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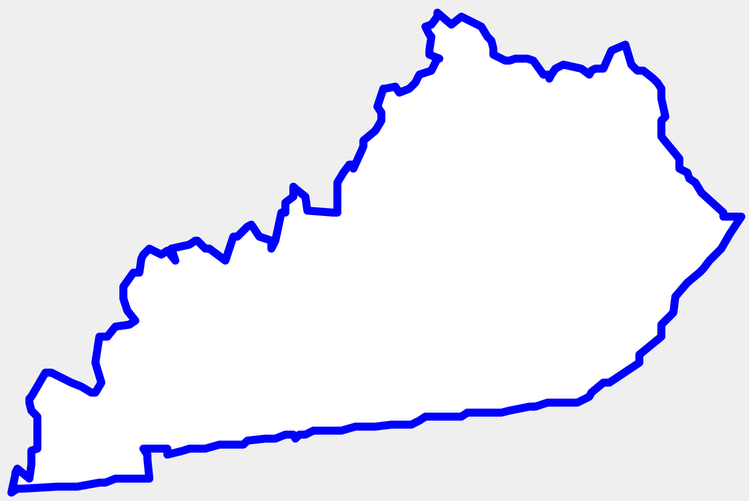
ASSET/LIABILITY COMMISSION

Semi-Annual Report

For Period Ending June 30, 1998



John P. McCarty, Chairman
Gordon L. Mullis, Secretary

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EXHIBITS

Kentucky Asset/Liability Commission
Semi-annual Report for the Period Ending June 30, 1998
Pursuant to KRS 56.863 (11)

Introduction

This is the Commission's third semi-annual report under KRS 56.863 (11). The first report covered the one-month period from enactment through June 30, 1997 and contained very little information given the short time horizon and the depth of information provided in testimony during the legislative process. The second report covered the period beginning July 1, 1997 and ending on December 31, 1997. This report established a foundation and provided an in-depth view of certain key concepts and issues that confront the state in managing its finances. Relevant data with respect to the transaction that took place during that time period was also displayed. The third report seeks to update information relevant to current activities in managing the interest sensitive assets and liabilities of the Commonwealth.

Investment Management

Market Overview:

Taxable: Short-term fixed income investment yields traded in a relatively narrow ban throughout most of the period as two-year Treasury Notes averaged 5.49%, very close to the Federal Reserve's target of 5.50% for Fed Funds. The Federal Reserve maintained its bias toward a tightening or increase in the Fed Funds rate during the period as robust domestic economic growth created concerns of accelerating inflation. This hawkish viewpoint was somewhat overshadowed by the absence of inflationary pressures and problems abroad, particularly in Asia and Russia which kept long-term Treasury bond yields relatively low and the yield curve flat. The benchmark 30-year Treasury Bond averaged 5.86% during the period and ended near the low of 5.62%. Looking ahead we expect that the bias for interest rates will be down and the yield curve will remain flat as investors flock to Treasury securities to escape turmoil abroad. In any event, the market will become increasingly volatile and the returns for the state's portfolio will likely decrease.

Tax-exempt: The municipal market traded at relatively wide ratios as compared to Treasury securities, with the Bond Buyer 20 GO Index averaging 5.32% for the period or approximately 90% of the long Treasury Bond. The municipal market often lags the Treasury market, especially when yields decline. Additionally, increased supply when added to seasonal tax factors caused the municipal market to trade relatively poorly when compared to Treasury securities. The short-term tax-exempt market as measured by the 7-day Bond Market Association Municipal ("BMA") Swap Index ranged from 2.81% to 4.37% and averaged 3.54% or approximately 64% of short-term Treasuries. As of fiscal year end, the short-term market ratio of the BMA versus Treasuries is near its historical average. The municipal market should continue to under perform Treasury securities so long as the Treasury Bond serves as a safe haven from Asian and Russian economic difficulties. The good news is that the cost of funding the Commonwealth's capital programs should remain low.

Portfolio Management: The Commonwealth's investment portfolio averaged $3,215 million for FY98. As of June 30, 1998, the portfolio was invested in U.S. Treasury securities (20%), U.S. Agency securities (34%), Municipal securities (2%), Corporate securities (9%), U.S. Agency Mortgage Backed Securities and Collateralized Mortgage Obligations (8%), Asset Backed Securities (2%), Repurchase Agreements (23%) and Money Market Securities (2%). The portfolio had a current yield of 5.99% and duration of 1.07 years.

