THE INSTITUTE FOR ADVANCED STUDY

PATRICIA H. LABALME
Associate Director

August 20, 1986

Memo to: James D. Wolfensohn

From: Patricia H. Labalme PHL

Re: Rosenberg Capital Management's visits

Ralph Hansmann telephoned me today to say that he had been thinking about the burden imposed on Rosenberg Capital Management in sending Gary Schreyer to all four of our Finance Committee meetings. He asked me to raise with you and Dr. Woolf the possibility of reducing their actual visits to two meetings a year, perhaps those held in Princeton, with the understanding that we could call on them for any added appearance if necessary, and that their reports could be sent quarterly, with some covering explanation if Gary or another representative was not actually present.

Harry agrees with this idea, and if you do too, Allen Rowe could telephone to say that this is our suggestion. It will be made clear that no dissatisfaction with their management is being expressed, only a consideration for the distance their representative must travel.

Princeton, New Jersey 08540 Telephone 609-734-8201 Telex 837 680

File

THE INSTITUTE FOR ADVANCED STUDY

PATRICIA H. LABALME
Associate Director

March 6, 1984

Dear Colleague,

At meetings of the Finance and Executive Committees on February 28, 1984, it was recommended and approved that the custodial services of the Institute be moved from Fidelity Bank to The Bank of New York, effective April 1, 1984.

This move was recommended after a careful evaluation by Dr. Woolf and Allen Rowe of the present situation and the relative merits of a number of other banks. It is anticipated that this new arrangement will be very satisfactory.

At the same meeting, it was further decided to transfer the management of the Institute's fixed income portfolio from Fidelity Bank to Rosenberg Capital Management, a California-based firm which comes highly recommended and has had experience with a number of other prestigious non-profit institutions.

Sincerely yours,

Patricia H. Labalme
Secretary of the Corporation

THE INSTITUTE FOR ADVANCED STUDY

Patricia H. Labalme
Associate Director

December 14, 1983

MEMORANDUM

To: Finance Committee

From: Patricia H. Labalme PHL

Re: Meeting on February 28, 1984

The meeting of the Finance Committee has been rescheduled from February 7 to Tuesday, February 28, 1984, at 12:30 p.m. at the Rockefeller Center Lunch Club, Ambrose Suite, 64th Floor, 30 Rockefeller Plaza in New York.

Please let me know if you will not be able to attend.

To: R. E. Hansmann (Chairman), C. L. Brown, G. K. Delmas, J. R. Dilworth, D. Jenkins, P. Labalme, M. Logan, A. Rowe, J. D. Wolfensohn, H. Woolf

THE INSTITUTE FOR ADVANCED STUDY

Patricia H. Labalme
Associate Director

December 14, 1983

MEMORANDUM

To: Executive Committee

From: Patricia H. Labalme PHL

Re: Meeting on February 28, 1984

A meeting of the Executive Committee will take place on Tuesday, February 28, 1984 at 2:00 p.m. at 30 Rockefeller Plaza, 64th Floor, Ambrose Suite.

Please let me know if you will not be able to attend.

To: J. R. Dilworth (Chairman), G. K. Delmas, M. V. Forrestal, R. E. Hansmann, D. B. Straus, J. D. Wolfensohn

THE INSTITUTE FOR ADVANCED STUDY

PATRICIA H. LABALME
Associate Director

February 27, 1984

Memorandum

To: Harry Woolf

From: Patricia H. Labalme

Re: Executive Committee Meeting of February 28, 1984
Possible topics to discuss after presentation by Rosenberg Capital Management

1) Land Development situation

2) Computer updates

3) pending appointments

   Historical Studies (Elton, Meyer)
   Mathematics (Deligne)
   Natural Sciences (Witten)
   Social Science (Lepenies)

4) Search for new librarian

5) Development Committee meeting on February 24

6) Faculty morale

Princeton, New Jersey 08540 Telephone 609-734-8201 Telex 837 680

HW

MEMORANDUM

To: Harry Woolf January 19, 1984

From: Allen Rowe

Subject: Rosenberg Capital Management

I contacted the three references given us by Rosenberg Capital Management. Following is a synopsis of my conversations with these references.

I spoke with Mr. Mathieson of the Richard King Mellon Foundation. The Foundation has been associated with Rosenberg since 1971. At that time they were the equity manager. In the late 70's they started in fixed income.

Mr. Mathieson reported that they are very happy with Rosenberg. He said that the people are of high caliber, professional and competent. They handle about $450MM of investments. They have Frank Russell Co. prepare an independent investment performance analysis for them to track Rosenberg's performance, which is above average.

Mr. Mathieson commented that their timing was off relative to the last bond rally and as a consequence, they had a bad quarter. They did recover quickly however, and moved to above average in the following months.

I also spoke with Mr. Jim Griffin of the Metropolitan Museum of Art. Rosenberg has been their investment manager since April of 1981. He said they are very aggressive. Rosenberg had them 50% in mortgage pass-thru's which did 100 basis points better than government bonds of the same risk. He had high praise for them and would recommend them for our consideration.

I also spoke with Mr. Harry Turner of Stanford University. Rosenberg manages two portfolios for them with a cumulative value of $150MM. Before choosing Rosenberg in November of 1981, they did an extensive national search.

He reported to me that he would give Rosenberg good marks for management and maintaining communications. They make good informative reports. Their human relationship performance is well above average. However, their investment performance has been just average. He quickly added that he was not being critical because no bond manager can perform above average for very long. However, he went on to say that he has seen them go to cash at exactly the wrong time. This prompted him to say that we might consider setting a limit on the size of the cash position allowed at any one time.

