KENTUCKY

ASSET/LIABILITY

COMMISSION

SEMI-ANNUAL REPORT

FOR THE PERIOD ENDING DECEMBER 31, 1997

PURSUANT TO KRS 56.863(11)

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Introduction

The Kentucky Asset/Liability Commission ("ALCo" or "Commission") was established as a part of Governor Patton's EMPOWER Kentucky initiative during the First Extraordinary Session of 1997 of the General Assembly. House Bill 5 amended KRS Chapter 56 and incorporated a new section beginning with 56.860 through and including 56.869. The Commission is comprised of the Secretary of the Finance and Administration Cabinet, who serves as the Chairman, the Attorney General, the State Treasurer, the State Budget Director and the Secretary of the Revenue Cabinet. The Office of Financial Management and Economic Analysis serves as staff.

ALCo's function is to coordinate the design and execution of debt and investment strategies to mitigate the impact of the timing of revenue receipts and fluctuating interest rates on the state's interest sensitive assets (investments) and interest sensitive liabilities (debt). The Commonwealth, like most governmental bodies, experiences cash flow and budgetary pressure at certain times of the year and under certain types of interest rate environments. The General Fund receives tax payments throughout the year, but the bulk of the revenues are collected from December through April. Expenditures, however, are much more equally distributed creating a strain on cash flow during the first five months of each fiscal year. The seasonal nature of cashflows and the need to return tax revenues back to the public through various programs and services within a budget period requires the state to invest its cash on a relatively short-term basis. Due to the variability of the timing of the revenue receipts and interest rates, investment returns vary dramatically from year to year and biennium to biennium.

Debt, on the other hand, is used to fund projects that have useful lives considerably longer than the budget period. Bonds have traditionally been issued at fixed rates of interest for a period of twenty years. Issuing bonds on a fixed rate basis offers a great deal of comfort from a budget perspective, much like knowing the exact amount of your monthly house payment. The home mortgage, however, offers a distinct advantage over municipal bonds in that the borrower has a prepayment option for the term of the loan that can be exercised at any time and without penalty. Municipal bonds have restrictions on the ability to refinance the bonds imposed by the Internal Revenue Service ("IRS") and to some extent, the buyers of the bonds. The IRS limits the ability to refund or prepay the bonds in advance of the call date to only one opportunity. This is because of the special exemption from federal income tax that municipal bonds currently provide for certain investors.

Governmental bodies are generally able to issue qualifying public purpose bonds at interest rates that are lower than the returns that can be received on taxable investment vehicles such as Treasury Bonds. This provides the issuer with an opportunity to issue bonds to finance new projects and invest the proceeds at a higher rate of return until the moneys are spent on the projects. This also provides the issuer the opportunity to refinance outstanding bonds in advance of the call date by issuing tax-exempt refunding bonds and using the proceeds to purchase higher yielding Treasury securities. The higher interest return on the Treasuries lowers the amount of bonds that must be issued to payoff the old bonds on the call date and provides additional savings that would otherwise not be available. The difference between the yield on the tax-exempt bonds (new money or refunding) and the return on the Treasury securities is commonly referred to as "arbitrage". Obviously, the IRS is interested in minimizing arbitrage opportunities and imposes stringent rules concerning arbitrage earnings. Additionally, the bond market limits to a certain extent the ability of an issuer to call bonds. Purchasers of tax-exempt bonds historically have required that bonds maturing in the first ten years be issued on a non-callable basis. Bonds maturing in the eleventh through the twentieth years are routinely callable beginning in the tenth year at 102% of face value declining to par in year twelve. As a result, issuers oftentimes find themselves with above market rate loans that can't be paid off in advance of the call or maturity date.

During times of rising interest rates the Commonwealth's short-term assets earn higher taxable rates of return, thereby increasing investment income. Debt service for existing fixed rate bonds remains the same, while newly authorized projects would carry higher debt service payments in proportion to the increase in taxable interest rates. Depending upon the magnitude of the increase, the new money debt service payments may in fact be higher than contemplated in the budget. This may result in the postponement of a project until the next biennium or until such time as additional debt service can be appropriated. This could occur even though the state earned more investment income than projected and from a net interest margin perspective it is better off. Net interest margin is defined as net investment income minus net debt service. Where investment income is greater than debt service is further defined as net interest income and where debt service is greater than investment income is further defined as net interest expense.

Conversely, in periods of declining interest rates, investment income falls and debt service remains the same, increasing net interest expense. And while the state may have access to lower interest rates for new money debt service, the overwhelming portion of debt is fixed at higher interest rates. Since the Commonwealth has a limited ability to refinance this debt, the Commission must look for other avenues to lower the cost of funds and to minimize the impact of falling interest rates.

This mismatch between the repricing frequency of the Commonwealth's assets and its liabilities will never be eliminated due to the very nature of government, but ALCo does have tools at its disposal that will help alleviate some of these problems. With the passage of House Bill 5, the Commission may draw upon several vehicles to manage net interest margin or in the Commonwealth's situation, net interest expense. Tax and Revenue Anticipation Notes, Project Notes and Bond Anticipation Notes, as well as Financial Agreements, such as interest rate swaps, are authorized to combat these problems. These are financial tools that have been used by both the public and private sectors to minimize the impact of fluctuating interest rates on the balance sheet.

Investment Management

The Commonwealth of Kentucky's investments are governed by Kentucky Revised Statute 42.500 et seq. and Kentucky Administrative Regulations Title 200 Chapter 14. The State Investment Commission (the "Commission"), which is comprised of the Governor, the Treasurer, the Secretary of the Finance and Administration Cabinet and gubernatorial appointees of the Community Independent Banker's Association and the Kentucky Banker's

Association, is charged with the oversight of the Commonwealth's investment activities. The Commission is required to meet at least quarterly, and delegates day-to-day investment management to the Office of Financial Management and Economic Analysis.

The Commonwealth maintains an average operating portfolio of approximately $3.1 billion in cash and securities (see **Exhibit 1**). The composition of investments as of February 28, 1998 was as follows: U.S. treasury securities (26%); securities issued by agencies, corporations and instrumentalities of the United States Government (35%); U.S. agency mortgage backed securities and collateralized mortgage obligations (6%); repurchase agreements collateralized by the aforementioned (22%); municipal securities (1%); and corporate and asset backed securities, including money market securities (10%). The portfolio has a current yield of 5.91% and a modified duration of 1.01 years. The Commonwealth's investments are marked to market daily.

The Commonwealth's investments have been categorized into four distinct classifications or investment pools, the Short-term, Intermediate-term, Long-term, and the Capital Construction Bond Proceeds Pool. In September 1997 the U.S. Treasury and Agency Pool was renamed the Capital Construction Bond Proceeds Pool to more adequately describe its function and the University, and the Trust and Other Pools were merged with the then existing Long-term Pool to form the Intermediate-term Pool. The Intermediate-term Pool includes State Agency and Component Unit investments. A new Long-term Pool was then established for the investment of a portion of the state's Budget Reserve Trust Fund and other state funds that have a longer investment horizon. The purpose of these pools is to provide economies of scale that enhance yield, ease administration, and increase accountability and control.

The Commonwealth of Kentucky engages in selective derivative transactions. These transactions are entered into only with an abundance of caution and for specific hedge applications to minimize yield volatility in the portfolio. The State Investment Commission expressly prohibits the use of margin or other leveraging techniques. The Commonwealth executes a variety of transactions which may be considered derivative transactions, which include: the securities lending program, over-the-counter treasury options, fixed receiver interest rate swaps and more recently the purchase of Mortgage Backed Securities and Collateralized Mortgage Obligations.

The Commonwealth has used over-the-counter treasury options since the mid-1980's to hedge and add value to the portfolio of treasury securities. These transactions involve the purchase and sale of both put and call options on a covered basis; covered basis is defined as holding either cash or securities sufficient to meet the obligation should it be exercised. The State Investment Commission limits the total option commitment to no more than twenty percent of the total portfolio of treasury and agency securities. Historically, actual commitments have been less than ten percent of the portfolio.

The Commonwealth has had a Securities Lending Program since the mid-1980's. This program is structured as a paired tri-party repurchase transaction with an approved custodian bank and a primary dealer acting as principal. The state reverses its treasury and agency securities in exchange for 102% of eligible collateral, marked to market daily. Eligible collateral is defined as securities authorized for purchase pursuant to KRS 42.500. Currently, the Commonwealth receives a guaranteed rate of 9.5 basis points of the average market value of securities in the program.

The State Investment Commission also engages in asset-based interest rate swaps to better manage its duration and to stabilize the volatility of interest income. These transactions have required the Commonwealth to pay a floating rate in exchange for a fixed rate over a specific period of time. Currently, the Commonwealth has one $50 million notional amount fixed rate receivor swap transaction outstanding, which has a stated final maturity of July 9, 1999.

House Bill 5 of the First Extraordinary Session of 1997 was enacted on May 30, 1997. The Bill amended KRS 42.500 to authorize the purchase of additional investment securities. The new classes of investment securities include: United States dollar denominated corporate securities, issued by foreign and domestic issuers, rated in one of the three highest categories by a nationally recognized rating agency, and asset backed securities rated in the highest category by a nationally recognized rating agency.

On February 10, 1998, new administrative regulations governing the purchase of these new securities became effective. The new asset classes will be limited to twenty-five percent (25%) of the assets of any investment pool. Corporate securities, inclusive of Commercial Paper, Bankers' Acceptances and Certificates of Deposit are limited to twenty-five million per issuer and a stated final maturity of five (5) years or less. Asset Backed Securities are limited to a stated final maturity of ten (10) years or less and must have a weighted-average-life of not more than four (4) years. The administrative regulations also detail the requirements for the investment of funds in United States Agency Mortgage Backed Securities ("MBS") and Collateralized Mortgage Obligations ("CMO"). MBS and CMO are limited to a maximum of twenty-five percent (25%) of any investment portfolio. MBS are limited to a stated final maturity of ten (10) years or less with a weighted-average-life of four (4) years or less. CMO must have a weighted-average-life of four (4) years or less. These security types have generated an additional $432,000 in cash since its inception in July 1997 through February 1998. The General Fund's portion is over $73,000 in cash.

Fixed income investment yields have been falling for the past year, pushing the benchmark thirty-year Treasury bond to a recent historic low of below six percent in January. While interest rates have risen over the past few weeks, the expectation is for stable to falling rates over the near term. One critical component of that forecast is inflation which remains low despite a growing domestic economy. Increased productivity and cheaper imports seem to be holding inflation at bay, and so long as this phenomenon continues bond yields should remain more attractive for issuers of bonds versus purchasers.

Debt Management

Tax and Revenue Anticipation Notes

Tax and Revenue Anticipation Notes ("TRANs") are a valuable tool in managing the seasonal aspects of the General Fund's cashflows and also take advantage of arbitrage opportunities in the marketplace. Early during the fiscal year the General Fund cash balance often becomes negative due to an imbalance between the timing of tax receipts and allotments/expenditures (see **Exhibit 2**). This imbalance can total in the hundreds of millions of dollars as expenditures are more prevalent during the first half of the month, while revenues are deposited during the last ten days of the month. Once the balance in the General Fund becomes negative, it effectively borrows cash from other Agency Fund accounts that are not entitled to receive investment income. Once the deficit reaches a balance sufficient to overcome the balances in the non-interest earning accounts, it then effectively borrows from those accounts entitled to receive investment income. When this occurs, the investment pool from which the funds are borrowed charges the General Fund interest on the loan at the current earnings rate of the pool. Simply stated, the General Fund is borrowing money at a taxable rate of return to fund working capital needs.

Fortunately, the Commission can now issue TRANs to borrow these funds on a tax-exempt basis. There are, however, certain requirements that must be met in order to qualify for such a transaction. The Federal Arbitrage Law, a component of the Internal Revenue Code ("Code"), contains two provisions with respect to the issuance of short-term tax-exempt cash flow securities. In order to qualify for an exception to the Arbitrage Rebate Requirements, the issuer ("ALCo") must size the issuance such that the amount of notes cannot exceed the cumulative cash flow deficit which would otherwise be paid by such tax or revenue sources during the period for which the obligation is outstanding, plus one month's reasonably required cash balance, minus amounts available from other sources. Amounts from other sources are available to the extent that accounts may be invaded to pay such expenditures without a legislative or judicial requirement that such amounts be repaid. Special purpose fund amounts consistently advanced to cover operating deficits are not presumed to be available if the amounts must be reimbursed to the fund to fulfill legislatively mandated purposes according to IRS letter rulings. A significant portion of the Budget Reserve Trust Fund ("BRTF"), currently $150 million, and all Agency Fund accounts fall into this category and may be excluded for purposes of sizing the TRANs.

The second provision is a safe harbor that exists for determining when the proceeds of short-term tax-exempt issues are considered spent for purposes of the Arbitrage Rebate Requirement. The safe harbor provides that if at any time during the six-month period after the issuance of securities the cumulative cash flow deficit of the issuer exceeds ninety percent of the note proceeds, then the note proceeds and the interest earnings thereon are considered spent for purposes of the borrowing. If the safe harbor is met, then the issue is exempt from the six-month exception to the Rebate Requirement.

In order to meet the safe harbor requirement, the Commonwealth must project in advance what its cumulative cash flow deficit will be for any given period. Relief from the rebate requirement is predicated upon the original issue date and amount of notes issued, eliminating the ability to borrow for a shortfall after the amount of the cash flow deficit is known. While budgeted amounts provide excellent historical allotment/expenditure data on which to base the ensuing fiscal year expenditure patterns, projecting the fiscal year ending cash balance and revenue collections for the next two quarters pose a much more difficult task. Because the expenditure test is applied retroactively, it forces the Commission to be conservative in its estimate of the deficit to increase the likelihood of retaining arbitrage earnings. Even then economic circumstances change and the initial sizing can be significantly higher or lower than the optimal amount and could result in the rebate of excess investment earnings to the IRS.

To determine what the projected cumulative cash flow deficit was likely to be, staff reviewed six years of daily General Fund cash, revenue, and expenditure data beginning with fiscal year 1991 to determine seasonal patterns. The second step was to estimate what the fiscal year 1997 ending balance would be. As it turned out, the Commonwealth ended the fiscal year with the largest undesignated surplus cash balance ever of $284 million. The historical data and the applied methodology are included in **Exhibit 3.**

Based upon historical data the Commission believed that it could issue approximately $300 to $350 million of TRANs for FY98, but because of the retroactive nature of the expenditure test and conservatism opted to issue only $200 million of notes. During this period Kentucky's economy performed much stronger than expected and expenditures were slower than anticipated which increased cash balances significantly above original projections. Fortunately, the General Fund cash balance turned negative just long enough to meet the ninety percent expenditure test and permit the state to keep the excess investment earnings (see **Exhibit 4**). Even if the state were required to rebate the excess earnings, the benefit of temporarily borrowing from a cheaper source of funds in conjunction with higher overall General Fund cash balances and a corresponding increase in investment earnings make the issuance of TRANs an excellent financial management decision.

On July 8, 1997 the Commission sold $200,400,000 of TRANs. The TRANs are dated July 10, 1997 and have a final maturity date of June 25, 1998. The notes were sold with a premium coupon of 4.50% to yield 3.85%. The TRANs were rated in the highest category by Standard & Poor's Ratings Group (SP-1+), Moody's Investors Service (MIG1) and Fitch Investors Service L.P. (F-1+).

Projected Cashflow

Proceeds:	$201,202,400
Investment Income:	11,222,064
Total:	$212,424,464
Total debt service:	209,042,250
Net Benefit (Arbitrage)	$ 3,382,214

Looking forward to the planned fiscal year 1999 TRAN issue, it is still too early to make any projections due to:

- continued economic growth on both national and local levels;
- cyclical nature of revenue collections and impact on year end cash balance;
- the amount and how moneys are appropriated to the Budget Reserve Trust Fund; and
- movement of surplus expenditure plan funds.

It is expected that useful cashflow estimates for FY99 will not be available until early July.

Project Notes / Bond Anticipation Notes

On December 9, 1997 the Commission authorized the issuance of up to $157 million in Bond Anticipation Notes ("BANs") to provide interim financing for General Fund supported capital projects authorized in FY96 and the First Extraordinary Session of

1997. The BANs are secured by General Fund debt service appropriations, a resolution of the State Property and Buildings Commission to issue permanent bonds for the projects and a direct-pay letter of credit issued by Landesbank Hessen-Thuringen Girozentrale and Bayerische Vereinsbank AG. An initial $35 million tranche of BANs was sold on February 3, 1998 and settled the next day. The BANs have a stated final maturity of June 30, 2001 and carry ratings of Aa2/VMIG1 by Moody's and AA+/F1+ by Fitch/IBCA. The notes are sold in minimum denominations of $100,000 and may be issued up to the fully authorized amount. The notes are issued under a multi-modal indenture, which permits the use of various interest rate reset periods: daily, weekly, commercial paper and fixed rate. Currently, the BANs are in the commercial paper rate mode ("CP"). The note indenture permits CP rate mode interest rate periods of one day up to 270 days. Typically commercial paper will be issued in the 30-90 day maturity range, but because of the shape of the yield curve and projected expenditure patterns for this spring, the initial tranche of BANs carries a 120-day maturity.

Other Features of the BANs:

- Provides funding for all previously authorized, but unissued State Property and Buildings Commission Projects.
- Retains standard twenty-year amortization period.
- Provides the ability to raise up to the full project amount on one-day's notice.
- Notes are issued only for the amounts expected to be expended over a specific time horizon.
- Notes are callable, without a premium, on any maturity date.

Benefits of the BANs:

- Compliance with Internal Revenue Service guidelines concerning the expenditure of bond proceeds.
- Provides an opportunity under certain circumstances to keep more arbitrage earnings than under a traditional fixed rate issue.
- Provides the ability to raise money quickly to fund construction cost.

- Alters the interest rate reset period, which provides a better asset/liability match between the proceeds and the outstanding notes.
- Most importantly, provides lower cost:
    1. Higher credit quality of letter of credit banks versus the Commission on a stand-alone basis.
    2. Takes advantage of low interest rates available at the short-end of the upwardly sloping municipal yield curve.
    3. Borrow only the funds that are needed plus expected expenditures.
    4. Frees up internal resources that will earn a taxable rate of return.

Project Notes / BANs Looking Forward

As this report is being printed, the Commonwealth's budget for FY99-00 is still in the legislative process, however, it does appear that total appropriation supported bond authorizations will approach the one billion dollar mark. Given that the Facilities Management pipeline is near capacity, it seems unlikely many of the projects authorized in this budget would be able to meet the expenditure test established by the IRS if the full project amount were funded with fixed rate bonds before the end of the next biennium. As a result, the Commission will set out to establish three financing programs to accommodate FY99-00 authorizations for the General Fund, Road Fund and Agency Fund. The Agency Fund program will be established primarily with the state universities in mind. An interim financing program should be quite attractive to the schools in avoiding the use of internal funds and timing of the issuance of permanent bonds. All three programs will be structured in a manner very similar to the transaction just completed with appropriate modifications to reflect the different repayment sources, including the permanent take-out.

During the budget deliberations there was some discussion about the level of interest rates being at the lowest levels in twenty years. This naturally prompted the question of why not issue more fixed rate bonds now? Certainly interest rates are very attractive and good financial management practices would encourage one to borrow in this environment. There are, however, certain factors other than interest rates that influence that decision:

- Capacity of the Commonwealth to make debt service payments.
- Rating agency perception of capacity, revenue stability and general economic conditions.
- Identification and construction of the projects in a timely manner.
- Ability to expend the bond proceeds within the prescribed limits established by the Internal Revenue Service.
- Penalties for failing to meet the expenditure requirements range from rebating the excess arbitrage earnings on the proceeds to declaring the bonds taxable.

The IRS is very clear on the definition of an arbitrage bond and reasonable expectations for the expenditure of bond proceeds. An arbitrage bond for practical purposes is a bond whose proceeds are used to acquire higher yielding investments, which is the case anytime tax-exempt bond proceeds are invested until spent. There is also the reasonable expectation test, which is required of the issuer through the execution of an Arbitrage Certificate which states in good faith that the project expenditures can be completed within the time periods established by the IRS. Additionally, there is an Artifice or Device Rule that prohibits the issuer from entering into a transaction or a series of transactions designed to exploit the difference between taxable and tax-exempt rates for material financial advantage or increasing the burden on the tax-exempt market. Increasing the burden on the market is defined to mean selling obligations that would not otherwise be sold, selling more obligations than would otherwise be necessary, <u>issuing obligations sooner</u> or allowing them to remain outstanding longer than necessary. The IRS in recent years has taken a very aggressive stance on these issues. Clearly, one way to avoid such complications is to use an interim funding source such as Project Notes/ BANs to borrow only the amounts reasonably expected to be expended over a period of time.

Asset/Liability Management

General Fund Model

The Commission at its two previous meetings recommended that the General Fund take two initial steps in managing its interest rate risk. First, move the portion of the Budget Reserve Trust Fund ($150 million) that the Governor cannot access without legislative approval to the new Long-term Investment Pool to take advantage of higher yields available in the intermediate part of the yield curve. Second, to implement a construction finance program for General Fund supported capital projects through the issuance of Bond Anticipation Notes, discussed previously. **Exhibit 5** depicts the current status of the General Fund's assets and liabilities as adjusted for these recommendations which have been implemented.