The total portfolio is broken down into four investment pools. The balances in the pools as of June 30, 1998 were: the Short-term Pool ($851.4 million), the Intermediate Pool ($2,064.3 million), the Long-term Pool ($260.3 million) and the Bond Proceeds Pool ($161.4 million). See Exhibit 1, the June 30, 1998 Monthly Investment Income Report.

The Commonwealth's investments earned $192,095,981 or 5.97% during FY98, excluding TRAN income. The General Fund portion of that amount was $52,022,674 on an accrual basis and $47,276,979 on a cash basis. New asset classes authorized under House Bill 5 of the 1997 First Extraordinary Session of the General Assembly contributed $1,515,124 of which $261,195 accrued to the benefit of the General Fund. Mortgages added the bulk of the earnings, and generate $1,014,606, while corporate securities added $318,534. Corporate security spreads to U.S. Treasury securities were very low during the period, reflecting good economic growth and financial health of domestic corporations and thus lower incremental return versus mortgage securities.

Debt Management

Table 1

Kentucky Asset/Liability Commission
Debt Summary for Fiscal 1998

Series	Amount	Dated Date	Maturity Date	Coupon	Price	Yield
1997 TRAN	$200,400,000	7/10/97	6/25/98	4.50%	100.60	3.85%
1998 TRAN*						
Series A	$200,000,000	7/1/98	6/25/99	4.00%	100.883	3.57%
1998 General Fund **						
Project Notes	$70,000,000	2/4/98	6/30/2001	3.635%	100.00	3.635%

* The 1998 TRAN for FY99 was sold on June 30, 1998 for delivery July 1, 1998.
** The 1998 General Fund Project Notes provide construction financing for $156 million in authorized projects. The amount outstanding is as of June 30, 1998. The yield is a weighted average yield from the dated date.

Tax and Revenue Anticipation Notes:

FY98 TRAN – The initial offering of $200,400,000 matured on June 25, 1998 and provided a net benefit to the General Fund of $3,342,526.

FY99 TRAN – The Commission authorized this years' TRAN program in an amount not to exceed $400 million. The higher authorization amount was based upon the anticipated movement of Surplus Expenditure Plan moneys from the General Fund to the Capital Construction Fund to fund authorized projects. (See preliminary projection for FY99 in Exhibit 2.) The Series A Notes were issued on July 1, 1998 in the amount of $200,000,000. The notes were sold with a premium coupon of 4.50% to yield 3.57% and have a stated final maturity of June 25, 1999. The TRANs were rated in the highest category by Standard & Poor's (SP-1+), Moody's (MIG1) and Fitch/IBCA (F1+). The expected benefit assuming that the expenditure requirement is met is $3,611,761. The increase versus last year is attributable to improved ratios between short-term tax-exempt and taxable securities, i.e. there is a larger yield spread between taxable and tax-exempt securities. A second series of notes was issued in September and will be reported in the next semi-annual report due to time constraints in preparing this report.

Project Notes:

1998 General Fund Series - The Commission issued its first series of General Fund supported Project Notes on February 4, 1998 to fund approximately $156 million in capital construction projects authorized during the last biennium. The notes have a stated final maturity of June 30, 2001 and are currently being offered in the Commercial Paper Mode. The notes are supported by a direct-pay letter of credit issued by the New York branches of Landesbank Hessen-Thuringen Girozentrale and Bayerische Vereinsbank AG, two of Germany's leading banks. The Project Notes received a rating based upon the credit facility providers' strength and are rated Aa2/VMIG1 by Moody's and AA+/F1+ by Fitch. As of fiscal year end, $70 million in notes were outstanding of which $40.6 million had been expended. From February 4, 1998 through July 6, 1998:

Table 2

Cost of Funds	
Weighted Average Coupon:	3.635%
Remarketing Fees:	.060%
Credit Facility Fees:	.102%
Average Cost of Funds	3.797%

Comparative Yield	
Weighted Average Coupon	3.635%
Average BMA Index	3.569%
Difference	.0655%

Versus Fixed Rate Financing	
Weighted Average Coupon	3.635%
Bond Buyer 20-year GO (2/5/98)	5.110%
Difference	1.475%

The note program is only four months old and still of relatively small size. It will take some time to establish the ALCo brand name and its trading value relative to other issuers and the comparative index. The Commission expects, in either the variable rate demand note or commercial paper mode, that the General Fund Note Program will trade on average about five basis points above the BMA index versus the current six and one-half basis points. The above indices do not include remarketing and credit facility fees, so the comparison is made on a net yield basis.

