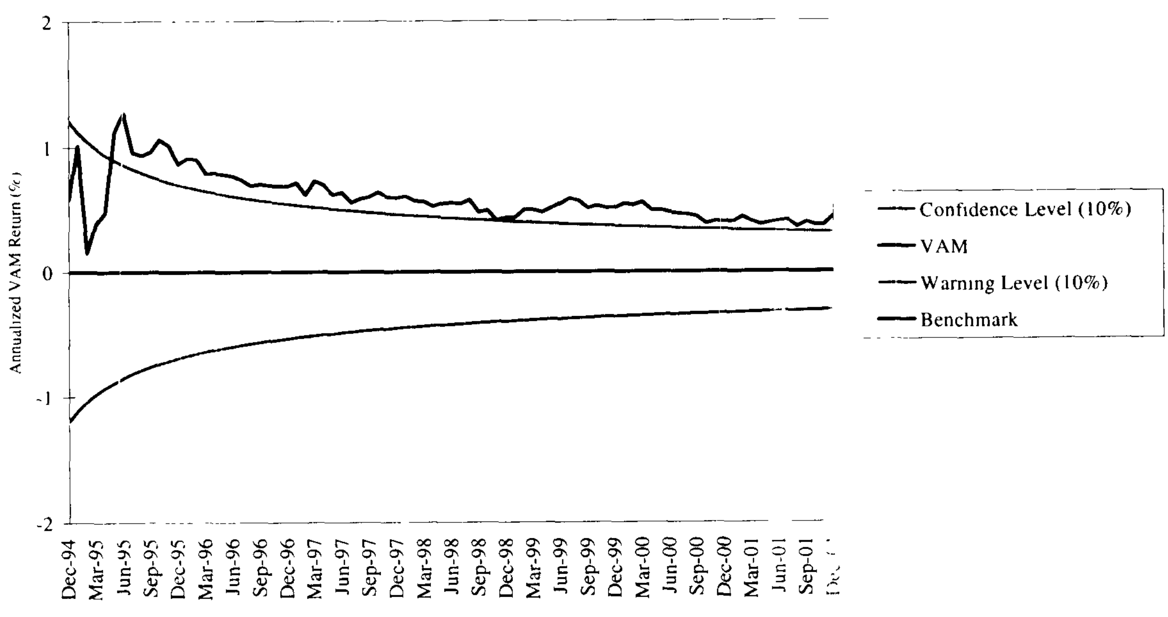
	Actual	Benchmark
Last Quarter	0.5%	0 0%
Last 1 year	9.3	8.4
Last 2 years	10 3	10.0
Last 3 years	6.8	6 3
Last 4 years	7.2	6.9
Last 5 years	7.8	7 4
Since Inception (7/94)*	8.4	7 9

Recommendation

No action required

* Date started managing the Permanent School Fund against the Lehman Aggregate

INTERNAL BOND POOL - TRUST/NON-RETIREMENT ASSETS
Cumulative Tracking



STATE BOARD OF INVESTMENT

Deferred Compensation Plan Evaluation Reports

Fourth Quarter, 2001

MN STATE 457 DEFERRED COMPENSATION PLAN
MUTUAL FUND MANAGERS
Periods Ending December, 2001

457 Mutual Funds	Quarter Actual %	Quarter Bmk %	1 Year Actual %	1 Year Bmk %	3 years Actual %	3 years Bmk %	5 Years Actual %	5 Years Bmk %	Since Retention by SBI* %	Since Retention by SBI* %	State's Participation In Fund ($ millions)
Large Cap Equity:											
Janus Twenty (S&P 500)**	9.5	10.7	-29.2	-11.9	-7.6	-1.0	12.1	10.7	-14.8	-5.7	$222.6
Small Cap Equity:											
T. Rowe Price Small-Cap Equity (Russell 2000)**	19.3	21.1	6.8	2.6	12.9	6.4	12.3	7.5	13.6	4.0	$217.3
Equity Index:											
Vanguard Institutional Index (S&P 500)**	10.7	10.7	-11.9	-11.9	-1.0	-1.0	10.8	10.7	-5.7	-5.7	$161.6
Balanced:											
INVESCO Total Return (60% S&P 500/40% Lehman Gov-Corp)**	6.4	6.4	-0.9	-3.7	-2.0	1.2	6.0	9.3	-4.8	-1.0	$84.3
Bond:											
Dodge & Cox Income Fund (Lehman Aggregate)**	0.6	0.0	10.3	8.4	6.6	6.3	7.6	7.4	8.6	8.2	$37.0
International:											
Fidelity Diversified International (MSCI EAFE-Free)**	9.3	6.8	-13.0	-21.6	6.1	-5.2	9.2	0.8	3.4	-7.6	$69.3

Numbers in black are returns **since** retention by SBI.
Numbers in blue include returns **prior** to retention by SBI.

*The mutual fund managers were retained by the SBI in July 1999.
**Benchmarks for the Funds are notated in parentheses below the Fund names.

Fixed Fund:	%
Blended Yield Rate for current quarter***:	6.0
Bid Rates for current quarter:	
Great West Life	5.9
Minnesota Life	6.7
Principal Life	6.5

***The Blended Yield Rate for the current quarter includes the return on the existing porfolio assets and also the Liquidity Buffer Account (money market). The Bid Rates for the current quarter determine the allocation of new cash flow.

MN STATE 457 DEFERRED COMPENSATION PLAN
LARGE CAP EQUITY – JANUS TWENTY
Periods Ending December, 2001

State's Participation in Fund: $222,570,573

Portfolio Manager: Scott W. Schoelzel | **Total Assets in Fund: $15,082,300,000**

Investment Philosophy
Janus Twenty

The investment objective of this fund is long-term growth of capital from increases in the market value of the stocks it owns. The fund will concentrate its investments in a core position of between twenty to thirty common stocks. This non-diversified fund seeks to invest in companies that the portfolio manager believes have strong current financial positions and offer growth potential.

Staff Comments

Janus underperformed the quarterly benchmark. Performance was hurt by the AOL Time Warner position, which is one of their top 5 holdings, along with pharmaceutical and healthcare holdings. The one-year return continues to lag the benchmark due to the telecommunication holdings.

Quantitative Evaluation

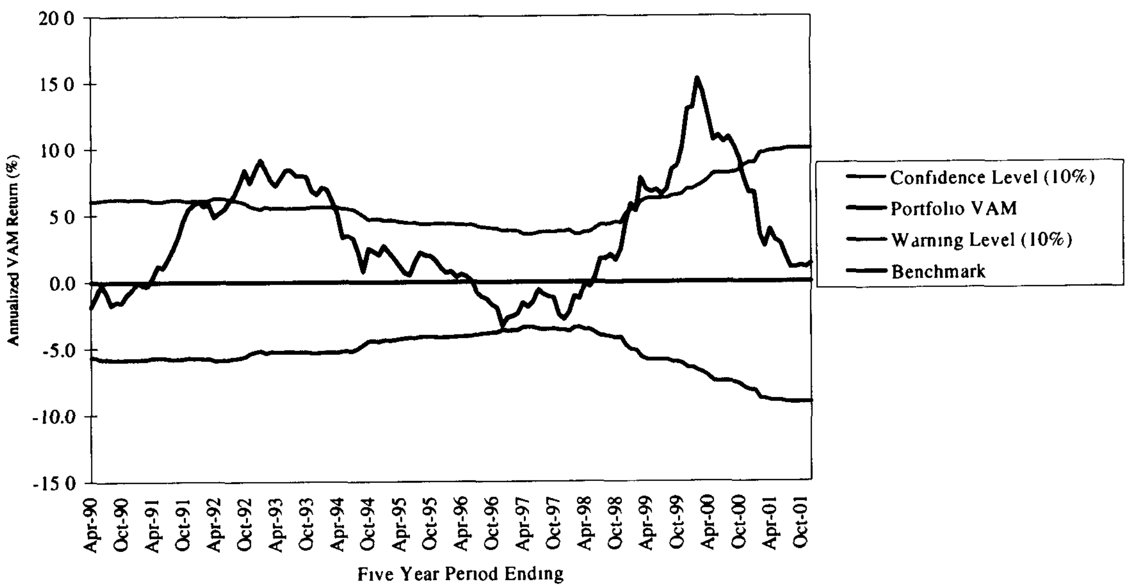
	Actual	Benchmark*
Last Quarter	9.5%	10.7%
Last 1 year	-29.2	-11.9
Last 2 years	-30.8	-10.5
Last 3 years	-7.6	-1.0
Last 4 years	8.1	5.7
Last 5 years	12.1	10.7
Since Retention by SBI (7/99)	-14.8	-5.7

