

George Investment View

Volume 4, Number 2

WELCOME! Previous issues of the *George Investment View* have focused security analysis on equities. In our current bull stock market, investors tend to ignore another asset class - bonds. We thought it would be refreshing to present bond analysis in this newsletter.

By Professor James E. Mallett, Director

ECONOMIC ANALYSIS

In the last three years, the U.S. economy has experienced an un-usually rare economic period - low inflation and low unemployment. This nice combination contradicts the short-run "Philip Curve" theory that higher employment is accompanied by rising inflation. While we are enjoying this "costless" economic prosperity, skeptics constantly ask when this will end. The "street wisdom" seems to look for the "trigger" from any sign of a higher inflation. For the last six months, the inflation has been kept below an annual rate of 2 %, with less than 1% so far for 1998. The cheaper foreign imports resulting from the Asian economic crisis only further helps the short-term reduction in inflation. Consequently, the long-bond yield has moved around the 6% level.

Another possible scenario of U.S. economic slowdown comes from the deteriorating U.S. exports to Asia. From a retail sales expanding at 3.8%, GDP of 3.7% and unemployment at 4.7% for the first quarter of 1998, either such impact is insignificant, or the slowdown has not yet been fully realized. The current prediction, therefore, is that the U.S. economy will remain strong throughout 1998 with inflation and interest rates staying at present levels.

INCOME PORTFOLIO PERFORMANCE UPDATE

The Spring Roland George Investments Program class of 1998 focused on the management of the Income Portfolio. The previous Income Portfolio (from the Spring class of 1997) reflects the holding of a high-grade, short duration, laddered approach (see Table 1). With declining interest rates in 1997, the 1997 performance of the Income Portfolio of 8.365%, met with that of the Merrill Lynch one to ten-year Corporate Index (8.37%). It should be noted that the Income Portfolio maturity was approximately 5 years. Thus far in 1998, the Income Portfolio has lagged behind the Merrill Lynch Index. The reason is due to the relatively short duration of the portfolio.

TABLE 1
EXISTING ROLAND GEORGE INCOME PORTFOLIO
(4/30/98)

Time Period	Return (%)	Merrill Lynch Index (%) (1-10 Year Corporate)
1997 Year	8.365	8.37
1998 Year to Date	0.45	2.12

(The portfolio has 10 issues, with an average maturity of 5.65 years and an average duration of 4.75 years. The rating is A and above, and the average investment per bond is 10% of the portfolio, i.e., \$100,000.)

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REVISED INCOME PORTFOLIO OBJECTIVES

After reviewing the Income Portfolio, coupled with a current economic and market analysis, the Spring class of 1998 decided to revise the objectives of the Income Portfolio (see Table 2). It is the general agreement of the current class that, given a stable economy and stable interest rate levels in the next six to twelve months, it may be worthwhile to increase our tolerance of interest rate risk and credit risk. This new goal is implemented by lengthening the duration of the portfolio as well as lowering slightly the minimum standard of the bond quality. All bonds purchased are still investment grade.

During the Spring semester of 1998, the class of twenty-seven graduate/undergraduate George students has recommended twelve transactions, using the newly established portfolio goals. Since the Income Portfolio has been fully invested, students have to formulate their recommendations in the formate of "bond swaps" - that is, buying a new bond to replace an existing bond in the portfolio. Their analysis has to show an obvious additional benefit, in the form of positive profit, of performing the swap. As a result, seven trades were approved by the trustees. In the following sections, we will present two of the approved recommendations.

TABLE 2
ROLAND GEORGE INCOME PORTFOLIO
OBJECTIVES

Previous Portfolio Goals (Spring Class of 1997):

- * Total returns consist largely of interest income
 - * To provide stability to the earnings of the portfolio
 - * Maximum maturity of 10 years
 - * 10% of the portfolio maturing each year
 - * Bond ratings A or better
-

Revised Portfolio Goals (Spring Class of 1998):

- * Minimum current income level of \$50,000
- * Maximize total return
- * Lengthen portfolio duration to no more than 10 years
- * Bond Ratings BBB or better

SECTOR ANALYSIS

In a recent survey conducted by twenty Wall Street analysts, the financial sector was the most popular. Interest rates are one of the primary reasons for the popularity of the financial sector. The 30-year Treasury is consistently below 6% for the first time in a generation. These low rates generate loan activity and increase the level of refinancing. A second reason for the popularity in the financial sector is the continued consolidation that is sweeping the sector. The financial sector should see continued growth in 1998.

