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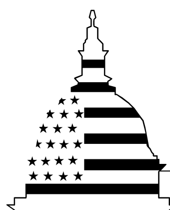
GAO

Report to the Honorable
Richard H. Baker,
House of Representatives

June 2003

TENNESSEE VALLEY AUTHORITY

Information on Lease-Leaseback and Other Financing Arrangements



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GAO-03-784

Highlights of GAO-03-784, a report to the Honorable Richard H. Baker, House of Representatives

Why GAO Did This Study

Concern about the implications of the Tennessee Valley Authority's (TVA) debt on its future competitiveness prompted Representative Richard Baker to ask GAO to determine TVA's planned and actual use of nontraditional financing arrangements (which, to date, has consisted primarily of lease-leaseback arrangements), who is at risk under TVA's lease-leaseback arrangements, and whether TVA's accounting for the lease-leaseback arrangements complies with applicable standards and requirements.

What GAO Recommends

GAO is not recommending any actions by TVA, but does raise a matter for congressional consideration. The Congress may want to consider amending the TVA Act to clarify whether TVA's statutory debt cap should include alternative sources of financing that have the same impact on TVA's financial condition and competitive position as traditional debt financing.

TVA generally agreed with our analysis but expressed concern regarding including alternative sources of financing in its debt cap. Because we believe current law does not clearly and unambiguously address whether the amount of the lease-leaseback arrangements should be counted against the debt cap, we continue to believe the Congress may want to consider revisiting this matter.

www.gao.gov/cgi-bin/getrpt?GAO-03-784.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Linda Calbom at (202) 512-9508 or calboml@gao.gov.

June 2003

TENNESSEE VALLEY AUTHORITY

Information on Lease-Leaseback and Other Financing Arrangements

What GAO Found

TVA has traditionally financed its operations with cash generated from operations, the issuance of bonds and notes, and in the past, appropriations. However, in fiscal year 2000, it began to use alternative forms of financing (primarily lease-leaseback arrangements) and is considering expanding their use. The lease-leaseback arrangements involve the refinancing of 24 combustion turbine power generators that are used during periods of peak demand for power. The lease-leaseback arrangements accounted for about $945 million of the $992 million raised by alternative financing arrangements as of May 31, 2003.

After the power generators were constructed, TVA leased them to private investors for 50 years and simultaneously leased them back for 20 years. Under these lease-leaseback arrangements, TVA received cash from the private investors, which was obtained by issuing debt in the public market and through the investors' own equity. TVA is responsible for making lease payments for 20 years, at the end of which it has the option to purchase the private investors' interest in the assets. TVA retains legal title to the assets under the arrangements but relinquishes sufficient interest in the assets so that the equity investors are entitled to certain tax benefits. The equity investors pass on some of these benefits to TVA in the form of more favorable financing rates. As a result, TVA is able to lower costs over the first 20 years of the arrangement. However, to retain use of the assets after the 20-year period, TVA would have to purchase the equity investors' remaining interest in the assets at the assets' fair market value at that time. Depending on the fair market value, TVA is at risk of incurring higher overall costs than under traditional debt financing. In large part, the determination as to who will be the net beneficiary of these arrangements and the implications to the federal treasury will hinge on the future value of the assets.

TVA's lease-leaseback arrangements have been accounted for and reported in compliance with applicable standards and requirements for financial reporting, budgetary reporting, and debt cap compliance. TVA's lease-leaseback arrangements are treated as liabilities in its financial statements and classified as debt in the President's Budget. However, they are not counted against the debt cap in the TVA Act. While the lease-leaseback arrangements are not considered debt for purposes of financial reporting and debt cap compliance, they have substantially the same economic impact on TVA's financial condition and future competitiveness as traditional debt financing.

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Abbreviations

CBO	Congressional Budget Office
CFO	Chief Financial Officer
EPAct	Energy Policy Act of 1992
FASB	Financial Accounting Standards Board
FIN	Financial Accounting Standards Board Interpretation
FTB	Financial Accounting Standards Board Technical Bulletin
GAAP	generally accepted accounting principles
IG	Inspector General
OGC	Office of General Counsel
OMB	Office of Management and Budget
SFAS	Statement of Financial Accounting Standards
TVA	Tennessee Valley Authority

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United States General Accounting Office
Washington, D.C. 20548

June 30, 2003

The Honorable Richard H. Baker
House of Representatives

Dear Mr. Baker:

This report responds to your June 13, 2002, request that we review the Tennessee Valley Authority's (TVA) use of lease-leaseback financing arrangements.[1] When the Congress gave TVA the authority to self-finance in 1959 by amending the Tennessee Valley Authority Act of 1933 (TVA Act), it established a limit on TVA's ability to incur debt through the issuance of bonds and notes (debt cap). The debt cap currently stands at $30 billion.

Recently, you and other members of the Congress have expressed concern about the potential impact of TVA's debt on its future competitiveness. TVA officials have also indicated that TVA's financial condition and competitive prospects could be improved by reducing debt and the corresponding financing costs. In the 5-year period from October 1, 1997, through September 30, 2002, TVA reduced its outstanding debt[2] from $27.4 billion to $25.3 billion, or about $2.1 billion. At the same time, TVA entered into "alternative financing" arrangements[3] (primarily lease-leaseback arrangements) to refinance new power plants that result in long-term obligations similar to debt,[4] but which are not counted toward this debt limit or reported as debt on its financial statements. While not reported as debt, these alternative financing arrangements are included as "other liabilities" on TVA's balance sheet.

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[1] In substance, lease-leasebacks are financing arrangements under which an owner of property raises capital by leasing the property to another party and then simultaneously leasing the property back to retain use of it.

[2] The outstanding debt balance does not include the portion of TVA's appropriation investment that must be repaid to the U. S. Treasury. This portion of the appropriation investment is not technically considered lending by the Treasury and is not counted toward TVA's debt cap.

[3] For purposes of this report, we define alternative financing as any form of long-term financing other than funds generated from operations and the issuance of bonds and notes.

[4] The term debt refers to TVA's issuance of notes and bonds.

Your concern about the future implications of TVA's debt and other financing obligations prompted you to ask us to review TVA's use of lease-leaseback financing arrangements. Specifically, you asked us to determine (1) what lease-leaseback financing arrangements have been used by TVA to date and the extent to which these and other alternative financing arrangements are being considered for future use, (2) who has legal ownership of the assets financed through lease-leaseback arrangements and who is at financial risk if the projects do not work out as planned, and (3) whether TVA is properly accounting for the lease-leaseback arrangements for the purposes of financial reporting, budgetary reporting, and debt cap compliance.