1998 Agency Fund Series – This program was still under development as of June 30, 1998 and will offer state agencies the opportunity to utilize a construction financing program. The benefits of such a program have been outlined in the previous report, however, the main benefit is that the borrower avoids utilizing internal resources to fund construction projects until bonds can be sold by the universities or the State Property and Buildings Commission ("SPBC"). The total authorized project amount eligible to be funded in this program is $98.1 million. The projects consist of the Agency Bond Pool ($35 million) and approximately $63.1 million in line item agency funded bond projects, including the UK stadium expansion, UK Rural Health Center, EKU Law Enforcement Training Facility, KHEAA building and the River Authority lock and dam improvements. The initial tranche of notes was offered on September 2, 1998 to fund the UK stadium expansion and will be discussed in more detail in the next semi-annual report.

Financial Agreements

The Commission had no financial agreements outstanding as of June 30, 1998. Subsequent to the reporting period date, on August 3, 1998 the Commission entered into a Financial Agreement with Merrill Lynch & Co. to synthetically advance refund a portion of State Property and Buildings Commission Project 40 (Second Series) Revenue Bonds. A summary of the transaction is described below.

SPBC Refunded Bonds

Par Amount of Bonds:	$21,235,000
Weighted Average Coupon:	6.83%
Call Date:	November 1, 2001
Call Premium:	102%
Refunded Maturities:	November 1, 2004-2007

ALCO Refunding Project Notes

Par Amount of Notes:	$21,825,000
Coupon:	7-day variable rate
Call Date:	Any interest payment date
Call Premium:	None
Final Maturity	November 1, 2007
Principal and Interest Payments:	Monthly, Insured by MBIA

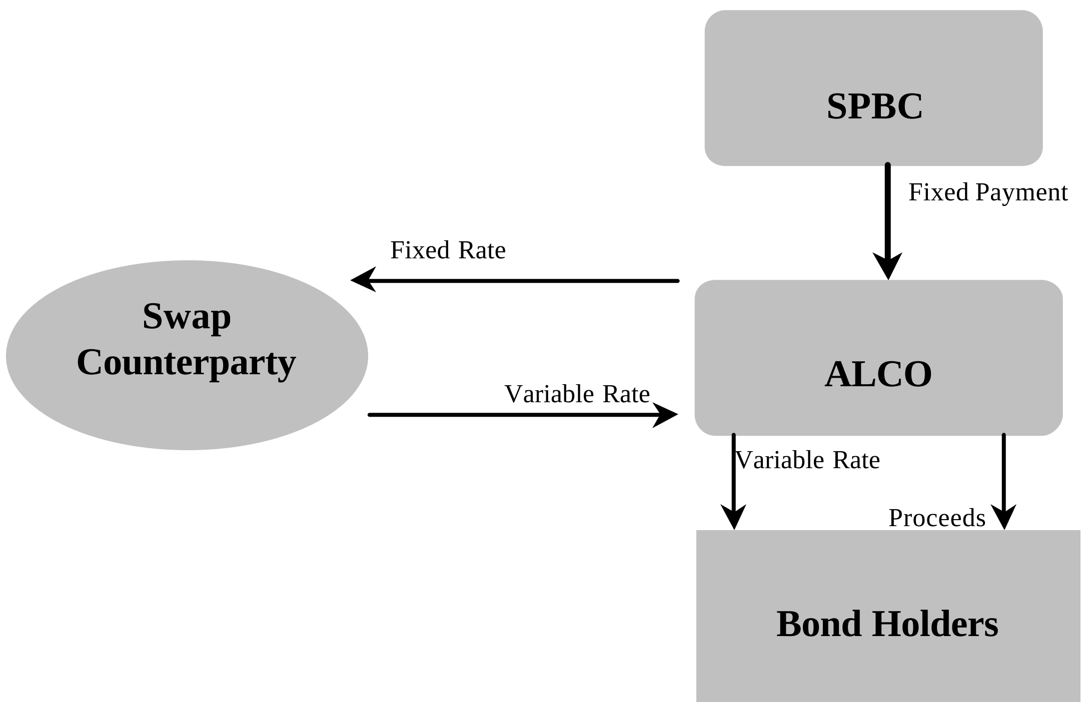
Delayed Start Interest Rate Swap

Execution Date:	August 3, 1998
Start Date:	November 1, 2001
Fixed Interest Payment:	4.868%
Variable Interest Receipt:	ALCo’s 7-day note rate
Principal Amortization:	Sinking fund provisions to match the notes
Swap Payments:	Insured by MBIA