*Benchmark is the S&P 500.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required.

LARGE CAP EQUITY - JANUS TWENTY
Rolling Five Year VAM



Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
SMALL CAP EQUITY – T. ROWE PRICE SMALL CAP EQUITY FUND
Periods Ending December, 2001

State's Participation in Fund: $217,341,144

Portfolio Manager: Gregory A. McCrickard — **Total Assets in Fund: $2,511,150,476**

Investment Philosophy
T. Rowe Price Small Cap Equity Fund

The strategy of this fund is to invest primarily in stocks of small to medium-sized companies that are believed to offer either superior earnings growth or appear undervalued. The fund normally invests at least 80% of assets in equities traded in the U S over-the-counter market The manager does not favor making big bets on any particular sector or any particular stock The fund's combination of growth and value stocks offers investors relatively more stable performance compared to other small cap stock funds.

Staff Comments

T Rowe Price trailed the quarterly benchmark. The top-detracting sectors in the fourth quarter were telecommunication services, utilities and materials The one-year outperformance was due to underweighting healthcare and information technology sectors and stock selection within those sectors

Quantitative Evaluation

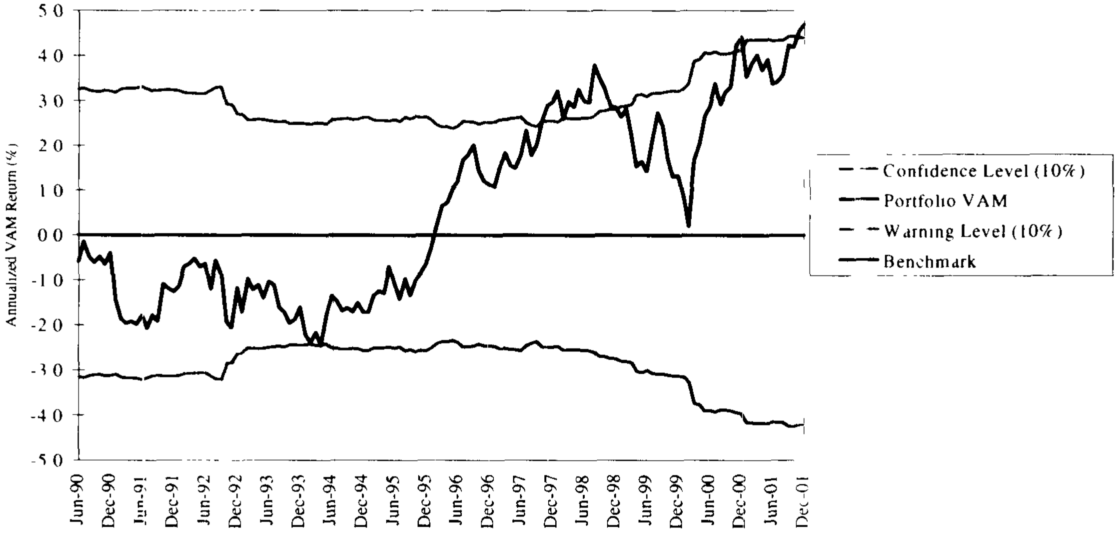
	Actual	Benchmark*
Last Quarter	19.3%	21.1%
Last 1 year	6.8	2.6
Last 2 years	12.0	-0.3
Last 3 years	12.9	6.4
Last 4 years	8.5	4.1
Last 5 years	12.3	7.5
Since Retention by SBI (7/99)	13.6	4.0

*Benchmark is the Russell 2000.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required

SMALL CAP EQUITY - T. ROWE PRICE SMALL CAP EQUITY FUND
Rolling Five Year VAM



Five Year Period Ending
Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS
Periods Ending December, 2001

State's Participation in Fund: $161,625,267

Portfolio Manager: George U. Sauter | **Total Assets in Fund: $9,572,904,048**

Investment Philosophy
Vanguard Institutional Index

This fund attempts to provide investment results, before fund expenses, that parallel the performance of the Standard & Poor's 500 Index. The fund invests in all 500 stocks listed in the S&P 500 index in approximately the same proportions as they are represented in the index. The managers have tracked the S&P 500's performance with a high degree of accuracy. The fund may use futures and options for temporary purposes, but generally remains fully invested in common stock.

Staff Comments

No comments at this time.

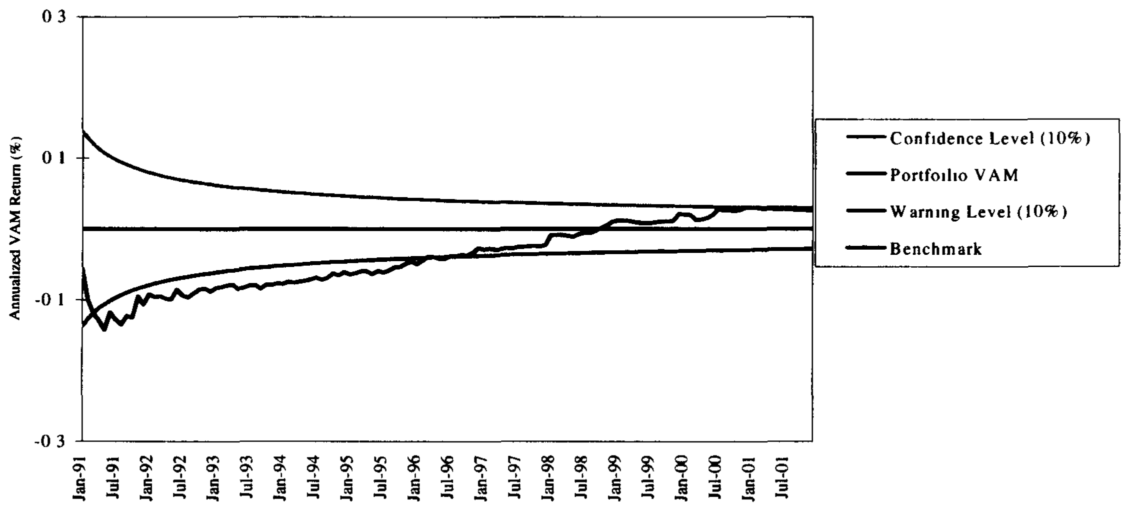
Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	10.7%	10.7%
Last 1 year	-11.9	-11.9
Last 2 years	-10.5	-10.5
Last 3 years	-1.0	-1.0
Last 4 years	5.8	5.7
Last 5 years	10.8	10.7
Since Retention by SBI (7/99)	-5.7	-5.7

*Benchmark is the S&P 500.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required.



Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
BALANCED – INVESCO TOTAL RETURN
Periods Ending December, 2001

State's Participation in Fund: $84,261,274
Total Assets in Fund: $1,249,500,000

Portfolio Manager: Charlie Mayer

Investment Philosophy
Invesco Total Return

This fund is designed for investors who want to invest in a mix of stocks and bonds in the same fund. The fund seeks both capital appreciation and current income. The managers start from a 60% stock / 40% bond asset allocation and adjusts the mix based on the expected risks and returns of each asset class. The fund invests in mid- to large-cap value stocks and in high quality bonds with the bond portfolio having a duration somewhat less than the bond market as a whole.

Staff Comments

INVESCO matched its benchmark for the quarter. The overweight to stocks worked against the fund due to its underweight in technology Throughout the course of the year, stock selection has helped the fund outperform the benchmark

Quantitative Evaluation

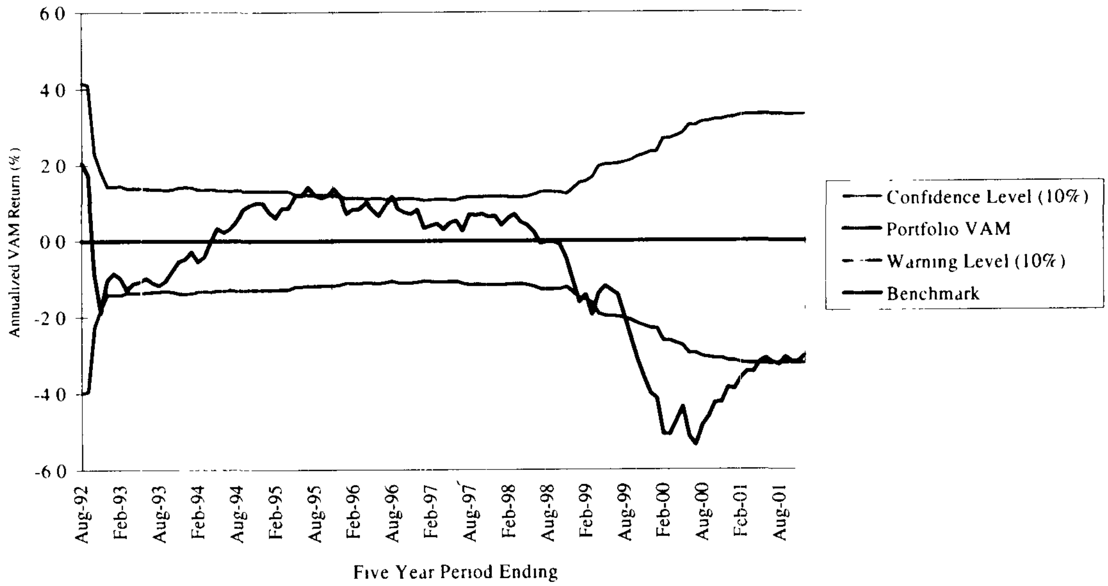
	Actual	Benchmark*
Last Quarter	6.4%	6.4%
Last 1 year	-0.9	-3.7
Last 2 years	-2.3	-3.5
Last 3 years	-2.0	1.2
Last 4 years	1.7	6.0
Last 5 years	6.0	9.3
Since Retention by SBI (7/99)	-4.8	-1.0

*Benchmark is the 60% S&P 500/ 40% Lehman Gov-Corp.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required.

BALANCED - INVESCO TOTAL RETURN
Rolling Five Year VAM



Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
BOND - DODGE & COX INCOME FUND
Periods Ending December, 2001

State's Participation in Fund: $37,023,797
Portfolio Manager: Dana Emery **Total Assets in Fund: $1,512,116,188**

Investment Philosophy
Dodge & Cox Income Fund

The objective of this fund is a high and stable rate of current income with capital appreciation being a secondary consideration. This portfolio is invested primarily in intermediate term, investment-grade quality corporate and mortgage bonds and, to a lesser extent, government issues. While the fund invests primarily in the U. S. bond market, it may invest a small portion of assets in dollar-denominated foreign securities. The duration of the portfolio is kept near that of the bond market as a whole.

Staff Comments

Dodge and Cox exceeded the benchmark this quarter due to their significant overweight of the corporate sector. The portfolio also had a below benchmark duration, which had a positive effect due to its lower exposure to interest rate changes as the interest rates increased over the quarter.

Quantitative Evaluation

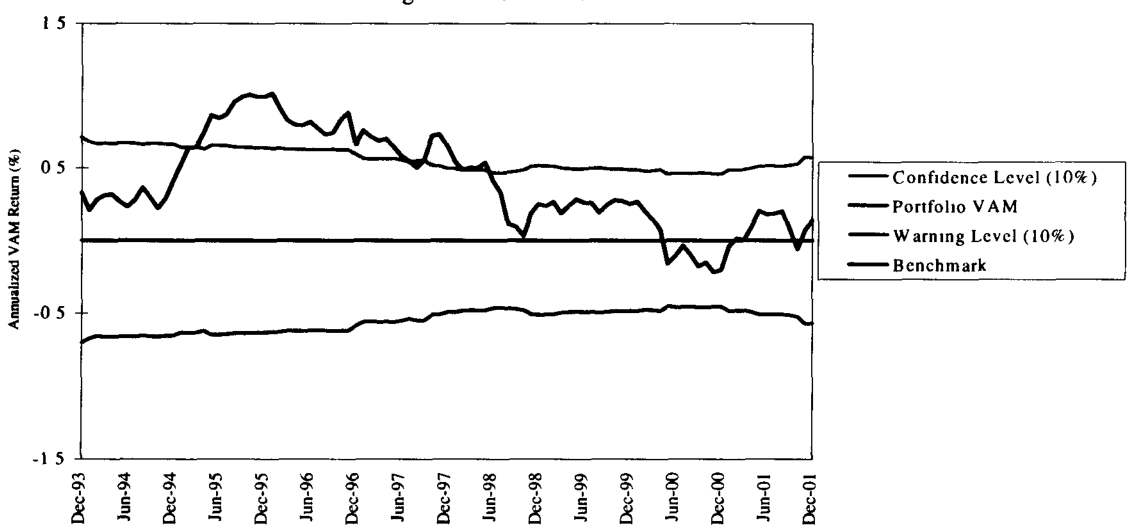
	Actual	Benchmark*
Last Quarter	0.6%	0.0%
Last 1 year	10.3	8.4
Last 2 years	10.5	10.0
Last 3 years	6 6	6.3
Last 4 years	7.0	6.9
Last 5 years	7.6	7.4
Since Retention By SBI (7/99)	8.6	8.2

*Benchmark is the Lehman Aggregate.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required.

