KENTUCKY ASSET/LIABILITY COMMISSION



SEMI-ANNUAL REPORT



For Period Ending December 31, 2002



This is the Kentucky Asset/Liability Commission's ("ALCo") twelfth semi-annual report pursuant to KRS 56.863(11) for the period beginning July 1, 2002 through December 31, 2002. In complying with the Governor's cost cutting directives in the area of printing and with the very narrow reader-ship of this report, OFM will distribute only black and white versions to the ALCo Board members and to the Legislative Research Commission. This report may be viewed in color on the OFM web site at http://ofm.state.ky.us.

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KEY THEMES

On the national level:

- Global tensions continue to mount with Iraq and North Korea.
- Dow Jones Industrial Average slides by as much as 24 percent during the reporting period before finishing the year with an annual loss of approximately 18.6 percent.
- Federal Reserve cuts the borrowing rate to banks by 50 basis points to 1.25 percent.
- Majority of states face significant revenue shortfalls.

On the state level:

- Kentucky begins its fiscal year without an enacted budget..
- Operations and the payment of debt service continue under an Executive Spending Plan.
- Lack of an enacted budget delays issuance of Tax and Revenue Anticipation Notes.
- Standard & Poor's downgrades the Commonwealth's appropriation supported debt to A+.
- Moody's confirms its negative outlook, but does not take any action.
- State faces significant fiscal reductions.

INVESTMENT MANAGEMENT

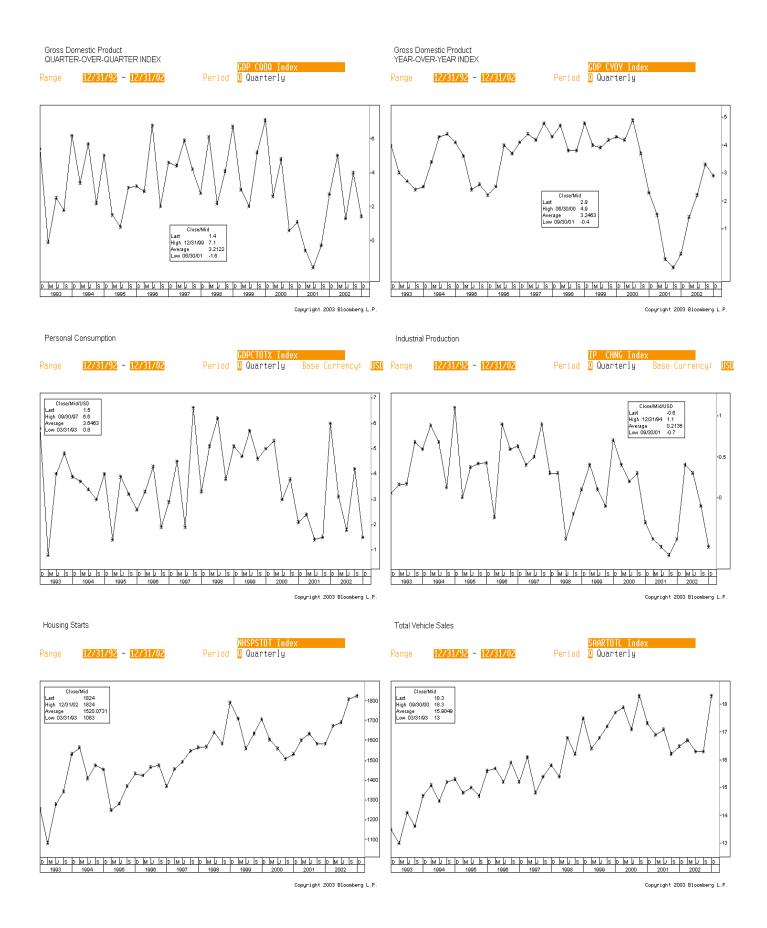
Market Overview. Two themes have driven the economy through the second half of calendar year 2002. First, the "jobless recovery" appears to be losing steam. Non-farm payrolls actually declined by 75,000 from June to December. The lackluster job market has a negative impact on confidence and consumer spending which ultimately limits business investment. The second theme driving the economy is geopolitical risk. The war on terror has continued, and it appears likely that a war with Iraq is imminent. This compounds the above problems by further weakening consumer confidence and limiting business expansion and investment due to the level of uncertainty. Additionally, instability in the Middle East has caused major increases in the price of oil.