Savings Analysis

Present Value Savings (Execution Date):	$784,833
Percentage of Refunded Par:	3.6959%
Present Value Savings (Call Date):	$921,742
Percentage of Refunded Par:	4.3406%

Delayed Start Interest Rate Swap



Asset/Liability Model

General Fund Model

The General Fund average daily balance for FY98, including the Budget Reserve Trust Fund and excluding float, was $435,386,114. Of that average amount, $285.3 million was invested in the Short-term Investment Pool and $150 million in the Long-term Investment Pool. The duration on those respective investments was 67 days and 2.22 years as of June 30, 1998. Returns for the investment pools can be found in the Portfolio Management Section on page 3 and in Exhibit 1. Table 2 found in Exhibit 3, provides a monthly Sources and Uses Statement for FY98 which is helpful in understanding General Fund cash flows on an aggregate basis.

The General Fund continues to be subject to large seasonal fluctuations consistent with historical expenditure and receipt patterns which requires the state to maintain all General Fund investments with the exception of a portion of the Budget Reserve Trust Fund in the Short-term Investment Pool. The need to maintain such liquidity subjects the returns of the General Fund to daily fluctuations in interest rates. This sensitivity to interest rates is commonly referred to as being asset sensitive. The General Fund has always been asset sensitive and will likely be in the future. Most of the efforts to manage interest rate margin will be in the form of liability management. This is particularly relevant given the movement of Surplus Expenditure Plan moneys projected for August and the expenditure of SEEK funds earlier in the month both of which will have a significant impact on General Fund balances in early FY99.

On the liability side of the balance sheet, the General Fund has $2.2 billion in outstanding debt with an approximate weighted average yield of 5.60%. The weighted average yield of 5.60% is approximately 95 basis points above the current coupon for a similar credit and duration security as quoted by Bloomberg Financial Markets for an A rated tax-exempt General Obligation bonds as of June 30, 1998. The above market coupon on our existing debt represents the general market trend for lower interest rates and the inability to refund higher cost bonds due to call structure or tax code restrictions.

Total debt service, net of reserve fund credits paid in FY98, was $258,702,937 of which $117,334,927 represents interest paid for all General Fund supported issuers, except ALCo.

The Commission averaged $43.5 million in outstanding notes for the period and had $70 million of short-term notes outstanding as of June 30, 1998. The weighted average interest cost through 7/6/98 was 3.797%. Debt service on the Commission's General Fund Project Notes was $3,221,007 of which $421,007 was interest. Combined interest paid from all sources, net of reserve fund credits equals $111,817,307. Interest paid for FY98, when viewed against General Fund investment income (cash basis) of $50,619,505 the General Fund experienced net interest expense for the period of $61,197,802.

Interest expense looking forward to FY99 and FY00, excluding any obligations of the Commission and any minor reserve fund credits, is expected to be $109,283,289 and $101,171,479, respectively. When applied against General Fund investment income projections for the biennium of $48,634,000 and $49,977,000, we project net interest expenses of $60,649,289 and $51,194,479, respectively. It is anticipated that as high cost bonds continue to mature and new programs are initially funded in a short-term interest rate mode that the net interest margin will improve modestly.

In planning ahead, the best opportunity to reduce net interest expense is through the issuance of additional Project Notes by the Commission and perhaps issuing some of SPBC's bonds on a variable rate basis. Issuing variable rate bonds may prove to be difficult if the municipal yield curve continues to flatten. Currently, the Commission would expect to provide interim financing for the $126.9 million of bond funded Surplus Expenditure Plan Projects in a short-term interest rate mode until substantially all the funds are expended. The average outstanding balances of both these programs on a variable rate basis should give the General Fund approximately 15 percent to 20 percent in variable rate exposure for the biennium, which will mitigate some of the interest sensitivity.

The Commission will also look to implement other innovative strategies such as funding the FY 1998-2000 Research Equipment Pool to benefit the University of Kentucky and the University of Louisville using an innovative tax-exempt fixed rate structure. Debt service has been appropriated for seven years to match the expected useful life of the equipment. Given the relatively flat yield curve and overall low level of interest rates, consideration is being given to structuring these notes with serial maturities that carry a very short-term call option, perhaps two years. This type of structure has been utilized quite frequently by federal agencies over the past several years and may offer the state the opportunity to lock in low interest rates with the ability to currently refund the notes at par in the events rates decline further. Since this structure has not been utilized in the tax-exempt market, it may take tax-exempt investors some time before they become comfortable with this type of structure. If successful, this concept may be applied to SPBC fixed rate bonds where the benefit would be substantial. An alternative structure in the event purchasers are not willing to buy this type of security might be to issue the notes on a fixed rate basis and swap the interest payment back to floating rate with an option to terminate the swap.