Results in Brief

TVA has traditionally financed its operations with cash generated from operations, the issuance of bonds and notes, and in the past, appropriations. In fiscal year 2000, TVA began to use alternative financing arrangements and is considering expanding their use. Virtually all of TVA's alternative financing is in the form of lease-leaseback arrangements, which totaled about $945 million as of May 31, 2003. TVA entered into the lease-leaseback arrangements in fiscal years 2000, 2002, and 2003 to refinance 24 existing power generators that were designed for use during periods of peak demand for power. After financing the construction of the power generators, TVA leased them to private investors for 50 years and simultaneously leased them back for 20 years. TVA is responsible for making lease payments for 20 years, at the end of which it has the option to purchase the private investors' remaining interest in the units at the prevailing market price. TVA has also implemented or is considering additional alternative financing arrangements, including offering power discounts that would allow its distributors to prepay for power in return for a discount on future power purchases. According to TVA officials, the key reason TVA is considering these additional alternative financing arrangements is to finance the restart of Browns Ferry Nuclear Plant Unit 1, which is expected to cost about $1.8 billion.

Under the lease-leaseback financing arrangements, TVA retains legal title to the assets, but transfers sufficient interest in the assets to a private equity investor to allow the investor to claim tax benefits. As a result of the transaction, TVA received cash from private investors who financed their investments primarily by issuing debt in the public market through trusts, but also invested some of their own equity capital. Based on our analysis of the fiscal year 2002 lease-leaseback arrangement,[5] the net economic benefits of the transactions to TVA, the private investor, and the federal treasury depend largely on the future value of the assets. TVA is at risk of incurring higher costs, compared with traditional debt financing, if it purchases the equity investor's remaining interest in the assets[6] at the end of the 20-year leaseback period for an amount higher than its expected savings in financing costs, or if it terminates the arrangement prior to the end of the 20-year leaseback period.

If TVA decides not to purchase the private investor's remaining interests in the assets, it could lose the electricity generated by the assets and may need to purchase electricity or build additional generating capacity. The private equity investor is at risk of not achieving its projected rate of return or of incurring a loss if the fair market value of the assets at the end of the 20-year leaseback period is lower than expected. The private equity investor is also at risk of not achieving its projected rate of return if TVA terminates the arrangement prior to the end of the 20-year leaseback period under certain scenarios. The federal treasury could ultimately experience a net benefit or loss under the arrangement, depending on whether the private equity investor's tax deductions exceed its taxable income.

TVA's lease-leaseback arrangements have been accounted for and reported in compliance with applicable standards and requirements for financial reporting, budgetary reporting, and debt cap compliance. For external financial reporting purposes, the lease-leaseback arrangements are

[5] To determine who is at risk, we analyzed the fiscal year 2002 lease-leaseback arrangement. As discussed in our Objectives, Scope, and Methodology section, our limited review found this arrangement to be structured similarly to the fiscal year 2000 and December 2002 arrangements. In addition, TVA officials indicated that the fiscal year 2000 arrangement is similar to the fiscal year 2000 and 2003 arrangements.

[6] TVA's purchase price will be based on the fair market value of the assets at the end of the 20-year leaseback term. According to TVA's leasing advisor, since TVA entered into the lease-leaseback arrangement, the market for power generators has decreased. As a result, depending on the fair market value of the assets, the equity investor may be forced to accept a lower purchase price and realize a loss on the arrangement.

financing obligations according to generally accepted accounting principles (GAAP). GAAP does not require the lease-leaseback arrangements to be characterized as debt on the external financial statements, but it does require that they be reported as liabilities, and TVA classifies them as such in its financial statements. For budgetary reporting purposes, the Office of Management and Budget (OMB) has concluded that the lease-leaseback arrangements should be treated as debt, and they have been classified as such in the federal budget just as if they had been bond issues. For purposes of compliance with TVA's debt cap, current law does not clearly and unambiguously address whether the amount of the lease-leaseback arrangements should be counted against the debt cap; therefore, TVA's position that they should not be counted against the debt cap is not unreasonable. While the lease-leaseback arrangements are not considered debt for purposes of financial reporting and debt cap compliance, they have substantially the same economic impact on TVA's financial condition and future competitiveness as traditional debt financing. Therefore, we are including a matter for congressional consideration regarding clarifying the TVA Act to address whether these types of alternative financing arrangements should count against TVA's debt cap.

In written comments on a draft of this report, TVA's Chairman generally agreed with the report, but expressed concern over our suggesting that the Congress may want to consider amending the TVA Act to clarify whether the debt cap should include alternative sources of financing such as lease-leaseback arrangements. However, based on our analysis of the law and its legislative history, we conclude that the current law does not clearly and unambiguously address whether the amount of the lease-leaseback arrangements should be counted against the debt cap. Therefore, we have made no changes to the report in response to this comment.

Background

TVA is a multipurpose, independent, wholly-owned federal corporation established by the TVA Act. The act established TVA to improve the quality of life in the Tennessee River Valley by improving navigation, promoting regional agricultural and economic development, and controlling the floodwaters of the Tennessee River. To those ends, TVA erected dams and hydropower facilities on the Tennessee River and its tributaries. To meet the subsequent need for more electric power, TVA expanded beyond hydropower, adding coal-fired power plants and nuclear generating units to its power system.

From its inception in 1933 through fiscal year 1959, TVA received appropriations to finance its internal cash and capital requirements. However, in 1959, the Congress amended the TVA Act to authorize the use of debt financing. Under this legislation, the Congress ended the appropriations that had financed the TVA power program and required that TVA's power program be "self financing" through revenues from electricity sales.[7] For its capital needs in excess of funds generated from operations, TVA was authorized to borrow by issuing bonds and notes. TVA's authority to issue bonds and notes is set by the Congress and is currently $30 billion. However, the Congress did continue to appropriate money for certain nonpower programs (e.g., flood control and navigation) through fiscal year 1999. Since fiscal year 1999, the Congress has not appropriated money to pay for nonpower programs, and power revenues have been used to pay for them.