Offsetting the negatives above are several positive factors. First, the housing market has set records for both new home sales and existing home sales. Additionally, mortgage refinancings reached record levels during the fall of 2002 as 30-year fixed mortgage rates have hit 40-year lows of less than 6 percent. Second, the Federal Reserve continues to apply monetary stimulation to the economy as they lowered the Fed Funds rate to 1.25 percent during November. Third, the federal government is applying fiscal stimulation to the economy by running large budget deficits estimated to top \$300 billion in 2003, excluding the cost of a possible war.

Real or inflation adjusted Gross Domestic Product ("GDP") grew by 4 percent during the third quarter of 2002, but slowed to a preliminary estimate of growth of 1.4 percent during the fourth quarter. The year-over-year change declined from 3.3 percent in the third quarter to 2.9 percent in the fourth quarter. Combining this trend line with the expectation of no growth or slight declines in Japan and most of Europe implies that U.S. growth during 2003 will be at rather low levels. The GDP Deflator, the broadest measure of inflation, increased slightly from 1 percent in the third quarter to 1.6 percent in the fourth quarter. This increase was driven primarily by increases in the cost of oil but shows that inflation remains subdued.

Consumer spending declined from growth of 4.2 percent during the third quarter to only 1.5 percent during the fourth quarter. The year ended with a disappointing Christmas season as personal expenditures only grew by 1.0 percent for the month of December. The brightest spot in consumer spending was auto sales. For the year, over 16.8 million vehicles were sold. Very large incentives continued to drive this market, but predictions are for this sector to decline somewhat during 2003. Personal income has accelerated somewhat as the year-over-year growth rate increased from 3.6 percent in the third quarter to 4.3 percent in the fourth quarter.

Industrial production has fluctuated throughout the second half of the year but averaged a monthly decline of .07 percent. Helping to insulate production from further declines has been a gradual build up of inventories throughout most of the year with the biggest increases occurring in the second half of the year. Somewhat worrisome is the low level of capacity utilization which stands at 75.2 percent. Business can increase production substantially without having to add employees which could continue the jobless recovery. However, with utilization this low, the economy can grow rapidly without fear of inflation.



Interest Rates. Treasury rates continued the same downward trend as was experienced in the first half of 2002. The two-year Treasury fell from a high of 2.87 percent on July 5 to a low of 1.60 percent on December 27. The average for the six month period was 2.04 percent versus 3.18 percent during the first half of the calendar year. The 10-year Treasury fell from a high of 4.86 percent on July 5 to end the year at 3.82 percent. It actually reached a low of 3.57 percent on October 9. The average fell from 5.06 percent during the first half of the year to 4.12 percent during the second half. Mortgage rates also declined significantly during 2002. The Federal Home Loan Mortgage Corporation has published the average rate for 30-year fixed mortgages weekly since 1971. During the week ended December 27, the rate for the 30-year fixed mortgages hit an all time low of 5.93 percent. Also, on November 6, the Federal Reserve lowered their target for Fed Funds by 50 basis points to 1.25 percent. This is the lowest level for Fed Funds since April of 1958 when funds were 1.0 percent.

Yield Relationships

Tax-Exempt. The Bond Buyer 20-year General Obligation Index averaged 4.90 percent for the six-month period and 5.04 percent for the calendar year. The high was 5.34 percent in March and the low was 4.66 percent in October.