He said he would rate them very good bond managers. They carefully compare them with indicies in the market. They use an index produced by Merrill Lynch which is comprised of high quality government and corporate bonds weighted at about 10 year maturities. Rosenberg has lagged this index a bit.

I asked if Stanford was considering a change in bond managers. He said they were always comparing performance and never did answer my question directly. However, my impression from the tone of the conversation was that while they are pleased with the people involved and find them easy to work with, they are not pleased with their performance. In fact he suggested that we also consider two other managers-PACIFIC INVESTMENT MANAGEMENT and LINCOLN SECURITIES. I don't think he would have mentioned these if he was sold on Rosenburg's performance. He also said that we might consider applying the bond immunization technique which was designed by Solomon Brothers. Using this technique, one sets a rate of return objective for the protfolio and the manager tries to meet it.

In summary, my impression from these conversations is that Rosenberg Capital Management is number one at interpersonal relations and that they are very competent at presenting reports and analyses but about average in investment performance.

THE INSTITUTE FOR ADVANCED STUDY

HARRY WOOLF
Director

January 20, 1984

MEMO TO FILE

I have this day asked Allen Rowe to get in touch with Rosenberg Capital Management people, Gary Schreyer and E. Rust Muirhead to arrange for their appearance at the meeting in (28th) February in NYC of the Budget and FInance Committee of the Board. – Will attend and make presentation at 2pm.

Ione - FOllow up week of 1/23/84

bcc: PHL

Princeton, New Jersey 08540 Telephone 609-734-8200 Telex 837 680

A. Rowe

THE INSTITUTE FOR ADVANCED STUDY

HARRY WOOLF
Director

January 10, 1984

Memorandum to the Finance Committee

From: Harry Woolf and Allen Rowe HW AR

Subject: Search for a Custodian Bank

We began our search for a new custodian bank for our marketable securities by visiting The Bank of New York and U. S. Trust banks in New York City. Allen also visited The Provident National Bank in Philadelphia. We have received and reviewed proposals from all three banks.

THE PROVIDENT NATIONAL BANK

This bank appears to be well managed. It is, however, not currently providing the breadth of service offered by the other two banks. Also, they have a passive securities lending program while the other two banks actively pursue securities lending opportunities for their clients.

ANNUAL FEES: $36,000

THE BANK OF NEW YORK

Of the three banks, we were most impressed with this one. It has in place and operating what appears to be, from our review, a very good securities processing and reporting system. The Bank of New York's Cash Balance Projection Report, for example, lists all transactions pending settlement on a five-day forward basis. The report calculates the anticipated cash balance for each future settlement date. A useful tool for the portfolio managers. Additionally, the Bank actively solicits loans on behalf of their clients as part of their Securities Lending service.

ANNUAL FEES: $22,500

U. S. TRUST

This Bank had the best presentation. They have made some recent staff changes in their Securities Services Division and are in the process of reviewing their securities processing and reporting system. It is difficult to evaluate what services will be provided and at what cost, if and when a new system has been chosen and implemented. Currently, however, their securities processing and reporting system is not as impressive as the system offered by The Bank of New York.

ANNUAL FEE: $20,500

Any one of the above banks would be superior to what we now have. For example, the SCHEDULE OF INVESTMENTS for November 30 arrived from The Fidelity Bank on January 5, 1984. Either U. S. Trust or The Bank of New York would have the information available two working days after the close of the month.

Although the charges for custodial services will be greater than The Fidelity Bank's charges, the increase can be eliminated if we participate in the securities lending program offered by the candidate banks. Furthermore, it is likely that we would end up with income in excess of the bank's charges by participating in this program.

There are two differences we noted between The Bank of New York and the U. S. Trust in the way money is credited to a clients account that could more than offset the difference in the fee. One is that interest from short term investments are credited to the client on a daily basis by The Bank of New York while the U. S. Trust credits the client on the third business day after month end. The other difference is that The Bank of New York credits the client with cash from sales on the contracted settlement date while the U. S. Trust credits the client on the actual settlement date.

In conclusion, we recommend to you that the Institute contract with The Bank of New York for custodial services. Although the cost will be $2,000 more, current services available today from them are superior to U. S. Trust. Perhaps with the addition of new people and new computer software, U. S. Trust will look better in the future but today The Bank of New York appears to us to have the better system.

ROSENBERG CAPITAL MANAGEMENT
A Partnership
Including Corporations

AGENDA
THE INSTITUTE FOR ADVANCED STUDY
FEBRUARY 28, 1984

Four Embarcadero Center, Suite 2900 • San Francisco, California 94111 • 415/954-5474

RCM ROSENBERG CAPITAL MANAGEMENT
A Partnership
Including Corporations

THE INSTITUTE FOR ADVANCED STUDY

FEBRUARY 28, 1984

Section One
Section Two
Section Three
Section Four

RCM Clients

The Aerospace Corporation

Alumax, Inc.

Armco, Inc.

Bristol-Myers Company

The Coca-Cola Company

Consolidated Freightways, Inc.

Consolidated Natural Gas Company

Denver & Rio Grande Western Railroad Company

Fiat-Allis Construction Machinery, Inc.

Haas Foundation

Household Finance Corporation

Hughes Aircraft Company

International Monetary Fund

Interstate Brands Corporation

Knight-Ridder Newspapers, Inc.

Eli Lilly and Company

Richard King Mellon Foundation

The Metropolitan Museum of Art

Andover/Phillips Academy

Radcliffe College

The Rockefeller Foundation

Frank Russell Securities, Inc.