The General Fund's assets consist of seasonal General Fund cash balances, BRTF appropriations and TRANs proceeds. As of February 28, 1998 these assets are invested in the Short-term ($500 million) and Long-term ($150 million) Investment Pools with a weighted-average-current yield of 5.68% and 6.14%, respectively. The TRANs proceeds were invested separately in a single U.S. Agency security for ease of administration. As of February 28, 1998 the duration of the Short-term Pool was approximately .1 years, while the duration of the Long-term Pool was approximately 2.0 years. Together the blended duration is approximately .5 years. Duration is the time-weighted value to maturity of a security's cashflow and essentially measures the sensitivity of a security to changes in interest rates. A good rule of thumb, ignoring the embedded option values of securities held in the portfolio, is that for each one-percent rise in interest rates the value of the security will change by a percentage factor equal to the duration calculation. In other words, for each one-percentage point increase/decrease in interest rates the market value of the General Fund's investments will decrease/increase approximately one-half of one percent.

As of June 30, 1998, the General Fund's fixed rate liabilities will total $2.2 billion with a weighted-average-net interest cost of 5.60%. The recent addition of the $157 million BANs program interjected a small amount of variable rate debt with $35 million outstanding at 3.55%. The combined duration of the liabilities is approximately 4.4 years. The concept of duration is applied in a similar fashion as the asset side of the balance sheet except that a theoretical gain/loss in market value isn't really a concern except from a net interest cost perspective and the influence on the ability to refund outstanding bonds.

In viewing the net interest margin (expense) for the General Fund over the next biennium, we project that it will modestly decrease as the construction financing program begins to increase in size (see **Exhibit 6**). Given the large amount of fixed rate bonds maturing and the proposed new money authorization, the combination should reduce the duration of the liability side of the balance sheet by approximately fifteen to twenty percent.

Looking Forward:

Future developments in the evolution of the General Fund Asset/Liability Model and strategies will depend upon the magnitude and timing of the final General Fund debt authorizations. One topic that we expect to pursue in a future report is evaluating the selection criteria for advanced refunding candidates, specifically whether the aggregate present value savings methodology is the most effective criteria to issue refunding bonds.

Road Fund Model

The Road Fund with its large asset base and long-term financing needs is the best suited of all funds to benefit from asset/liability management strategies. The initial recommendations for the Road Fund were presented at the December 1997 Commission meeting and are very similar in nature to those previously made for the General Fund (see **Exhibit 7**). The Road Fund's asset/liability structure is much more in balance as compared to the General Fund and implementation of these steps will have a greater immediate impact upon the overall balance sheet structure.

Summarizing ALCo's recommendations for the Road Fund:

- Transfer up to $200 million in cash invested in the Intermediate-term Investment Pool to the Long-term Investment Pool for an expected pick-up of $1 million annually.
- Implement a BANs program for FY99-00 bond funded capital expenditures similar to the program established for the General Fund to achieve lower debt service cost and compliance with IRS guidelines.
- Execute a Financial Agreement in the form of an interest rate swap in an amount up to ten percent of the fixed rate bonds outstanding to synthetically shorten the duration of the liability side of the balance sheet. The expected benefit is $1-2 million annually.

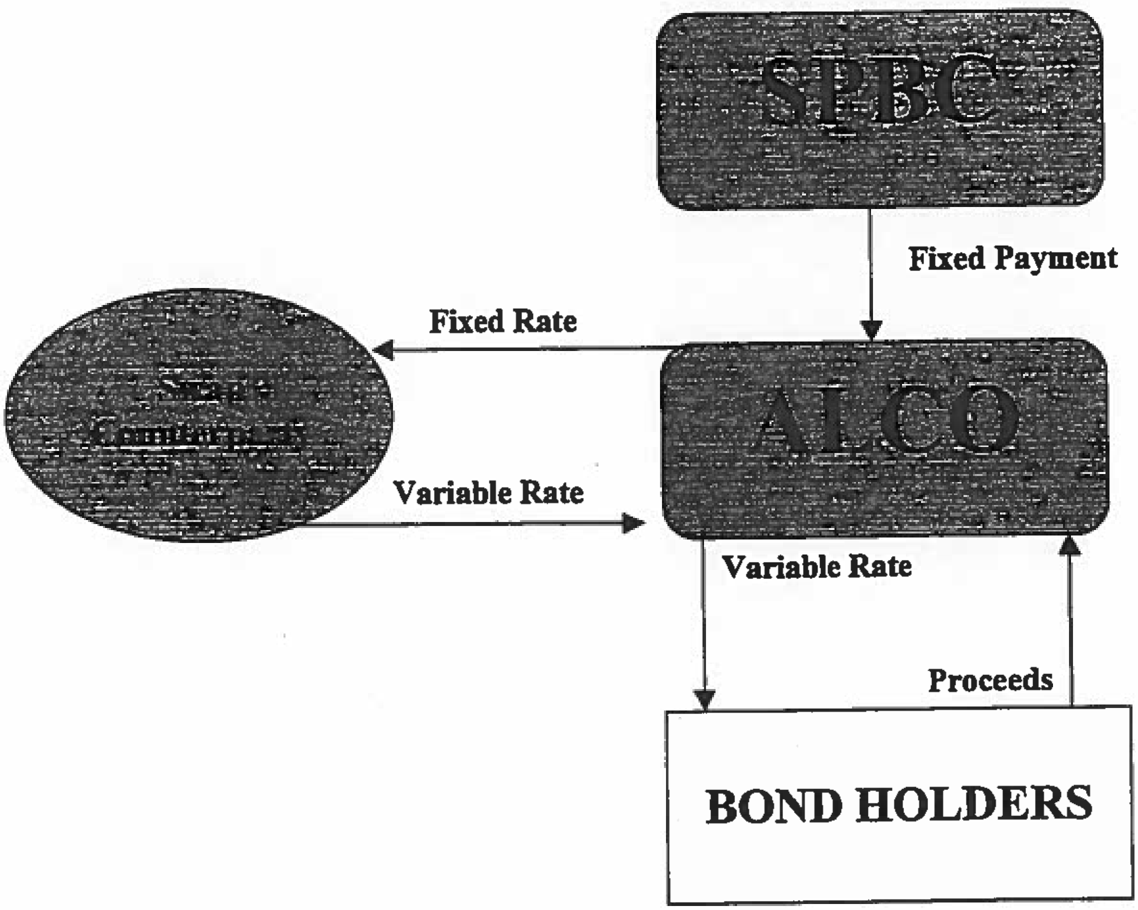
Unfortunately, swap market conditions have deteriorated to a point that makes the transaction referenced above temporarily unattractive. The Commission continues to monitor the market to establish this position. Staff has also reviewed a synthetic refunding of a portion of 1993 Economic Development bonds and restructuring of the corresponding debt service reserve fund, but that transaction resulted in an unacceptable amount of basis risk to the debt service appropriation in the out years. Basis risk is the risk that the underlying hedge is not correlated sufficiently with the asset, or in this case the liability being hedged.

Financial Agreements

The Commission to date has not entered into any Financial Agreement and subsequently there are no corresponding gains or losses. It is anticipated, however, that ALCo will execute one, if not two, transactions in the not too distant future if market conditions cooperate. The first transaction, referenced above, would assist the Road Fund in managing its net interest margin. The second transaction, which is likely to occur prior to the Road Fund transaction would be an interest rate swap related to the forward refunding of the State Property and Buildings Commission Project No. 40 (Second Series) Revenue Bonds.

The Project 40 (2) Bonds are refunding bonds and under current tax rules are not advanced refundable prior to the call date. By entering into a forward interest rate swap today, the Commission could lock in the present value savings of approximately $750,000 by agreeing to pay a fixed rate of interest in exchange for a variable interest payment to the Commission. The variable payment would be based upon either the Commission's cost of funds or seven-day municipal market tax-exempt yields. Payments would begin to accrue November 1, 2001 at which time the ALCo or State Property and Buildings Commission could do one of two things. Option A, issue variable rate notes and use the variable payment stream from the swap to make the debt service payments. Or Option B, terminate the swap and issue fixed rate bonds. The gain or loss on the liquidation of the swap will represent the present value savings on the new notes. If interest rates fall, the Commission would make a payment to the counter-party which would be recouped through a lower coupon on the fixed rate bonds or vice versa if interest rates have risen. Based upon the relatively short remaining life of the bonds it would probably be cheaper to leave the notes in a variable rate mode. If we execute a cost of funds swap, the Commission would be perfectly hedged. This transaction would be initiated in April along with a planned SPBC refunding.

DELAYED START
INTEREST RATE SWAP



KENTUCKY ASSET/LIABILITY COMMISSION
OUTSTANDING DEBT

Series	CUSIP	Amount	Dated Date	Maturity Date	Coupon	Price	Yield
Fixed Rate Note General Fund Tax and Revenue Anticipation Note – 1997 Series A	491189AA4	$200,400,000.00	7/10/97	6/25/98	4.50%	100.60	3.85%
Commercial Paper Project Notes, 1998 General Fund Series A	49118EAA3	$ 35,000,000.00	2/4/98	6/4/98	3.55%	100.00	3.55%

Summary

The Kentucky Asset/Liability Commission arose out of Governor Patton's EMPOWER Kentucky design initiative late last spring and even though it is only a few months old, it has made significant improvements in the management of the Commonwealth's finances.

Activities of the Commission during the reporting period included the following:

- Developed a cash flow model to support the issuance of Tax and Revenue Anticipation Notes, which will generate almost $3.4 million in additional General Fund Investment Income in FY98.
- Created a comprehensive construction finance program that will provide financing, on an as-needed basis, for all of the Commonwealth's capital projects at very attractive interest rates. This program is available for use by the Commonwealth's major bond issuing authorities and the Commission is assessing the possibility of applying the same techniques to the benefit of the state universities. This program frees up internal resources that would have been used to finance projects and allows them to be invested at taxable rates of return. Over time, the combined debt service savings and investment earnings will be significant.

- Began developing financial agreement applications that will aid in the management of net interest margin and enhance refunding opportunities for existing bonds.

- Began developing an integrated computer database of outstanding bonds and the ability to assess the impact of fluctuating interest rates on the Commonwealth's finances.

Developing a comprehensive asset/liability management approach for a governmental body is a formidable task. While there are a great many models and applications in the taxable market place, this is a new frontier in the tax-exempt arena. Developing duration and option adjusted spread models to deal with two different yield curves and an endless maze of tax laws is slow and cumbersome, at best. ALCo has been and will continue to be active in pursuing knowledge and opportunities that provide significant economic benefit to the Commonwealth through the development of a comprehensive asset/liability model.

Exhibit 1

MONTHLY INVESTMENT INCOME REPORT

FEBRUARY 1998

The Office of Financial Management
and Economic Analysis

Date: 2/28/98

PORTFOLIO SUMMARY
POOLS

	TYPE	QUANTITY	YIELD (%)	DURATION (Years)	PERCENT of TOTAL	STATUTORY LIMIT
Treasuries						
	Bills	0.00	0.00	0.00		
	Treasury Notes	812,325,000.00	5.88	1.39	25.81	
Sub-total		812,325,000.00	5.88	1.39	25.81	
Agencies	Notes	1,091,790,000.00	6.08	2.32	34.70	
	Discounts	0.00	0.00	0.00	0.00	
Sub-total		1,091,790,000.00	6.08	2.32	34.70	
Municipals		50,460,000.00	6.19	2.14	1.60	
Corporates		101,300,000.00	5.62	2.83	3.22	25%
Mortgages	Pools	24,621,407.00	6.05	1.11	0.78	
	CMO's	153,424,681.00	6.29	1.32	4.88	
Sub-total		178,046,088.00	6.27	1.31	5.66	25%
Asset Backs		68,752,413.00	6.00	1.84	1.55	20%
Repurchase Agreements						
	Overnight	579,000,000.00	5.69		18.40	
	< 30 days	101,450,000.00	5.46		3.22	
	< 60 days	0.00	0.00		0.00	
	< 90 days	0.00	0.00		0.00	
	< 1 year	13,166,000.00	5.68		0.42	
	< 2 years	2,000,000.00	6.25		0.06	
	> 2 years	156,000.00	4.25		0.00	
	Flex Repos					
Sub-total		695,772,000.00	5.66		22.11	
Money Market Securities						
	Commercial Paper	137,670,000.00	5.58	0.17	4.37	A1-P1
	Bankers Acceptances	0.00	0.00	0.00	0.00	
	Certificates of Deposit	703,300.00	4.50	0.43	0.02	
Sub-total		138,373,300.00	5.58	0.17	4.37	20%
TOTALS		3,136,818,801.00	5.91	1.01	100.00	

Date: 2/28/98

PORTFOLIO SUMMARY
SHORT TERM POOL

	TYPE	QUANTITY	YIELD (%)	DURATION (Years)	PERCENT of TOTAL	STATUTORY LIMIT
Treasuries						
	Bills	0.00	0.00	0	0.00	
	Treasury Notes	0.00	0.00	0	0.00	
Sub-total		0.00	0.00	0	0.00	
Agencies	Notes	136,900,000.00	5.74	151	18.03	
	Discounts	0.00	0.00	0	0.00	
Sub-total		136,900,000.00	5.74	150	18.03	
Municipals		0.00	0.00	0	0.00	
Repurchase Agreements						
	Overnight	524,772,000.00	5.69		69.11	
	< 30 days	0.00	0.00		0.00	
	< 60 days	0.00	0.00		0.00	
	< 90 days	0.00	0.00		0.00	
	< 1 year	0.00	0.00		0.00	
	< 2 years	0.00	0.00		0.00	
	> 2 years	0.00	0.00		0.00	
	Flex Repos					
Sub-total		524,772,000.00	5.69		69.11	
Money Market Securities						
	Commercial Paper	97,670,000.00	5.54	68	12.86	A1-P1
	Bankers Acceptances	0.00	0.00	0	0.00	
	Certificates of Deposit	0.00	0.00	0	0.00	
Sub-total		97,670,000.00	5.54	67	12.86	
TOTALS		759,342,000.00	5.68	36	100.00	

Date: 2/28/98

PORTFOLIO SUMMARY
INTERMEDIATE TERM POOL

	TYPE	QUANTITY	YIELD (%)	DURATION (Years)	PERCENT of TOTAL	STATUTORY LIMIT
Treasuries						
	Bills	0.00	0.00	0.00		
	Treasury Notes	732,325,000.00	5.89	1.31	36.94	
Sub-total		732,325,000.00	5.89	1.31	36.94	
Agencies	Notes	775,810,000.00	6.08	2.46	39.13	
	Discounts	0.00	0.00	0.00	0.00	
Sub-total		775,810,000.00	6.08	2.46	39.13	
Municipals		45,125,000.00	6.16	2.07	2.28	
Corporates		83,800,000.00	5.49	2.91	4.23	25%
Mortgages	Pools	24,621,407.00	6.05	1.11	1.24	
	CMO's	111,492,013.00	6.29	1.09	5.62	
Sub-total		136,113,420.00	6.27	1.09	6.87	25%
Asset Backs		42,052,413.00	5.99	1.43	2.12	20%
Repurchase Agreements						
	Overnight	0.00	0.00		0.00	
	< 30 days	101,450,000.00	5.46		5.12	
	< 60 days	0.00	0.00		0.00	
	< 90 days	0.00	0.00		0.00	
	< 1 year	13,166,000.00	5.68		0.66	
	< 2 years	2,000,000.00	6.25		0.10	
	> 2 years	156,000.00	4.25		0.01	
	Flex Repos					
Sub-total		116,772,000.00	5.50		5.89	
Money Market Securities						
	Commercial Paper	40,000,000.00	5.68	0.14	2.02	A1-P1
	Bankers Acceptances	0.00	0.00	0.00	0.00	
	Certificates of Deposit	703,300.00	4.50	0.43	0.04	
Sub-total		40,703,300.00	5.68	0.14	2.02	20%
TOTALS		1,972,701,133.00	5.96	1.22	100.00	

Date: 2/28/98

PORTFOLIO SUMMARY
LONG TERM POOL

	TYPE	QUANTITY	YIELD (%)	DURATION (Years)	PERCENT of TOTAL	STATUTORY LIMIT
Treasuries						
	Bills	0.00	0.00	0.00		
	Treasury Notes	15,000,000.00	5.64	4.11	6.04	
Sub-total		15,000,000.00	5.64	4.11	6.04	
Agencies	Notes	125,175,000.00	6.25	3.42	50.42	
	Discounts	0.00	0.00	0.00	0.00	
Sub-total		125,175,000.00	6.25	3.42	50.42	
Municipals		5,335,000.00	6.05	2.70	2.15	
Corporates		17,500,000.00	6.24	5.45	7.05	25%
Mortgages	Pools	0.00	0.00	0.00	0.00	
	CMO's	41,932,668.00	6.30	1.93	16.89	
Sub-total		41,932,668.00	6.30	1.93	16.89	25%
Asset Backs		26,700,000.00	6.02	2.50	10.75	20%
Repurchase Agreements						
	Overnight	16,624,000.00	5.69		6.70	
	< 30 days	0.00	0.00		0.00	
	< 60 days	0.00	0.00		0.00	
	< 90 days	0.00	0.00		0.00	
	< 1 year	0.00	0.00		0.00	
	< 2 years	0.00	0.00		0.00	
	> 2 years	0.00	0.00		0.00	
	Flex Repos					
Sub-total		16,624,000.00	5.69		6.70	
Money Market Securities						
	Commercial Paper	0.00	0.00	0.00	0.00	A1-P1
	Bankers Acceptances	0.00	0.00	0.00	0.00	
	Certificates of Deposit	0.00	0.00	0.00	0.00	
Sub-total		0.00	0.00	0.00	0.00	20%
TOTALS		248,266,668.00	6.14	2.00	100.00	

Date: 2/28/98

PORTFOLIO SUMMARY
BOND PROCEEDS POOL

	TYPE	QUANTITY	YIELD (%)	DURATION (Years)	PERCENT of TOTAL	STATUTORY LIMIT
Treasuries						
	Bills	0.00	0.00	0.00		
	Treasury Notes	65,000,000.00	5.86	1.65	41.53	
Sub-total		65,000,000.00	5.86	1.65	41.53	
Agencies	Notes	53,905,000.00	6.40	2.57	34.44	
	Discounts	0.00	0.00	0.00	0.00	
Sub-total		53,905,000.00	6.40	2.57	34.44	
Municipals		0.00	0.00	0.00	0.00	
Mortgages	Pools	0.00	0.00	0.00	0.00	
	CMO's	0.00	0.00	0.00	0.00	
Sub-total		0.00	0.00	0.00	0.00	
Asset Backs		0.00	0.00		0.00	
Repurchase Agreements						
	Overnight	37,604,000.00	5.69		24.03	
	< 30 days	0.00	0.00		0.00	
	< 60 days	0.00	0.00		0.00	
	< 90 days	0.00	0.00		0.00	
— —	< 1 year	0.00	0.00		0.00	
	< 2 years	0.00	0.00		0.00	
	> 2 years	0.00	0.00		0.00	
	Flex Repos					
Sub-total		37,604,000.00	5.69		24.03	
Money Market Securities						
	Commercial Paper	0.00	0.00	0.00	0.00	NONE ALLOWED
	Bankers Acceptances	0.00	0.00	0.00	0.00	
	Certificates of Deposit	0.00	0.00	0.00	0.00	
Sub-total		0.00	0.00	0.00	0.00	
TOTALS		156,509,000.00	6.01	1.15	100.00	

CASH DISTRIBUTION

February 1998

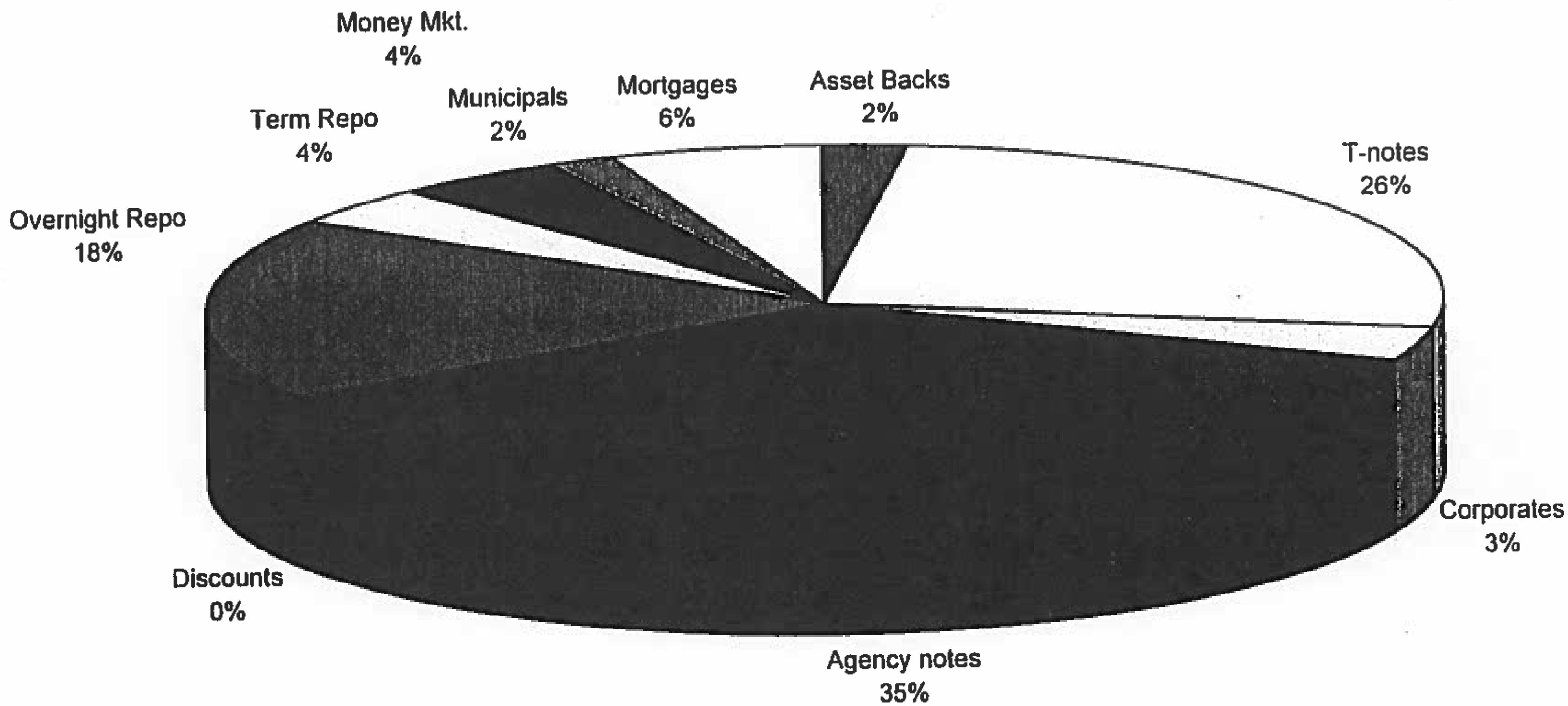
	Month		YTD	
	Actual	Budget	Actual	Budget
General Fund	4,538,518	2,333,333	28,298,248	18,666,664
Capital Con.	940,295	546,875	8,136,419	5,729,167
Agency	926,036	546,875	6,092,146	5,067,708
T&R	161,518	87,500	1,253,990	881,250