Under the TVA Act, as amended, TVA is not subject to most of the regulatory and oversight requirements that commercial electric utilities must satisfy. The act vests all authority to run and operate TVA in its three-member board of directors. Legislation also limits competition between TVA and other utilities. The TVA Act was amended in 1959 to establish what is commonly referred to as the TVA "fence," which prohibits TVA, with some exceptions, from entering into contracts to sell power outside the service area that TVA and its distributors were serving on July 1, 1957. In addition, the Energy Policy Act of 1992 (EPAct) provides TVA with certain protections from competition, called the "anti-cherry picking" provisions. Under EPAct, TVA is exempt from having to allow other utilities to use its transmission lines to transmit ("wheel") power to

[7] The 1959 amendments to the TVA Act required TVA to begin repaying the unpaid balance of the appropriations that TVA received from 1933 through 1959 to pay for its capital projects—hydroelectric and fossil plants, transmission system, and other general assets of the power program. The unpaid balance of the appropriations was $488 million as of September 30, 2002. TVA makes annual principal payments (currently $20 million) to Treasury from net power proceeds plus a market rate of return (interest expense) on the balance of this debt. As of September 30, 2002, TVA had made total payments of about $3.4 billion—$945 million in principal and about $2.5 billion as a return on the investment. In accordance with statutory requirements, these payments are to continue until the debt is paid down to $258.3 million. TVA expects to meet this goal by fiscal year 2014.

customers within TVA's service area. This legislative framework generally insulates TVA from direct wholesale competition. As a result, TVA remains in a position similar to that of a regulated utility monopoly.[8]

The electric utility industry in the United States is undergoing major changes, the outcomes of which will affect consumers. The federal government and nearly half the states have undertaken efforts to introduce competition in the wholesale and retail electricity markets, respectively. Federal actions have already resulted in the introduction and expansion of regional wholesale electricity markets. Some states have also introduced competition into retail markets, though these efforts remain in an early stage of development. Most states have either not yet begun to introduce planned restructuring or are not currently considering the introduction of retail competition. Because of the ongoing restructuring efforts in the electric utility industry, TVA management and many industry experts expect that in the future TVA will likely lose its legislative protections from competition.

We have issued reports[9] indicating that TVA's high debt and related interest expense could place it at a competitive disadvantage if it lost its legislative protections from competition. In July 1997, TVA issued a 10-year business plan with steps it believed were necessary to better position itself for an era of increasing competition. Two key strategic objectives of the plan were to (1) reduce the cost of power primarily by reducing debt and the corresponding financing costs and (2) increase financial flexibility by reducing fixed costs. To help meet these objectives, the plan called for TVA to reduce its interest expense by reducing its debt by about one-half of its 1997 level, to about $13.2 billion. To increase its financial flexibility and generate cash that could be used to reduce debt, TVA increased its electricity rates beginning in 1998 and planned to reduce certain expenses and limit capital expenditures. TVA's plan to reduce debt while it is still

[8] However, TVA is subject to some forms of indirect competition. For example, TVA has no protection against its industrial customers relocating or expanding outside its service area or businesses deciding not to move to TVA's service area for reasons related to the cost of power. In addition, customers can decide to generate their own power.

[9] U.S. General Accounting Office, *Tennessee Valley Authority: Financial Problems Raise Questions About Long-term Viability*, GAO/AIMD/RCED-95-134 (Washington, D.C.: Aug. 17, 1995); *Federal Electricity Activities: The Federal Government's Net Cost and Potential for Future Losses*, Volumes 1 and 2, GAO/AIMD-97-110 and 110A (Washington, D.C.: Sept. 19, 1997); and *Tennessee Valley Authority: Debt Reduction Efforts and Potential Stranded Costs*, GAO-01-237 (Washington, D.C.: Feb. 28, 2001).

legislatively protected from competition was intended to help it achieve its ultimate goal of being in a position to continue to offer competitively priced power.

However, TVA has fallen behind in meeting the debt reduction goal in the original 10-year plan and consequently has revised this goal downward. Over the first 5 years of the 10-year plan (through September 30, 2002), TVA reduced its debt by about $2.1 billion. By reducing debt, and refinancing some debt at lower interest rates, TVA has reduced its annual interest expense from about $2.0 billion in fiscal year 1997 (35 percent of total expenses) to about $1.4 billion in fiscal year 2002 (22 percent of total expenses). TVA now expects to reduce its debt by about $3.3 billion by 2007 rather than the planned $14.2 billion, which represents about $11 billion less debt reduction than planned in 1997. The revised debt reduction goal is due to several factors, including increased capital expenditures for new generating capacity and environmental controls. TVA's ability to reduce debt in the near term will be significantly affected by its recent decision to restart the Browns Ferry Nuclear Plant Unit 1.

Objectives, Scope, and Methodology

To determine what lease-leaseback financing arrangements have been used by TVA to date and the extent to which these and other alternative financing arrangements are being considered for future use, we reviewed several documents, including TVA's audited financial statements, a TVA Inspector General (IG) report on TVA's use of lease-leaseback arrangements, a Congressional Budget Office (CBO) report on leases and lease-leasebacks, and the fiscal year 2003 and 2004 President's Budgets. We also interviewed officials from TVA, private electricity industry officials familiar with lease financing, and officials from OMB and CBO.

To determine who has legal ownership of the assets financed through such arrangements and who is at financial risk if the projects do not work out as planned, we obtained and reviewed copies of the lease-leaseback arrangements entered into in fiscal years 2000 and 2002, and December 2002, which covered 20 power generating units. We limited our detailed analysis to the fiscal year 2002 lease-leaseback arrangement because, based on our limited review of the fiscal year 2000 and December 2002 lease-leaseback arrangements, we found them to be structured similarly to the fiscal year 2002 arrangement. In addition, according to TVA officials, the fiscal year 2000 and 2003 arrangements are structured similarly to the fiscal year 2002 arrangement. Our detailed analysis included a review of TVA's and the private equity investor's cash flows under various alternatives

included in the fiscal year 2002 lease-leaseback arrangement to determine who is at risk. We also interviewed officials from TVA's Office of IG, Chief Financial Officer Organization, and Office of General Counsel; OMB; and CBO.