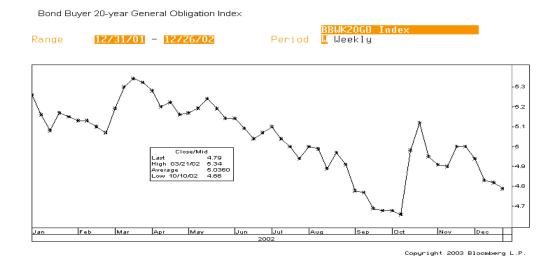
The Bond Market Association ("BMA") Municipal Swap Index averaged 1.40 percent for the reporting period and 1.38 percent for the year. The high was 1.85 percent in October and the low 1.01 percent in December. The USD London Interbank Offered Rate ("LIBOR") averaged 1.69 percent for the period and 1.77 percent for the year. The high was 1.91 percent in March and the low was 1.38 percent in November.

Ratios of tax-exempt securities versus taxable securities continued at historically high levels. BMA traded as high as 124 percent of LIBOR and as low as 59 percent while averaging 83.6 percent for the reporting period. Long-term 20-year bonds traded as high as 93.6 percent of LIBOR and as low as 87.9 percent of implied 20-year LIBOR rates and averaged 90.5 percent for the six-month period.

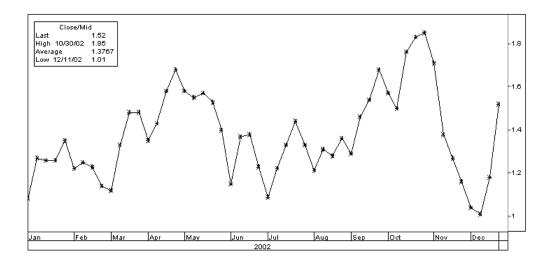
Portfolio Management. For the fiscal year-to-date ("FYTD") 2003, the Commonwealth's investment portfolio averaged \$2.8 billion. As of December 31, 2002, the portfolio was invested in: U. S. Treasury Securities (22 percent), U. S. Agencies Securities (42 percent), U. S. Agency Mortgage Backed Securities (2 percent), Collateralized Mortgage Obligations (5 percent), Repurchase Agreements (9 percent), Municipal Securities (2 percent), Corporate Securities (8 percent), Asset Backed Securities (3 percent) and Money Market Securities (2 percent). The portfolio had a current yield of 1.99 percent and a modified duration of 1.72 years.

The portfolio is broken down into five investment pools. The pool balances as of December 31, 2002 were: Short-term — \$330 million, Intermediate-term — \$2,096 million, Long-term — \$211 million, Bond Proceeds — \$583 million, and TRAN pool — \$503 million.

Total investment income from all investments, on a cash basis, for the first six months of FY 2003 was \$73.5 million versus \$100.5 million during the same period of FY 2002. On an accrued basis, investment income is \$95 million versus \$105 million the previous year-to-date.







Bond Market Association "BMA" Municipal Swap Index as a percent of one month LIBOR

RANGE 1/ 2/02 TO 12/25/02



The decrease in earnings is attributable partially to reduced yields available because of the general level of interest rates and partially to a reduction of roughly \$1 billion in investable balances. The General Fund portion of investment income, on a cash basis, has been \$0 so far this year because the General Fund has had negative balances throughout the year. It is anticipated that the General Fund will incur a net interest expense of approximately \$4-6 million for FY 2003 due to significant inter-fund borrowing. New asset classes authorized under House Bill 5 of the 1997 First Extraordinary Session of the General Assembly contributed \$2.8 million during the first half of the fiscal year and \$24.8 million since inception on a cash basis.

For additional information, please refer to the December 2002 Monthly Investment Income Report which can be found at the OFM web site at http://ofm.state.ky.us.

DEBT MANAGEMENT

All General Fund bond projects authorized by the 2000 General Assembly were funded in full prior to June 30, 2002 in efforts to avoid any concerns given the lack of a legislatively enacted budget. During the reporting period, OFM has undertaken economic refundings for state universities and the Kentucky Infrastructure Authority that have produced average annual debt service savings of \$183,000. Additional refundings are expected in Spring 2003.

Ratings Update:

- On August 6, 2002, Moody's removed Kentucky from its "Watchlist" citing the effective implementation of the Governor's Executive Spending Plan ("the Plan") and the belief that a swift solution would materialize in the event of an unfavorable legal ruling concerning the Plan's validity.
- Standard and Poor's downgraded the appropriation supported obligations of the Commonwealth on October 9, 2002 to A+ from AA- and at the same time removed the Commonwealth from "CreditWatch Negative."