BOND - DODGE & COX INCOME FUND
Rolling Five Year VAM



Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
INTERNATIONAL – FIDELITY DIVERSIFIED INTERNATIONAL
Periods Ending December, 2001

State's Participation in Fund: $69,303,908
Portfolio Manager: William Bower **Total Assets in Fund: $6,378,863,726**

Investment Philosophy
Fidelity Diversified International

The goal of this fund is capital appreciation by investing in securities of companies located outside of the United States. While the fund invests primarily in stocks, it may also invest in bonds. Most investments are made in companies that have a market capitalization of $100 million or more and which are located in developed countries. To select the securities, the fund utilizes a rigorous computer-aided quantitative analysis supplemented by relevant economic and regulatory factors The manager rarely invests in currency to protect the account from exchange fluctuations

Staff Comments

Fidelity's quarterly performance was helped by an overweight and favorable stock selection in the high-performing information technology sector. For the year, the relative outperformance was mainly due to favorable stock selection in the industrials and materials sector

Quantitative Evaluation

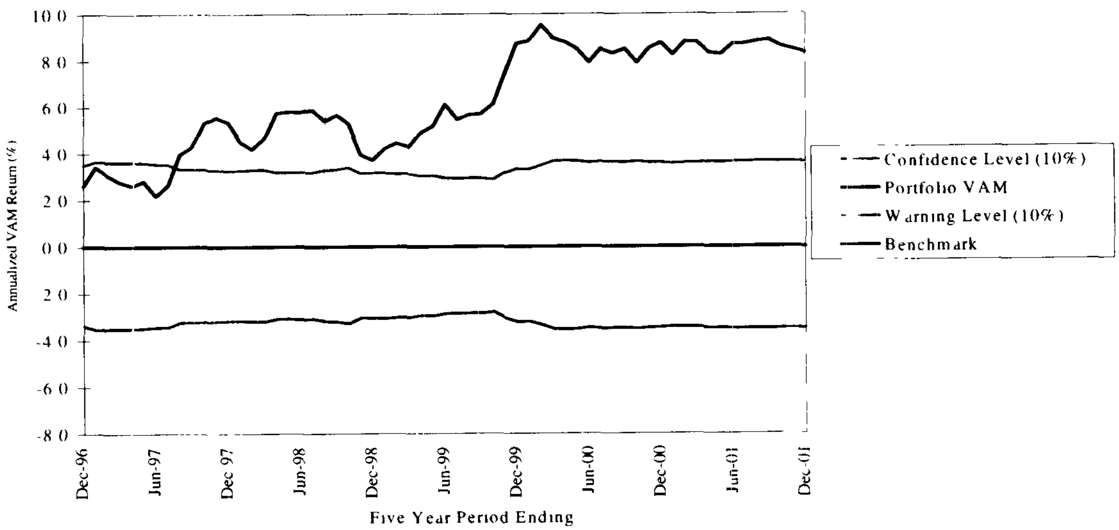
	Actual	Benchmark*
Last Quarter	9.3%	6 8%
Last 1 year	-13.0	-21.6
Last 2 years	-11.0	-18 0
Last 3 years	6 1	-5 2
Last 4 years	8 1	0 6
Last 5 years	9 2	0 8
Since Retention By SBI (7/99)	3 4	-7.6

*Benchmark is the MSCI EAFE-Free.
Numbers in black are returns since retention by SBI.
Numbers in blue include returns prior to retention by SBI.

Recommendation

No action required

INTERNATIONAL - FIDELITY DIVERSIFIED INTERNATIONAL
Rolling Five Year VAM



Note Shaded area includes performance prior to managing SBI account

MN STATE 457 DEFERRED COMPENSATION PLAN
MN FIXED FUND
Periods Ending December, 2001

Total Assets in MN Fixed Fund: $245,745,936 *
*Includes $14-18M in Liquidity Buffer Account

Total Assets in 457 Plan: $618,378,241 **
**Includes all assets in new and old fixed options

Principal Life

Ratings:	Moody's	Aa2
	S&P	AA
	A.M. Best	A+
	Duff & Phelps	AA+

Assets in MN Fixed Fund: $79,173,754

Investment Philosophy

The manager invests in fixed income securities, commercial mortgages, mortgage-backed securities and residential whole loans, with lesser amounts invested in stock, cash equivalents and direct real estate. The manager relies upon in-house analysis and prefers investments that offer more call protection. The manager strongly prefers private placements to corporate bonds in the belief that private placements offer higher yields and superior protective covenants compared to public bonds. A portion of the fixed income portfolio is invested in US dollar-denominated foreign corporate bonds. Mortgage-backed bonds are actively managed to prices at or below par to reduce prepayment risk. Conservative underwriting standards, small loan sizes and an emphasis on industrial properties minimizes commercial loan risk.

Minnesota Life

Ratings:	Moody's	Aa2
	S&P	AA+
	A.M. Best	A++
	Duff & Phelps	AA+

Assets in MN Fixed Fund: $82,415,119

Assets in Prior MN 457 Plan: $153,095,342

Total Assets: $235,510,462

Investment Philosophy

Investment decisions support an asset/liability match for the company's many product lines. A conservative investment philosophy uses a number of active and passive investment strategies to manage general account assets and cash flow. Assets are primarily invested in a widely diversified portfolio of high quality fixed income investments that includes public and private corporate bonds, commercial mortgages, residential mortgage securities and other structured investment products, providing safety of principal and stable, predictable cash flow to meet liabilities and to invest in and produce consistent results in all phases of the economic cycle.

Great West Life

Ratings:	Moody's	Aa2
	S&P	AA+
	A.M. Best	A++
	Duff & Phelps	AAA

Assets in MN Fixed Fund: $66,024,602

Assets in Prior MN 457 Plan: $219,536,963

Total Assets: $285,561,565

Investment Philosophy

The Company observes strict asset/liability matching guidelines to ensure that the investment portfolio will meet the cash flow and income requirements of its liabilities. The manager invests in public and privately placed corporate bonds, government and international bonds, common stocks, mortgage loans, real estate, redeemable preferred stocks and short-term investments. To reduce portfolio risk, the manager invests primarily in investment grade fixed maturities rated by third-party rating agencies or by the manager if private placements. Mortgage loans reflect a broadly diversified portfolio of commercial and industrial mortgages subject to strict underwriting criteria.

MN STATE 457 DEFERRED COMPENSATION PLAN
MN FIXED FUND
Periods Ending December, 2001

Current Quarter

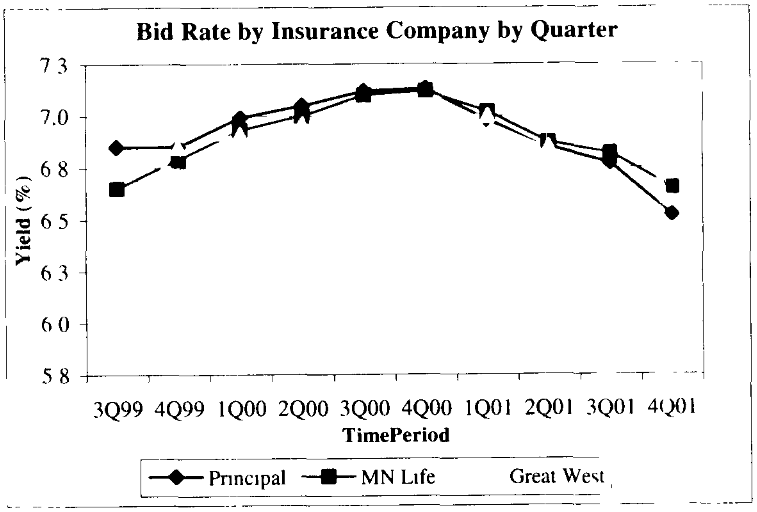
Dollar Amount of Bid: $31,900,000 **Blended Rate: 6.01%**

Bid Rates:

Principal Life	6 52%
Minnesota Life	6.65%
Great West Life	5.85%

Dollar Amount in existing Minnesota Life portfolio: $153,095,342

Rate on existing Minnesota Life portfolio: 5.96 %



Staff Comments on Bid Rates

The spread in the bid rates by the three insurance companies on the new inflow of dollars into the MN Fixed Fund in the fourth quarter increased from last quarter. The overall bid rates decreased from the prior quarter.