ACCRUED EARNINGS

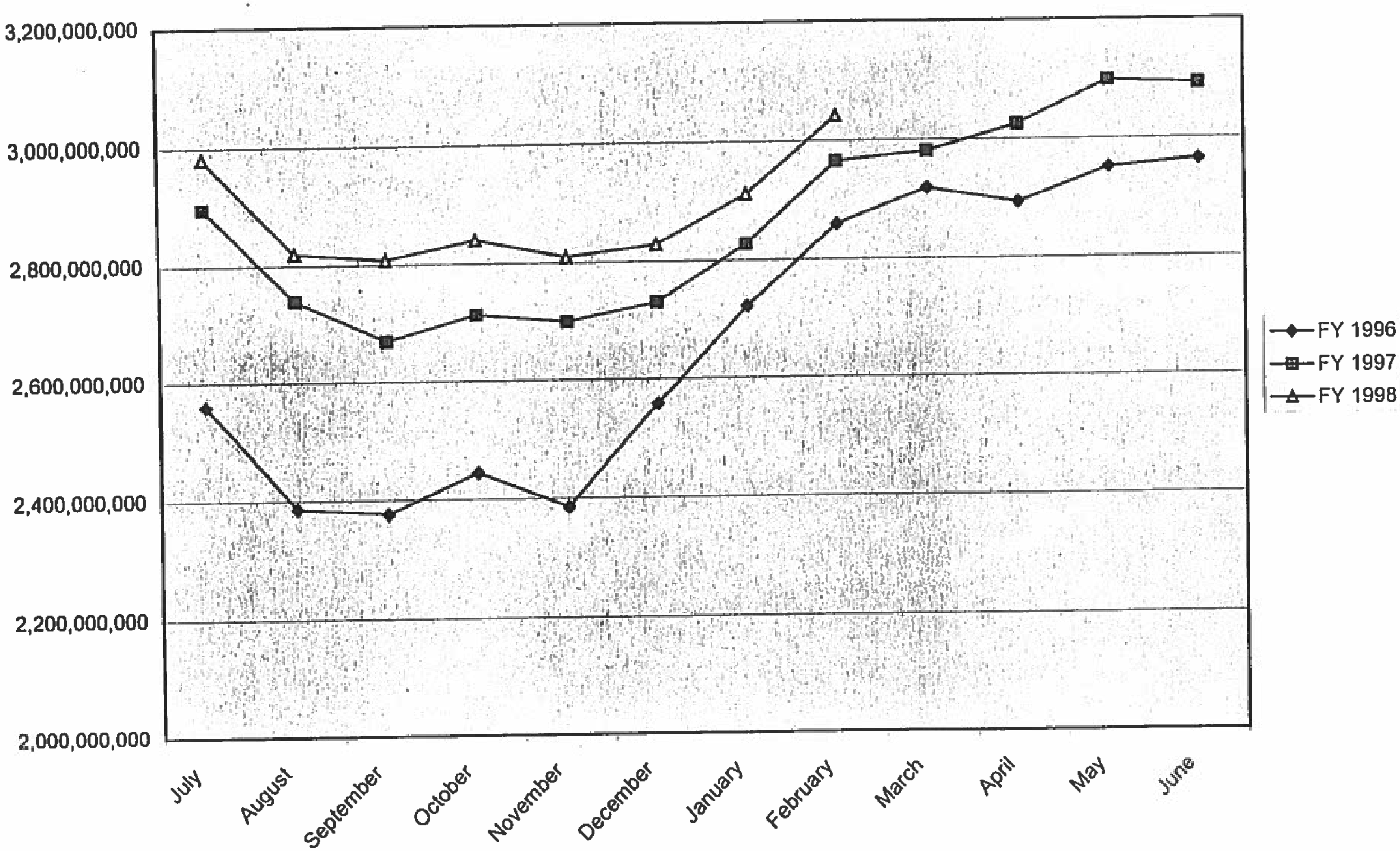
February 1998

	Month		YTD	
	Actual	Budget	Actual	Budget
General Fund	3,695,982	2,333,333	34,152,949	18,666,664
Capital Con.	425,059	546,875	9,360,917	5,729,167
Agency	631,465	546,875	8,334,943	5,067,708
T&R	93,356	87,500	1,563,258	881,250

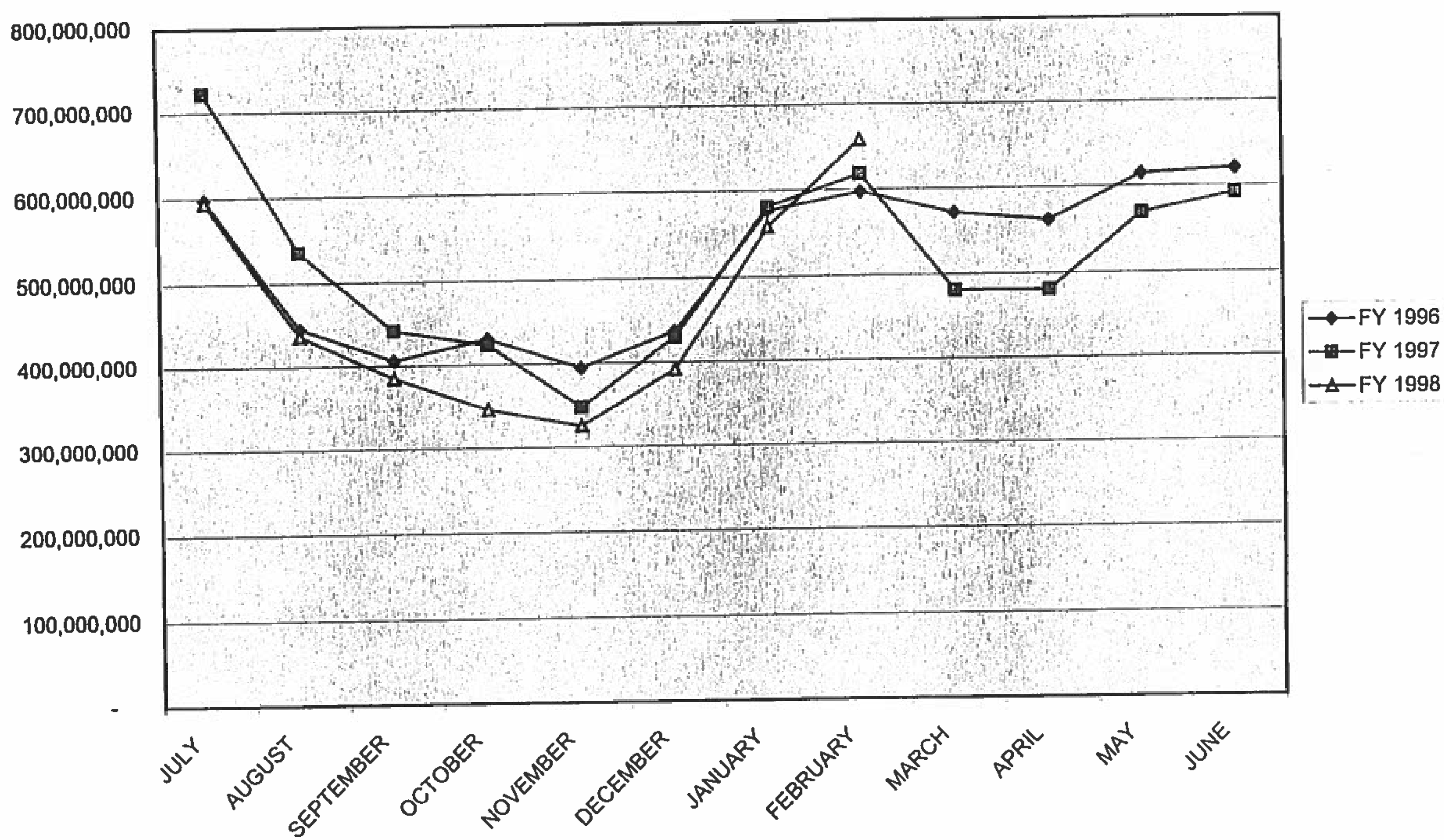
DISTRIBUTION OF INVESTMENTS
FEBRUARY 1998