FitchRatings generally does not issue rating outlooks and has not to this point taken any action.

Rating concerns continue to be:

- Legality of an Executive Spending Plan. The long and protracted litigation process has not yielded any results or direction for similar future situations should they arise.
- **Structurally balanced budget**. The state appears poised to either make dramatic cuts, increase revenues, or some combination thereof to address the structural imbalance that currently exists and is projected to worsen. The timing and nature of any cuts is of particular concern to the credit community.
- Lack of liquidity. The Commonwealth is experiencing a significant decline in liquidity that gives the state little, if any flexibility to address future problems.
- **Replenishment of the Budget Reserve Trust Fund** ("BRTF"). Development and implementation of a plan to revitalize the BRTF to cushion future cycles is an important element to the long term credit and stability of the Commonwealth.

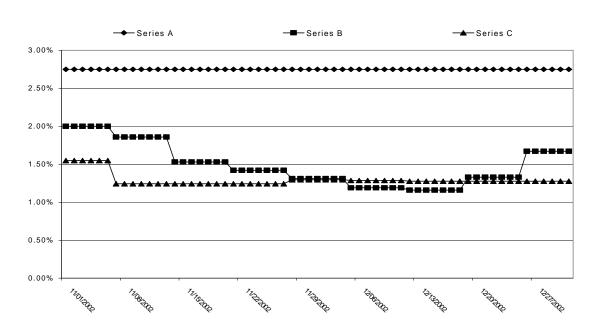
Failure to address these issues, especially the first two, prior to June 30, 2003, would likely result in the Commonwealth being placed on negative outlook and/or further downgrades depending upon the circumstances.

Tax and Revenue Anticipation Notes

2002 TRAN. The issuance of TRANs was delayed due to the lack of a legislatively enacted budget. Although the TRAN does not require budget authorization, the rating agencies had legal and structural concerns which took several weeks to address. The uncertainty also slowed the revenue and cash flow projection process, further complicating and delaying the issuance. During the delay, the tax-exempt market deteriorated considerably versus the U. S. Treasury market making it difficult to issue the TRANs economically. OFM decided to lower the issuance amount to ensure profitability versus internal borrowing. OFM and ALCo entered into various interest rate swaps with Salomon Smith Barney ("SSB") and others to both invest and hedge the TRAN proceeds resulting in a 13 basis point spread over the all-in cost of funds. The total investment income at December 31, 2002, excluding mark-to-market adjustments, was \$117,009. OFM expects an economic benefit of approximately \$1 million.

ALCo authorized the FY 2003 TRAN program in an amount not to exceed \$850 million. On November 1, 2002, \$500 million of TRANs in three series, were issued to mature on June 26, 2003. The 2002 TRANs were sold by SSB on October 17, 2002. Two hundred fifty million dollars (\$250,0000,000) 2002 Series A TRANs were issued as fixed rate notes with a coupon of 2.75 percent to yield 1.67 percent.

Two hundred million dollars (\$200,000,000) of Series B TRANs were issued in the Index Rate Mode to bear interest equal to 100 percent of the BMA Index plus 0.15 percent, adjusted weekly. The initial yield at the time of sale was 2.0 percent. The Series B Notes have averaged 1.49 percent through December 31, 2002.



2002 TRAN Series Comparison

Also, fifty million dollars (\$50,000,000) of Series C TRANs were issued in an Index Rate Mode, pegged to 90 percent of 30-day LIBOR. Initial yield was 1.55 percent and the Series C Notes have averaged 1.30 percent through December 31, 2002. BMA since the sale date through December 31, 2002, has averaged 94 percent of 30-day LIBOR.

Project Notes. General Fund Project Notes 2002 Series A in the amount of \$12,775,000, which were issued on June 26, 2002 to fund the remaining Economic Development Bond ("EDB") Pool projects authorized by HB 507, will mature on November 1, 2003. The Notes will then be refinanced.