Staff Comments

	1Q01	2Q01	3Q01	4Q01
Principal Life	33 3%	33.3%	40.0%	30.0%
Minnesota Life	33 3%	33.3%	40 0%	50.0%
Great West Life	33.3%	33.3%	20 0%	20 0%

For the fourth quarter, Great West Life had a lower percentage allocation of bid dollars since their bid rate was more than 20 basis points less than the top bid The top two bids were between 10 and 20 basis points of each other.

Tab E

COMMITTEE REPORT

DATE: February 26, 2002

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: **Alternative Investment Committee**

The Alternative Investment Committee met on February 19, 2002 to review the following information and action agenda items:

- Review of current strategy.
- Review meeting with one of the SBI's existing alternative investment managers, Tim Costello and John Rochio of TCW Crescent Mezzanine, to discuss investment performance and current market conditions.
- Investment for the Post Retirement Fund with an existing real estate manager, GMAC Institutional Advisors in GMAC Commercial Mortgage Fund, LLC.
- Pre-approval, subject to final approval from a Committee comprised of the Alternative Investment Committee and a designee of each Board member, of a follow-on investment with an existing private equity manager, Warburg Pincus, for the Basic Retirement Fund.

Board/IAC action is required on the last two items.

INFORMATION ITEMS:

1) Review of Current Strategy.

To increase overall portfolio diversification, 15% of the Basic Retirement Funds and 5% of the Post Retirement Fund are allocated to alternative investments. Alternative investments include real estate, private equity and resource investments where Minnesota State Board of Investment (SBI) participation is limited to commingled funds or other pooled vehicles. Charts summarizing the Board's current commitments are attached (see **Attachments A and B**).

Basic Funds

- The real estate investment strategy calls for the establishment and maintenance of a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main component of this portfolio consists of investments in diversified Real Estate Investment Trusts (REITs), open-end commingled funds and closed-end commingled funds. The remaining portion of the portfolio can include investments in less diversified, more focused (specialty) commingled funds and REITs.

- The private equity investment strategy is to establish and maintain a broadly diversified private equity portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location.

- The strategy for resource investment is to establish and maintain a portfolio of resource investment vehicles that are specifically designed for institutional investors to provide an inflation hedge and additional diversification. Individual resource investments will include proved producing oil and gas properties, royalties and other investments that are diversified geographically and by type.

Post Fund

- The Post Fund assets allocated to alternative investments will be invested separately from the Basic Funds' alternative investments to assure that returns are accounted for appropriately. Since the Post Fund invests the retired employees' pension assets, an allocation to yield oriented alternative investments will be emphasized. The Basic Retirement Funds' invest the active employees' pension assets and have less concern regarding the current yield for their alternative investments.

2) Review meetings with one of the SBI's existing managers.

The Committee and Staff met John Rochio and Tim Costello of TCW Crescent Mezzanine Partners, one of the SBI's existing Post Fund private equity managers. This manager provided the Committee and Staff with information regarding the current investment environment and current performance of the SBI's investments with them. The Committee and Staff are satisfied with the performance of this manager.

ACTION ITEMS

3) Investment for the Post Retirement Fund with an existing real estate manager, GMAC Institutional Advisors, in GMAC Commercial Mortgage Fund, LLC.

GMAC Institutional Advisors is seeking investors for a new $300 million real estate fund. This fund is the sixth real estate mortgage fund managed by GMAC Institutional Advisors. The SBI has invested in the last four of the previous five funds. This fund, like the prior funds, will specialize in real estate mortgage investments.

More information on GMAC Commercial Mortgage Fund, LLC is included as **Attachment C.**

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $60 million or 20%, whichever is less, in GMAC Commercial Mortgage Fund, LLC. This commitment will be allocated to the Post Retirement Fund.

Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the State Board of Investment nor its Executive Director have any liability for reliance by GMAC Institutional Advisors upon this approval. Until a formal agreement is executed by the Executive Director on behalf of the SBI, further due diligence and negotiations may result in the imposition of additional terms and conditions on GMAC Institutional Advisors or reduction or termination of the commitment.

4) Pre-approval, subject to final approval from a Committee comprised of the Alternative Investment Committee and a designee of each Board member, of a follow-on investment with an existing private equity manager, Warburg Pincus, for the Basic Retirement Fund.

Warburg Pincus is seeking investors for a new $5 billion private equity fund. This fund is the successor fund to two previous Warburg Pincus funds in which the SBI has investments. Like the prior funds, this fund will invest in a very broad array of private equity investments diversified by stage of development and industry.

Staff is requesting that a Committee comprised of the Alternative Investment Committee and a designee of each Board member be authorized to review and potentially execute investments with this existing manager prior to the next quarterly SBI meeting in June 2002.

More information on the fund offering for Warburg Pincus is included as **Attachment D.**

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with final approval from the Committee, which will be comprised of members of the IAC Alternative Investment Committee and a designee of each Board member, and assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $100 million or 20%, whichever is less, additional investment for the Basic Retirement Fund with Warburg Pincus, in Warburg Pincus Private Equity Fund VIII, L.P.

Approval by the SBI of these potential commitments is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the State Board of Investment nor its Executive Director have any liability for reliance by Warburg Pincus upon this approval. Until a formal agreement is executed by the Executive Director on behalf of the SBI, further due diligence and negotiations may result in the imposition of additional terms and conditions on Warburg Pincus, or reduction or termination of the commitment.

Minnesota State Board of Investment

Alternative Investments
Basic Retirement Funds
December 31,2001

Market Value of Basic Retirement Funds	$17,873,875,714
Amount Available for Investment	**$231,282,409**

	Current Level	Target Level	Difference
Market Value	$2,155,835,994	$2,681,081,357	$525,245,363
MV +Unfunded	$3,343,492,734	$3,574,775,143	$231,282,409

Asset Class	Market Value	Unfunded Commitment	Total
Real Estate	$604,872,801	$9,918,182	$614,790,983
Private Equity	$1,317,548,034	$1,069,831,095	$2,387,379,129
Resource	$233,415,158	$107,907,463	$341,322,622
Total	$2,155,835,994	$1,187,656,740	$3,343,492,734

Minnesota State Board of Investment

Alternative Investments

Post Retirement Funds

December 31, 2001

Market Value of Post Retirement Funds	$18,474,959,418
Amount Available for Investment	**$355,750,118**

	Current Level	Target Level	Difference
Market Value	$567,997,853	$923,747,971	$355,750,118
MV +Unfunded	$1,242,712,064	$1,847,495,942	$604,783,878

Asset Class	Market Value	Unfunded Commitment	Total
Real Estate	$167,068,349	$85,742,283	$252,810,633
Private Equity	$314,007,049	$480,076,782	$794,083,831
Resource	$86,922,455	$108,895,145	$195,817,600
Total	$567,997,853	$674,714,211	$1,242,712,064