Road Fund Model

The Road Fund average daily balance for FY98 was $650,312,387 million. Of that average amount, $550 million was invested in the Intermediate-term Investment Pool and $100 million in the Long-term Investment Pool. The duration of the respective pools was 1.31 years and

2.22 years as of June 30, 1998. The Road Fund earned $41,950,532 on a cash basis and $47,914,332 on an accrual basis.

The Road Fund continues to have substantial liquid assets, which are immune from the seasonal fluctuations experienced by the General Fund due to structural revenue receipt differences. The majority of the Road Fund's assets have been and will continue to be invested in the Intermediate-term Pool. While $100 million was transferred to the Long-term Pool, the volatility in the Treasury market has made it increasingly difficult to establish an additional position in the Long-term Pool. The investment staff will continue to monitor the situation and recommend adjustments between the two pools as market conditions warrant, or at least when the risk/reward trade-off appears to be more favorable.

From a liability perspective, the Road Fund has approximately $1.275 billion in outstanding debt with an estimated yield of 6.38%. Debt service, net of reserve fund credits paid in FY98, was $151,839,087. Of total debt service $66,891,116 represents interest paid. Interest paid for FY98 as adjusted for reserve fund credits was $54,810,382. When viewed against investment income of $41,950,532 (cash basis), the Road Fund experienced net interest expense for the period of $12,859,850.

Looking forward to FY99 and 2000, interest expense on outstanding obligations, excluding any new obligations issued by the Commission on behalf of the Road Fund and excluding reserve fund credits of $10,143,756 in each year, will be $60,918,879 and $55,981,740, respectively. When applied against Road Fund investment income projections of $40,000,000 and $44,000,000 for the biennium, we expect net interest expenses of $20,918,879 and

$11,981,740. The rise in net interest expense in FY99 is due to an increase of approximately $5 million in interest payable and a decrease in reserve fund credits of approximately $2 million. Some improvement is projected for FY 2000, assuming investment income estimate is accurate (i.e. interest rates don't decline further).

While the Road Fund's net interest margin on an absolute level isn't projected to improve by the end of the biennium, it is in a relatively stable position with an opportunity for improvement. Old non-callable and non-refundable bonds with above market coupons limit the amount of progress that can be made in this biennium. However, a construction financing program for newly authorized projects can set the stage for improvement in the next biennium. If implemented, a program similar to the General Fund Program could reduce net interest expense by ten to fifteen percent over the course of the next biennium. The interest rate swap market may offer an opportunity to reduce that amount even more, however, current market conditions are not conducive to such a transaction.

Summary

The Commission's approach to managing the Commonwealth's interest-sensitive assets and interest-sensitive liabilities is producing the expected results in all areas:

- **Investments**: incremental returns derived from new investment asset classes added $1.5 million during the period.
- **Cash Management**: has improved dramatically with the implementation of the General Fund Tax and Revenue Anticipation Note program producing $3.3 million in FY98 and an expected minimum return of $3.6 million for FY99 based upon the 1998 Series A issuance.

- **Debt Management** activities have contributed an estimated $1,366,960 in value-added.

  1. Funded initial construction at a lower cost of capital than utilizing internal resources that would have earned a taxable rate of return or long-term fixed rate financing. Estimated value for the period of $348,544 ($43.5 million avg. outstanding x rate differential (5.72% short-term pool yield -3.797% project note yield) x 5/12).

  2. Maximized the amount of allowable arbitrage earnings by borrowing amounts reasonably expected to be expended during the period, which provided an estimated value of $233,583. ($20 million avg. advance borrowing x (6.60% bond proceeds pool yield x 3.797%) x 5/12).

  3. Synthetic advanced refunding of SPBC 40 (Second Series) using a delayed start interest rate swap produced $784,833 as of the execution date.

The Commission continually evaluates new ideas and strategies to manage the Commonwealth's finances more efficiently.

Exhibits

1. June 30, 1998 Monthly Investment Income Report.
2. General Fund daily cash flow projections for FY99.
3. General Fund monthly cash flow for FY98.
4. Appropriation debt outstanding as of June 30, 1998.
5. Appropriation supported debt service.
6. Cost of Capital.