Smith College

Stanford University

United Presbyterian Foundation

Wickes Companies, Inc.

RCM Business Philosophy

- Emphasis on Client Relations
- Controlled Growth
- A Balance of Qualitative and Quantitative Techniques
- Proprietary Programs to Supplement Investment Disciplines

Section Five

Section Two

Section Three

Section Four

RCM Investment Philosophy

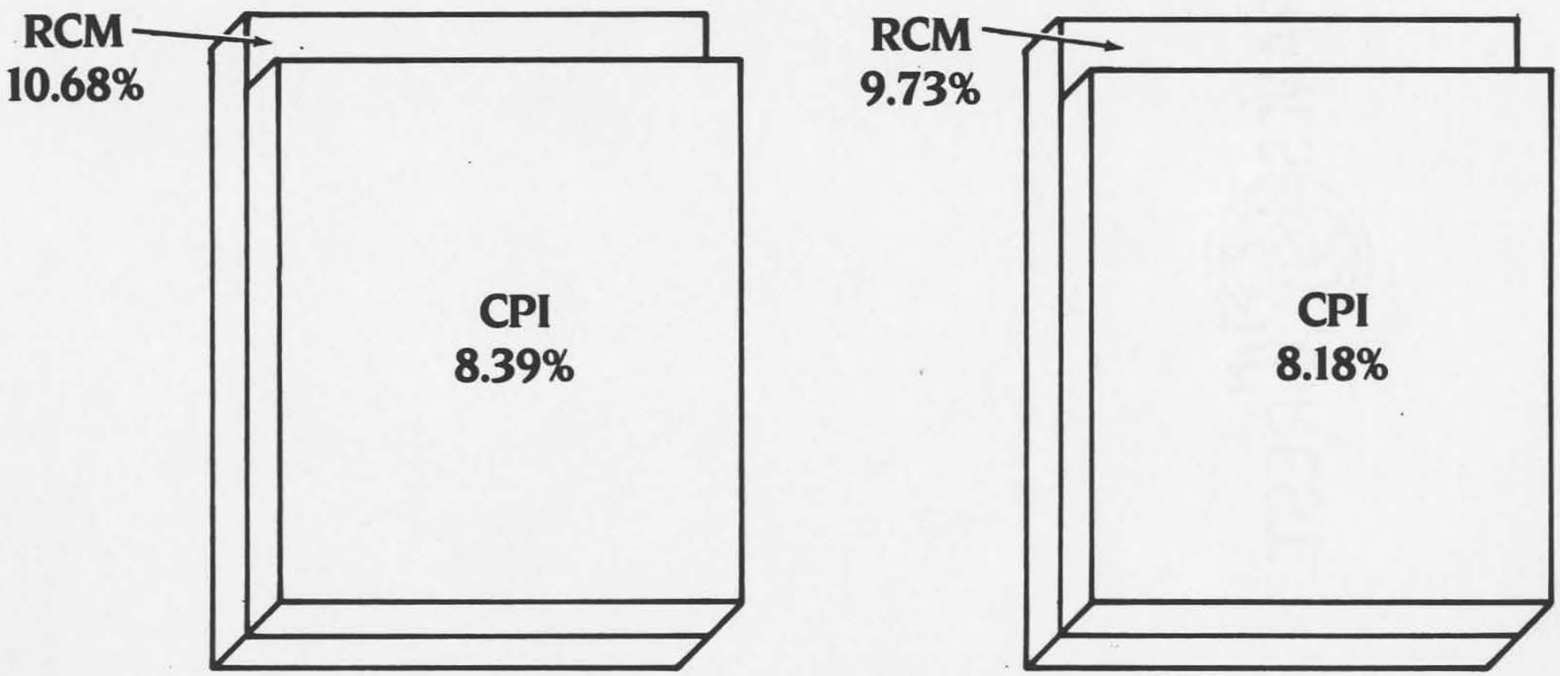
- Consistent Absolute Return
  - Debt Securities Management is Risk Management
  - Emphasis on Managing Portfolio to Meet Client Objectives
  - Focus on Absolute Return
  - Maintain Consistent Performance in Meeting Client Objectives