To determine whether TVA is properly accounting for the lease-leaseback arrangements for financial reporting purposes, we reviewed authoritative accounting literature related to accounting for leases. We also reviewed TVA's accounting journal entries for the fiscal year 2000 and 2002 arrangements. In addition, we interviewed officials from TVA's Chief Financial Officer Organization, Office of General Counsel, IG Office, and external financial auditor. To determine whether TVA's lease-leaseback arrangements are being treated properly for budgetary reporting purposes, we reviewed various budget-related documents, including the fiscal year 2003 and 2004 President's Budgets and OMB guidance for the classification of leases. We also discussed the budgetary treatment of the lease-leaseback arrangements with TVA and OMB officials. To determine whether TVA's lease-leaseback arrangements are properly treated for the purposes of debt cap compliance, we reviewed the TVA Act and the legislative history related to the act, and interviewed officials from TVA's Office of General Counsel. Additional information on our scope and methodology is contained in appendix I.

We conducted our work from July 2002 through May 2003 in accordance with generally accepted government auditing standards. We requested written comments from the chairman of TVA or his designated representative on a draft of this report. TVA's chairman provided written comments, which are reproduced in appendix III. We also received written and oral comments of a technical nature, which we incorporated as appropriate.

TVA's Current and Contemplated Use of Alternative Financing Arrangements

In fiscal year 2000, TVA began entering into alternative financing arrangements (primarily lease-leaseback arrangements) to fund certain capital requirements. These arrangements increase TVA's long-term risk and obligations. However, in our opinion it is unclear whether the current law requires that the lease-leaseback arrangements be counted toward the $30 billion debt cap in the TVA Act. TVA has used lease-leaseback financing arrangements to refinance 24 combustion turbine power generators that are used during periods of peak demand for power. Through May 31, 2003, these arrangements had raised about $945 million,[10] and a customer power discount prepayment program had raised about $47 million. In addition, TVA is considering using a combination of alternative financing options to fund future capital projects, including the restart of Browns Ferry Nuclear Unit 1.

Lease-leasebacks are financing arrangements under which an owner of property raises capital by leasing the property to another party and then simultaneously leasing the property back to retain use of it. TVA entered into lease-leaseback financing arrangements in fiscal years 2000, 2002, and 2003 that involved a total of 24 combustion turbine power generators that had been previously constructed. TVA officials told us they decided to use this type of financing primarily because it lowered their financing costs. According to industry officials, lease financing (i.e., sale-leaseback and lease-leaseback arrangements) are commonly used in the utility industry and have been in existence since the late 1980s.

[10] On May 5, 2003, TVA announced lease-leaseback arrangements for four power generating units in Mississippi that generated about $162.5 million in alternative financing. TVA officials told us that these lease-leaseback arrangements are substantially the same in structure as the preceding ones, but we did not obtain and review those contracts to verify this.

In addition to the lease-leaseback arrangements, on October 8, 2002, TVA began its Discounted Energy Units program. This power discount program allows TVA's power distributors to prepay a portion of the price of firm power they plan to purchase from TVA in the future. In return, the distributors receive a discount on a specific quantity of the future power they purchase from TVA. The quantity of power varies based on an implied interest rate associated with TVA's estimated cost of borrowing for a given period. As of March 24, 2003, 34 distributors had signed up to prepay about $47 million for the future delivery of power. This program is expected to run annually through fiscal year 2007.[11]

TVA hired a consultant to assist it in exploring other alternative financing options, and to solicit and evaluate proposals to finance the restart[12] of Browns Ferry Nuclear Plant Unit 1, which TVA officials estimate will cost about $1.8 billion. TVA expects to receive a final report by June 30, 2003, after which TVA's management plans to recommend specific actions to its board. In addition to its traditional debt financing and the newer alternative financing options discussed above, TVA and its consultant are considering

- a second power discount program that would allow TVA's largest customer to prepay for approximately one-half of its power needs for a 15-year period in return for a discount on this power over the course of the agreement;
- entering into lease-leaseback arrangements for its currently operating Browns Ferry nuclear units and common plant, and the assets that will be acquired to meet the requirements of the Clean Air Act; and
- entering into joint ventures with private sector investors.

Table 1 summarizes TVA's use and consideration of alternative forms of financing.

[11] We did not analyze the risk of this program to TVA.

[12] TVA has not decided how it will finance the Browns Ferry restart, but is considering a combination of financing options.

Table 1: TVA's Use and Consideration of Alternative Forms of Financing as of May 31, 2003

Dollars in millions

Description	Existing	Under consideration	Total
Lease-leasebacks	$945	0	**$945[a]**
Customer prepayment programs	47	$1,500	**$1,547**
Undefined options for financing the Browns Ferry restart	0	1,800	**$1,800**
Total	**$992**	**$3,300**	**$4,292[b,c]**

Source: GAO analysis of information from TVA.

[a]The lease-leaseback arrangements that TVA entered into in fiscal years 2000, 2002, and 2003 raised $945 million. Based on lease payments made to date, the outstanding liability balance for these arrangements was $861 million as of May 31, 2003.

[b]According to TVA officials, the total amount of alternative financing arrangements that TVA is ultimately likely to enter into is significantly less than $4.3 billion because the proceeds from the customer prepayment programs would likely be used to finance most of the Browns Ferry restart.

[c]The total of the alternative financing arrangements being used and considered by TVA ($4.3 billion) as of May 31, 2003, plus TVA's outstanding debt as of December 31, 2002 ($25.2 billion), was less than TVA's debt cap of $30 billion.

TVA Retains Legal Ownership of Assets, but Both TVA and the Private Equity Investors Are at Financial Risk

The lease-leaseback financing arrangements allow TVA to retain legal title to the assets while transferring sufficient property interest in the assets to the private equity investors so that they may claim tax deductions that can be used to offset the taxable income from the lease payments and any potential gain on the sale of the assets.[13] Our analysis of the fiscal year 2002 lease-leaseback arrangement shows that the net economic benefits of the transactions to TVA, the private investor, and the federal treasury will depend on the future value of the assets. The future value of the assets largely determines whether TVA's financing costs are higher or lower than under traditional debt financing, whether and the extent to which the private equity investor earns a return on its investment, and whether the tax implications to the federal treasury are positive or negative.

[13] The intent of the lease-leaseback arrangements is to enable the private equity investor to take advantage of certain deductions for tax purposes. Although the equity investors' total tax liability may not be reduced as a result of the arrangements, the arrangements are attractive because of the timing of the deductions, which are higher in the first years, allowing the private equity investors to defer paying taxes.