The Agency Fund Project Notes 2002 Series A also mature on November 1, 2003. These Notes in the amount of \$6,360,000, funded the University of Kentucky's Center for Rural Health and will also be refinanced.

Additionally, there are two other General Fund supported fixed rate series of ALCo Project notes currently outstanding. They were originally issued as seven-year notes to fund equipment acquisition, primarily for higher education. The 1999 First Series and the 2001 First Series Project Notes had \$29,690,000 and \$32,710,000 principal outstanding at December 31, 2002, respectively.

The total amount of all project notes outstanding as of December 31, 2002 was \$81,535,000.

FINANCIAL AGREEMENTS

As of December 31, 2002, ALCo had five financial agreements outstanding, but a net notional amount exposure of \$113,185,000. These transactions are detailed in the table on page 8.

Of the outstanding financial agreement transactions, the first item is a total return swap related to the \$56,485,000 July 1, 2009 maturity of the Turnpike Authority of Kentucky ("TAK") Resource Recovery 1985 Series A Bonds, which bears interest at six percent. Staff worked for approximately 18 months to develop this transaction with Morgan Stanley ("MS") and finally executed the trade in April 2001. The 1985A Bonds could not be economically refunded, despite a very low interest rate environment, due to the enormous transferred proceeds penalty associated with the Debt Service Reserve Fund ("DSRF") which is earning approximately 10 percent. MS, bond counsel and the Commonwealth worked out a structure whereby the bonds would be called, but not redeemed. Once called the bonds were sold to MS. ALCo then entered into a total rate of return swap, whereby MS pays ALCo six percent (the coupon on the bonds) and ALCo pays to MS BMA (short-term tax-exempt municipal index) plus a spread (currently 58 basis points) to cover expenses. This transaction provided the synthetic variable rate exposure to offset the asset sensitivity in the balance sheet, i.e. sensitivity to declining interest rates. During the first few weeks of the trade, ALCo booked \$147,727 in earnings on the first payment date of July 1, 2001. Rates continued to steadily decline, putting the

	Total Return	Fixed	Total Return	Fixed	SPBC 55 current refunding
Fund Source	Road Fund	Road Fund	Road Fund	Road Fund	General Fund
Hedge	Net Interest Margin	Total Return	Net Interest Margin	Total Return	Refunding
Counter-Party	Morgan Stanley	Morgan Stanley	Morgan Stanley	Morgan Stanley	UBS PaineWebber
Counter-Party Ratings*	Aa3/AA-/AA	Aa3/AA-/AA	Aa3/AA-/AA	Aa3/AA-/AA	Aa2/AA+/AAA
Termination Trigger (below)	BBB-/Baa3	BBB-/Baa3	BBB-/Baa3	BBB-/Baa3	BBB-/Baa3
Swap Type	Variable Pay	Fixed Pay	Variable Pay	Fixed Pay	Fixed Pay
Benchmark	BMA	BMA	BMA	BMA	LIBOR
Reset	Weekly	Weekly	Weekly	Weekly	Semiannual
Notional Amount	56,485,000	56,485,000	50,920,000	50,920,000	113,185,000
Amortize (yes/no)	no	no	yes	yes	yes
Execution Date	4/23/2001	9/20/2001	7/24/2001	7/24/2001	12/12/2002
Start Date	5/24/2001	9/27/2001	1/3/2002	1/3/2002	8/1/2003
End Date	see confirmation	7/1/2009	7/1/2007	7/1/2007	8/1/2013
Fixed Rate pay-(rec)	(6.000%)	3.870%	(5.50%)	4.150%	3.215%
Day Count	30/360	30/360	30/360	30/360	30/360
Payment Dates	Jan. 1 & July 1	Jan. 1 & July 1	Jan. 1 & July 1	Jan. 1 & July 1	Feb. 1 & Aug. 1
Security Provisions	Road Fund Inv.	Road Fund Inv.	Road Fund Inv.	Road Fund Inv.	GF Debt Service
Current Market Valuation December 31, 2002	0.00	0.00	0.00	0.00	(1,762,156.00)
Interest Earnings Cumulative Prior Periods Current Period - 12/31/2002	147,727 0.00 147,727	1,078,571 425,756 1,504,327	0.00 0.00 0.00	227,518 228,198 455,716	0.00 0.00