RCM Consistency of Return

Per Annum

5 Years 1979 – 1983

10 Years 1973 – 1983



Section Five

Section Three

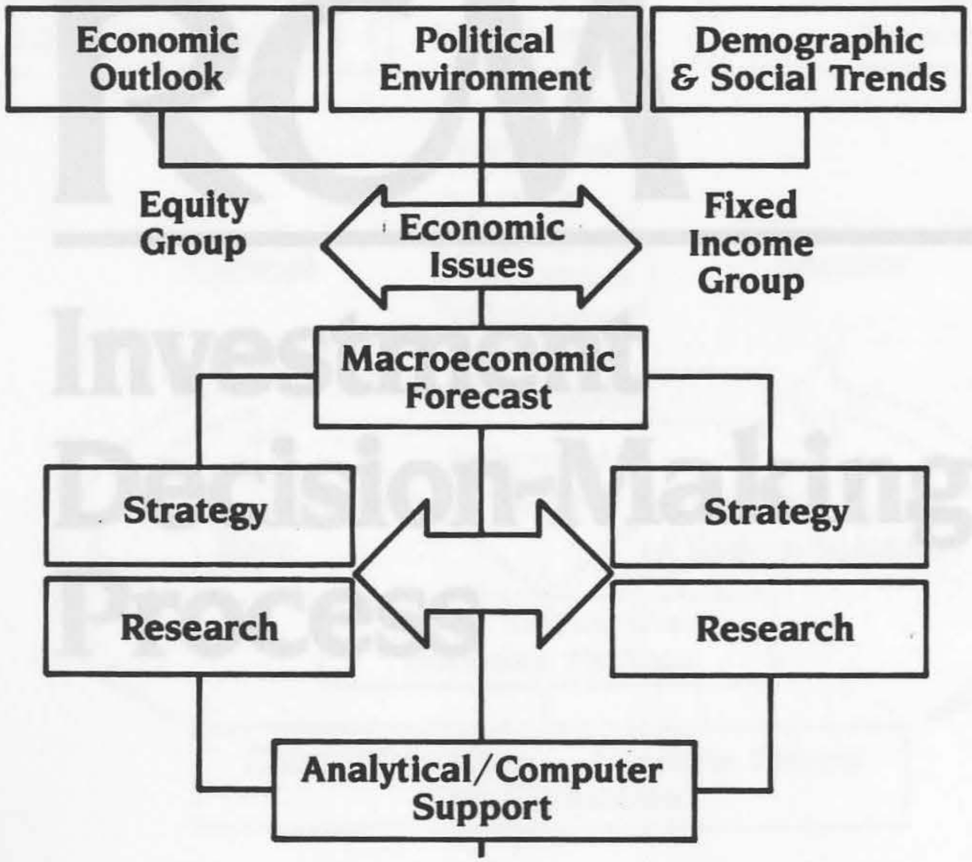
Section Four

The RCM

Investment Management Approach

Section Five
Section Four

RCM Policy Formulation

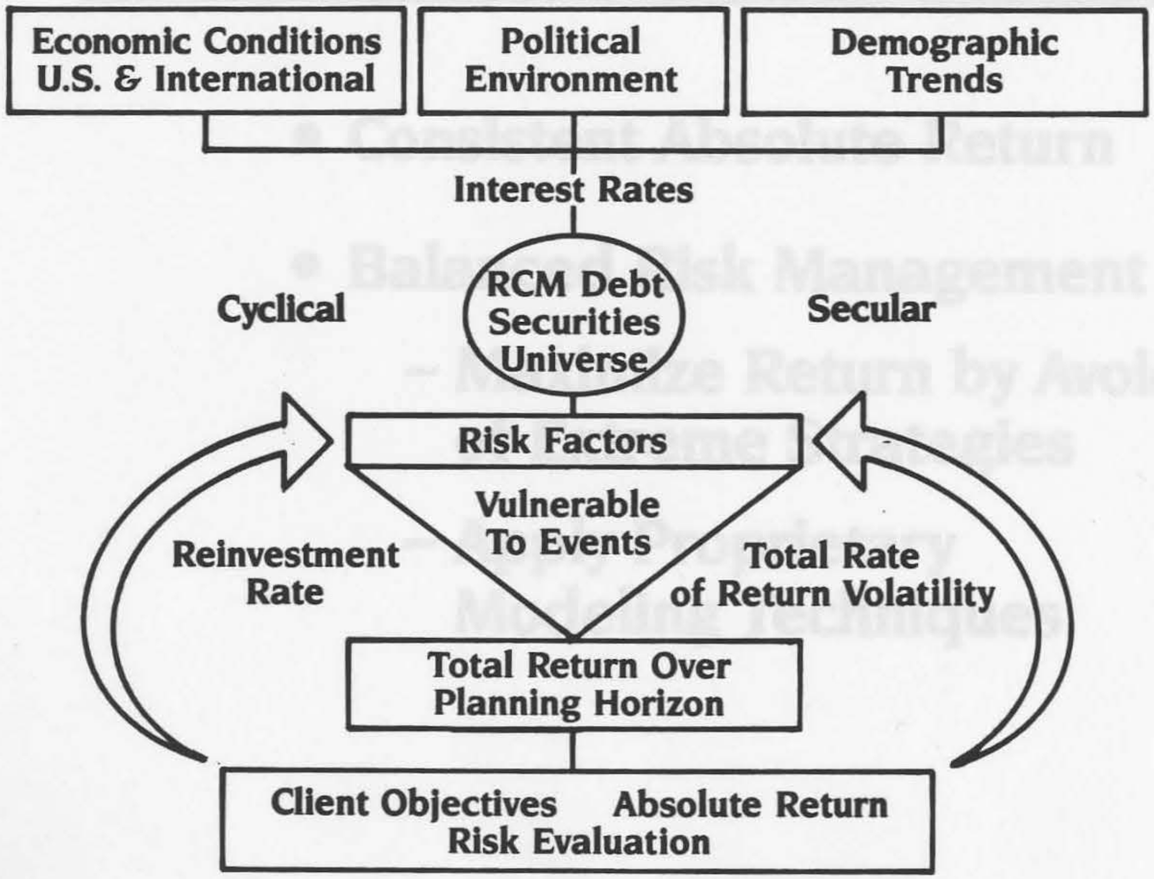


- Team Approach
- Sector Analysis
- Yield Curve/Interest Rate Forecasting
- Research Commitment
  - Debt Securities Model
  - Credit Analysis

The RCM

Investment Decision-Making Process

RCM Investment Strategy



- **Business Cycle Analysis**
- **Reinvestment Rate Risk**
- **Total Return Volatility**
- **Investment Consistency**
- **Constant Evaluation**
- **Absolute Return/Client Objective**

Section Five
Section Four

RCM Investment Philosophy

- Consistent Absolute Return
- Balanced Risk Management
  - Maximize Return by Avoiding Use of Extreme Strategies
  - Apply Proprietary Modeling Techniques