INTEREST RATE OUTLOOK

Recent numbers suggest that interest rates should decline in 1998. Inflation, a main determinant of interest rates, has fallen from 3% to 1.4%. At the same time the unemployment rate has fallen from 5.3% to 4.6%. In addition, the Federal Reserve Board of Governors has given no indication that they will raise the Federal Funds Rate.

by Ray Laliberte

LEHMAN BROTHERS HOLDINGS, INC.

RECOMMENDATION
BUY

TICKER SYMBOL
LEH

COUPON
8.75

MATURITY DATE
05/15/02

YIELD
6.58

ADJUSTED DURATION
3.37

BLOOMBERG RISK
3.74

CONVEXITY
0.14

TYPE
FINANCIAL

COUPON FREQUENCY
SEMI-ANNUAL

COUPON TYPE
FIXED

S&P RATING
A

COMPANY DESCRIPTION

Lehman Brothers Holdings, Inc., is a leader in investment banking, with offices in the U.S., Latin America, Europe, the Middle East, and Asia. Lehman Brothers is actively involved in raising money for corporations, institutions, and government clients through underwriting and placing securities. Lehman Brothers is also involved in advisory and investment management services. In addition, Lehman Brothers trades stock, currency, derivatives, and commodities.

BOND SELECTION PROCESS

This bond was selected after running a custom bond search on the Bloomberg system. After selecting GMAC as the candidate a search was conducted with the following criteria: financial sector, duration less than 5 years, and an S&P rating of A. Once receiving search results, it was discovered that the Lehman Brothers bond has the same S&P rating and a higher coupon than the GMAC bond. Then looking into the swap it was also discovered that the adjusted duration, Bloomberg risk and convexity are approximately the same. After studying historical data it was concluded that this was a viable bond swap candidate.

BOND ANALYSIS

The bond swap recommended involves a pure yield pickup. This swap will involve a switch – from a 6.75 % coupon with a 6.08% yield to a 8.75% coupon with a 6.58% yield – without increasing the risk inherent in the Roland George Fixed Income Portfolio.

In 1994 Lehman Brothers was spun off by American Express Co. (AXP) to stockholders and the public. This allowed Lehman Brothers to end an unsuccessful partnership with AXP's Shearson retail brokerage business. In the four years since being spun off Lehman Brothers has taken the necessary steps to reinvent their identity. Lehman Brothers has been cutting costs and diversifying its fixed-income franchise to focus on other businesses that provide

higher returns. Recently analysts have called Lehman Brothers a "very attractive partner." Analysts are impressed with the way the company has expanded its franchise and increased its ROE.

The Lehman Brothers bond is currently undervalued based on the historical yield spread between the two bonds. This yield spread has averaged 37 basis points since September 1997. At the same time, it has been as high as 70 basis points and as low as 3 basis points.

The following is a parallel yield shift table for the swap candidates:

<i>SHIFT</i>	<i>4/26/98</i>		<i>9/26/98</i>		<i>3/26/98</i>	
50	290/	54	2407/	61	5009/	72
0	444/	54	2654/	62	5368/	73
-50	617/	55	2920/	62	5747/	74

LEHMAN BROTHERS HOLDINGS, INC.

The parallel yield shift table details the swap analysis for a parallel shift in the review yields. This table indicates that this swap will be profitable whether rates rise or rates fall on the review dates and will increase the portfolio's return regardless of changes in interest rates.