ATTACHMENT B

State of Minnesota
- Alternative Investments -

As of December 31, 2001

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	Period Years
Real Estate-Basic							
AEW V	15,000,000	15,000,000	397,408	11,169,287	0	-2.70	14 05
Colony Capital							
Colony Investors II	40,000,000	38,985,164	11,952,996	34,873,801	1,014,836	6 85	6 75
Colony Investors III	100,000,000	97,952,253	62,126,066	58,437,231	2,047,747	9 96	4.00
Equity Office Properties Trust	140,388,854	140,388,854	58,217,434	223,359,987	0	19 26	10 10
First Asset Realty Fund	916,185	916,185	10,801	1,085,201	0	5.56	7 67
Heitman							
Heitman Advisory Fund I	20,000,000	20,000,000	202,406	22,262,571	0	1 50	17.39
Heitman Advisory Fund II	30,000,000	30,000,000	3,324,146	40,263,326	0	4 13	16 11
Heitman Advisory Fund III	20,000,000	20,000,000	78,627	22,174,237	0	1.37	14 94
Heitman Advisory Fund V	20,000,000	20,000,000	7,938,836	23,837,458	0	8 18	10 08
Lasalle Income Parking Fund	15,000,000	14,644,401	6,903,179	21,286,970	355,599	11 70	10 28
Lend Lease Real Estate Investments	40,000,000	40,000,000	138,578,517	3,610,197	0	6 71	20 22
RREEF USA Fund III	75,000,000	75,000,000	616,044	121,039,987	0	4 76	17.65
T.A. Associates Realty							
Realty Associates Fund III	40,000,000	40,000,000	56,337,388	25,727,043	0	13 45	7.58
Realty Associates Fund IV	50,000,000	50,000,000	60,592,530	18,259,750	0	13 14	4 91
Realty Associates Fund V	50,000,000	43,500,000	45,192,798	6,197,028	6,500,000	8 59	2 60
UBS Realty	42,376,529	42,376,529	152,396,847	0	0	7 31	19.67
Fund in Liquidation (AEW III)	20,000,000	20,000,000	6,778	24,133,975	0	1 75	16.32
Real Estate-Basic Totals	718,681,568	708,763,386	604,872,801	657,718,050	9,918,182		
Real Estate-Post							
CT Mezzanine Partners	100,000,000	15,600,000	15,357,108	492,836	84,400,000	N/A	0 28
Colony Capital	40,000,000	38,985,164	11,952,996	34,873,801	1,014,836	6 85	6.75
Equity Office Properties Trust	117,673,360	117,673,360	58,217,434	69,702,844	0	N/A	0 75
GMAC Institutional Advisors							
Institutional Commercial Mortgage Fund II	13,500,000	13,397,500	9,750,987	10,004,439	102,500	9 60	6 43
Institutional Commercial Mortgage Fund III	21,500,000	21,275,052	20,129,873	9,150,770	224,948	8 99	5 08
Institutional Commercial Mortgage Fund IV	14,300,000	14,300,000	14,235,777	3,686,769	0	8 66	4 01
Institutional Commercial Mortgage Fund V	37,200,000	37,200,000	37,424,175	4,014,790	0	10 31	2.42
Real Estate-Post Totals	344,173,360	258,431,077	167,068,349	131,926,248	85,742,283		
Real Estate Totals	1,062,854,928	967,194,463	771,941,151	789,644,298	95,660,465		

State of Minnesota
- Alternative Investments -

As of December 31, 2001

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	Period Years
Venture Capital-Basic							
Bank Fund							
Banc Fund IV	25,000,000	25,000,000	26,387,825	10,257,885	0	10 08	5 88
Banc Fund V	48,000,000	40,800,000	41,326,483	2,605,706	7,200,000	4 17	3 46
Blackstone Capital Partners II	50,000,000	47,271,190	25,413,570	59,592,686	2,728,810	34 58	8 11
BLUM Capital Partners							
RCBA Strategic Partners	50,000,000	49,217,527	48,834,571	18,710,653	782,473	13 68	3 03
BLUM Strategic Partners II	50,000,000	16,418,438	14,468,514	1,949,924	33,581,562	N/A	0 45
Brinson Partners							
Brinson Partners I	5,000,000	5,000,000	390,041	9,147,616	0	11 16	13 64
Brinson Partners II	20,000,000	19,579,998	1,533,781	37,937,212	420,002	25 87	11 09
Churchill Capital Partners II	20,000,000	20,000,000	5,194,021	22,954,829	0	11 79	9 18
Citigroup Venture Capital Equity	100,000,000	20,568,235	20,568,235	-529,301	79,431,765	N/A	0 05
Contrarian Capital Fund II	37,000,000	37,000,000	31,216,645	12,446	0	-4 58	4 59
Coral Partners							
Coral Partners Fund I	7,011,923	7,011,923	130,633	6,429,665	0	-1 10	15 53
Coral Partners Fund II	10,000,000	8,069,315	853,513	36,117,047	1,930,685	25 08	11 43
Coral Partners Fund IV	15,000,000	15,000,000	7,355,231	10,744,034	0	5 74	7 45
Coral Partners Fund V	15,000,000	13,500,000	10,456,405	152,481	1,500,000	-12 26	3 54
Crescendo							
Crescendo II	15,000,000	15,000,000	12,152,082	20,347,039	0	39 50	5 00
Crescendo III	25,000,000	25,000,000	13,229,076	8,084,795	0	-8 88	3 15
Crescendo IV	101,500,000	63,330,047	43,820,403	185,114	38,169,953	-25 46	1 81
DLJ							
DLJ Merchant Banking Partners III	125,000,000	38,024,867	32,720,990	8,172,836	86,975,133	1 58	1 25
DLJ Strategic Partners	100,000,000	29,487,507	26,297,893	4,825,051	70,512,493	N/A	0 95
DSV Partners IV	10,000,000	10,000,000	1,315,308	27,596,934	0	9 56	16 73
First Century Partners III	10,000,000	10,000,000	2,290,758	14,818,077	0	8 80	17 05
Fox Paine Capital Fund							
Fox Paine Capital Fund	40,000,000	40,000,000	45,589,640	0	0	6 20	3 69
Fox Paine Capital Fund II	50,000,000	4,189,152	2,797,520	0	45,810,848	-99 95	1 50
Golder,Thoma, Cressey, Rauner							
Golder, Thoma, Cressey Fund III	14,000,000	14,000,000	4,736,374	55,444,382	0	30 27	14 17
Golder, Thoma, Cressey & Rauner Fund IV	20,000,000	20,000,000	6,556,047	33,351,637	0	24 86	7 92
Golder, Thoma, Cressey & Rauner Fund V	30,000,000	30,000,000	29,948,585	9,707,879	0	8 67	5 50
GS Capital Partners 2000	50,000,000	14,837,467	13,369,997	0	35,162,533	-18 61	1 33
GTCR Golder Rauner							
GTCR Fund VI	90,000,000	89,137,778	47,116,413	49,263,209	862,222	6 08	3 50
GTCR Fund VII	175,000,000	75,046,353	60,686,844	33,875,156	99,953,647	24 90	1 90
GHJM Marathon Fund IV	40,000,000	27,670,000	27,670,636	0	12,330,000	-4 84	2 71
Hellman & Friedman							
Hellman & Friedman Capital Partners III	40,000,000	32,432,434	6,882,738	54,596,437	7,567,566	33 37	7 28
Hellman & Friedman Capital Partners IV	150,000,000	67,899,722	43,808,514	35,773,646	82,100,278	41 09	2 00
Kohlberg Kravis Roberts							
KKR 1986 Fund	18,365,339	18,365,339	5,274,693	202,769,719	0	28 04	15 71
KKR 1987 Fund	145,950,000	145,373,652	85,193,218	330,103,454	576,348	9 81	14 11
KKR 1993 Fund	150,000,000	150,000,000	32,642,506	260,983,114	0	16 96	8 03
KKR 1996 Fund	200,000,000	192,189,037	174,074,524	78,078,386	7,810,963	11 36	5 33
KKR Millenium Fund	200,000,000	0	0	0	200,000,000	N/A	0 60
Piper Jaffrey Healthcare							
Piper Jaffray Healthcare Fund II	10,000,000	9,700,000	8,315,495	1,450,415	300,000	0 22	4 84
Piper Jaffray Healthcare Fund III	20,000,000	16,031,115	12,250,838	1,304,349	3,968,885	-11 05	2 94
Summit Partners							
Summit Ventures II	30,000,000	28,500,000	1,928,393	71,715,485	1,500,000	28 78	13 64
Summit Ventures V	25,000,000	18,822,973	12,545,422	7,236,901	6,177,027	2 35	3 75
T. Rowe Price	513,690,730	513,690,730	13,964,004	500,986,608	0	2 46	N/A
Thoma Cressey							
Thoma Cressey Fund VI	35,000,000	32,375,000	30,115,457	1,754,757	2,625,000	-1 47	3 36
Thoma Cressey Fund VII	50,000,000	4,000,000	3,545,592	0	46,000,000	-8 98	1 35
Vestar Capital Partners IV	55,000,000	12,847,098	12,388,450	369,185	42,152,902	-7 16	2 05
Warburg Pincus							
Warburg, Pincus Equity Partners	100,000,000	93,000,000	100,993,144	8,661,738	7,000,000	10 27	3 52
Warburg, Pincus Ventures	50,000,000	50,000,000	61,737,995	173,320,893	0	52 47	7 00
Welsh, Carson, Anderson & Stowe							
WCAS VIII	100,000,000	96,000,000	80,006,112	0	4,000,000	-8 15	3 44
WCAS IX	125,000,000	27,500,000	18,647,063	0	97,500,000	-26 22	1 51
William Blair Capital Partners VII	50,000,000	6,800,000	6,568,943	0	43,200,000	N/A	0 82
Funds in Liquidation (Matrix II, Matrix III, Summit I, & Zell/Chillmark)	60,000,000	60,000,000	2,236,902	216,870,720	0		
Venture Capital-Basic Totals	3,475,517,992	2,405,686,897	1,317,548,034	2,427,730,799	1,069,831,095		