The RCM

Investment Management Strategy

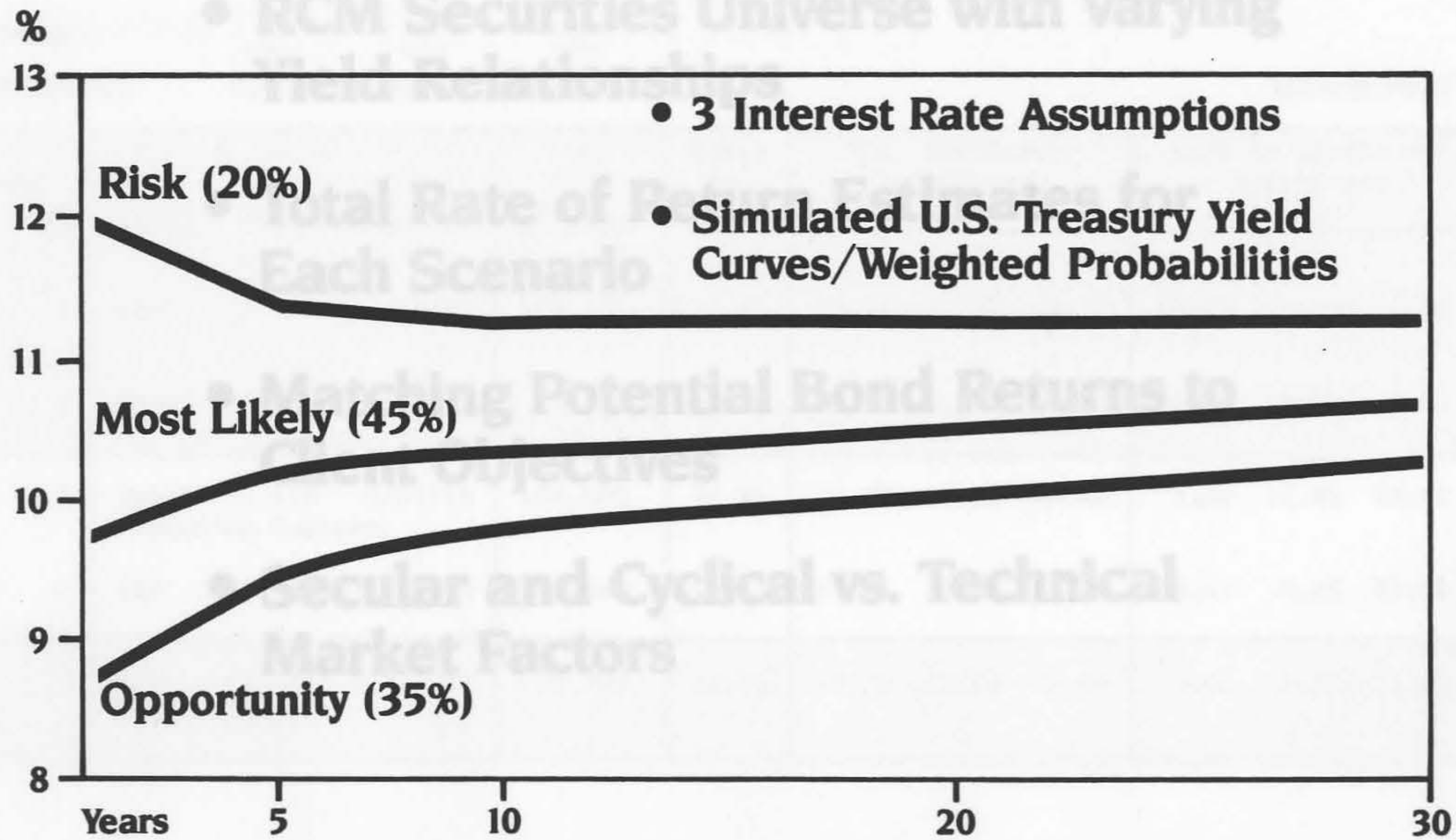
RCM Proprietary Disciplines

- Debt Securities Model
- Credit Analysis Program
- Detailed Quarterly Interest Rate Forecast
- Parameters for Portfolio Shifts Defined by Risk/Return
- Analysis of Consensus Strategic and Economic Attitudes

1983-1984 Proprietary Disciplines

- Mortgage Passthrough Cash Flow Analysis
- Statistical Model for Analyzing Mortgage Prepayments
- Zero Coupon Bond Valuation Model
- Hedging Model Using Futures and Options

Projected Risk/Opportunity



Debt Securities Market Model

- RCM Securities Universe with Varying Yield Relationships
- Total Rate of Return Estimates for Each Scenario
- Matching Potential Bond Returns to Client Objectives
- Secular and Cyclical vs. Technical Market Factors

Debt Securities Market Model

Forecast Period 12/31/82 – 12/31/83

HYPOTHESES: R M O

PROBABILITIES: 20.0% 50.0% 30.0%

REINVESTMENT RATE: 8%

RCM CRD	RCM MK	ISSUE	COUP	MATURITY	PRICE	YIELD TO MAT	YLD. ESTIMATES HYPOTHESES R	M	O	RATE OF RETURN EST. HYPOTHESES R	M	O	EXP ROR
100	7	GNMA	13 1/2	1/15/95	104.531	12.66	12.98	12.37	12.15	10.97	13.89	14.68	13.54
100	7	FHLMC	8	1/15/95	76.750	11.61	12.23	11.47	11.25	8.69	13.09	14.41	12.61
70	4	North Carolina Eastern	11 1/4	1/01/18	103.000	10.91	11.28	10.83	10.64	7.82	11.65	13.41	11.41
100	9	UST	10 3/8	11/15/12	99.140	10.43	11.28	10.68	10.24	3.25	8.25	12.33	8.48
75	5	Cleveland Elec.	8 3/4	11/15/05	72.731	12.35	13.78	12.93	12.40	2.00	7.87	11.90	7.91