Key Aspects of TVA's Lease-Leaseback Arrangements

As described previously, TVA used lease-leaseback arrangements to refinance 24 combustion turbine power generators in fiscal years 2000, 2002, and 2003. Prior to entering into the lease-leaseback arrangements, TVA initially financed the construction of the assets, which have an expected useful life of 40 years, with a combination of cash generated from operations and borrowings, as necessary, to manage its daily cash flow needs. After the assets were constructed, TVA entered into the lease-leaseback arrangements. Under these arrangements, TVA agreed to lease the assets to the private equity investors for a 50-year period and immediately received the full amount, approximately $945 million, due under the 50-year leases. The equity investors agreed to lease the assets back to TVA for a period of 20 years. Over the 20-year leaseback period, TVA is required to make semiannual lease payments.

In order to raise the approximately $945 million in lease payments made to TVA, the equity investors relied on a combination of their own equity and the issuance of debt in the public market. To help issue the debt, TVA hired a financial services company, which established trusts to sell certificates to the public.[14] TVA's lease payments are used to pay the debt certificates issued to the public. Although TVA was not a direct party to the certificates, TVA's lease payments are being used as security for and to directly service the debt. TVA's obligation to make lease payments is unconditional throughout the term of the certificates. TVA's legal obligation to make lease payments takes priority over its obligation to pay principal and interest on its senior debt obligations, and TVA's lease obligation was cited by Standard & Poor's as substantiation for assigning a triple-A rating[15] to the trust certificates. On a present value basis,[16] over the 20-year leaseback period for the fiscal year 2002 arrangement, TVA's lease payments will total approximately $294 million, of which approximately $277 million will be distributed to the certificate holders. The excess $17 million will be distributed to the equity investor.

[14] The financial services company received nonrecourse notes from special purpose entities set up by the equity investor and created pass-through trusts to issue the debt certificates, which are backed by the notes and assignments of the lease payments.

[15] A triple-A rating is the highest rating given to bonds by Standard & Poor's.

[16] We calculated all present values as of November 1, 2001, so we could analyze payments under the fiscal year 2002 lease-leaseback arrangement as of the time the arrangement began. The 2002 arrangement was dated November 1, 2001, and TVA's analysis calculated present values as of November 1, 2001.

At the end of the 20-year leaseback period, TVA has the option of purchasing the equity investor's remaining interest in the assets over the remaining 30-year period of the 50-year lease. If, after 20 years, TVA elects to exercise the purchase option, it would pay the fair market value of the assets, subject to certain maximum amounts set in the lease-leaseback arrangements. Once TVA provides notice that it intends to purchase the equity investor's interest in the assets, negotiations between TVA and the equity investor will commence to determine the fair market value of the assets. If they cannot agree on a fair market value within 90 days of TVA's notice, the fair market value will be determined by an independent appraisal procedure. Table 2 shows the key details of the lease-leaseback arrangements and the lease proceeds to TVA.

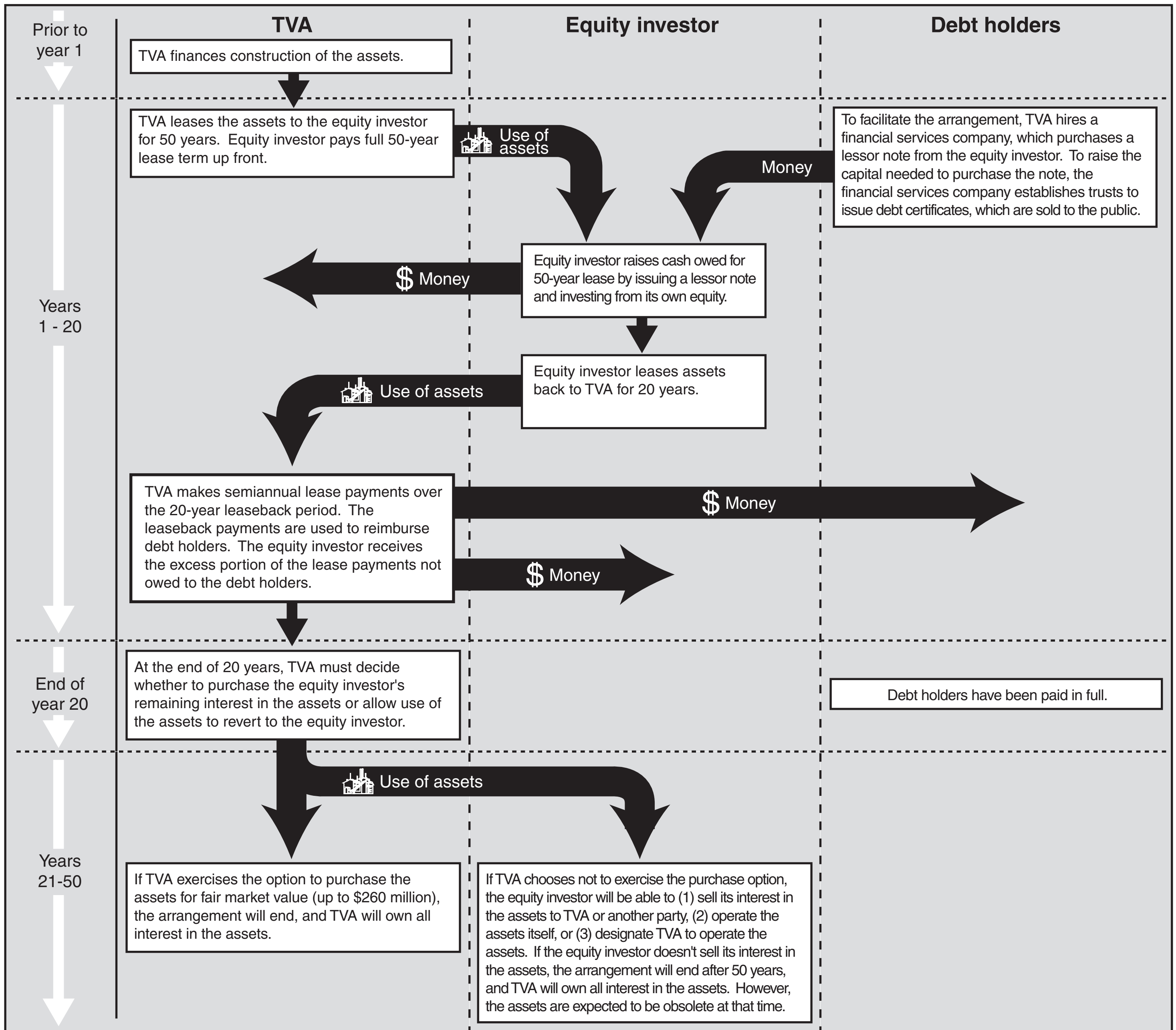
Table 2: Key Details of Fiscal Year 2000, 2002, and 2003 Lease-Leaseback Arrangements