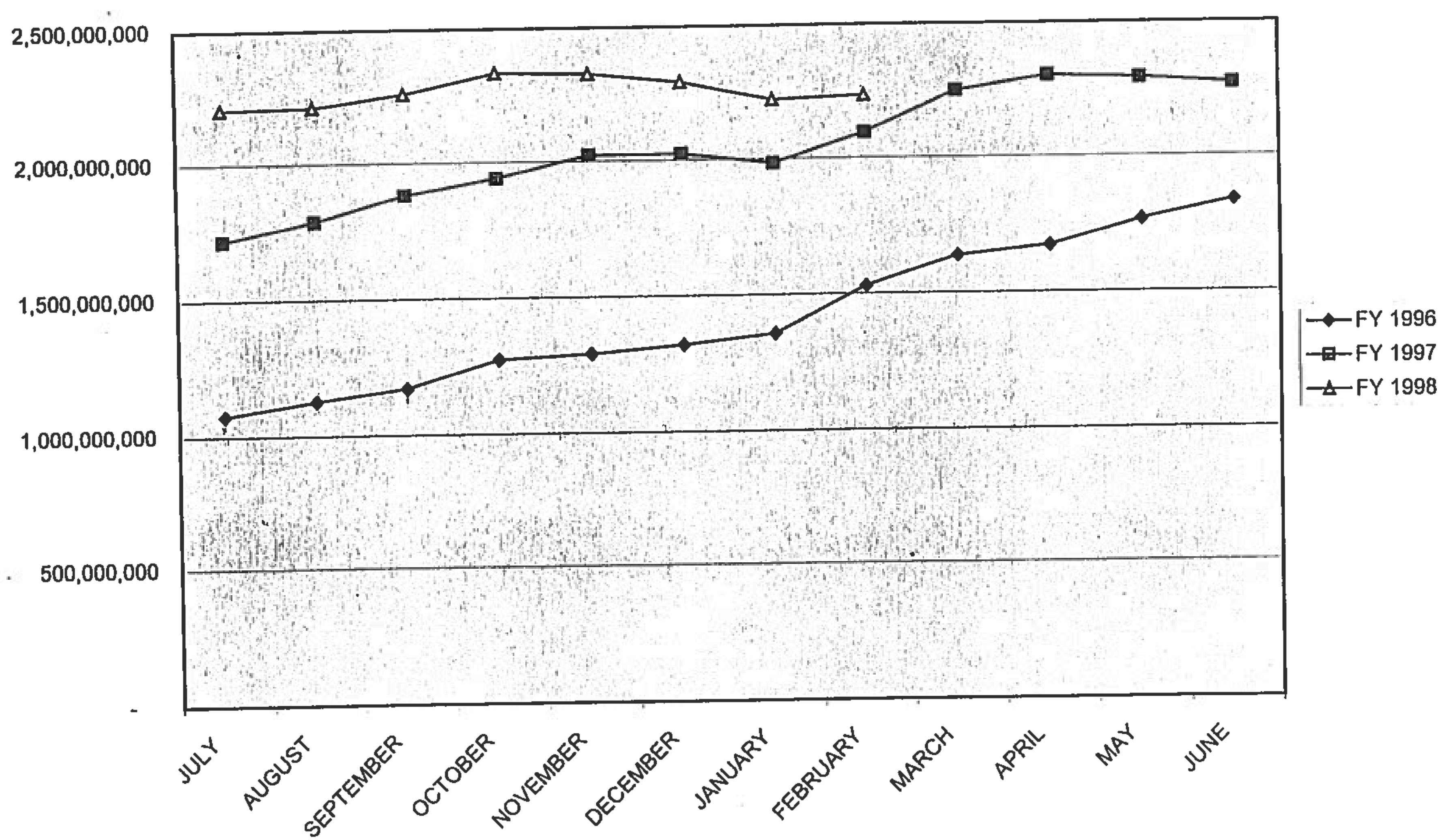
INVESTABLE BALANCES



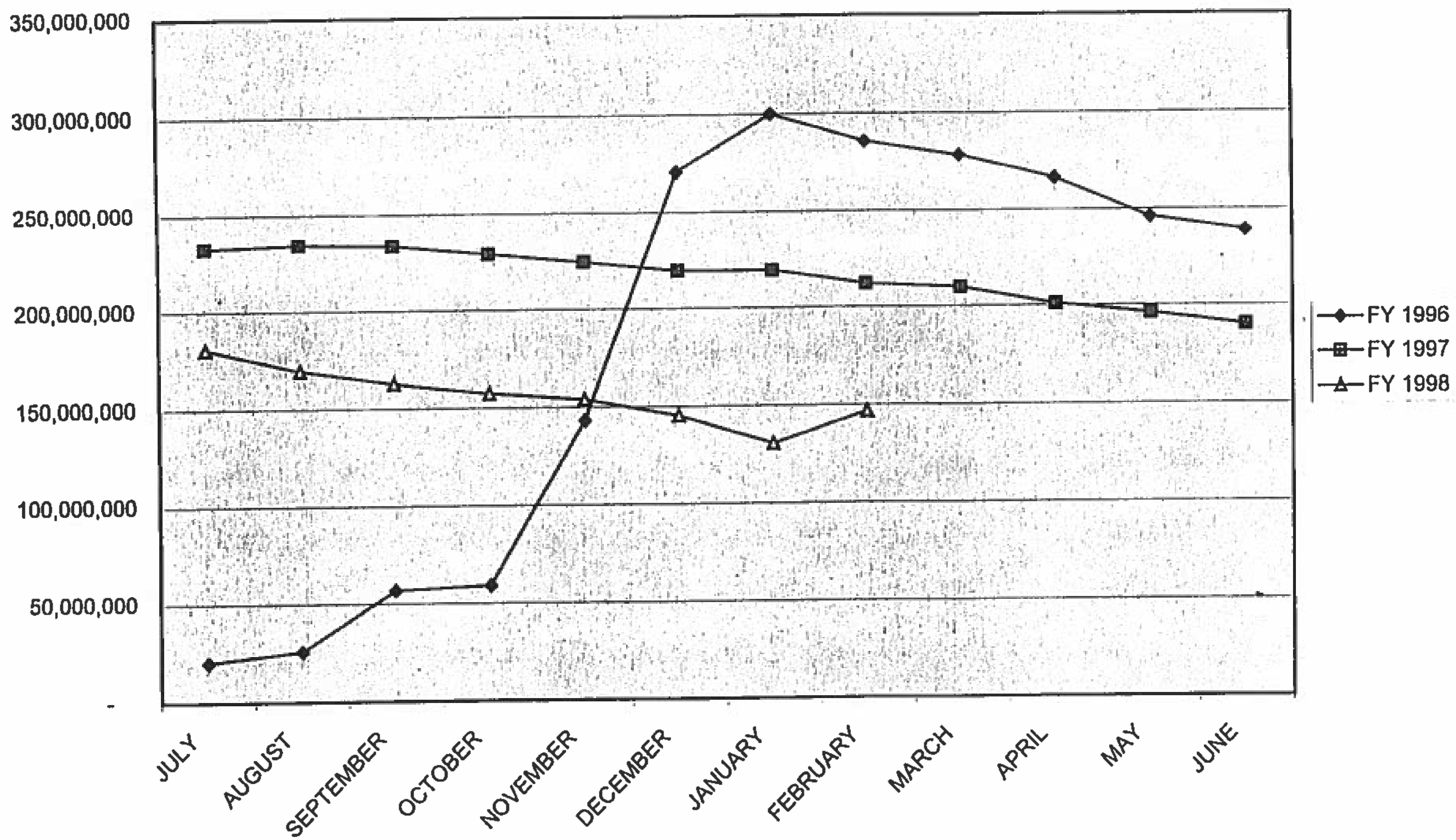
SHORT TERM POOL
INVESTABLE BALANCES



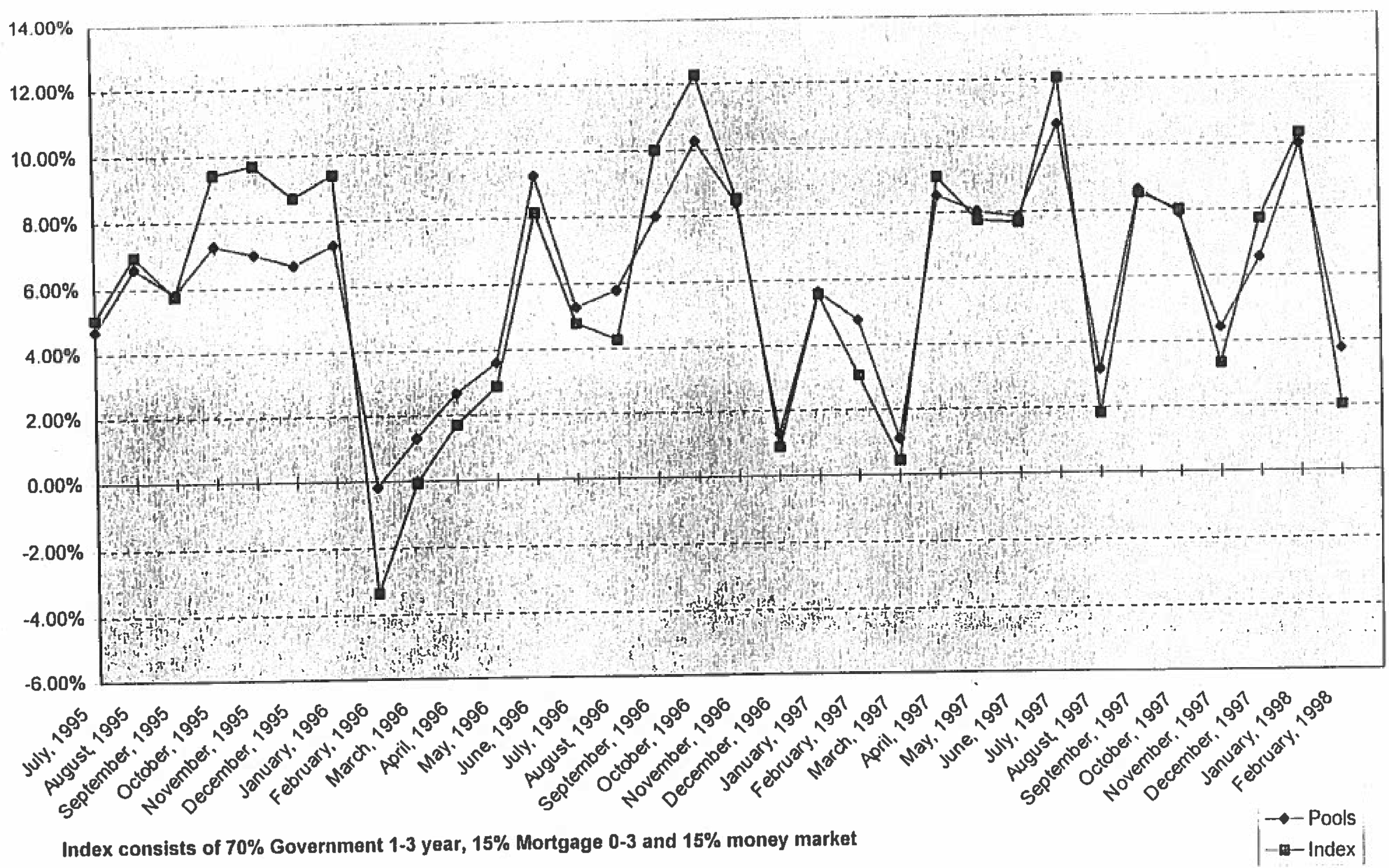
INTERMEDIATE - LONG TERM POOL
INVESTABLE BALANCES



US TREASURY-AGENCY INVESTABLE BALANCES

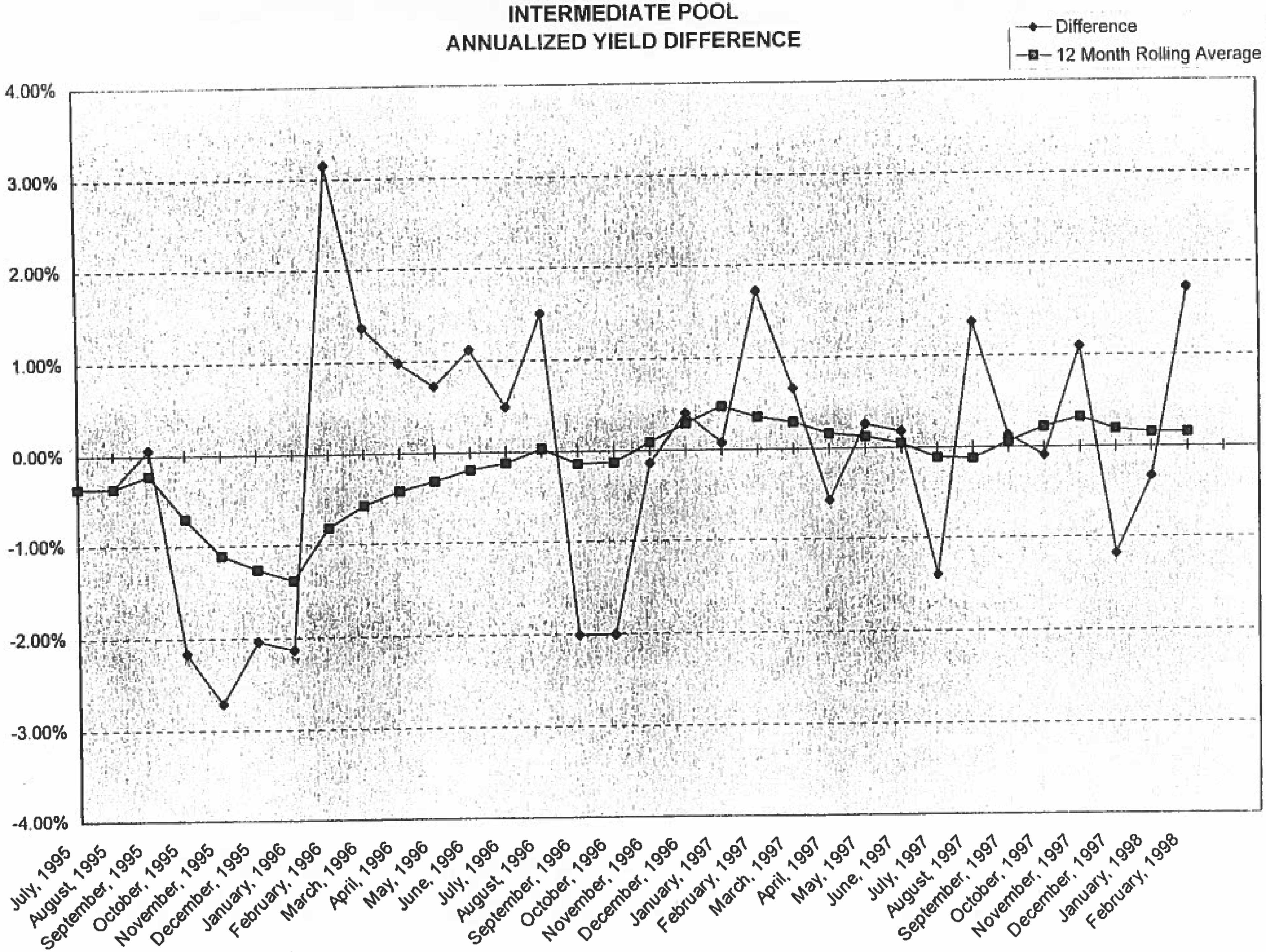


INTERMEDIATE POOL
ANNUALIZED YIELD

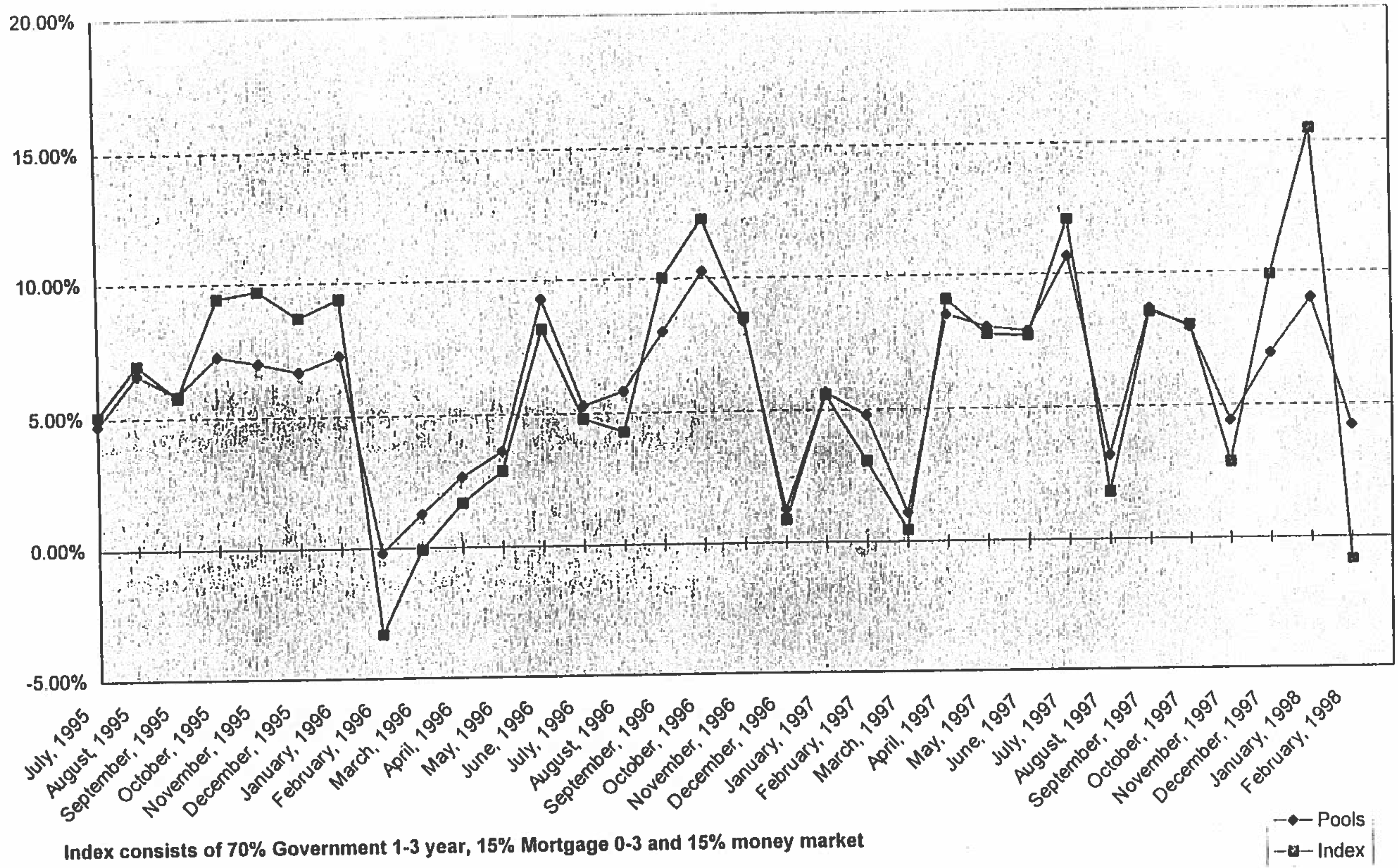


Index consists of 70% Government 1-3 year, 15% Mortgage 0-3 and 15% money market

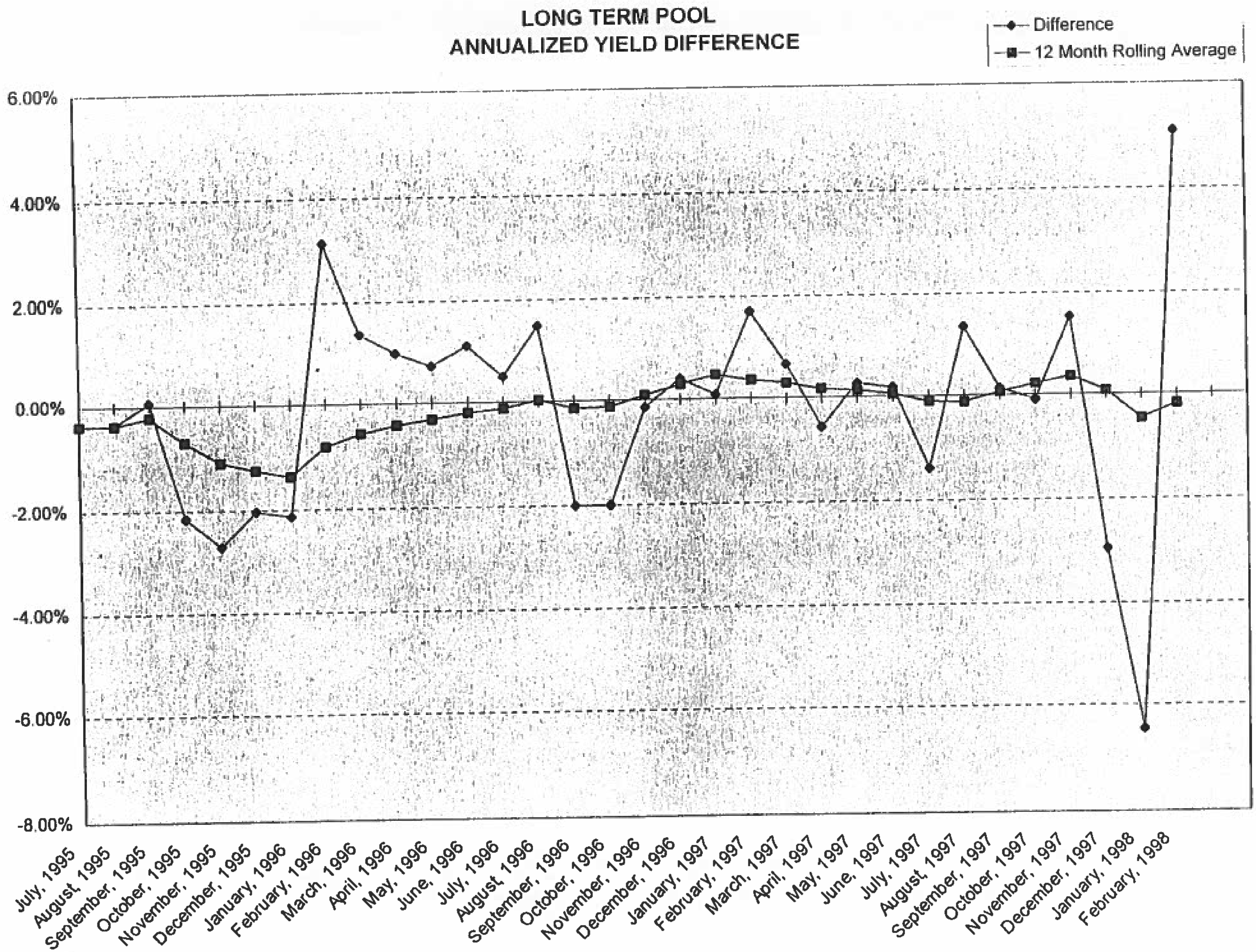
INTERMEDIATE POOL
ANNUALIZED YIELD DIFFERENCE



LONG TERM POOL
ANNUALIZED YIELD

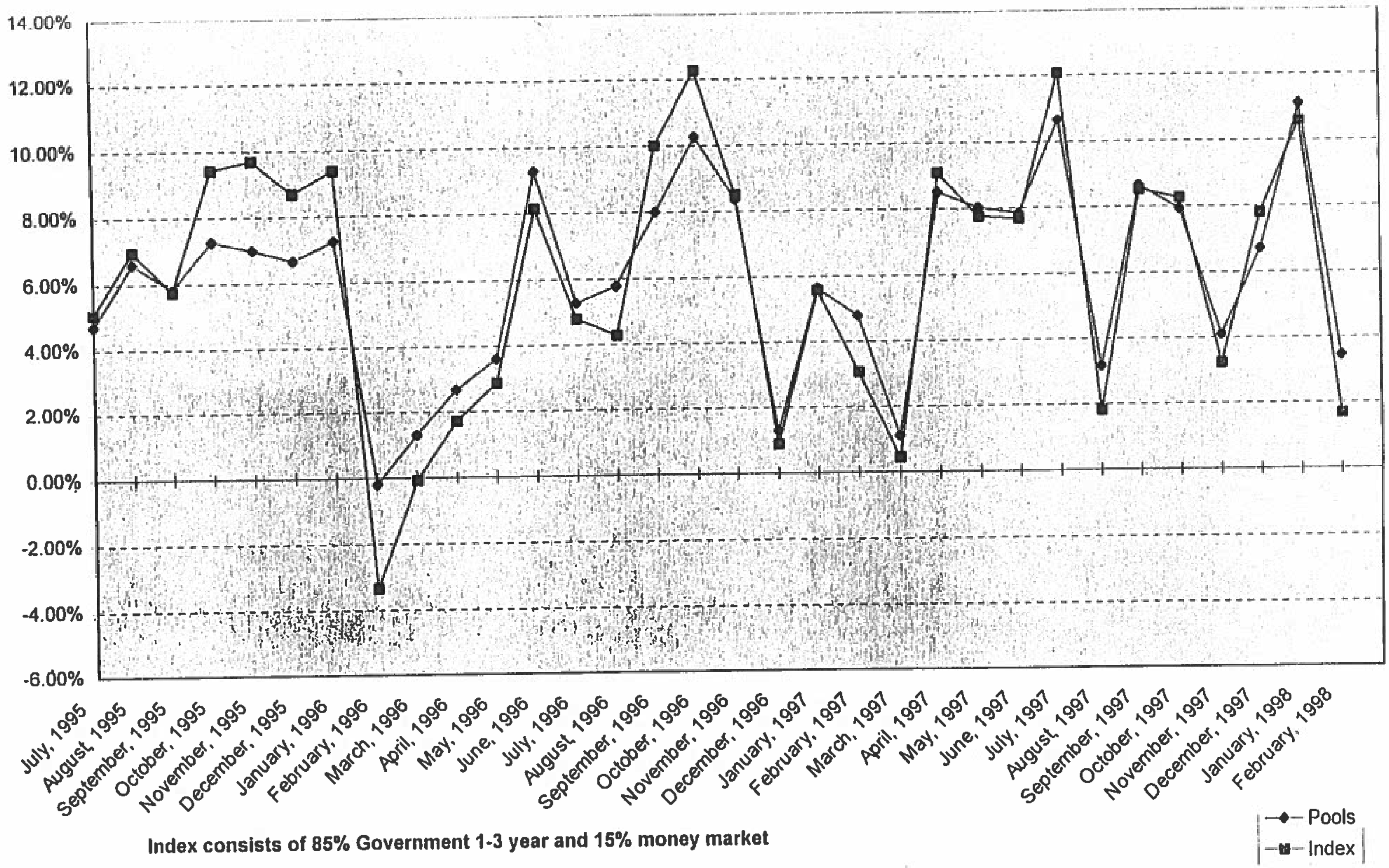


Index consists of 70% Government 1-3 year, 15% Mortgage 0-3 and 15% money market

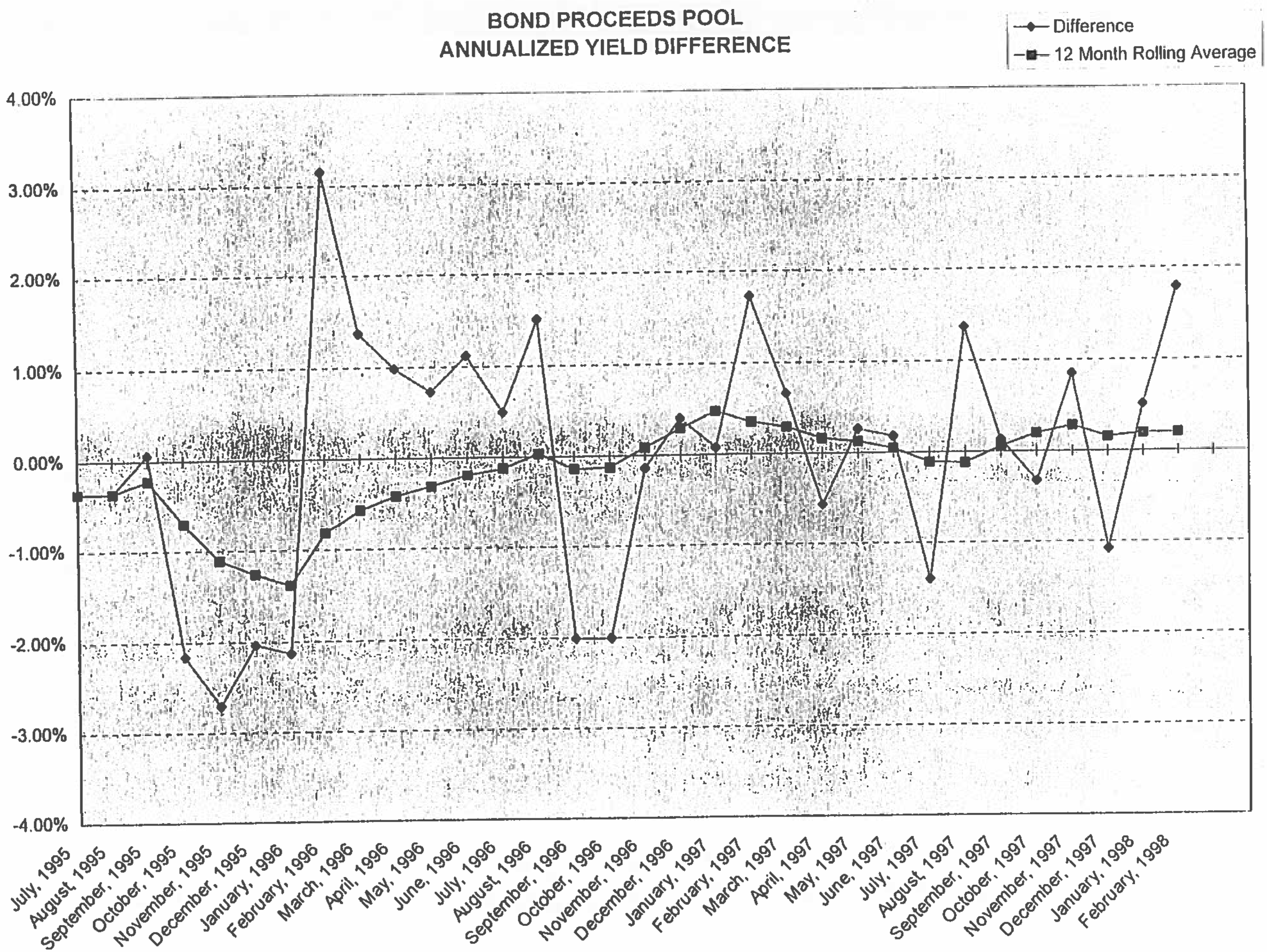


LONG TERM POOL
ANNUALIZED YIELD DIFFERENCE
Difference
12 Month Rolling Average
6.00%
4.00%
2.00%
0.00%
-2.00%
-4.00%
-6.00%
-8.00%
July, 1995
August, 1995
September, 1995
October, 1995
November, 1995
December, 1995
January, 1996
February, 1996
March, 1996
April, 1996
May, 1996
June, 1996
July, 1996
August, 1996
September, 1996
October, 1996
November, 1996
December, 1996
January, 1997
February, 1997
March, 1997
April, 1997
May, 1997
June, 1997
July, 1997
August, 1997
September, 1997
October, 1997
November, 1997
December, 1997
January, 1998
February, 1998

BOND PROCEEDS POOL
ANNUALIZED YIELD

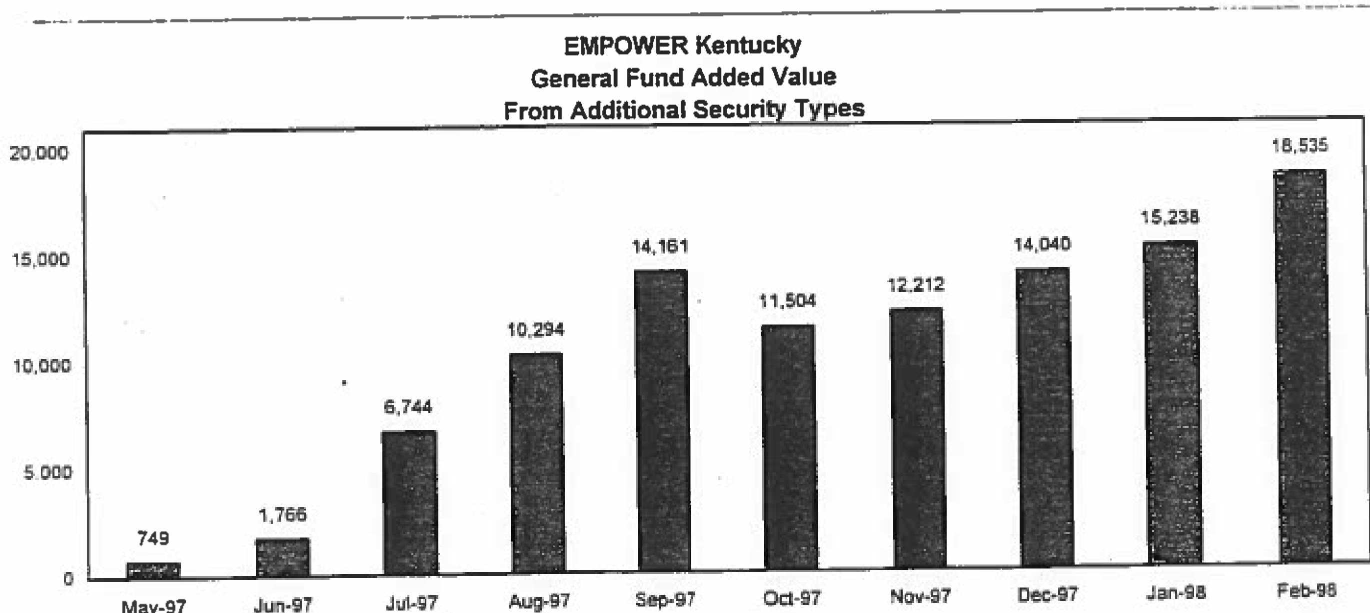


Index consists of 85% Government 1-3 year and 15% money market


BOND PROCEEDS POOL
ANNUALIZED YIELD DIFFERENCE
Difference
12 Month Rolling Average
4.00%
3.00%
2.00%
1.00%
0.00%
-1.00%
-2.00%
-3.00%
-4.00%
July, 1995
August, 1995
September, 1995
October, 1995
November, 1995
December, 1995
January, 1996
February, 1996
March, 1996
April, 1996
May, 1996
June, 1996
July, 1996
August, 1996
September, 1996
October, 1996
November, 1996
December, 1996
January, 1997
February, 1997
March, 1997
April, 1997
May, 1997
June, 1997
July, 1997
August, 1997
September, 1997
October, 1997
November, 1997
December, 1997
January, 1998
February, 1998