Debt Securities Market Model

Forecast Period 12/31/82 – 12/31/83

12-Month Rate of Return Estimate

	Pessimistic	Optimistic	Most Likely
BOND A	7.82	13.41	11.65
BOND B	3.25	12.33	8.25

Client Objective

5.5%	CPI Estimate
+ 2%	
7.5%	Minimum Rate of Return

Sector Concentration

- Relative Value Within Capital Market
- Yield Spread Forecasts
- Yield Curve Projections
- Relative Value of Non-Traditional Sectors

Portfolio Summary

SECTOR	PAR VALUE (000's)	MARKET VALUE (000's)	PER CENT OF TOTAL	AVG. COUPON	AVERAGE MATURITY	AVG. PRICE	AVG. YTM	AVG. RATINGS MDY	MK	CRD	AVERAGE ESTIMATED RATES OF RETURN EXP	OPT	RISK	AVERAGE CURRENT RETURN
CASH EQUIVALENTS	18500	18500	22	8.5	12/30/83	100.00	8.5	AAA	10	100	8.8	9.7	7.0	8.5
US GOVT & GOVT GTD OBLIGATIONS	43000	45700	56	12.2	11/30/92	108.38	10.8	AAA	9	100	7.0	11.0	4.0	11.3
FED AGENCY & GOVT SPON. ENTERPRISES														
MORTGAGE PASSTHRUS	16000	16500	21	10.1	12/15/89	92.7	12.1	AAA	7	95	13.2	14.5	9.5	11.0
MUNICIPALS	500	550	1	10.25	12/15/22	101.50	10.08	AA	4	70	11.9	13.4	7.8	10.0
OTHER SECTORS:														
INDUSTRIAL	---													
FINANCE & BANKING	---													
FOREIGN-CANADIAN	---													
TOTAL PORTFOLIO	78000	81250	100	10.9	07/06/89	103.9	10.9	AAA	8	90	8.7	11.5	5.9	10.6

TOTAL RATES OF RETURN FORECAST FOR THE PERIOD ENDING 12/30/83
REINVESTMENT INTEREST RATE ASSUMPTION: 8.8%

Section Five

Comparative Fixed-Income Maturity/Sector Data

Portfolio Composition

Percent	12/31/78	12/31/79	12/31/80	12/31/81	12/31/82	12/31/83
Liquid Reserves	51%	33%	7%	47%	16%	27%
Bond Holdings	49%	67%	93%	53%	84%	73%
% Asset Mix of Bond Holdings						
Industrial	24%	40%	26%	10%	–	3%
Financial	37	6	2	–	–	5
Utility	0	0	8	–	–	5
U. S. Treasury	2	21	42	90	79	43
U. S. Government Agency	2	0	5	–	–	–
Mortgage passthroughs	35	33	17	–	16	44
Municipals	–	–	–	–	5	–
	100%	100%	100%	100%	100%	100%
Average maturity (years)	5.3	10.5	14.7	3.5	7.8	9.6

12/31/78 to 12/31/83 % total return

	Cumulative	Per Annum
RCM Client	65.5%	10.6%
Salomon Bros Bond Index	39.2%	6.8%

Rosenberg Capital Management
Time Weighted Composite Performance

Tax-Exempt Fixed-Income Portfolios (Including Cash Reserves)
12/31/1972 to 12/31/1983

Inception (12/31/72) To Date

	Cumulative Return	Compound Annual Return
RCM	+166.24	+ 9.31
Salomon Bros	+ 88.38	+ 5.93

1983	1Q	2Q	3Q	4Q	Annual
RCM	+ 2.75	+ 1.30	+ 2.25	+ 2.18	+ 8.77
Salomon Bros	+ 3.70	+ 1.34	- 0.28	- 0.09	+ 4.69
Mean Return					+ 8.64
Standard Deviation					0.63

1982	1Q	2Q	3Q	4Q	Annual
RCM	+ 3.05	+ 2.66	+ 9.42	+ 8.23	+25.28
Salomon Bros.	+ 3.62	+ 2.44	+21.44	+11.54	+43.74
Mean Return					+24.63
Standard Deviation					1.80

1981	1Q	2Q	3Q	4Q	Annual
RCM	- 3.84	+ 0.91	+ 0.04	+14.36	+11.01
Salomon Bros	- 1.07	- 2.27	- 9.30	+12.93	- 0.96
Mean Return					+11.09
Standard Deviation					1.74

NOTE: Composite includes Fixed-Income portion of Balanced Accounts. All portfolios are fully discretionary. The approximate average maturity of the Salomon Bros. Index is 24.2 years.