	Lease-leaseback arrangements				
Details	**FY 2000**	**FY 2002**	**FY 2003**		**Total**
Date	September 27, 2000	November 14, 2001	December 20, 2002	May 5, 2003	
Combustion turbine power generators financed	Four units at Gallatin Fossil Plant and four units at Johnsonville Fossil Plant	Eight units at Lagoon Creek site near Brownsville, Tenn.	Four additional units at Lagoon Creek site near Brownsville, Tenn.	Four units at Kemper County, Miss.	Twenty-four units
Lease proceeds to TVA	$300 million	$320 million	$162 million	$163 million	$945 million
Portion of lease proceeds funded from the private party's equity	$45 million	$48 million	$28 million	$28 million	$149 million
Portion of lease proceeds funded from debt issued by trusts	$255 million	$272 million	$134 million	$135 million	$796 million
Maximum purchase price	$243 million	$260 million	$126 million	$126 million	$755 million
Equity investors' expected purchase price	$110 million	$115 million	$53 million	$56 million	$334 million

Source: GAO analysis of information from TVA and TVA's IG.

The key events involved in the fiscal year 2002 lease-leaseback arrangement are shown in figure 1.

Figure 1: Key Events Related to TVA's Fiscal Year 2002 Lease-Leaseback Arrangement



Source: GAO analysis of TVA lease-leaseback arrangement.

Under the lease-leaseback arrangements, TVA retains legal title to the assets but relinquishes sufficient interest in the assets so that the equity investors are entitled to certain tax benefits that are not available to TVA. As we discuss in more detail later, these transactions have implications for the federal treasury because they result in both tax deductions and income.

Table 3 shows the key advantages and disadvantages for TVA and the equity investors under the lease-leaseback arrangements. These advantages and risks are discussed in more detail in the following sections.

Table 3: Summary of Key Advantages/Disadvantages under Lease-Leaseback Arrangements

	TVA	Equity investor
Advantages	• Receives cash proceeds up front • Reduces costs over first 20 years of lease by transferring tax benefits to the equity investor that were not available to TVA • Maintains operational control and retains legal title of the assets • Excludes financing obligations from its debt cap • Potential for lower costs over the 50-year lease period depending on cost to purchase the equity investors' interest in the assets at the end of the 20-year leaseback period • Has flexibility to decide whether it wants to purchase the equity investor's interest in the assets at the end of the 20-year leaseback period, or to exercise one of the early termination options	• Receives the tax benefits associated with the assets that were not available to TVA • Obtains economic interest in the asset, which TVA has the option to purchase back at the end of the 20-year leaseback period • Opportunity to earn an attractive rate of return, if the fair market value of the asset after 20 years is at the expected amount and TVA or another party purchases its interest • Assumes no operating responsibilities • Faces low risk of TVA defaulting on rental payments or not properly maintaining assets
Disadvantages	• Has to repurchase the equity investor's interest in assets at end of 20-year leaseback period in order to regain full rights to the assets and retain generating capacity • Risks higher costs under the lease-leaseback arrangements with the repurchase of assets or exercise of early termination options, compared to traditional debt financing	• Risks receiving a lower return or incurring a loss if the fair market value of the assets is lower than expected at the end of 20 years • Assumes risk of lower return if its income in a particular year is not sufficient to take full advantage of the tax deductions

Source: GAO analysis of information from TVA and TVA's IG.

Note: TVA retains legal title and is responsible for maintenance and repair costs and any modifications to the facility that might be required by law.

Risk to TVA under Fiscal Year 2002 Lease-Leaseback Arrangement

Under the fiscal year 2002 lease-leaseback arrangement, TVA will incur lower financing costs over the 20-year leaseback period, compared to traditional debt financing. TVA's discounted payments over the 20-year leaseback period would be approximately $28 million[17] less under the fiscal year 2002 lease-leaseback arrangement than they would have been under traditional debt financing. However, TVA would not own all rights to the assets under the lease-leaseback arrangement, as it would under traditional debt financing.

In its assessment of the benefits of entering into the fiscal year 2002 lease-leaseback arrangement, TVA did not consider scenarios under which it would purchase all interest in the assets at the end of the 20-year lease period or exercise one of the options to terminate the arrangement early. Our analysis of the arrangement considers the full 50-year lease period, covering the expected 40-year useful life of the assets, including a possible decision by TVA to purchase the equity investor's remaining interest in the assets at the end of the 20-year leaseback period. As this analysis suggests, there is no way of knowing with certainty whether this arrangement will end up being more advantageous to TVA or more lucrative to the private investors.

In large part, who will benefit from this arrangement depends on the fair market value of these generating units at the end of the 20-year leaseback period. Depending on the cost to TVA to repurchase the equity investor's remaining interest in the asset, it may be at risk of incurring higher costs under the lease-leaseback arrangement, compared to traditional debt financing. For example, if TVA repurchases the equity investor's interest in the assets at the amount expected by the equity investor[18]—a lump sum payment of approximately $115 million at the end of the 20-year lease (present value of $42 million)—its discounted payments will be approximately $14 million higher under the lease-leaseback arrangement than they would have been under traditional debt financing. If TVA

[17] TVA's projected discounted savings of approximately $26 million did not consider transaction costs incurred under traditional debt financing. When these transaction costs are considered, TVA's discounted savings approximate $28 million, which we use in our analysis.

[18] According to TVA's leasing advisor, the equity investor involved with the fiscal year 2002 lease-leaseback entered the arrangement expecting the fair market value at the end of the 20-year lease term to be about 36 percent of the assets' fair market value at the inception of the lease.

repurchases the equity investor's interest in the assets at the maximum amount set by the terms of the fiscal year 2002 lease-leaseback arrangement—a lump sum payment of approximately $260 million (present value of $94 million)—its discounted payments will be approximately $66 million higher, compared to traditional debt financing. Although TVA may elect not to repurchase the equity investor's remaining interest in the assets at the end of the 20-year leaseback period, TVA would lose control over the electricity generated by the plants over the next 30-year period and may need to purchase power plants or acquire additional electricity to meet the needs of its customers.