EMPOWER Kentucky
Added Value from Additional Security Types
Cash Basis

	MBS/CMO/ABS	Corporates	Total Added-Value	General Fund Share of Added-Value
Feb-97	278		278	3
Mar-97	9,074		9,074	715
Apr-97	10,416		10,416	831
May-97	11,841		11,841	749
Jun-97	16,628		16,628	1,766
FY 97:	**48,237**	**0**	**48,237**	**4,064**
Jul-97	30,580		30,580	6,744
Aug-97	48,342		48,342	10,294
Sep-97	61,551	2,338	63,889	14,161
Oct-97	66,146	5,908	72,054	11,504
Nov-97	74,784	8,975	83,759	12,212
Dec-97	72,622	12,736	85,358	14,040
Jan-98	71,741	23,496	95,237	15,238
Feb-98	86,207	29,636	115,843	18,535
FY 98 YTD:	**511,973**	**83,089**	**383,982**	**68,955**



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EMPOWER Kentucky
Added Value from New Investment Strategy
Total Return Basis

	BRTF Long-term Pool	General Fund Share of Added-Value
Jul-97	0	0
Aug-97	0	0
Sep-97	0	0
Oct-97	0	0
Nov-97	0	0
Dec-97	145,210	145,210
Jan-98	393,663	393,663
Feb-98	-193,750	-193,750
FY 98 YTD:	**345,123**	**345,123**

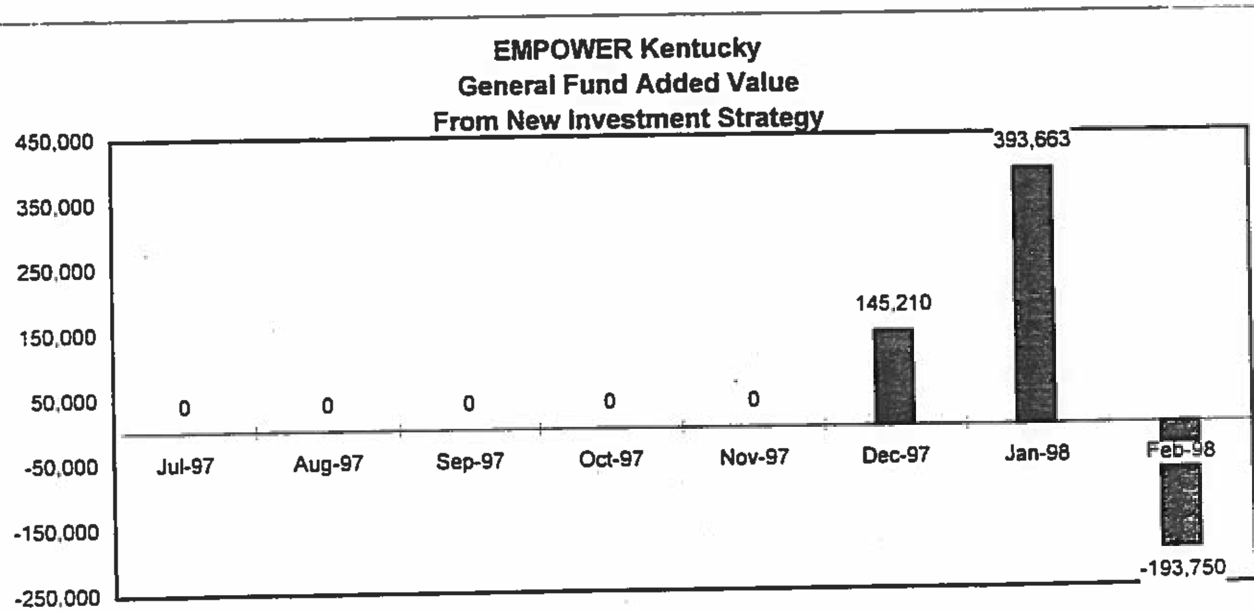

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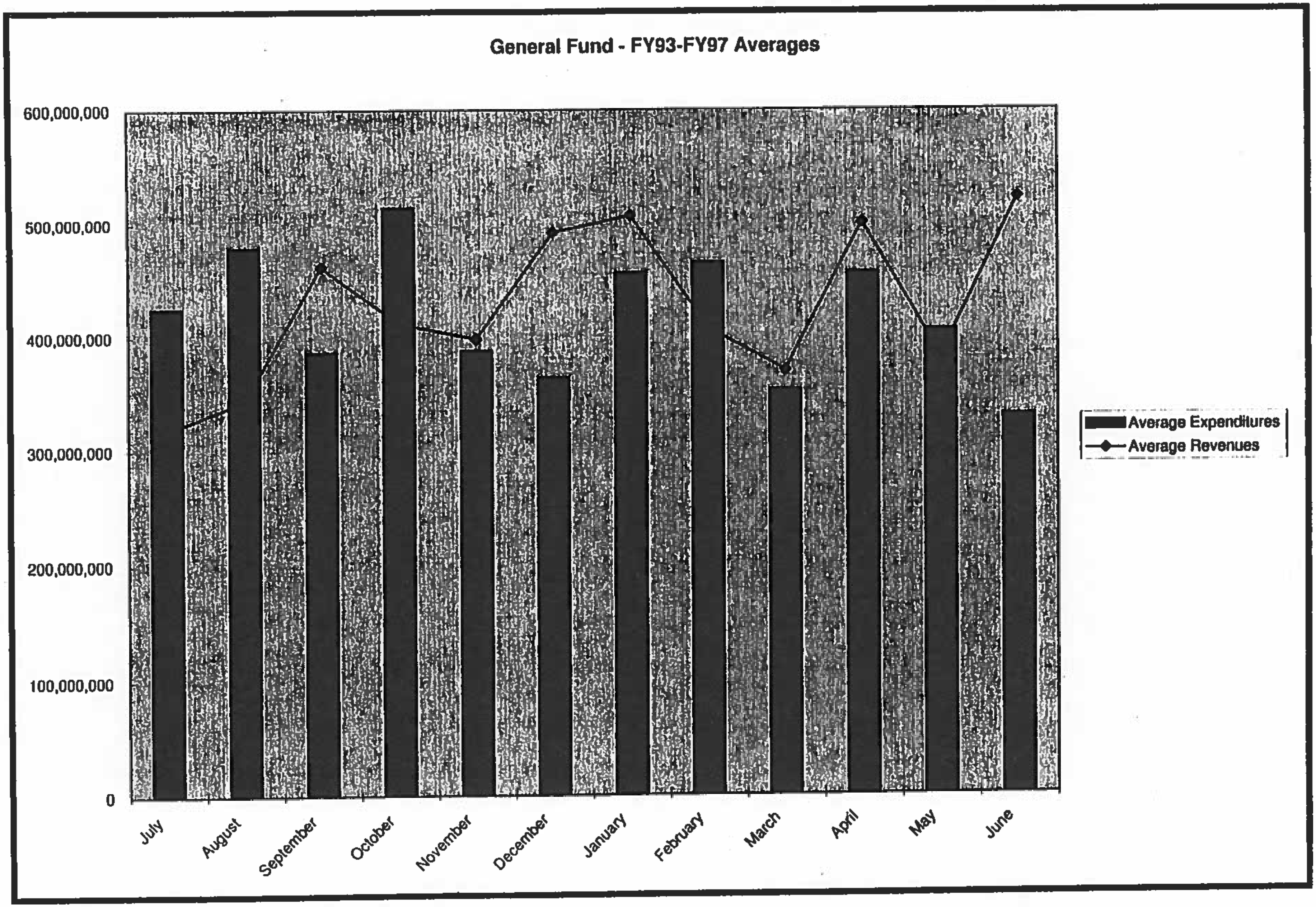
Exhibit 2

Exhibit 2



General Fund - FY93-FY97 Averages
600,000,000
500,000,000
400,000,000
300,000,000
200,000,000
100,000,000
0
July
August
September
October
November
December
January
February
March
April
May
June
Average Expenditures
Average Revenues

Exhibit 3

Exhibit 3a

General Fund
Cash Flow Deficit Projection Model

1. Calculate an average monthly percentage of expenditures to the year's total allotments for each month (Use 3 to 4 years of historical data).

2. Multiply the average percentage for each month (calculated in Step 1) times the new appropriations amount from the enacted budget to calculate an estimated expenditure amount for each month. (Use total of quarterly allotments if information is available)

3. Use the Official Revenue Estimate for the estimated revenue amounts for each month (Use 3 to 4 years of historical data to calculate monthly percentages).

4. Calculate [Beginning Balance + (Estimated Revenues - Estimated Expenditures, by month)]; These are the estimated month-end balances. (Note: Accurately estimating the beginning balance is critical in this process, and will need to be done as close to the end of the fiscal year as possible for purposes of this forecast)

5. Calculate daily percentages of month's totals for expenditures and revenues. Calculate an average for each day of each month (Use 3 to 4 years of historical data). Determine the largest percentage gap (percentage of expenditures - percentage of revenues), using the averages, for any day during each month. Determine the specific percentage amounts for expenditures and revenues for that day, for each month.

6. Apply the percentage variances for each month (calculated in Step 5) to the monthly expenditure and revenue estimates (calculated in Steps 3 and 4) and then subtract from the previous month's ending balance to determine the estimated *intramonth* deficit amount for each month.

7. Subtract the amount of the BRTF deemed "unavailable" from the maximum *intramonth* deficit calculated in Step 6. This is your estimated cash flow borrowing issue size.

Exhibit 3b

General Fund - Statistical Info by Fiscal Year
(All tables include BRTF moneys)

Statistical Info - 1992

	Max Deficit	Monthly Avg
July	(37,216,334.73)	57,309,502.06
August	(96,704,964.20)	(43,527,346.82)
September	(182,698,115.05)	(86,905,018.77)
October	(154,117,512.38)	(89,271,822.75)
November	(269,057,110.40)	(182,943,115.02)
December	(269,203,681.37)	(172,806,453.75)
January	(201,136,953.21)	(123,695,636.23)
February	(185,228,120.79)	(116,011,503.14)
March	(145,676,823.15)	(83,689,070.40)
April	(247,012,786.46)	(177,272,131.36)
May	(216,053,144.62)	(140,386,119.86)
June	(219,737,458.50)	(77,943,974.07)
Entire Year	(269,203,681.37)	(102,716,765.43)

Statistical Info - 1993

	Max Deficit	Monthly Avg
July	(220,365,994.00)	(124,696,217.01)
August	(290,549,149.89)	(221,995,503.37)
September	(378,872,723.56)	(295,648,546.75)
October	(352,270,777.78)	(259,752,195.83)
November	(397,549,372.57)	(303,735,637.53)
December	(416,802,870.21)	(312,982,599.39)
January	(328,555,350.22)	(213,517,924.75)
February	(295,189,710.34)	(208,671,833.59)
March	(250,516,530.20)	(195,021,469.43)
April	(398,935,308.02)	(270,274,157.30)
May	(248,352,634.81)	(157,650,397.61)
June	(270,449,042.24)	(130,503,772.82)
Entire Year	(416,802,870.21)	(224,388,439.18)

Statistical Info - 1994

	Max Deficit	Monthly Avg
July	(284,552,474.45)	(127,651,382.93)
August	(315,283,768.48)	(241,937,815.79)
September	(390,687,580.65)	(299,597,402.94)
October	(366,773,309.99)	(228,189,053.72)
November	(349,997,841.40)	(244,919,529.86)
December	(318,225,151.69)	(219,125,011.18)
January	(211,141,435.67)	(145,399,503.79)
February	(115,322,502.37)	(44,852,120.22)
March	(154,707,007.84)	(71,099,823.41)
April	(207,387,439.01)	(101,036,282.51)
May	(122,169,785.53)	(44,944,559.11)
June	(156,590,331.11)	(46,254,586.91)
Entire Year	(390,687,580.65)	(151,887,274.19)

Statistical Info - 1995

	Max Deficit	Monthly Avg
July	(178,574,038.99)	112,238,659.87
August	(93,122,807.29)	(34,771,686.91)
September	(211,285,040.61)	(98,009,528.12)
October	(183,629,075.94)	(89,326,014.16)
November	(220,894,904.51)	(105,670,274.61)
December	(239,948,091.06)	(111,336,846.51)
January	(107,828,411.69)	(21,625,435.31)
February	31,708,811.33	94,932,734.33
March	23,429,561.62	122,003,792.10
April	2,596,444.38	95,919,900.84
May	96,430,234.01	144,817,079.94
June	33,157,690.88	171,131,832.48
Entire Year	(239,948,091.06)	22,852,768.49

Statistical Info - 1996

	Max Deficit	Monthly Avg
July	150,968,315.81	303,114,910.57
August	119,333,011.11	191,741,387.95
September	6,494,843.07	82,794,231.30
October	25,385,467.24	123,696,195.86
November	(37,594,185.30)	29,317,229.57
December	(54,756,489.64)	69,494,781.31
January	113,680,141.32	217,986,754.58
February	160,207,785.57	226,310,212.51
March	140,840,011.71	230,614,429.81
April	81,210,448.08	181,853,689.92
May	115,990,702.60	202,576,867.10
June	74,333,600.43	219,237,794.42
Entire Year	(54,756,489.64)	173,429,152.08

Statistical Info - 1997

	Max Deficit	Monthly Avg
July	(14,885,286.91)	303,217,499.68
August	66,455,836.03	185,894,942.51
September	(11,358,683.71)	108,394,858.99
October	9,560,158.64	66,331,930.16
November	(68,534,988.02)	32,196,605.71
December	(50,192,294.46)	80,870,030.65
January	74,179,721.37	206,757,693.17
February	97,526,155.33	191,381,095.93
March	5,207,008.58	95,594,577.61
April	(18,870,673.10)	48,747,634.67
May	69,870,708.08	163,418,725.19
June	99,921,586.95	258,197,802.71
Entire Year	(68,534,988.02)	145,066,918.13

Exhibit 3c

General Fund Cashflow Analysis - FY94-97 Averages

Month	Allotments/ Revisions	Expenditures/ Transfers Out	% of Month**	% of Qtr	% of Year	Revenues/ NonRevenues	+/- Cashflow
July	1,692,976,925	440,111,655	76.90%	25.63%	8.41%	342,853,530	(97,258,126)
August	18,884,100	493,675,141	86.23%	28.74%	9.41%	355,092,185	(138,582,956)
September	6,889,175	403,301,187	70.31%	23.44%	7.69%	473,948,690	70,647,503
October	1,222,901,350	530,971,444	128.62%	42.87%	10.14%	427,749,315	(103,222,129)
November	1,259,125	395,260,420	95.86%	31.95%	7.58%	411,787,131	16,526,712
December	13,239,875	371,389,594	89.98%	29.99%	7.10%	507,631,666	136,242,072
January	1,220,892,675	459,366,358	109.36%	36.45%	8.78%	515,965,165	56,598,808
February	25,515,125	460,533,551	109.11%	36.37%	8.77%	418,247,482	(42,286,069)
March	12,833,625	387,560,220	92.66%	30.89%	7.45%	381,339,111	(6,221,109)
April	1,027,376,950	453,859,741	134.64%	44.88%	8.67%	513,143,940	59,284,199
May	281,150	420,680,187	124.23%	41.41%	8.05%	382,144,225	(38,535,962)
June	(11,051,848)	329,835,543	97.69%	32.56%	6.30%	526,352,620	196,517,077
Total	5,231,998,228	5,146,545,039			98.37%	5,256,255,060	109,710,021

* June Allotment revisions include July (Old Year) revisions.
** Monthly percentages are calculated using 1/3 X quarterly amount.
** July (Old Year) expenditures and transfers in are included in June amounts for calculations.

Exhibit 4

Exhibit 4a

Commonwealth of Kentucky
General Fund Available Balances
Fiscal Year 1998 thru February
(Excludes $150,000,000 of BRTF)

7/1/97	415,994,872.79	8/1/97	115,614,749.09	9/1/97	101,814,019.67	10/1/97	87,870,751.54	11/1/97	66,791,566.11	12/1/97	41,490,898.44	1/1/98	333,142,814.00	2/1/98	325,833,027.25
7/2/97	419,940,389.93	8/2/97	115,614,749.09	9/2/97	40,685,406.33	10/2/97	73,007,083.43	11/2/97	66,791,566.11	12/2/97	(92,044,733.99)	1/2/98	333,142,814.00	2/2/98	268,444,959.71
7/3/97	388,001,111.16	8/3/97	115,614,749.09	9/3/97	(59,908,522.44)	10/3/97	73,622,886.15	11/3/97	21,115,832.67	12/3/97	(116,119,970.55)	1/3/98	333,142,814.00	2/3/98	127,238,530.53
7/4/97	388,001,111.16	8/4/97	79,463,928.96	9/4/97	(71,725,419.41)	10/4/97	73,622,886.15	11/4/97	20,884,042.18	12/4/97	(105,734,095.13)	1/4/98	333,142,814.00	2/4/98	138,477,817.83
7/5/97	388,001,111.16	8/5/97	63,245,511.58	9/5/97	(62,948,287.18)	10/5/97	73,622,886.15	11/5/97	(119,973,116.15)	12/5/97	(102,578,738.50)	1/5/98	291,439,699.23	2/5/98	138,477,817.83
7/6/97	388,001,111.16	8/6/97	66,752,456.68	9/6/97	(62,948,287.18)	10/6/97	52,392,461.08	11/6/97	(115,897,742.87)	12/6/97	(102,578,738.50)	1/6/98	254,739,582.85	2/6/98	132,554,421.53
7/7/97	360,666,995.52	8/7/97	70,104,620.72	9/7/97	(62,948,287.18)	10/7/97	(92,185,803.94)	11/7/97	(119,373,514.86)	12/7/97	(102,578,738.50)	1/7/98	110,367,148.37	2/7/98	132,554,421.53
7/8/97	353,338,993.00	8/8/97	44,324,523.31	9/8/97	(100,458,919.94)	10/8/97	(107,037,326.47)	11/8/97	(119,373,514.86)	12/8/97	(144,512,588.47)	1/8/98	118,406,265.85	2/8/98	132,554,421.53
7/9/97	333,490,264.12	8/9/97	44,324,523.31	9/9/97	(163,170,593.86)	10/9/97	(123,049,938.51)	11/9/97	(119,373,514.86)	12/9/97	(146,839,022.19)	1/9/98	111,686,290.54	2/9/98	107,165,307.71
7/10/97	332,956,719.36	8/10/97	44,324,523.31	9/10/97	(160,560,827.59)	10/10/97	(124,571,538.36)	11/10/97	(196,998,468.50)	12/10/97	(146,053,906.24)	1/10/98	111,686,290.54	2/10/98	107,596,379.35
7/11/97	332,956,719.36	8/11/97	30,440,752.28	9/11/97	(154,969,113.96)	10/11/97	(124,571,538.36)	11/11/97	(186,784,013.38)	12/11/97	(138,306,504.49)	1/11/98	111,686,290.54	2/11/98	125,716,055.35
7/12/97	310,001,034.57	8/12/97	29,617,872.36	9/12/97	(152,370,901.84)	10/12/97	(124,571,538.36)	11/12/97	(163,514,904.64)	12/12/97	(120,946,722.25)	1/12/98	111,686,290.54	2/12/98	69,680,535.01
7/13/97	310,001,034.57	8/13/97	39,379,715.61	9/13/97	(152,370,901.84)	10/13/97	(137,632,191.29)	11/13/97	(165,279,789.44)	12/13/97	(120,946,722.25)	1/13/98	128,611,138.93	2/13/98	101,168,551.09
7/14/97	107,587,486.42	8/14/97	58,893,946.72	9/14/97	(152,370,901.84)	10/14/97	(128,071,009.81)	11/14/97	(132,712,122.56)	12/14/97	(120,946,722.25)	1/14/98	119,931,842.66	2/14/98	101,168,551.09
7/15/97	92,060,986.81	8/15/97	57,159,102.12	9/15/97	(127,140,898.66)	10/15/97	(93,832,688.34)	11/15/97	(132,712,122.56)	12/15/97	(110,782,592.74)	1/15/98	96,877,091.63	2/15/98	101,168,551.09
7/16/97	97,048,323.28	8/16/97	57,159,102.12	9/16/97	(126,662,468.13)	10/16/97	(122,826,577.84)	11/16/97	(132,712,122.56)	12/16/97	(116,721,269.03)	1/16/98	106,441,328.86	2/16/98	101,168,551.09
7/17/97	87,587,445.45	8/17/97	57,159,102.12	9/17/97	(81,697,691.94)	10/17/97	(114,562,115.57)	11/17/97	(131,907,820.53)	12/17/97	(90,990,243.66)	1/17/98	106,441,328.86	2/17/98	84,798,325.74
7/18/97	95,239,458.47	8/18/97	55,360,800.92	9/18/97	(81,033,643.89)	10/18/97	(114,562,115.57)	11/18/97	(135,735,865.11)	12/18/97	(69,320,089.97)	1/18/98	106,441,328.86	2/18/98	108,310,240.44
7/19/97	95,239,458.47	8/19/97	(70,495,677.59)	9/19/97	(38,622,425.37)	10/19/97	(114,562,115.57)	11/19/97	(96,838,680.05)	12/19/97	(69,703,610.50)	1/19/98	106,441,328.86	2/19/98	143,355,771.86
7/20/97	95,239,458.47	8/20/97	(78,368,570.82)	9/20/97	(38,622,425.37)	10/20/97	(129,749,944.79)	11/20/97	(89,331,617.18)	12/20/97	(69,703,610.50)	1/20/98	109,925,422.33	2/20/98	146,100,264.64
7/21/97	51,910,132.03	8/21/97	(71,936,864.92)	9/21/97	(38,622,425.37)	10/21/97	(115,593,545.00)	11/21/97	(88,574,656.49)	12/21/97	(69,703,610.50)	1/21/98	111,620,107.70	2/21/98	146,100,264.64
7/22/97	95,557,674.93	8/22/97	(55,223,354.05)	9/22/97	(72,804,935.40)	10/22/97	(107,832,163.68)	11/22/97	(88,574,656.49)	12/22/97	(40,796,259.33)	1/22/98	167,726,005.12	2/22/98	146,100,264.64
7/23/97	125,818,546.95	8/23/97	(55,223,354.05)	9/23/97	(68,953,449.43)	10/23/97	(113,390,221.77)	11/23/97	(88,574,656.49)	12/23/97	(14,662,050.78)	1/23/98	153,165,014.95	2/23/98	161,978,220.53
7/24/97	141,081,180.82	8/24/97	(55,223,354.05)	9/24/97	(59,629,920.90)	10/24/97	(85,208,280.38)	11/24/97	(55,322,549.51)	12/24/97	98,170,057.99	1/24/98	153,165,014.95	2/24/98	144,782,857.93
7/25/97	153,485,757.97	8/25/97	(55,637,422.23)	9/25/97	(20,994,201.78)	10/25/97	(85,208,280.38)	11/25/97	(79,470,668.08)	12/25/97	98,170,057.99	1/25/98	153,165,014.95	2/25/98	154,887,728.63
7/26/97	153,485,757.97	8/26/97	(50,630,957.77)	9/26/97	9,741,357.84	10/26/97	(85,208,280.38)	11/26/97	34,807,116.86	12/26/97	98,170,057.99	1/26/98	170,074,626.72	2/26/98	174,456,878.00
7/27/97	153,485,757.97	8/27/97	(24,567,733.91)	9/27/97	9,741,357.84	10/27/97	(86,919,682.97)	11/27/97	34,807,116.86	12/27/97	98,170,057.99	1/27/98	196,608,961.84	2/27/98	289,859,265.03
7/28/97	171,141,695.70	8/28/97	1,699,754.36	9/28/97	9,741,357.84	10/28/97	(65,614,789.32)	11/28/97	34,807,116.86	12/28/97	98,170,057.99	1/28/98	300,413,044.56	2/28/98	289,859,265.03
7/29/97	177,351,857.63	8/29/97	101,814,019.67	9/29/97	29,787,945.26	10/29/97	(319,974.64)	11/29/97	34,807,116.86	12/29/97	133,000,828.89	1/29/98	303,939,103.02		
7/30/97	138,293,108.99	8/30/97	101,814,019.67	9/30/97	154,326,819.85	10/30/97	38,744,777.49	11/30/97	34,807,116.86	12/30/97	251,066,154.77	1/30/98	325,833,027.25		
7/31/97	254,988,427.00	8/31/97	101,814,019.67			10/31/97	66,791,566.11			12/31/97	333,142,814.00	1/31/98	325,833,027.25		