State of Minnesota
- Alternative Investments -

As of December 31, 2001

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	Period Years
Venture Capital-Post							
Citicorp Mezzanine							
Citicorp Mezzanine II	40,000,000	40,000,000	20,419,386	32,628,566	0	11 51	7.00
Citicorp Mezzanine III	100,000,000	33,235,770	35,680,361	2,163,336	66,764,230	11 68	2.17
DLJ Investment Partners II	50,000,000	16,628,082	17,743,464	1,089,193	33,371,918	5 90	2 00
GS Mezzanine Partners II	100,000,000	11,055,068	5,294,305	1,513,884	88,944,932	-21.80	1 83
GTCR Capital Partners	80,000,000	54,043,999	45,985,282	12,097,658	25,956,001	4 41	2 14
KB Mezzanine Partners Fund II	25,000,000	24,999,999	14,906,701	7,151,873	1	-4.16	6 25
Prudential Capital Partners	100,000,000	18,089,549	15,290,191	1,340,908	81,910,451	N/A	0 70
Summit Partners							
Summit Sub. Debt Fund I	20,000,000	18,000,000	786,801	30,437,528	2,000,000	30 62	7.75
Summit Sub Debt Fund II	45,000,000	27,000,000	16,147,205	56,110,172	18,000,000	65 21	4 42
T. Rowe Price	52,990,378	52,990,378	365,260	51,840,522	0	-9 05	N/A
TCW/Crescent Mezzanine							
TCW/Crescent Mezzanine Partners	40,000,000	39,851,211	24,523,204	22,800,686	148,789	7.02	5 75
TCW/Crescent Mezzanine Partners II	100,000,000	86,568,287	63,160,618	40,090,939	13,431,713	9 60	3 10
TCW/Crescent Mezzanine Partners III	75,000,000	3,635,754	3,631,266	6,488	71,364,246	N/A	0 76
William Blair Mezzanine III	60,000,000	35,721,600	36,495,651	740,400	24,278,400	3 63	2 00
Windjammer Mezzanine & Equity Fund II	66,708,861	12,802,760	13,577,352	740,000	53,906,101	-6 21	1.75
Venture Capital-Post Totals	954,699,239	474,622,457	314,007,049	260,752,154	480,076,782		
Venture Capital Totals	4,430,217,231	2,880,309,354	1,631,555,083	2,688,482,952	1,549,907,877		

State of Minnesota
- Alternative Investments -

As of December 31, 2001

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	Period Years
Resource-Basic							
Apache Corp III	30,000,000	30,000,000	14,665,980	46,023,401	0	13 28	15 00
First Reserve							
First Reserve II	7,000,000	7,000,000	728,440	14,879,948	0	6 24	18.90
First Reserve V	16,800,000	16,800,000	201,600	50,261,377	0	16 24	11 67
First Reserve VII	40,000,000	40,000,000	22,680,988	27,100,697	0	8 10	5 50
First Reserve VIII	100,000,000	100,000,000	91,611,986	20,561,173	0	5 28	3 67
First Reserve IX	100,000,000	15,455,341	15,420,366	0	84 544,659	N/A	0 73
Morgan Oil & Gas	15,000,000	15,000,000	4,022,258	20,906,987	0	6 99	13 35
Simmons							
Simmons - SCF Fund II	17,000,000	14,847,529	13,860,337	14,438,195	2 152,471	8 22	10 40
Simmons - SCF Fund III	25,000,000	22,021,139	29,677,978	15,195,105	2 978,862	16 31	6 50
Simmons - SCF Fund IV	50,000,000	31,768,528	34,089,726	1,040,809	18 231,472	0 87	3 75
T. Rowe Price	17,396,296	17,396,296	6,455,500	5,504,102	0	-49 32	N/A
Resource-Basic Totals	418,196,296	310,288,832	233,415,158	215,911,794	107 907,463		
Resource-Post							
Merit Energy Partners							
Merit Energy Partners B	24,000,000	24,000,000	38,516,718	4,300,623	0	18 75	5 50
Merit Energy Partners C	50,000,000	24,904,855	43,732,518	2,030,966	25,095,145	30 06	3 18
Merit Energy Partners D	88,000,000	4,200,000	4,673,219	0	83 800,000	N/A	0 60
Resource-Post Totals	162,000,000	53,104,855	86,922,455	6,331,589	108,895,145		
Resource Totals	580,196,296	363,393,687	320,337,613	222,243,383	216,802,608		

REAL ESTATE MANAGER SUMMARY PROFILE – POST FUND

I. Background Data

Name of Fund:	GMAC Commercial Mortgage Fund, LLC
Type of Fund:	Commercial Mortgage Loan Fund
Total Fund Size:	$200 – 300 million
Fund Manager:	GMAC Institutional Advisors, LLC
Manager Contact:	Walt Huggins 200 Deerfield Point, Ste. 180 12375 Morris Road Alpharetta GA 30004 770-752-6712

II. Organization and Staff

GMAC Commercial Mortgage Fund ("the Fund") will be managed by GMAC Institutional Advisors, a wholly owned subsidiary of GMAC Commercial Mortgage Corporation. In March 2001, GMAC Institutional Advisors acquired the management of five C.B. Richard Ellis commingled closed-end commercial mortgage whole loan funds. The SBI is an investor in four of these funds, as referenced in Section IV, Investment Performance.