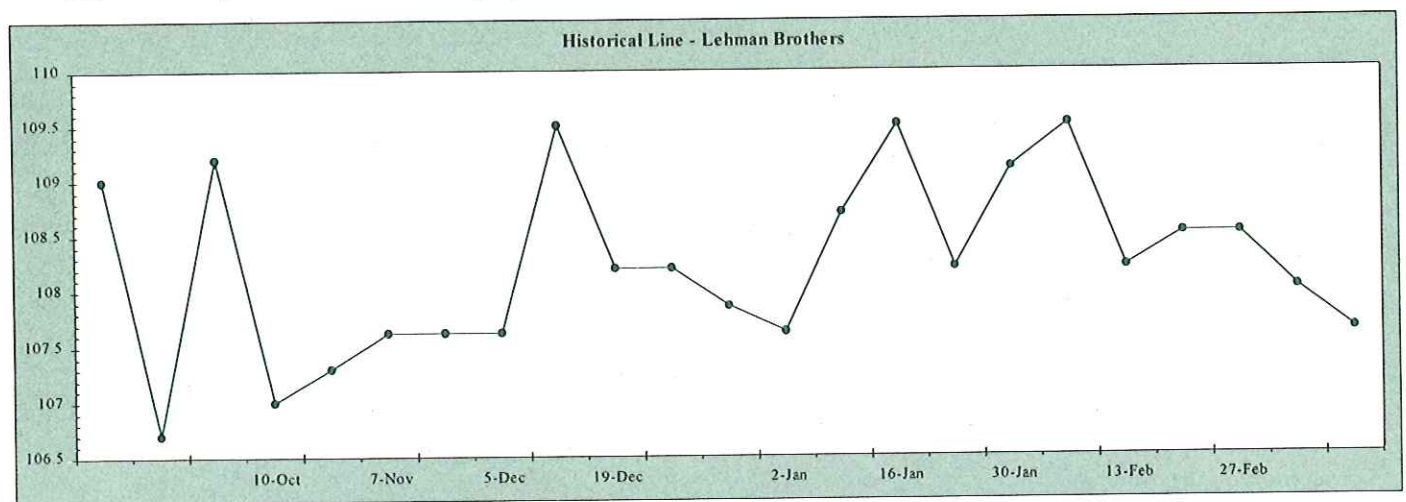
The Bloomberg fair yield relative value also indicates that the Lehman Brothers bond is currently undervalued. On average the actual yield of the Lehman Brothers bond is 17.4 basis points away from its Bloomberg fair yield relative value. At time of analysis, the bond was 29.4 basis points away, indicating that this bond is undervalued. The Bloomberg fair yield relative value for the GMAC bond, currently 1.6 basis points off its average, indicates that the bond is fairly valued at the present time. Based on the Bloomberg fair yield relative value the time is right to make this swap.

The following is a total return analysis table for the swap candidates:

<u>TOTAL RETURN ANALYSIS</u>		
<u>YIELD SHIFT(BP)</u>	<u>GMAC</u>	<u>LEHMAN BROTHERS</u>
-150	15.10%	15.82%
-100	12.02%	12.69%
-50	9.00%	9.62%
0	6.03%	6.61%
50	3.11%	3.66%
100	0.25%	0.76%
150	-2.56%	-2.08%