The expenditure test on the 1997 TRAN was met on November 10, 1997 (highlighted).

Exhibit 4b

General Fund Available Balance
Fiscal Year 1998

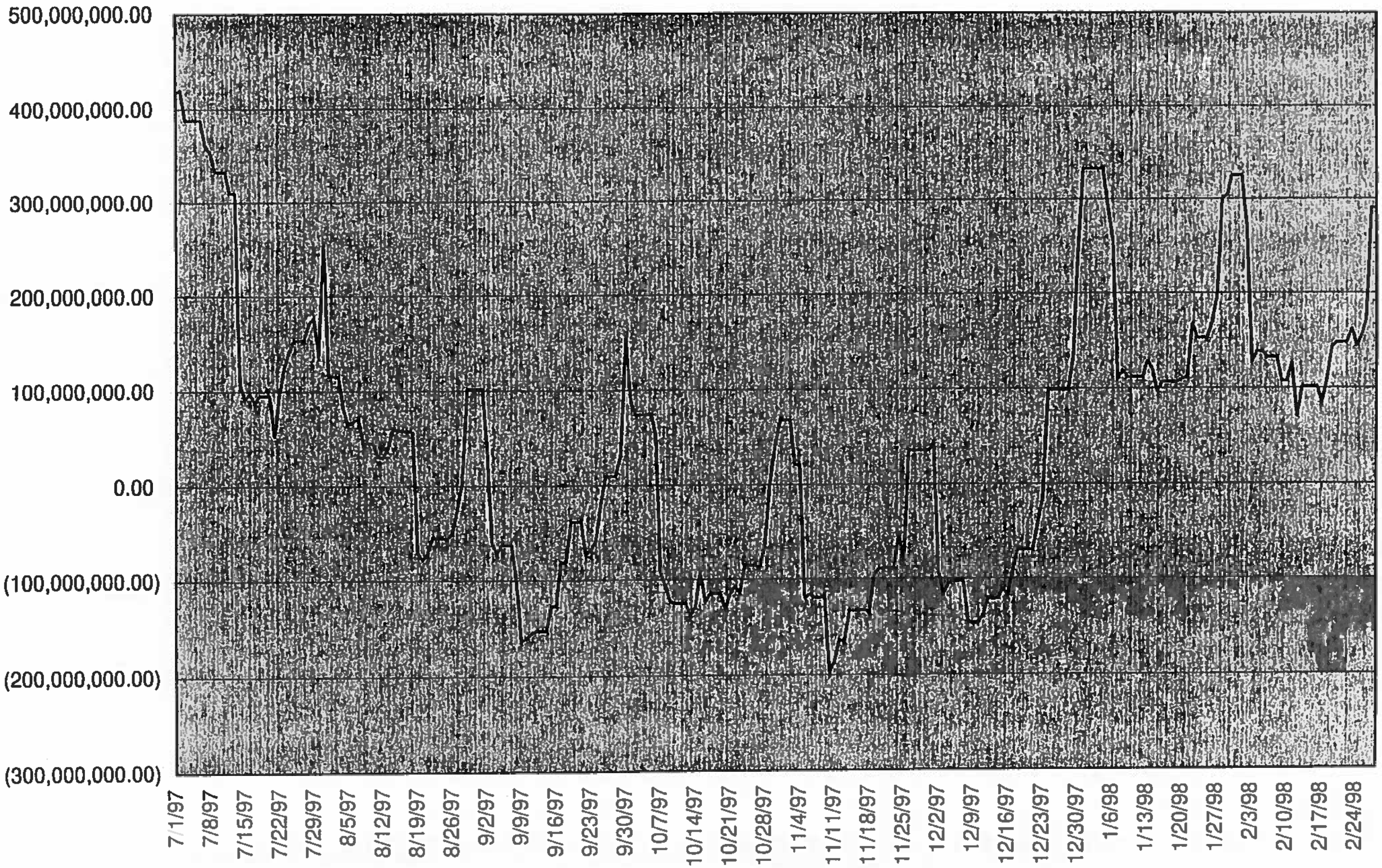
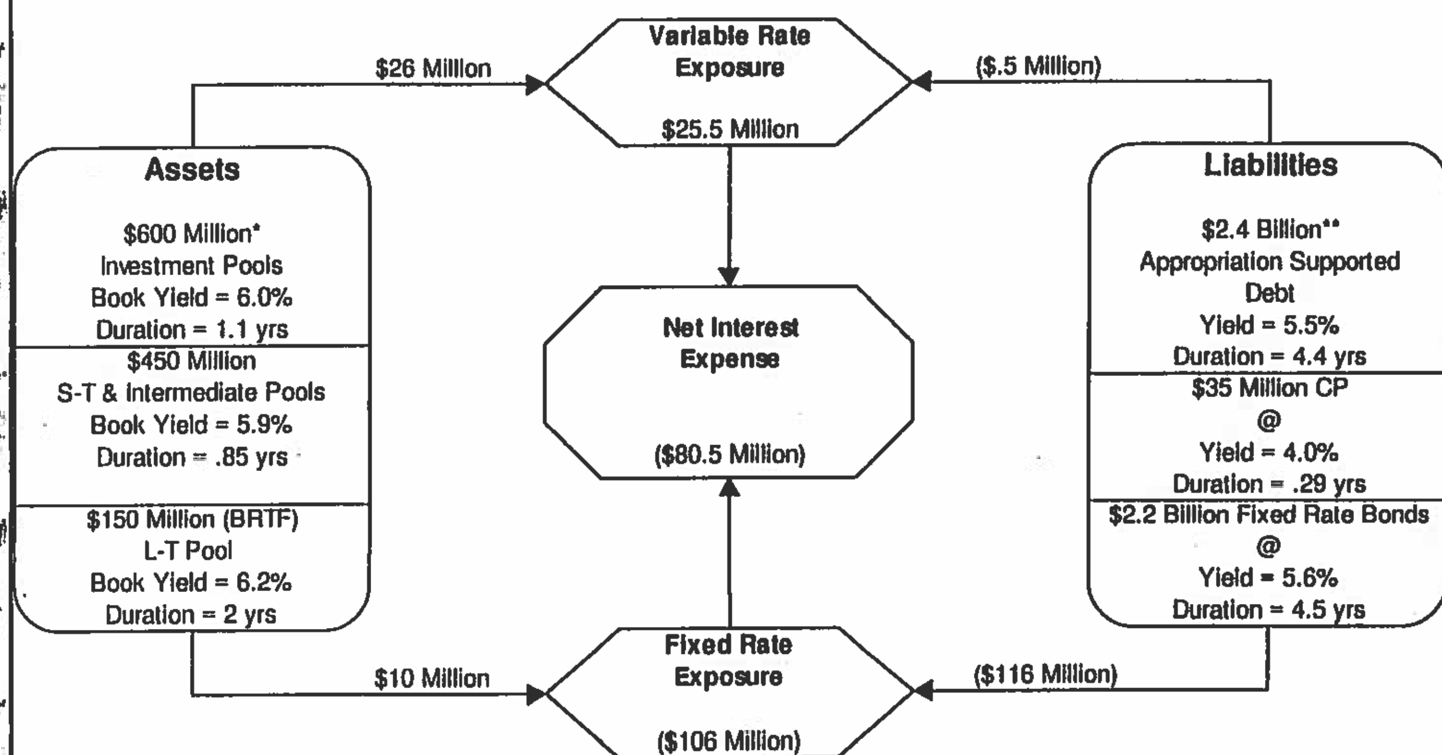


Exhibit 5

Exhibit 5

General Fund - FY1998



*Includes all assets that accrue earnings to the General Fund.
**Includes $157 million new money issue.

Commonwealth of Kentucky
General & Agency Fund Supported Debt
@ June 30, 1997

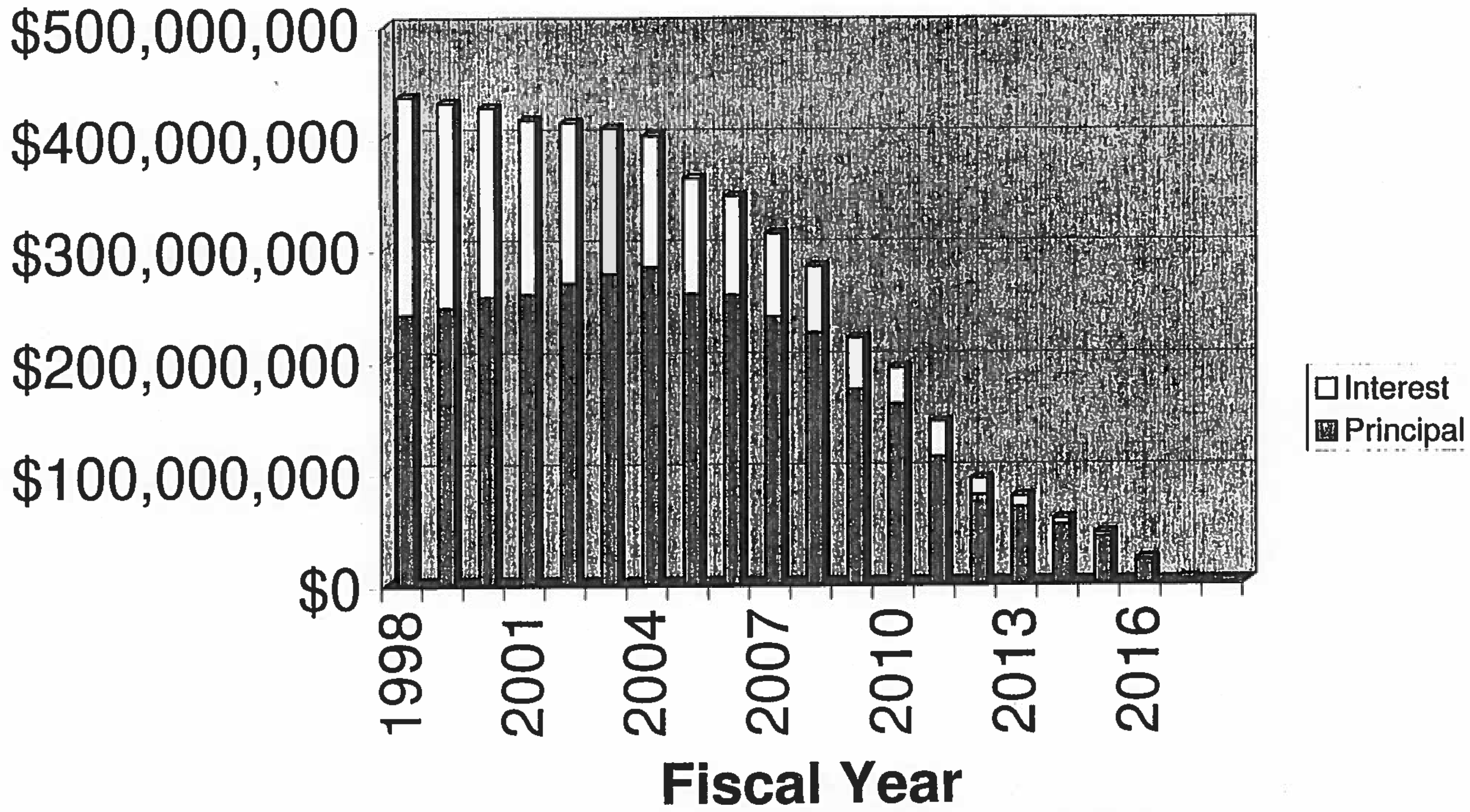
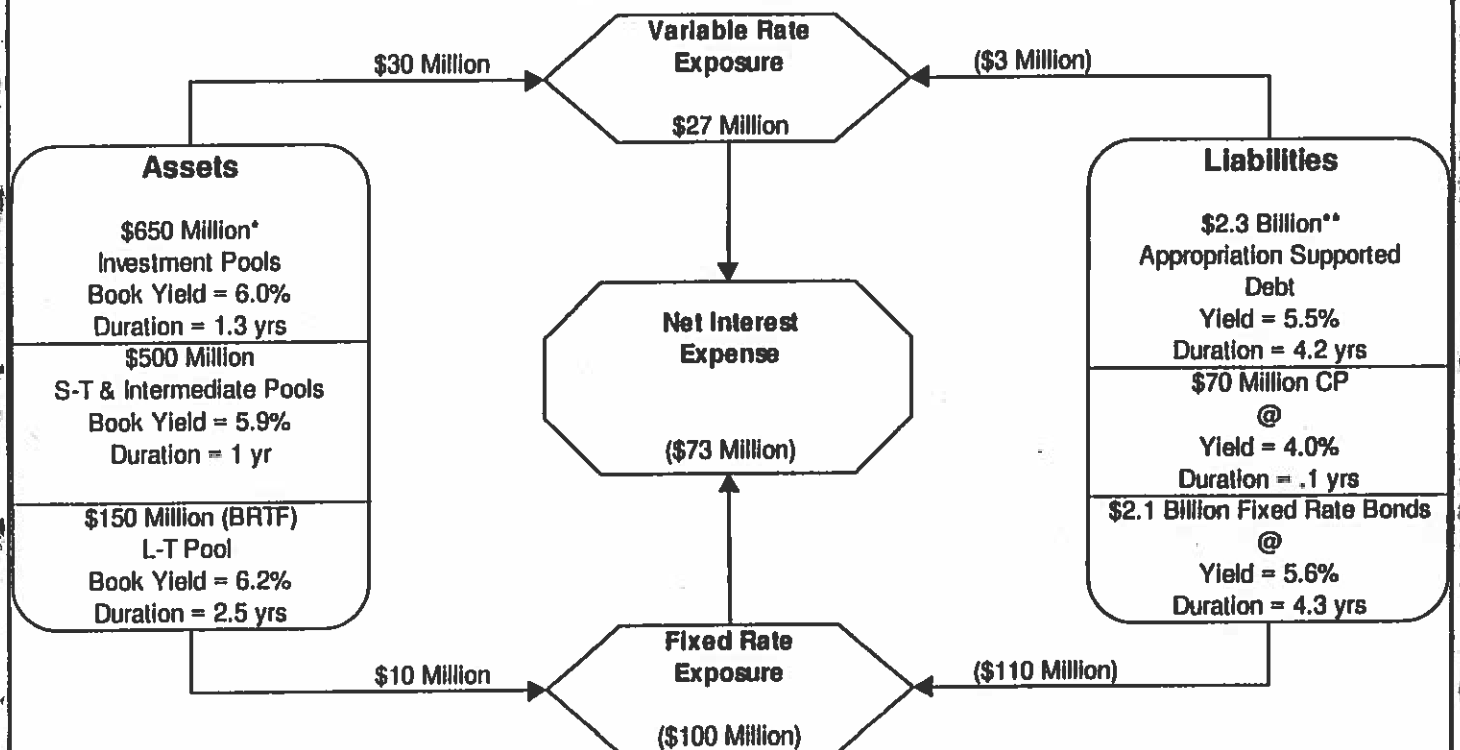


Exhibit 6

Exhibit 6a

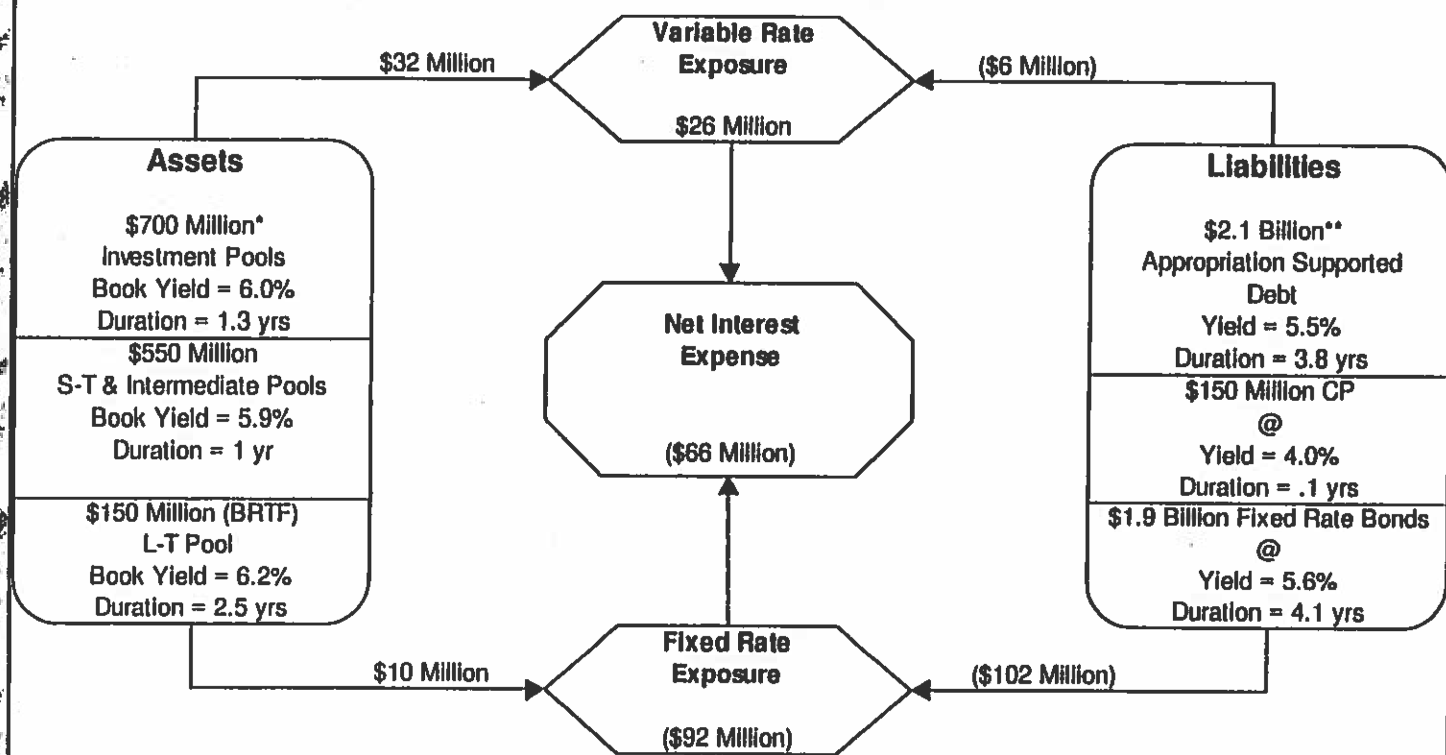
General Fund - FY1999-Projected



*Includes all assets that accrue earnings to the General Fund.
**Includes $157 million new money issue.