GMAC Institutional Advisors consists of 13 investment professionals and is located in Alpharetta, Georgia. GMAC Commercial Mortgage, which will be the principal source of loan origination, has more than 50 regional offices in key United States markets. GMAC Commercial Mortgage is a global leader in one-stop financial services for the commercial real estate industry, and is the nation's largest commercial mortgage banker. It also maintains operations in Japan, France, Ireland and Canada, and employs more than 2,200 professionals and support personnel globally.

A 6-person Investment Committee of the Investment Manager will make the final decision to make Mortgage Loans.

III. Investment Strategy

The goal of the Fund is to preserve capital while generating attractive, stable, market-driven rates of return by creating a portfolio of whole loans with the following characteristics:

- Secured by first mortgages backed by institutional quality commercial real estate;
- Diversified by term, geography, property type and borrower;
- Ranging in size from $1-$15 million;
- Maximum loan-to-value ("LTV") ratio of 75% (up to 80% for select multi-family projects);
- Maximum loan term of 10 years;
- Minimum debt service coverage ("DSC") ratio of 1.2:1;
- Property types will include office, retail, industrial and multi-family.

In addition to investing in mortgage loans, the Investment Manager may invest up to 2% of the total commitments in investment grade commercial mortgage backed securities.

IV. Investment Performance

Previous fund performance as of December 31, 2001 for GMAC Institutional Advisors and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Inception Date	Total Equity Commitments	SBI Investment	Net IRR from Inception
GMAC Institutional Commercial Mortgage Fund V*	1999	$186.2 million	$37.2 million	10.3%
GMAC Institutional Commercial Mortgage Fund IV*	1997	$72 million	$14.3 million	8.7%
GMAC Institutional Commercial Mortgage Fund III*	1996	$107.5 million	$21.5 million	9.0%
GMAC Institutional Commercial Mortgage Fund II*	1995	$67.5 million	$13.5 million	9.6%

* In March 2001, GMAC Institutional Advisors acquired the management of five C.B. Richard Ellis commingled closed-end commercial mortgage whole loan funds. The SBI is an investor in four of these funds, as referenced above.

Previous Fund investments may be relatively immature and therefore, returns may not be indicative of future results.

V. General Partner's Investment

The Investment Manager, together with its affiliates, shall subscribe for Units in the amount of five percent of the total subscriptions, up to $15,000,000.

VI. Takedown Schedule

Under its Subscription Agreement, the Limited Partner will generally be required to pay a portion of the purchase price of its Units at each loan closing equal to such Partner's proportionate share of the amount reasonably required at such closing (including fees and expenses payable by the Fund). The Investment Manager, however, will have the discretion to call any subscriptions at any time it deems appropriate. Payment for a Partner's Units will generally be required ten business days after it receives a notice to that effect from the Investment Manager

VII. Fees

Subscription Fee: The Fund will pay the Investment Manager a subscription fee (the "Subscription Fee") equal to 1.75% of the aggregate amount of subscriptions. The Subscription Fee will be payable at the Initial Closing Date, and at each additional subsequent closing. This fee will be offset in part by a commitment fee of 1.25% that is expected to be charged to borrowers.

Asset Management Fee: Following the first closing of a Mortgage Loan, the Fund will pay the Investment Manager a monthly asset management fee equal to one-twelfth of 0.35% of the aggregate original principal amount of Mortgage Loans outstanding at the beginning of such month, such fee payable monthly in arrears.

Performance Fee: The Fund will pay the Investment Manager 0.50% of the original principal amount of all Mortgage Loans, at termination of the Fund, if loans perform as projected.

VIII. Allocations and Distributions

The Fund intends to make monthly distributions of income earned by the Fund after payment of expenses and allowance for operational reserves, as determined by the Investment Manager in its discretion, pro rata, according to the percentage interest of each Partner during such month. Such distributions may derive from interest or principal paid by the borrowers, the net proceeds from the sale or other disposition of Mortgage Loans or other income of the Fund. The Fund will not make such regular distributions if there is any outstanding redemption obligation unless an amount equal to at least 10% of the amount otherwise available for distribution is paid to reduce such redemption obligation.

IX. Investment Period and Term

The Investment Period will be open for twenty-four months following the Initial Closing. The term of the Fund shall expire on December 31 of the calendar year which includes the ten-year anniversary of the closing of the last Mortgage Loan made by the Fund.

PRIVATE EQUITY MANAGER SUMMARY PROFILE - BASIC FUND

I. Background Data

Name of Fund:	Warburg Pincus Private Equity VIII, L.P.
Type of Fund:	Private Equity Limited Partnership
Total Fund Size:	$5 billion
Fund Manager:	E.M. Warburg Pincus & Co., LLC
Manager Contact:	Steve Schneider 466 Lexington Ave. New York NY 10017 212-878-0600

II. Organization and Staff

Warburg Pincus has been a leading firm in private equity investing since 1971. The firm's global equity activities are managed by the 6-member Management Committee, the members of which have been with Warburg Pincus for an average of 19 years. An 18-person Operating Committee coordinates investment-related activities across the firm's different industry groups. The firm has 50 partners and a total of 95 professionals in offices in New York, Silicon Valley, London, Munich, Hong Kong, Singapore, Seoul, Tokyo and São Paulo. Warburg Pincus' sole business is private equity investing.

III. Investment Strategy

Throughout its 29-year history in private equity investing, Warburg Pincus' philosophy has been to invest in companies at all stages of development—from venture capital start-ups to developing companies to buyouts and recapitalizations of later-stage companies. The flexibility to adjust investment approach during the life of a fund, while not abandoning out-of-favor sectors or regions, has proven critical to managing risk and enhancing returns. Both in the United States and internationally, Warburg Pincus has developed expertise in industries where it has been possible to build sustainable value, including business services, communications, financial services, healthcare and life sciences, information technology, media and natural resources. By building excellence across all stages of private equity investing, as well as in sizeable industry sectors, both domestically and throughout the world, Warburg Pincus has been able to increase its exposure to attractive investment opportunities while appropriately managing risk.

IV. Investment Performance

Previous fund performance as of September 30, 2001 for the SBI's investments with Warburg Pincus funds is shown below:

Fund	Inception Date	Total Equity Commitments	SBI Investment	Net IRR from Inception
Warburg Pincus Equity Partners	1998	$5.0 billion	$100 million	10.3%
Warburg Pincus Ventures	1994	$2.0 billion	$50 million	52.5%

Previous Fund investments may be relatively immature and therefore, returns may not be indicative of future results

V. General Partner's Investment

Warburg Pincus has committed to subscribe for $100 million of Limited Partnership Interests on the same terms as the other Limited Partners.

VI. Takedown Schedule

Capital will be called from the Limited Partners as required through the sixth anniversary of the initial closing date.

VII. Fees

An annual Management Fee (deducted in computing profits) equal to 1.5% of total commitments will be paid to the Manager quarterly for the six years following the initial closing date. After the sixth anniversary of the initial closing date, the annual Management Fee of 1.5% will be based on the cost of investments remaining in the portfolio.

VIII. Allocations and Distributions

Profits will accrue 80% to the Limited Partners and 20% to the General Partner, except for income derived from cash and cash equivalents (all of which will accrue to the Limited Partners).

IX. Investment Period and Term

The Partnership's term will be twelve years from the initial closing date, subject to extension by the General Partner (with Advisory Committee approval) for up to two years to permit orderly dissolution. In the event that after such period a portion of the portfolio has not been liquidated through third-party sales and to the extent that it is not desirable to distribute securities in kind at the termination of the Partnership, a liquidating trust may be formed.