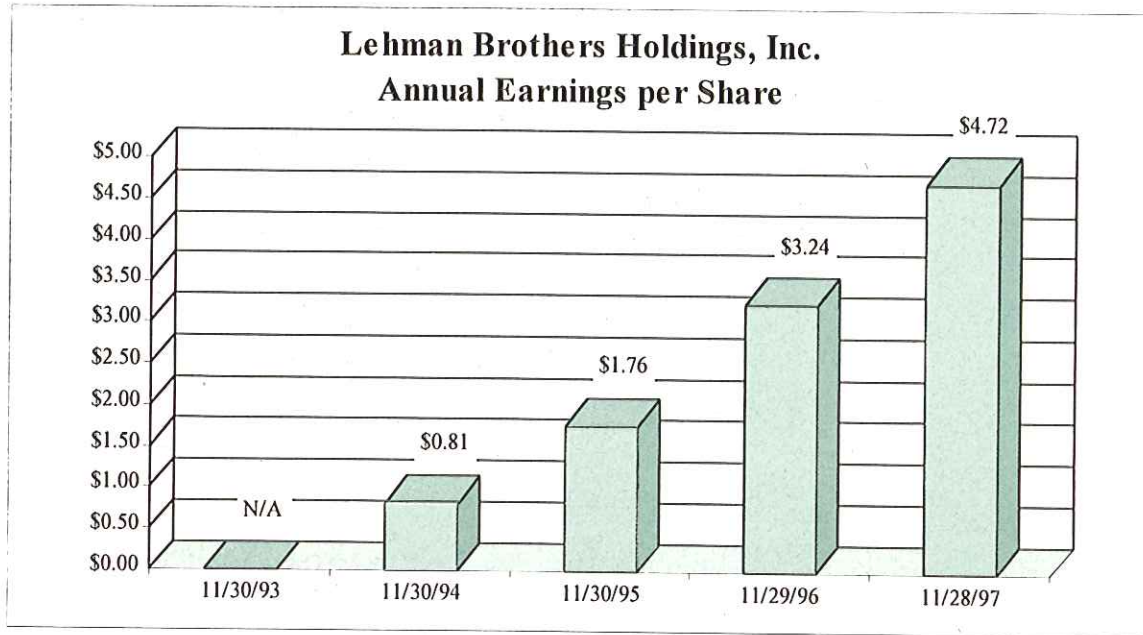
This chart shows how the total return would be affected by shifts in interest rates. The Lehman Brothers bond will outperform the GMAC bond under all conditions. If interest rates remain neutral this swap will add 58 basis points to the portfolio's return. If interest rates decline by 50 basis points this swap will add 62 basis points to the portfolio's return. Interest rates would have to rise by more than 100 basis points for the Lehman Brothers bond to have a negative return. If interest rates increase by 150 basis points the GMAC bond will lose 48 basis points more than the Lehman Brothers bond. Based on the total return analysis this swap will add return to the portfolio whether rates go up or down.

The following is a historical line graph for the Lehman Brothers bond:



This graph indicates that the Lehman Brothers bond is currently undervalued. The bond's price tends to fluctuate between 107 and 109, with an average of 108.195. Currently the Lehman Brothers bond is trading at 107.625. This price is \$5.70 less per share than the bond's average. Based on historical prices the time is right to purchase the Lehman Brothers bond.

Currently the yield spread between the U. S. Treasury and the Lehman Brothers bond is 108 basis points. The average yield spread between September 1997 and March 1998 is 92 basis points. The yield spread tends to move in range over time. At the present time, the yield spread between the two is widening and should tighten in the coming months. Based on the historical yield spread between the Lehman Brothers bond and the Treasury now is the right time to purchase this bond.



Lehman Brothers is currently enjoying tremendous growth — evident in the above chart. Earnings per share increased over 45 percent in 1997, going from \$3.24 in 1996 to \$4.72 in 1997. This is even more impressive because the number of shares outstanding increased by more than 16 million in 1997. Lehman Brothers also has a low 5.05 debt-to-equity ratio, with a respectable 16.1 percent return-on-equity. Analysts are predicting that Lehman Brothers will continue their recent growth in 1998. These factors indicate that Lehman Brothers bond rating should improve in the near future.

CONCLUSION

Based on the above analysis the GMAC bonds should be swapped with Lehman Brothers bonds. In summary, the following facts provide proof of the profit to be gained:

- * Lehman Brothers is improving their operations and should see an improved bond rating in the future.
- * The financial sector is on track to have a good year in 1998.
- * This swap is consistent with the goals of the Roland George Fixed Income Program.
- * Based on analysis of historical yield spreads, parallel yield shifts, and Bloomberg fair yield relative value the
- * Lehman Brothers bond is undervalued at this time.
- * The total return analysis favors the Lehman Brothers bond under all interest rate assumptions.
- * The Lehman Brothers bond is currently undervalued in relation to its historical price patterns.
- * The spread between the Lehman Brothers bond and the Treasury is larger than its historical average.
- * Making this swap will increase the portfolio's return without adding unnecessary risk.

by Ray Laliberte

SUNAMERICA, INC.