SWAP SUMMARY

* Moody's, S&P, Fitch

trade in a very favorable position. Shortly after the events of September 11, 2001, interest rates tumbled dramatically and on September 27, 2001, staff entered into an offsetting trade, locking in a guaranteed spread of 213 basis points. The reversal rate (rate ALCo agrees to pay MS) was 3.87 percent versus the original fixed receiver rate of 6.00 percent from MS. ALCo has received \$1.65 million under the terms of the agreement since inception. The expected total benefit from this transaction to maturity is \$7.46 million.

Since the two transactions offset each other for a net notional amount of zero, ALCo collects the difference between the two payments and deposits the proceeds into a swap account held for the benefit of the Road Fund. This account also secures future payments to MS under the agreement, if necessary. ALCo is obligated under the agreement to accumulate a minimum balance of \$3 million in the swap account. Once cumulative deposits have achieved that level, funds may be available to offset future debt service payments. Since the bonds are still outstanding and the TAK retains the right to call the bonds at face value (par), the termination value of the swap is essentially the present value of the fixed expenses (13 basis points). In the event that short-term tax-exempt rates rise above the coupon

on the bonds, the transaction would be terminated and the bonds would be resold to the market place. If the value of the bonds in the market are below par, then ALCo would make a payment from the swap account to MS equal to the difference between the then market value and par. Alternatively, the Road Fund could purchase the bonds as an investment at par. The Road Fund and the TAK get the best of both worlds with this transaction in that they retain the highly valuable DSRF earning ten percent and lower the cost of borrowing as long as interest rates stay low. In the event that interest rates rise dramatically, then the investment portfolio of the Road Fund will earn significantly more than projected so long as the Road Fund maintains an investable balance equal to or greater than the notional amount of the transaction.

ALCo entered into an identical transaction with MS for the 5.50 percent bonds due July 1, 2007 of the TAK Toll Road 1986 Series A Bonds with a par amount of \$50,920,000. The Toll Road DSRF earns a bit less than the Resource Recovery 1985A bonds and the coupon on the outstanding bonds is also less, but the mechanics are the same.

On July 24, 2001 MS agreed to enter into a total return swap whereby MS would pay ALCo beginning on January 3, 2002, 5.50 percent in exchange for BMA plus 45 basis points (to cover expenses). The trade could not be executed until December 7, 2001, after the call notice for the bonds had been issued. ALCo agreed to pay MS 4.15 percent in exchange for BMA plus 45 basis points, locking in a guaranteed spread of 135 basis points as long as BMA plus 45 basis points remains below the coupon of the bonds of 5.50 percent. The present value savings level, factoring in all expenses, is approximately \$1.8 million. The net notional amount exposure is zero and the market value is par as in the previously described transaction. ALCo has received \$455,716 to date.

Due to the success of similar transactions, it was determined that ALCo would enter into a cash settled hedge to attempt to preserve savings for a potential refunding of State Property and Buildings Commission ("SPBC") 55. Cash settled interest rate swaps unwind (at bond pricing) with a cash settlement at the time the corresponding bonds or notes close.