Exhibit 6b

General Fund - FY2000-Projected



*Includes all assets that accrue earnings to the General Fund.

**Includes $157 million new money issue.

Exhibit 7

Exhibit 7

The Transportation Cabinet and The Turnpike Authority of Kentucky

The Office of Financial Management & Economic Analysis

Asset / Liability Strategies

12/9/97

Kentucky Asset / Liability Commission

- ALCO was established with the passage of HB 5 of the 1997 Extraordinary Session of the General Assembly and the Governor's EMPOWER Kentucky initiative.
- ALCO's function are to:
  - Manage interest sensitive assets & liabilities.
  - Manage short-term working capital needs.
  - Act as a facilitator for short-term and variable rate financing needs.

ALCO's Vision

- Maximize the Commonwealth's financial resources through a global fund management perspective.
- Assist state agencies in identifying and implementing opportunities to maximize returns within constraints.

Road Fund Goals and Objectives

- Increase Investment Returns.
- Reduce Debt Service Costs.
- Minimize Administrative Burdens.

Increase Investment Returns

- Asset allocation: HB5 expanded eligible investments for KRS 42.500.
- Extend duration: ALCO & SIC propose to establish a new longer term bond pool for certain state assets.
- Cash flow: Availability and predictability of revenues and expenditures enhances ability to maximize duration.

Reduce Debt Service Costs

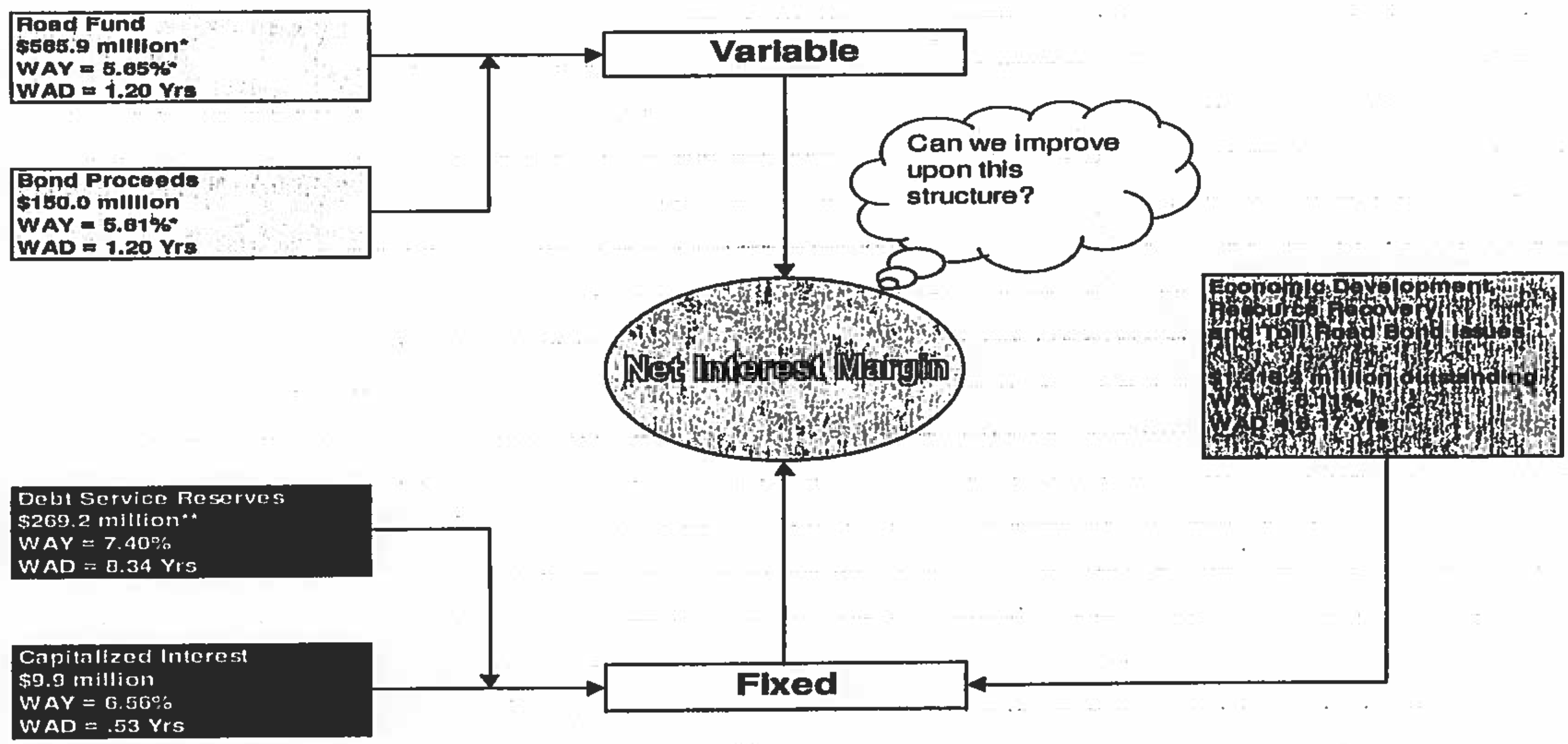
- Refunding opportunities: Limited at present.
- Reduce negative arbitrage where applicable through combination of proceeds and DSR.
- Construction financing: Borrow only expected expenditures with periodic permanent (long-term) takeouts.
- VRDO's: Introduce a portion of debt as floating rate obligations.

Balance Sheet Management

- Base Case Asset / Liability Structure.
- Base Case Net Interest Margin (Expense).
- Base Case Cash flow FY99-00.
- Proposed Asset / Liability Structure.
- Net Interest Margin (Expense) Projections.
- Cash flow Projections FY99-00.

Road Fund
Current Structure

Investments | **Outstanding Debt**

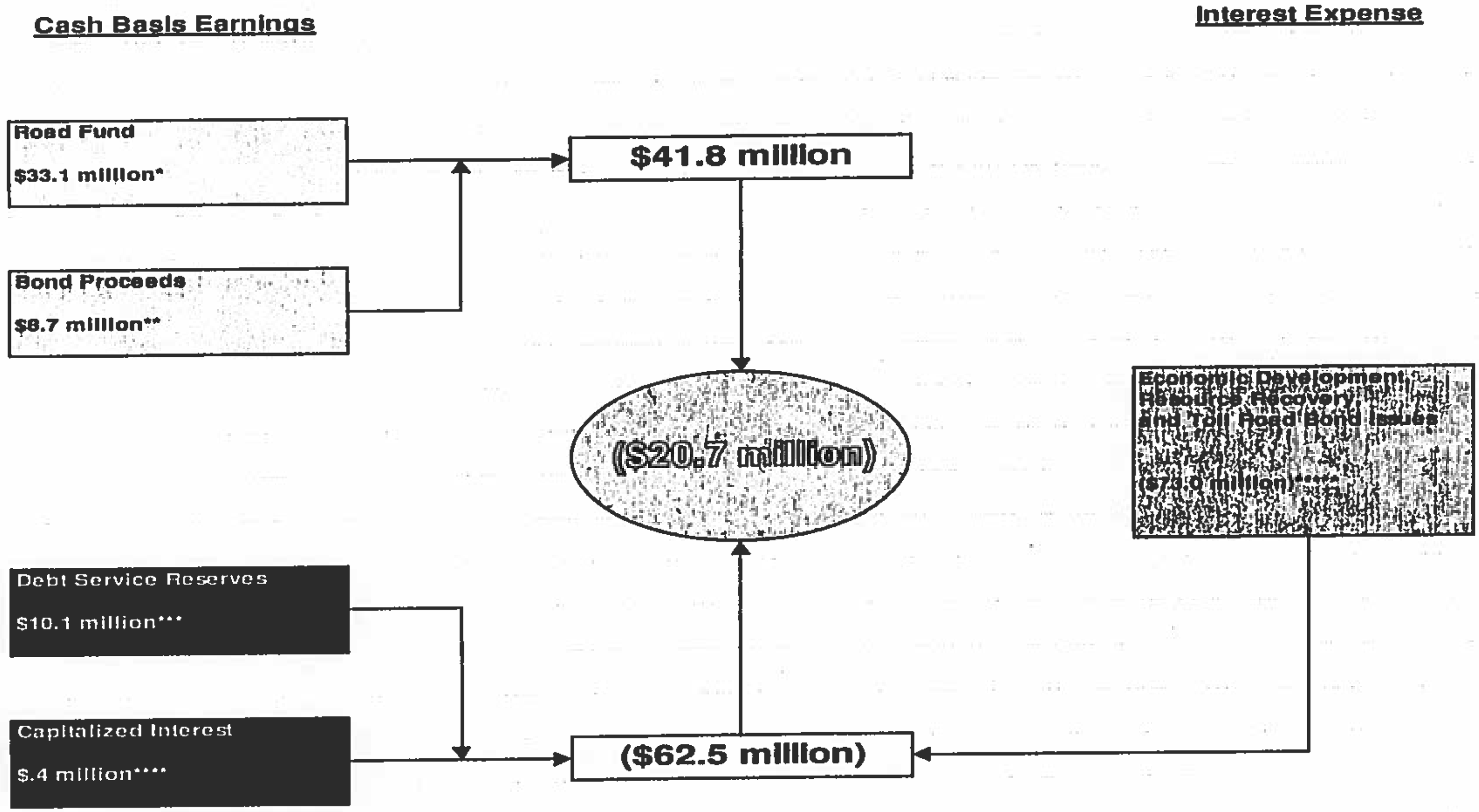


*FY96-FY97 Averages
**Face value of U.S. Treasury STRIPS

WAY = Weighted Average Yield
WAD = Weighted Average Duration

12/9/97

Road Fund
FY1998 Projected
Current Structure



*Based on FY96-FY97 average cash balance and average yield
**Based on FY96-FY97 average yield
***Includes Interest and CAB's Principal
****Includes Interest only

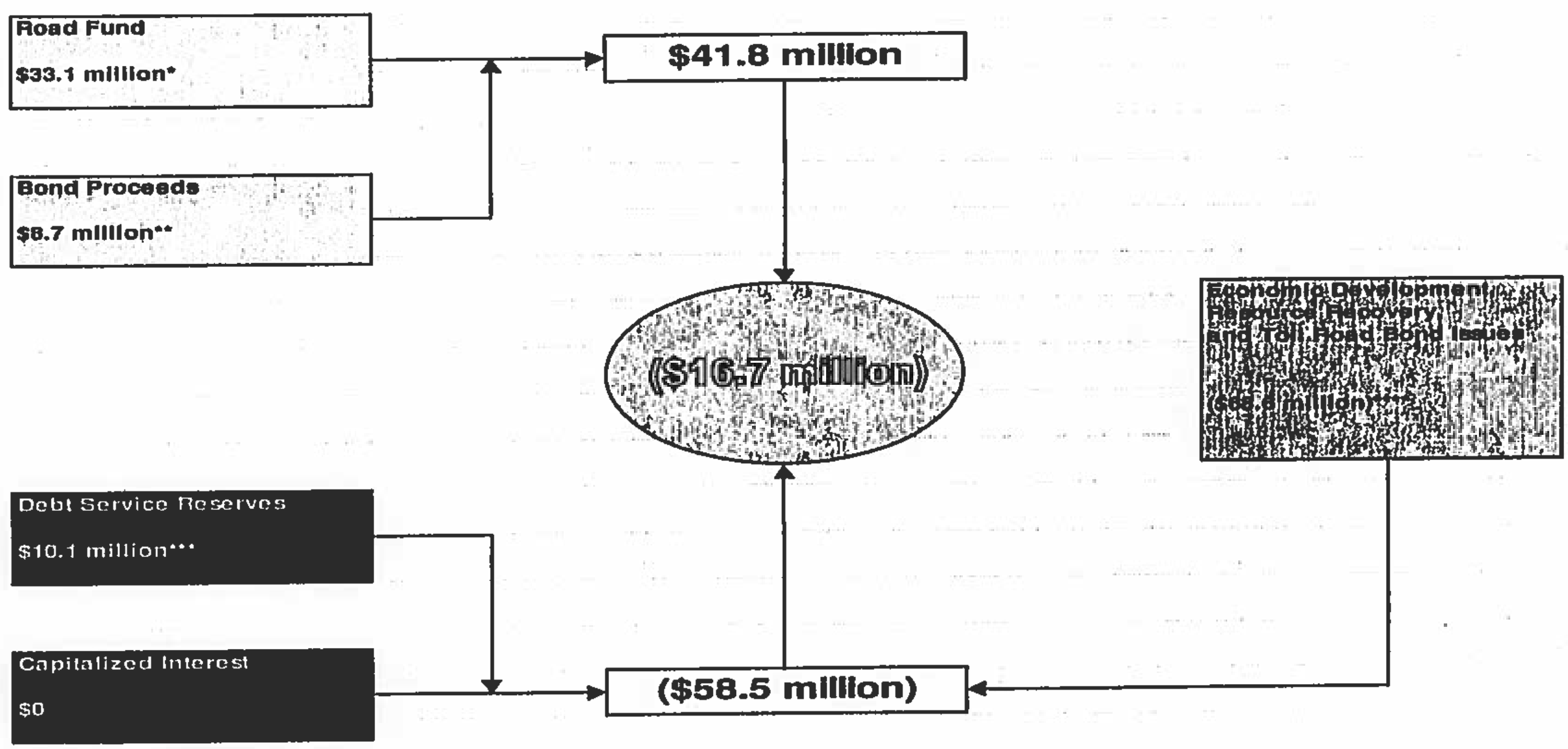
*****Excludes CAB appreciation

12/9/97

Road Fund
FY1999 Projected
Current Structure

Cash Basis Earnings

Interest Expense



*Based on FY96-FY97 average cash balance and average yield
**Based on FY96-FY97 average yield
***Includes Interest and CAB's Principal

****Excludes CAB appreciation

12/9/97

Road Fund
FY2000 Projected
Current Structure

Cash Basis Earnings

Road Fund
$33.1 million*

Bond Proceeds
$8.7 million**

Debt Service Reserves
$10.1 million***

Capitalized Interest
$0

Interest Expense

Economic Development, Resource Recovery and Toll Road Bond Issues****
($[illegible] million)

$41.8 million

($11.5 million)

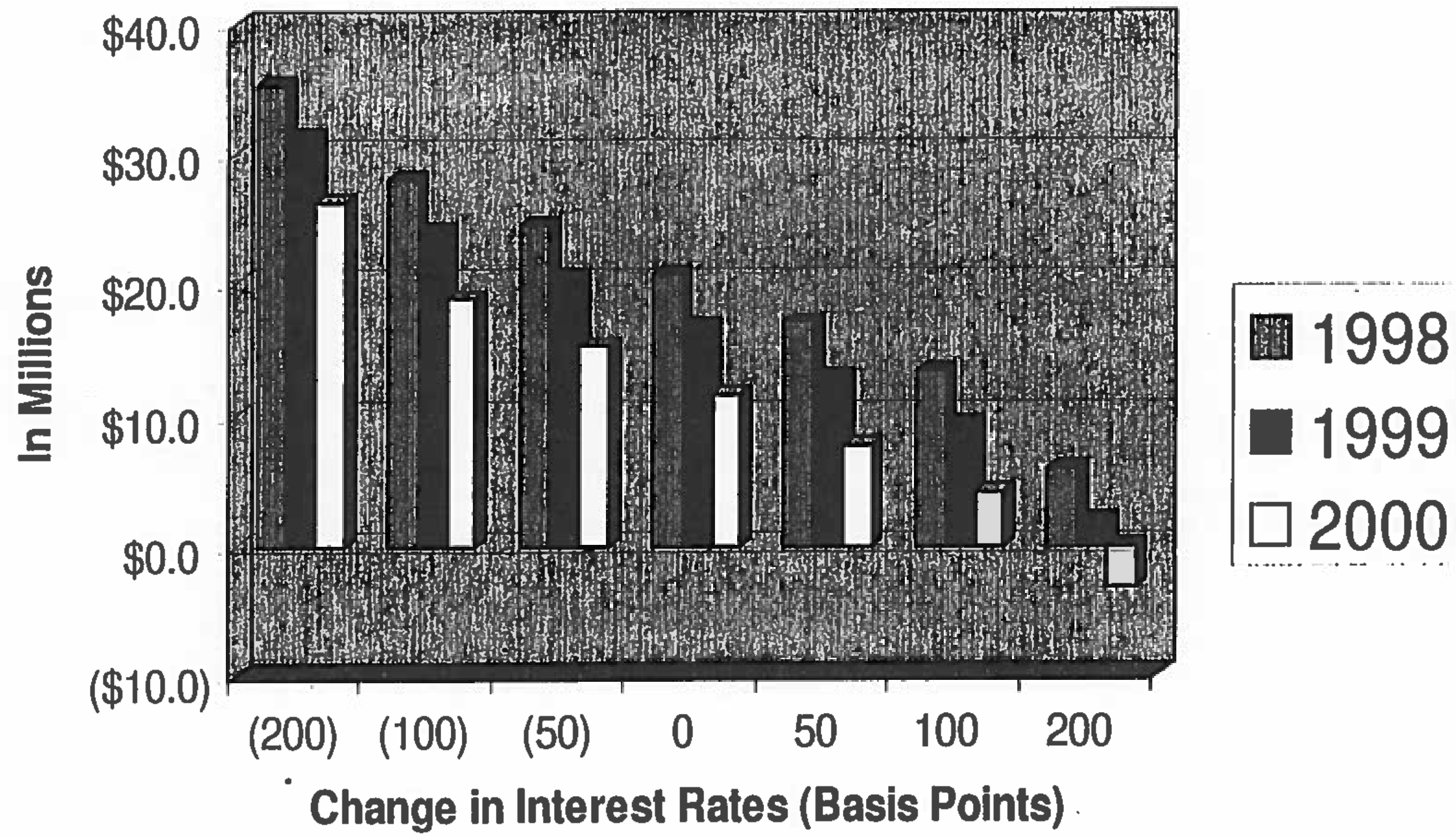
($53.3 million)

*Based on FY96-FY97 average cash balance and average yield
**Based on FY96-FY97 average yield
***Includes Interest and CAB's Principal