RECOMMENDATION

BUY

TICKER SYMBOL

SAI

COUPON

8.125

MATURITY DATE

04/28/23

YIELD

7.29

MOD. DURATION

10.88

COMPOSITE RATING

A3

CALL FEATURE

NOT CALLABLE

PVBP

.12295

SECTOR

FINANCIAL

BID-ASK SPREAD

LESS THAN 1 BASIS POINT

COMPANY PROFILE

SunAmerica, Inc. conducts its business through five segments: annuity operations, asset management, retirement trust services, broker-dealer operations and premium financing. SunAmerica holds more than \$52 billion in assets and serves more than 1.7 million customers nationwide. With the fifth largest securities sales force in the U.S. (behind Merrill Lynch, Smith Barney, Dean Witter and PaineWebber), SAI is in a relatively strong position to continue its expansive growth. SAI's products are sold through its own registered representatives, other representatives of unaffiliated broker-dealers, independent general insurance agents, and financial institutions. SAI's flagship product, Polaris, has risen from 25th place to 5th place in the past two years among all variable annuity products. SAI acquired \$10 billion in annuity reserves in 1996 and 1997 from Ford Life Insurance Co. and John Alden Financial Corp. SAI's information systems easily accommodated the new reserves and achieved an economy of scale in significantly reducing the unit cost of processing. Last July, SAI sold an additional \$577 million of its common stock to raise capital for continued growth.

CREDIT ANALYSIS

Quarterly revenues have been rocketing. The latest quarter showed a 44% growth over the same quarter last year; the past 12 months showed a 41% increase over the previous 12 months. EPS also increased 35% in the most recent fiscal year over the past fiscal year.

	1994	1995	1996	1997
Per-share cash flow	3.20	3.92	4.65	6.58
LT Debt / Assets	3.2%	3.4%	3.4%	4.6%
Debt Ratio	34.9%	32.3%	32.8%	32.6%

As shown above, cash flow per share has more than doubled from \$3.20 in 1994 to \$6.58 in 1997. Long-term debt as a percent of total assets has been slightly increasing from 3.2% in 1994 to 4.6% in 1997. The debt ratio has hovered between 32% and 35% over the past four years. SAI's S&P bond rating was raised in 1989 from BB+ to A and has remained at A since 1989. This credit rating is unlikely to be revised downward and could be moved upward as a result of SAI's increasing revenue, earnings, and cash flow.

RECENT NEWS

SAI was named by *Business Week* in March as the 34th best performing company in the S&P 500. "The Business Week 50 is an annual ranking of the best performing companies in the S&P 500. Unlike other lists, which classify companies by sheer size or market capitalization, it is a dynamic, growth-oriented measure that accurately reflects and rewards those companies that consistently perform better than their peers." (*Business Week*).

SAI announced in April that it acquired Sentra Securities Corporation and Spelman & Co., Inc. Both firms together have approximately 500 registered representatives across the nation. "Over the past two and one-half years, SunAmerica

has acquired five broker-dealers, including Sentra-Spelman, and increased the size of the SunAmerica Financial Network by more than 50%, adding more than 3,400 new financial professionals." (SunAmerica news release).

VALUATION AND TIMING

Over the past six months, the issue has fluctuated from 107.4 basis points to 140.3 basis points above the comparable U.S. Treasury, with an average of 122.1 basis points. Currently, the issue is 137.2 basis points above the Treasury, or about 15 basis points above the average. With a PVPB of \$0.12295, the 15 basis points are equivalent to \$1.84. Thus, the issue is yielding 15 basis points above average which means it is *underpriced* by \$1.84. This is an excellent buy signal. The spread over sector was unavailable.

The total return for a yield curve shift is significant because of the long duration of 10.88. If the shift occurs in six months, the total return for six months is:

SHIFT (BP)	YTM (%)	PRICE (\$)	TOTAL RETURN (%)	BLOOMBERG PROBABILITY (%)
-100	6.288	122.83	30.8	45.6
-50	6.788	115.87	18.54	25.7
0	7.288	109.50	7.29	38.6
+50	7.788	103.66	-3.03	22.8
+100	8.288	98.29	-12.51	6.1

The Bloomberg probabilities suggest a slight bias toward a downward shift in interest rates over the next six months.