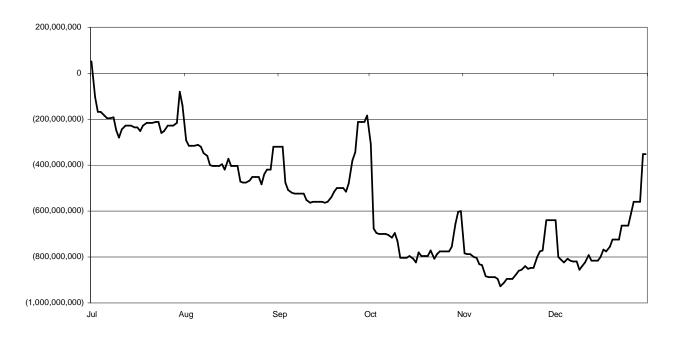
ALCo entered into a trade with UBS PaineWebber ("PW") on December 12, 2002 to be effective on August 1, 2003, for an initial notional amount of \$113,185,000, to be amortized through August 1, 2013. PW agreed to a floating rate of 78.75 percent of LIBOR in exchange for ALCo paying a 3.215 percent forward fixed rate if variable rates notes are issued. If the BMA/LIBOR ratio declines from historic highs then the swap would provide additional economic value. Should the ratio continue to increase to new highs then there would be additional moneys owed at termination thereby reducing the present value savings. SPBC 55 bonds will be currently callable on September 1, 2003, at a call price of 102 percent of par value. Select maturities can then be refunded by ALCo or SPBC obligations. At December 31, 2002, the hedge was performing as expected with present value savings, nearly the same as the day the swap was executed of 3.96 percent or \$4.67 million.

The important premise behind the use of any financial agreement in hedging a security or portfolio of securities is that you are trading one risk for another supposedly more manageable risk. In each of our transactions the end result was as good, or better than expected, even though the markets did not always behave exactly as projected.

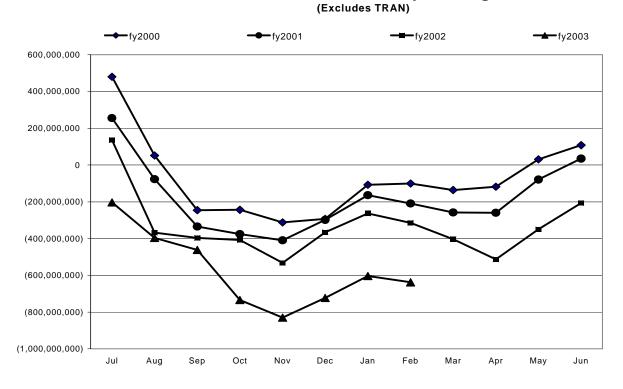
ASSET/LIABILITY MODEL

The SPBC debt portfolio as of December 31, 2002, had \$2,075 million of bonds outstanding with a weighted average coupon of 5.13 percent, modified duration of 5.29 years, and a yield at market of 3.06 percent. The market yield declined by 4 basis points from the prior reporting period due to the continued drop in interest rates while modified duration decreased by .17 years reflecting maturing debt. The BRTF, which became a statutory account in 1995, was drawn upon to balance the fiscal 2001 and 2002 budgets. The BRTF currently has a zero balance.

The General Fund had a high balance of \$50 million on July 1, 2002, and a low of negative \$930 million on November 13, 2002. The General Fund ended the calendar year with a balance of negative \$354 million. The average and median balances were a negative \$557 million and a negative \$560 million, respectively. Since the General Fund continued to have a negative average cash balance for most of the period there is little, if anything, that can be done from an asset management viewpoint beyond current actions. The 2002 TRAN proceeds added economic benefit in that it reduced the amount of borrowing from other sources but could not fully offset the negative balances of the General Fund.



General Fund Available Balance Fiscal Year 2003 (Excludes TRAN)



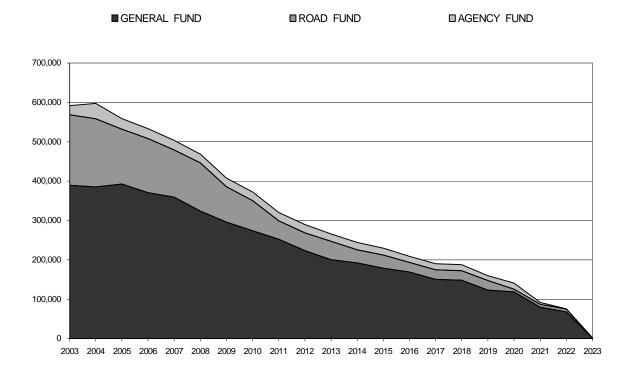
General Fund Monthly Average

From a liability management perspective, total General Fund debt service, net of reserve fund credits, was \$200.9 million through December 31, 2002, resulting in a net interest margin of negative \$200.9 million. No General Fund investment income has been accrued or distributed this fiscal year and it is likely that the General Fund will experience net interest expense between \$4-6 million as a result of significant inter-fund borrowing.