According to TVA's leasing advisor, one of the primary advantages of the arrangement is TVA's prerogative to decide whether to reacquire full interest in the assets at the end of the 20-year leaseback period, which enables TVA to assess their value at that time and determine whether it would be economically advantageous to purchase the remaining interest in them. TVA's leasing advisor highlighted recent market volatility to illustrate the importance and value of this flexibility to TVA. Due to a favorable market for combustion turbines at the time TVA entered into the fiscal year 2002 lease-leaseback arrangement, TVA received $320 million in lease proceeds for assets that were initially constructed for about $226 million. However, TVA's leasing advisor told us that, since TVA refinanced the assets, the market for combustion turbines has declined, and units similar to TVA's have traded for as much as 50 percent less than the amount at which TVA refinanced its assets. This market volatility makes it impossible to know at this time the net impact of the arrangement on the respective parties.

If the market for these power generating units remains depressed at the end of the 20-year leaseback period, TVA's purchase price to reacquire interest in the assets may fall to a level that would be beneficial to TVA. TVA would realize lower financing costs under the arrangement if its purchase price at the end of the 20-year leaseback period were lower than its savings in financing costs to that point—approximately $28 million (present value).

Also, in analyzing its potential costs under the lease-leaseback arrangement, TVA officials told us that they did not consider any of TVA's early termination options (see table 4 for a summary of these options) because they do not expect to use them. They said the early termination options were included in the arrangements for TVA's benefit and provide additional flexibility in case of unexpected circumstances—for example, damage to the assets or a change in the law making it illegal for TVA to lease the assets. TVA will assess the feasibility of the early buyout options at the time they become available. If the assets' fair market value at the time of the options is at an amount for which TVA concludes that purchasing the assets at the buyout price would be advantageous, TVA may exercise one of its early buyout options. Due to significant termination costs, our analysis[19] shows that, if TVA exercises its 2009 early buyout option, its discounted payments will be approximately $25 million more under the lease-leaseback arrangement than they would have been under traditional debt financing. If TVA exercises its 2017 early buyout option, its discounted payments will be approximately $54 million higher. The early buyout options are intended to provide flexibility to TVA, in the event that the assets' fair market value is higher than expected. For example, if at the time of the 2017 early buyout option date, the fair market value of the assets is higher than expected, TVA can purchase the equity investor's remaining interest in the assets at a set price established in the lease arrangement and avoid the possibility of paying additional value for the assets 4 years later at the end of the 20-year leaseback period.

As shown in table 4, TVA can also terminate the lease-leaseback arrangement in the case of burdensome events, obsolescence, or loss, in which case our analysis shows that TVA's discounted payments will be from approximately $7 million to $16 million higher under the lease-leaseback arrangement than they would have been under traditional debt financing.

[19] Our analysis included TVA's total payments under the lease-leaseback arrangement if TVA ended the arrangement early by exercising an early buyout or termination option. We compared TVA's payments under the lease-leaseback arrangement to TVA's potential payments under traditional debt financing, assuming that TVA would continue to make payments on its debt over the original 20-year period and would not exercise an option to call the debt early. We believe TVA would not choose to call its debt early due to high estimated costs it would incur.

Table 4: **Summary of TVA's Early Termination Options under the Fiscal Year 2002 Lease-Leaseback Arrangement**

Early termination options	Description	TVA's cost to terminate[a]	Present value (as of November 1, 2001) of TVA's cost to terminate
Early buyout options	On two specified dates (May 1, 2009, and May 1, 2017) TVA has the option of terminating the leasing agreement and acquiring all interest in the assets.	May 1, 2009 – $301 million May 1, 2017 – $271 million	May 1, 2009 – $206 million May 1, 2017 – $123 million
Termination due to burdensome event	Upon at least 30 days' notice, TVA can terminate the lease-leaseback arrangement if (1) a change in the law or the interpretation of the law makes it illegal for TVA to continue the lease or make payments under the lease, and the transactions cannot be restructured to comply with the changes in a manner acceptable to all parties, or (2) subject to certain exceptions, one or more events outside of TVA's control occur that could or would obligate TVA to make indemnity payments under the arrangements.	November 1, 2020 – $112 million May 1, 2002 – $338 million	November 1, 2020 – $42 million May 1, 2002 – $329 million
Termination due to obsolescence	Any time after 5 years and with 6 months' notice, TVA can terminate the arrangement if TVA's board of directors determines in good faith that the assets are either economically or technologically obsolete, surplus to TVA's needs, or no longer useful in TVA's trade or business.	November 1, 2020 – $112 million May 1, 2007 – $297 million	November 1, 2020 – $42 million November 1, 2006 – $229 million
Event of loss	TVA can terminate the lease-leaseback arrangement in the case of (1) loss of any unit or use thereof due to destruction or damage to such unit or the common facilities that is beyond economic repair or that renders such unit permanently unfit for normal use or (2) seizure, condemnation, confiscation, or taking of, or requisition of title to or use of, any unit by any governmental authority following exhaustion of all permitted appeals or TVA's decision not to pursue such appeals.	November 1, 2020 – $112 million May 1, 2002 – $338 million	November 1, 2020 – $42 million May 1, 2002 – $329 million

Source: GAO analysis of information from TVA and TVA's IG.

[a]Termination costs vary depending on when, within the 20-year lease term, the arrangement was to be ended.

Risk to Private Parties under Fiscal Year 2002 Lease-Leaseback Arrangement

As part of the fiscal year 2002 lease-leaseback arrangement, private investors paid $320 million to TVA; $272 million of this payment was raised from debt investors, and $48 million was raised from a private equity investor. The debt portion of the payment was funded through the issuance of certificates to the public. As discussed previously, the principal and interest owed on the certificates are, in effect, to be satisfied through TVA's ongoing lease payments over the 20-year leaseback period. TVA's obligation to make lease payments is unconditional throughout the term of the certificates. Based on TVA's unconditional obligation to make lease payments,[20] we concluded that the bondholders are at minimal risk of losing the principal and interest payments they are owed.[21] The minimal risk to debt holders is also reflected in the triple-A rating given to the certificates by Standard & Poor's.