SWAP ANALYSIS

Because the price of the SAI bond is about \$1,100, we should buy 45 units of SAI (about \$50,000). This minimizes the takeout to about \$50 (according to Bloomberg). The bid-ask spread on each bond is less than 1 basis point. If interest rates do not change, the one-year net P&L is about \$640 with a return pickup of 120 basis points. The annual cash flow from coupons will increase from \$3,188 to \$3,656.

The cash flow is congruent with the class' goal of raising the portfolio's total income to over \$50,000. The duration of the portfolio will also rise. The exact change in duration is difficult to compute because it is

not known which other bond swaps will be accepted and/or executed at the trustee meeting. However, as a result of the IBM-SAI swap, the duration of the entire portfolio will increase by approximately .4 (four-tenths) years. This is congruent with the portfolio's goal of lengthening the duration. As a result of a longer duration, the swap and portfolio is more sensitive to interest rate changes. See the table below for detailed yield-shift swap scenarios:

SHIFT (BP)	REVIEW IN 6 MONTHS		REVIEW IN 1 YEAR		REVIEW IN 2 YEARS	
	P&L	YIELD PICKUP	P&L	YIELD PICKUP	P&L	YIELD PICKUP
-100	\$5559	21.66	\$6055	11.10%	\$7092	6.04
-50	2806	10.93	3218	5.98	4082	3.54
-25	1529	5.96	1898	3.55	2672	2.34
0	315	1.23	639	1.20	1320	1.17
+25	-840	-3.28	-562	-1.07	-25	.02
+50	-1940	-7.56	-1708	-3.27	-1217	-1.09
+100	-3983	-15.52	-3845	-7.44	-3550	-3.25

NOTE: This table does NOT consider the expected effect of the SAI price rising due to the issue being undervalued.

SPREAD ANALYSIS

Over the past six months, the spread between the IBM and SAI issues has fluctuated between 82 and 161 basis points with an average of 124. The current spread is 129, or 5 basis points above the average. Thus, the relative spread is favorable and the SAI price should rise relative to the IBM bond.

Bloomberg also calculates a fair market sector curve. This takes rating, sector, and maturity into account. The IBM parameters of A1, Industrial, 2-year maturity have a fair market sector yield of 5.96%. The SAI parameters of A3, Finance, 25-year maturity have a fair market sector yield of 6.90%. The fair spread is, therefore, about 94 basis points.

However, the actual IBM yield is 6.0% and the actual SAI yield is 7.29% for a spread of 129 basis points, or 35 basis points above fair value. Because the IBM yield almost exactly matches the fair sector yield, the SAI yield is expected to fall. When the yield declines by the 35 basis points, the price will rise about \$4.30. Therefore, the timing for the swap is excellent.

By Eric Klissel



School of Business Administration
George Investments Institute
421 N. Woodland Blvd., Unit 8398
DeLand, FL 32720-3774



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COMMENTS & DISCLAIMER

The Roland George Investments Program was created in 1980 by Sarah George to provide a unique experience for future investment professionals. This bequest was intended to honor her husband, Roland, who, after completing his education, began to ply his trade and promptly lost money. Mr. George decided that serious flaws were evident in the traditional educational process for future investors since by overcoming his formal education he was able to master investing, and in short get rich.

From this start, Mr. George formed the ideas of creating an investment curriculum that combined academic theory with real world experience. This dream came true when Sarah George funded the Roland George Investments Program. This program provides support for the applied investments program at Stetson University where students manage a \$2 million dollar portfolio. Insights are gained through contact with professionals such as B. Carter Randall and Robert Stovall of Stovall/ Twenty-First Advisors, Inc.

For information on the Roland George Investments Program contact Dr. James Mallett at 904-822-7442.

GEORGE INVESTMENTS INSTITUTE STAFF

Director:

James E. Mallett, Ph.D.
james.mallett@stetson.edu
www.stetson.edu/~jmallett

Advisor:

Christopher K. Ma, Ph.D., CFA
Visiting Roland and Sarah George Professor
of Applied Investments

Publications Specialist:

Lynn Thompson

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