Road Fund. The Road Fund average daily cash balance for FYTD 2003 was \$442 million. Of that average amount, \$242 million was invested in the Intermediate-term Investment Pool and \$200 million in the Long-term Investment Pool. The duration of the respective pools was 1.48 years and 2.60 years as of December 31, 2002. The Road Fund has earned \$16 million on a cash basis in FYTD 2003 versus the revised budget amount of \$23 million for the fiscal year.

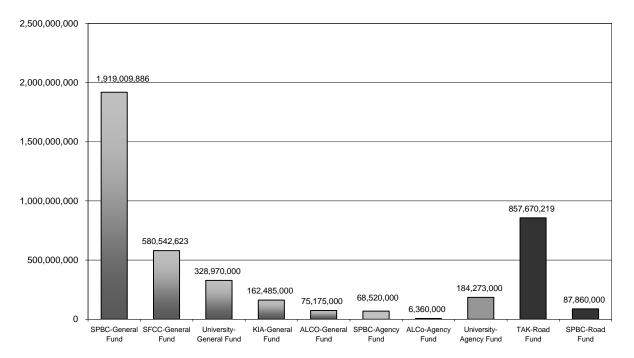
As of December 31, 2002, TAK had \$857.7 million of bonds outstanding with a weighted average coupon of 5.36 percent, modified duration of 4.17 years, and yield at market of 2.73 percent. Selected maturities with the most economical value, of the Resource Recovery 1985A and Toll Road 1986A, were previously synthetically refunded with financial agreements as identified previously.

Debt service paid, net of reserve fund credits, during FYTD 2003, was \$58 million resulting in a net interest margin (investment income earned less debt service paid) of negative \$42 million. The negative amount stems from a general decrease in interest rates on the investment side and fixed rate obligations on the liability side. As the Road Fund has experienced in recent years, this trend can reverse itself very quickly when interest rates rise.



Appropriation Supported Debt Service by Fund Source as of 12/31/02 (000)

Appropriation Debt Principal Outstanding by Fund Source as of 12/31/02



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SUMMARY

ALCo's approach to managing the Commonwealth's interest-sensitive assets and interest-sensitive liabilities continues to produce excellent results.

- *Investments*. Incremental returns derived from new investment asset classes are \$2.8 million for FYTD 2003 and \$24.8 million since inception.
- **Cash Management**. Cash management improved dramatically with the implementation of the General Fund TRAN program producing \$3.2 million in FY 1998, \$4.7 million in FY 1999, \$7.3 million in FY 2000 and \$6.5 million in FY 2001. Economic benefit for FY 2002 was \$5.3 million and \$1 million is expected in FY 2003 for a cumulative benefit of \$28 million.
- **Debt Management.** Debt Service savings have contributed an estimated \$229 million in value-added since inception.
 - ⇒ Synthetic advanced refunding of SPBC 40 (Second Series) using a delayed start interest rates swap produced \$1.1 million in present value savings.
 - \Rightarrow Synthetic refunding of TAK Resource Recovery 1985 Series A bonds has accumulated \$1.65 million to date of which \$425,756 is attributable to the current period.
 - ⇒ Synthetic refunding of TAK Toll Road 1986 Series A bonds has provided \$455,716 to date of which \$228,198 was earned during the current period.
 - ⇒ Application of Medium Term Notes ("MTN") and financial agreement strategies provided present value savings of \$3.83 million from delayed start interest rate swap in refunding of SPBC 71 MTN.
 - ⇒ Combination of MTN structure and cash settled interest rate swap resulted in \$2.76 million savings from SPBC 73 MTN refunding.
 - ⇒ Lapsed General Fund debt service for: FY 1999 was \$10.5 million, FY 2000 was \$29 million, FY 2001 was \$76.5 million and FY 2002 was \$104 million for a total of \$220 million. This amount reflects the savings from actual versus budgeted debt service.
- Total value added since inception is approximately \$282 million.