Rosenberg Capital Management
Time Weighted Composite Performance

Tax-Exempt Fixed-Income Portfolios (Including Cash Reserves)
12/31/1972 to 12/31/1983

1980	1Q	2Q	3Q	4Q	Annual
RCM	- 5.47	+15.88	- 6.02	+ 1.63	+ 4.63
Salomon Bros.	-13.53	+25.05	-11.06	+ 1.25	- 2.63
Mean Return					+ 5.71
Standard Deviation					3.06

1979	1Q	2Q	3Q	4Q	Annual
RCM	+ 2.63	+ 3.44	- 0.51	- 1.50	+ 4.03
Salomon Bros.	+ 1.60	+ 4.49	- 1.91	- 7.88	- 4.08
Mean Return					+ 4.29
Standard Deviation					1.86

1978	1Q	2Q	3Q	4Q	Annual
RCM	+ 1.09	+ 1.07	+ 2.33	+ 1.07	+ 5.68
Salomon Bros.	+ 0.03	- 1.08	+ 3.10	- 2.07	- 0.09
Mean Return					+ 5.33
Standard Deviation					1.07

1977	1Q	2Q	3Q	4Q	Annual
RCM	- 1.29	+ 2.65	+ 1.14	+ 0.44	+ 2.93
Salomon Bros.	- 2.34	+ 3.86	+ 1.08	- 0.82	+ 1.68
Mean Return					+ 2.62
Standard Deviation					0.86

NOTE: Composite includes Fixed-Income portion of Balanced Accounts. All portfolios are fully discretionary. The approximate average maturity of the Salomon Bros. Index is 24.2 years.

Rosenberg Capital Management
Time Weighted Composite Performance

Tax-Exempt Fixed-Income Portfolios (Including Cash Reserves)
12/31/1972 to 12/31/1983

1976	1Q	2Q	3Q	4Q	Annual
RCM	+ 3.49	+ 1.44	+ 3.85	+ 5.92	+15.48
Salomon Bros.	+ 4.22	+ 0.29	+ 5.57	+ 7.51	+18.63
Mean Return					+15.56
Standard Deviation					1.86

1975	1Q	2Q	3Q	4Q	Annual
RCM	+ 3.36	+ 1.86	- 0.65	+ 6.56	+11.46
Salomon Bros.	+ 4.75	+ 3.61	- 3.28	+ 9.21	+14.64
Mean Return					+10.58
Standard Deviation					0.28

1974	1Q	2Q	3Q	4Q	Annual
RCM	+ 1.32	+ 2.17	+ 0.40	+ 5.56	+ 9.71
Salomon Bros.	- 3.53	- 5.20	- 3.12	+ 9.35	- 3.11
Mean Return					*
Standard Deviation					*

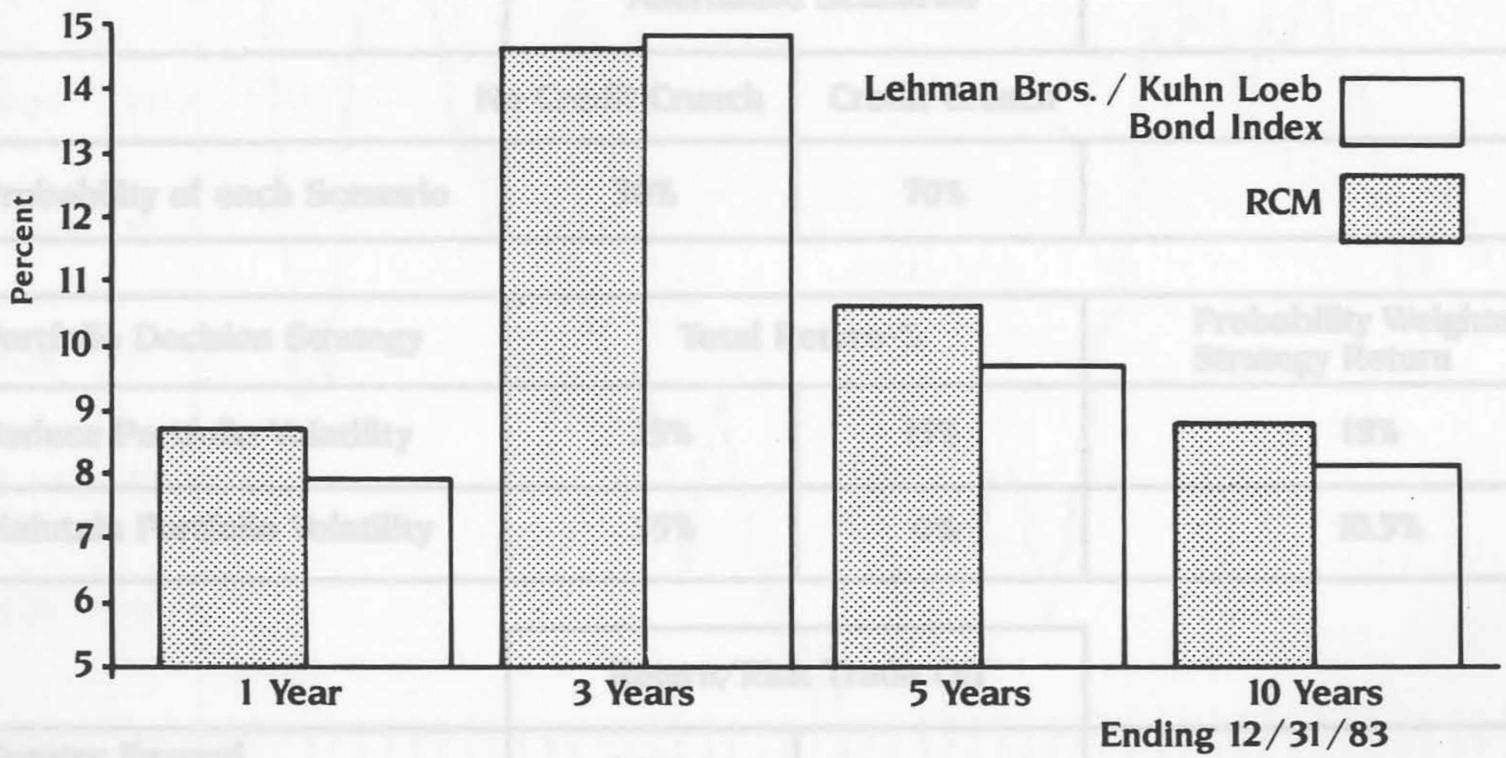
1973	1Q	2Q	3Q	4Q	Annual
RCM	+ 0.53	+ 0.13	+ 2.24	+ 2.33	+ 5.31
Salomon Bros.	+ 0.14	- 0.36	+ 2.13	- 0.80	+ 1.09
Mean Return					*
Standard Deviation					*

NOTE: Composite includes Fixed-Income portion of Balanced Accounts. All portfolios are fully discretionary. The approximate average maturity of the Salomon Bros. Index is 24.2 years.