****Excludes CAB appreciation

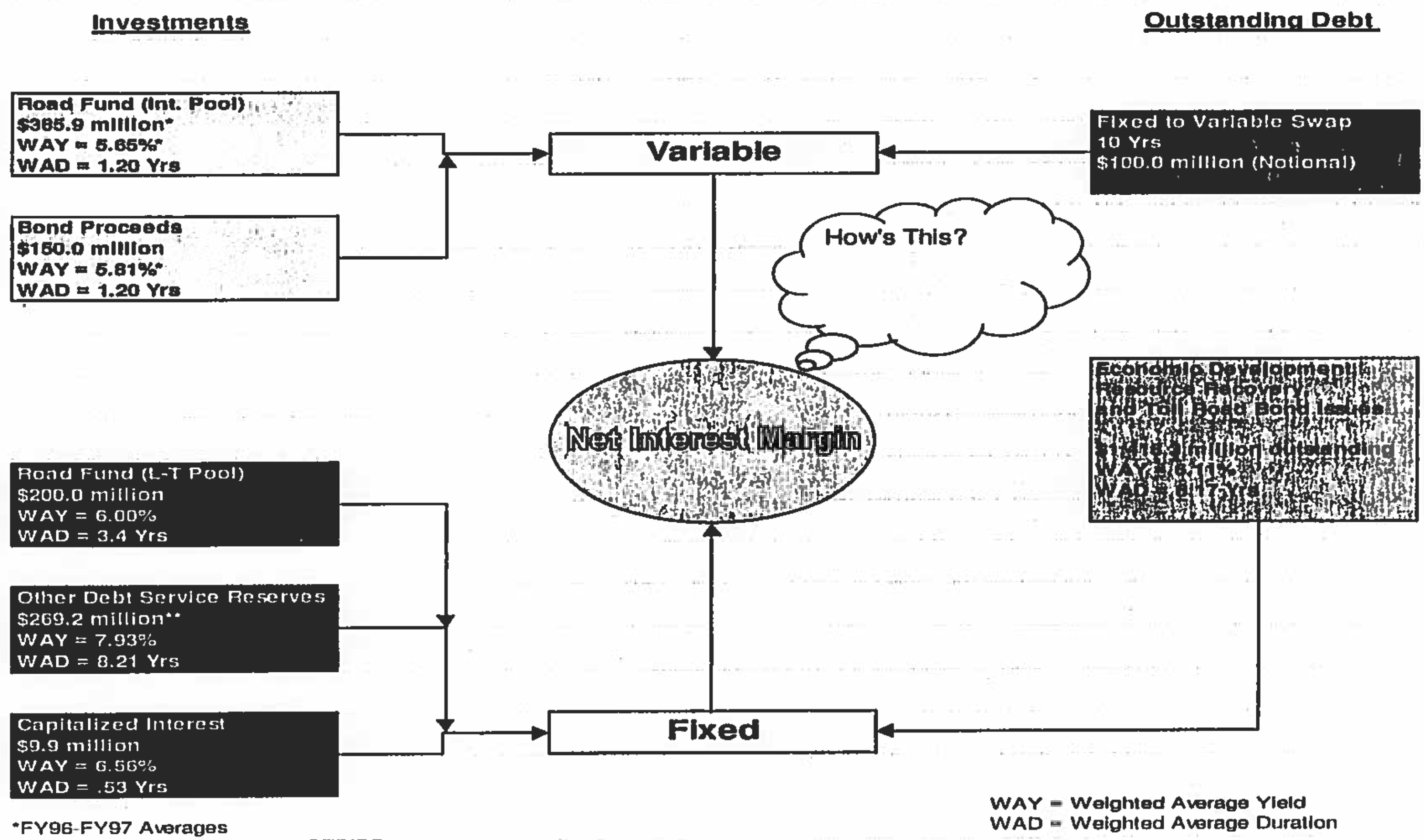
12/9/97

Net Interest Expense
Annual Sensitivity
Current Structure



12/9/97

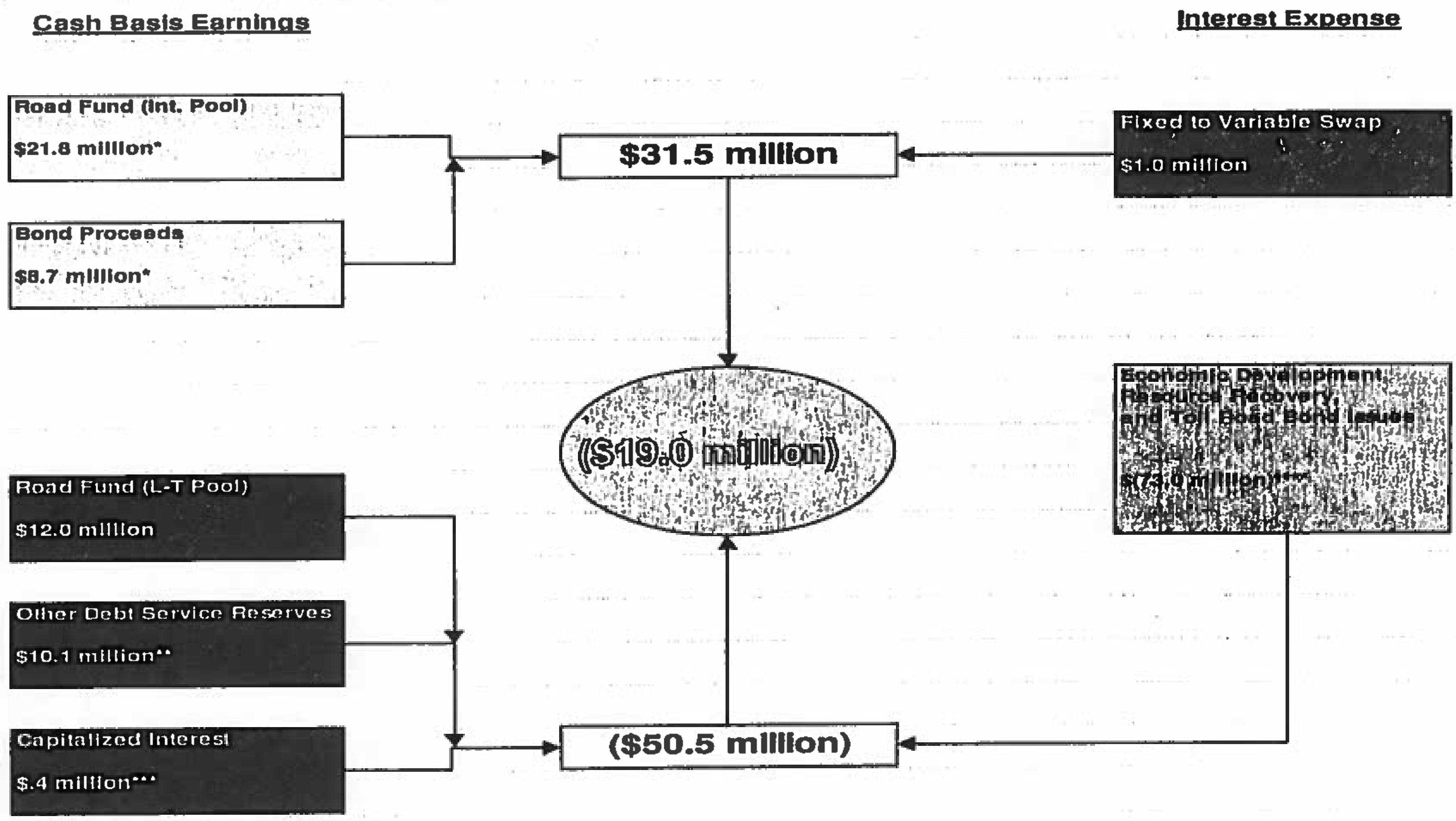
Road Fund
Proposed Structure



*FY96-FY97 Averages
**Face value of U.S. Treasury STRIPS

12/9/97

Road Fund
FY1998 Projected
Proposed Structure

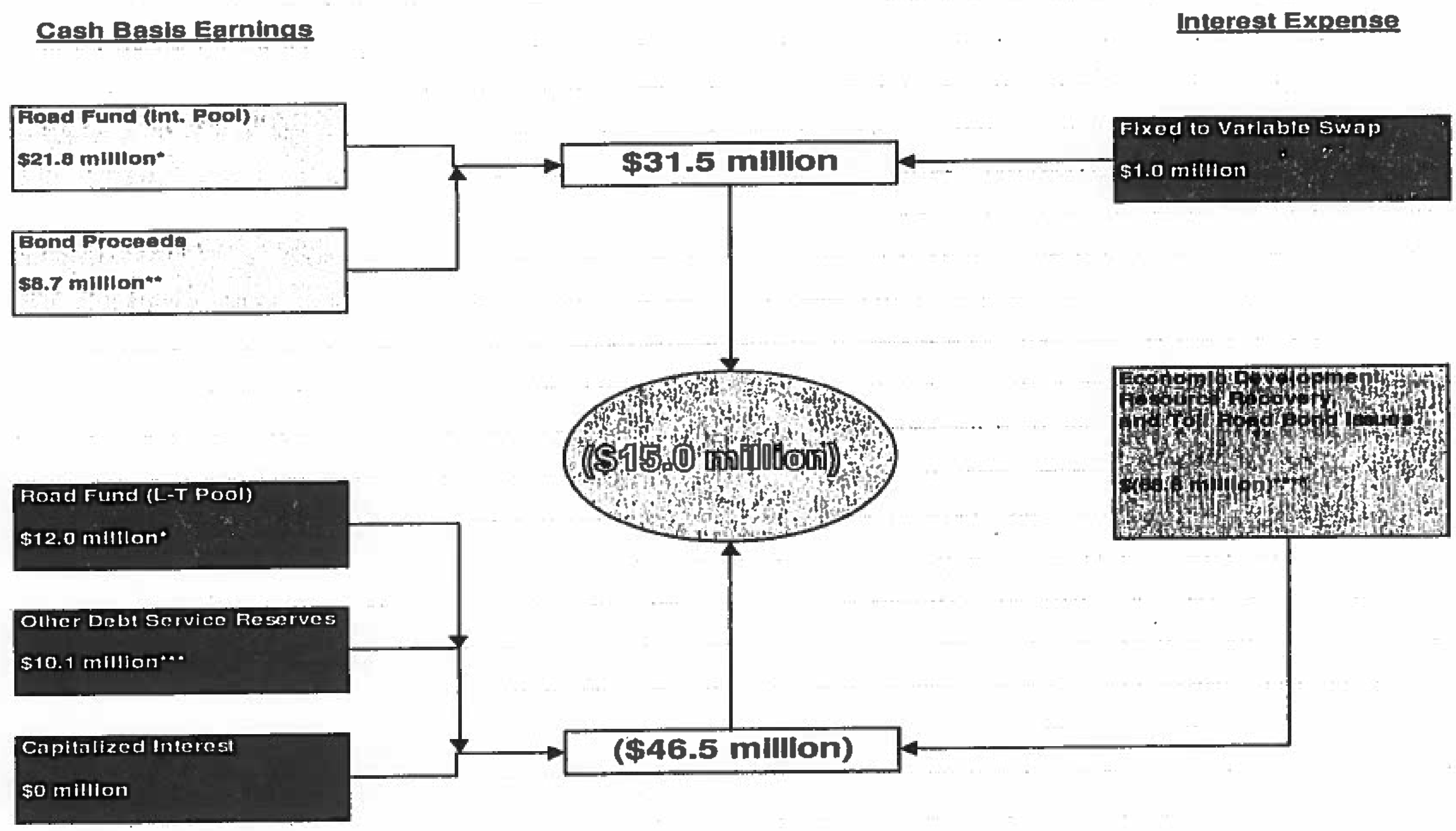


*Based on FY96-FY97 average cash balance and average yield
**Includes Interest and CAB's Principal
***Includes Interest only

****Excludes CAB appreciation

12/9/97

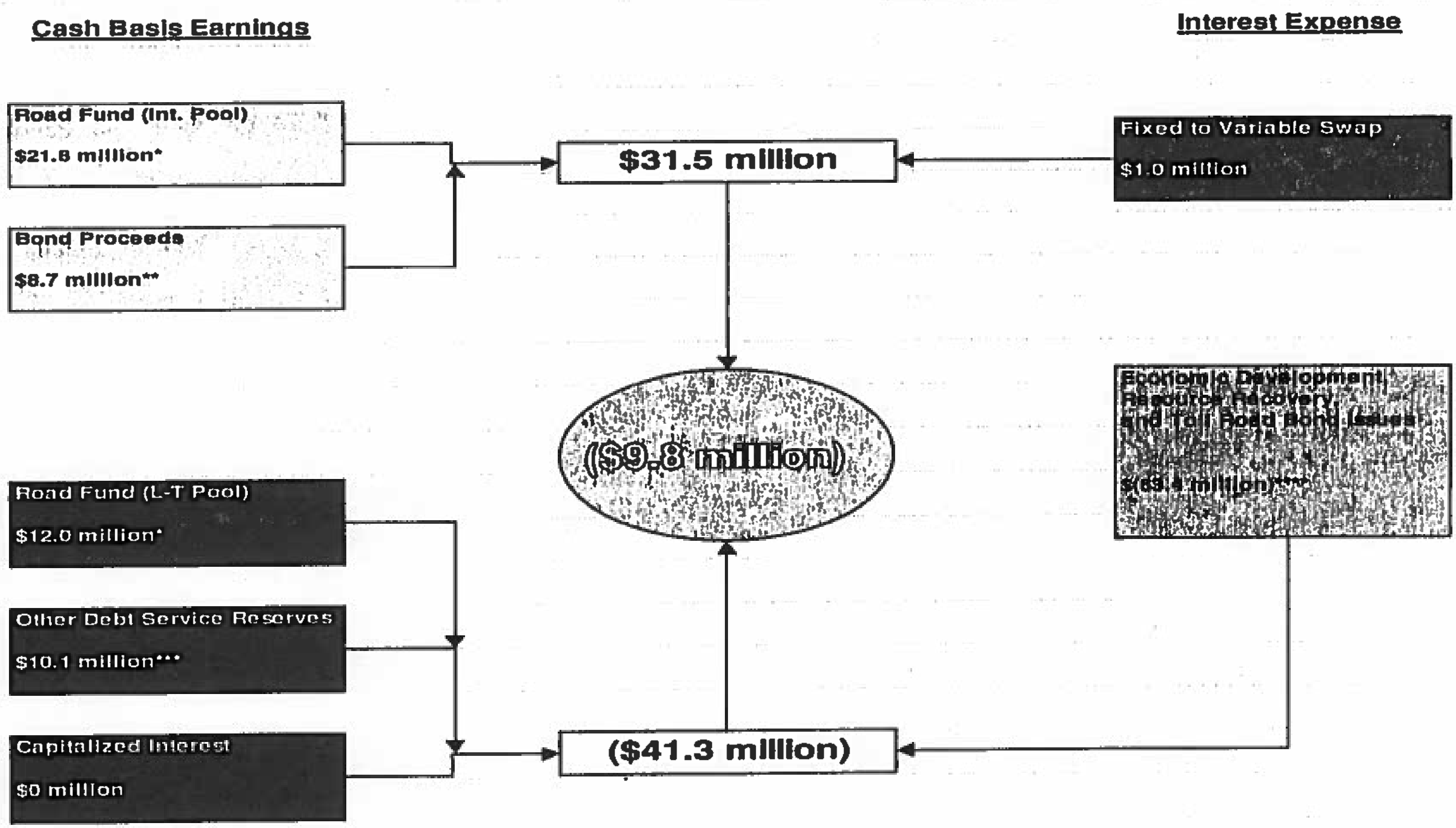
Road Fund
FY1999 Projected
Proposed Structure



*Based on FY96-FY97 average cash balance and average yield
**Based on FY96-FY97 average yield
***Includes Interest and CAB's Principal
****Excludes CAB appreciation

12/9/97

Road Fund
FY2000 Projected
Proposed Structure

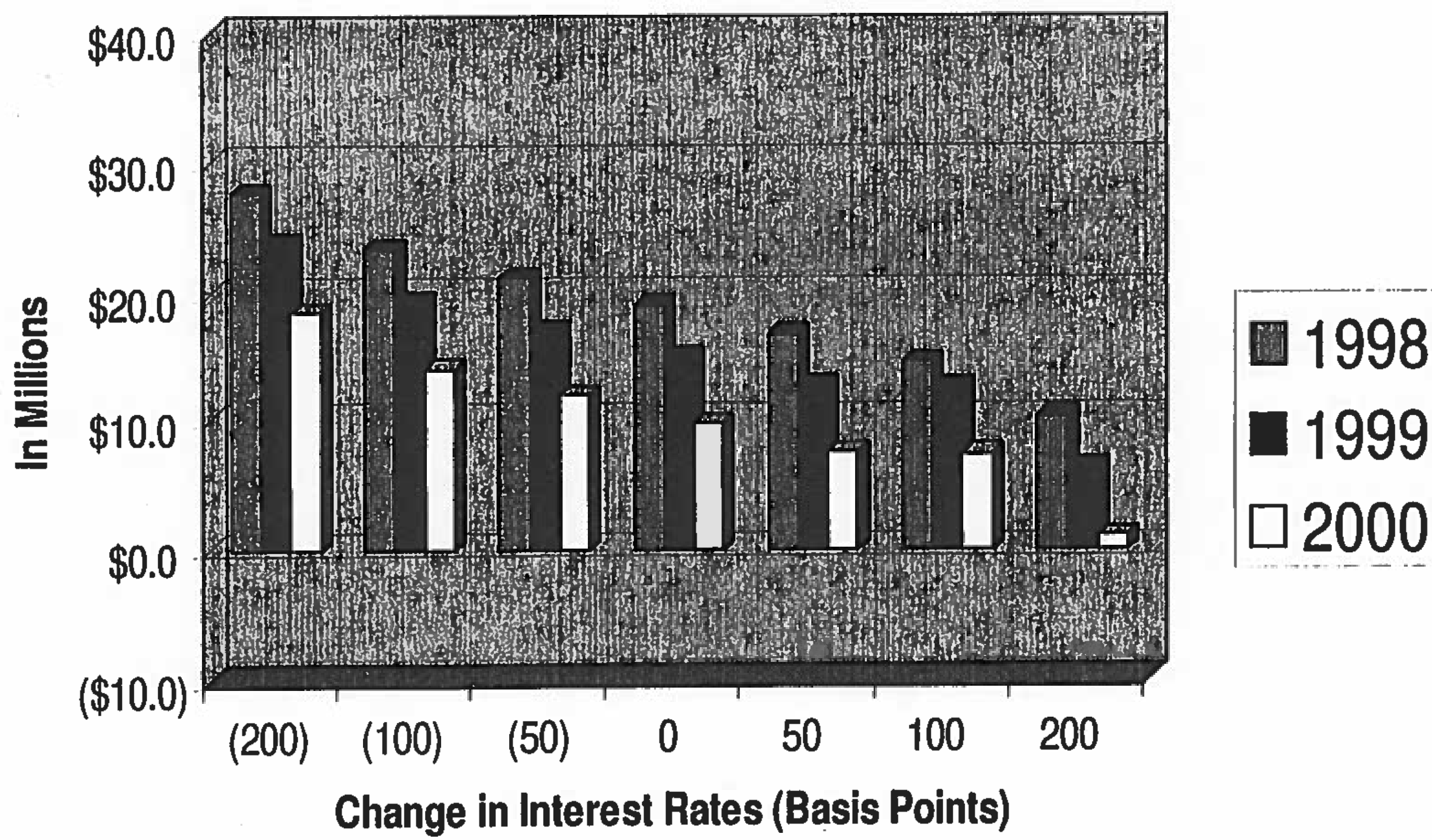


*Based on FY96-FY97 average cash balance and average yield
**Based on FY96-FY97 average yield
***Includes Interest and CAB's Principal

****Excludes CAB appreciation

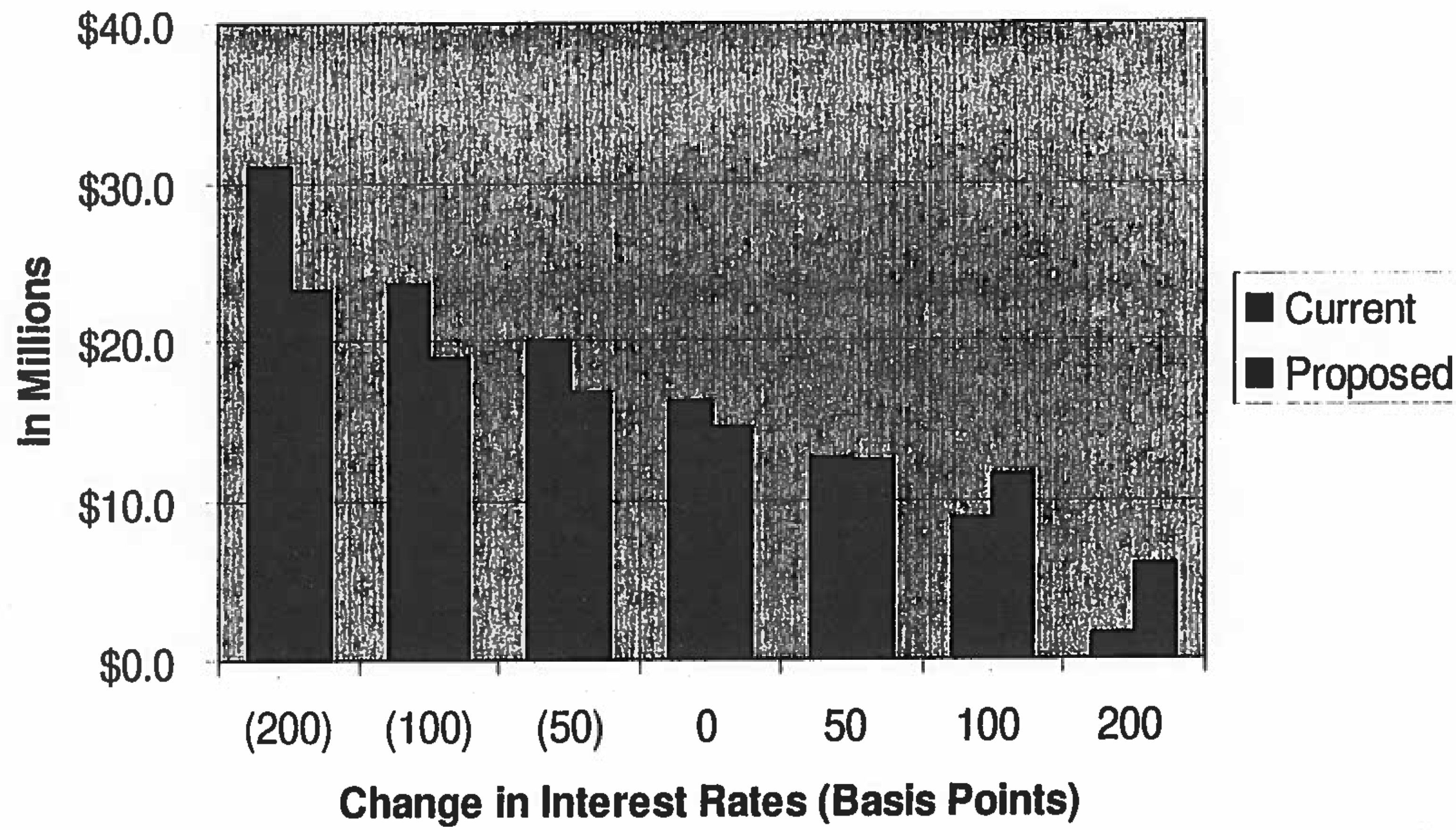
12/9/97

Net Interest Expense
Annual Sensitivity
Proposed Structure



12/9/97

Net Interest Expense
(FY1998-FY2000 Averages)
Interest Sensitivity



12/9/97

Administrative Issues

- Predictability of cash flows, especially expenditures.
- Encumbrance versus cash.
- Processing receipts / payments of amounts due / owed under an interest rate swap.

Summary

- Increased investment earnings.
- Lower cost of capital.
- Positive budgetary impact.
- Increased flexibility.
- Positive long-term credit implications.
- Proven implementation in both the public and private sectors.

Turnpike Authority of Kentucky
Debt Service @ June 30, 1997