* Figures not available as only one fixed-income portfolio was under management.

RCM Relative Performance

Annualized Rates of Return



JULY 1982 DECISION ANALYSIS FRAMEWORK

Projected 1982 Portfolio Total Return Under Alternative Investment Scenarios and Investments Strategies

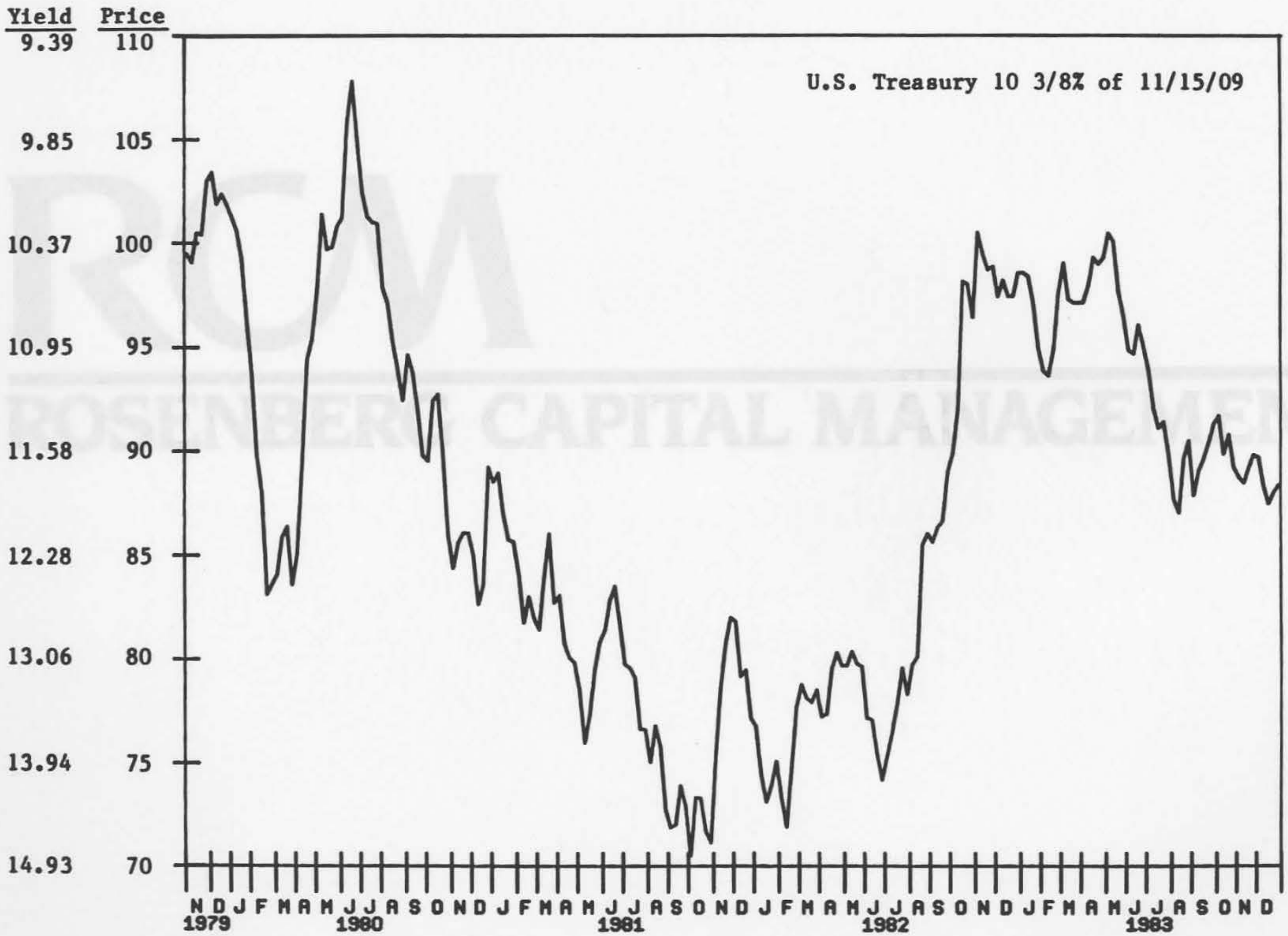
	Alternative Scenarios		
	No Credit Crunch	Credit Crunch	
Probability of each Scenario	30%	70%	

Portfolio Decision Strategy	Total Return-%		Probability Weighted Strategy Return
Reduce Portfolio Volatility	25%	15%	18%
Maintain Portfolio Volatility	35%	0%	10.5%

	Return/Risk Trade Off		
Greater Reward If No Credit Crunch	+10%		
Greater Risk If Credit Crunch		15%	

AS OF DECEMBER 30, 1983

LONG-TERM U.S. BOND PRICE/YIELD HISTORY



RCM

ROSENBERG CAPITAL MANAGEMENT

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