However, the equity investor may be at risk of realizing a lower return than expected or a loss under certain scenarios.[22] As part of the fiscal year 2002 arrangement, the equity investor made a $48 million payment to TVA and, in return, receives certain benefits, including (1) cash in the amount by which TVA's lease payments exceed the amount of principal and interest owed on the certificates—about $17 million (on a present value basis) over the 20-year period, (2) the ability to sell the assets, or the power they generate, after the 20-year leaseback period, and (3) tax benefits that can be used to offset taxable income.

The equity investor's expected return is based on TVA electing to buy back interest in the assets at their fair market value at the end of the 20-year leaseback period. If TVA chooses to do so, the equity investor is at risk of losing money on the arrangement. The equity investor's discounted cash disbursements, under this scenario, would exceed its discounted cash proceeds by approximately $25 million. However, the equity investor

[20] Although TVA may terminate the arrangements before it has made all of its rental payments, TVA would then be subject to significant termination fees, which would be sufficient to pay off remaining principal and interest owed on the certificates.

[21] This assumes that TVA remains solvent and financially able to meet these obligations, which are not guaranteed by the federal government.

[22] We did not review the equity investor's actual cash flows. As a result, our analysis represents only an estimate of the equity investor's position, which we discussed with TVA and TVA's leasing advisor.

would own certain interest in the assets and would be able to sell its interest to another party or use the assets to raise revenue.

In entering into the arrangement, the equity investor projected an after-tax rate of return of about 5.3 percent, according to TVA's leasing advisor.[23] The equity investor expected that the lease to TVA would go the full term (20 years), and, at the end of the lease term, the price paid by TVA to reacquire interest in the assets would be about 36 percent of the fair market value of the assets at the inception of the lease. However, if TVA decides to purchase the equity investor's interest in the assets and the fair market value of the assets is lower than anticipated, the equity investor is at risk of not achieving its projected rate of return or of realizing a loss. If TVA's purchase price at the end of the leaseback period is below 36 percent of the asset's fair market value at the inception of the lease, the equity investor is at risk of not earning its projected rate of return. If the purchase price is less than 30 percent, the equity investor is also at risk of losing money on the arrangement.[24]

In addition, as discussed above, TVA has options to terminate the lease-leaseback arrangement early. According to our analysis, if TVA exercises either of its two early buyout options, the equity investor will earn in excess of its projected rate of return. However, if TVA terminates the arrangement early due to burdensome events, obsolescence, or loss, the equity investor will be at risk of earning a return lower than its projected after-tax rate of 5.3 percent. A summary of the risks to the equity investor and TVA is included in table 5.

[23] This return assumes that the equity investor is the owner of the assets for tax purposes and that it continues to generate sufficient taxable income against which it can offset the tax benefits it received from the lease-leaseback arrangement.

[24] In addition, according to TVA's leasing advisor, the equity investor must use leveraged lease accounting, which requires it to estimate its income from the arrangement (based on the expected fair market value of the assets at the end of the 20-year leaseback period) and recognize this income over the life of the lease (20 years). Because the equity investor has already recognized income based on the assets' estimated fair market value at the end of the 20-year leaseback period, if the actual amount received for the assets at the end of the 20-year leaseback period is lower than expected, the equity investor will record a loss for financial reporting purposes.

Table 5: Summary of Risks to TVA and Equity Investor under Various Options Included in the Fiscal Year 2002 Lease-Leaseback Arrangement

	Risk to		
Event	**TVA**	**Equity investor**	**Explanation**
Decision point: On May 1, 2009, TVA can exercise the first early buyout option for approximately $301 million (present value of $206 million). TVA currently does not expect to exercise this option.			
TVA exercises its first early buyout option.	X		• TVA's discounted payments would be higher under the lease-leaseback arrangement, compared with traditional debt financing, but TVA would own and have exclusive rights to the assets. • The equity investor's return would be higher than expected; there would be no risk to the equity investor.
Decision point: On May 1, 2017, TVA can exercise the second early buyout option for approximately $271 million (present value of $123 million). TVA currently does not expect to exercise this option.			
TVA exercises its second early buyout option.	X		• TVA's discounted payments would be higher under the lease-leaseback arrangement, compared with traditional debt financing, but TVA would own and have exclusive rights to the assets. • The equity investor's return would be higher than expected; there would be no risk to the equity investor.
Decision point: If a burdensome event, obsolescence, or loss occurs during the term of the lease, TVA may decide to terminate the arrangement early. TVA currently does not expect to terminate the arrangement early.			
TVA terminates the arrangement early due to burdensome events, obsolescence, or loss.	X	X	• TVA's discounted payments would be higher compared to traditional debt financing, and the equity investors' return would be less than expected.
Decision point: On November 14, 2021, TVA must decide whether to purchase all remaining interest in the assets from the equity investor or allow use of the assets to revert to the equity investor. The equity investor expects TVA to exercise this option and pay a lump sum approximating 36 percent of the private parties' original $320 million investment. TVA has not decided whether to exercise this option.			
TVA does not exercise its purchase option.	X	X	• At the end of the 20-year leaseback, TVA's discounted savings would be approximately $28 million, compared with traditional debt financing, but TVA would lose control over the power generated by these assets for the remaining 30-year lease period. If TVA continues to need the generating capacity and has to pay more than $28 million to replace it, TVA would incur higher costs under the lease-leaseback option. • The equity investor's discounted cash disbursements would exceed its cash receipts by approximately $25 million; it would have to either sell the assets or use them to generate revenue to recuperate its investment and earn a return.

(Continued From Previous Page)

Event	Risk to		Explanation
	TVA	Equity investor	
TVA exercises its purchase option for less than approximately $77 million (present value of $28 million), or less than 24 percent of the private parties' original $320 million investment.		X	• The lease-leaseback arrangement would generate overall savings for TVA, and TVA would hold all interest in the assets. • The equity investor would earn a lower-than-projected rate of return, and its discounted cash disbursements could exceed its cash receipts.
TVA exercises its purchase option for approximately $77 million to $115 million (present value of $28 million to $42 million), or 24 to 36 percent of the private parties' original $320 million investment.	X	X	• TVA's discounted payments under the lease-leaseback arrangement would be higher, compared to traditional debt financing. • The equity investor's discounted cash receipts would cover its disbursements, but it would earn a lower-than-projected rate of return.
TVA exercises its purchase option for greater than $115 million (present value of $42 million), or more than 36 percent of the private parties' original $320 million investment.	X		• TVA's payments under the lease-leaseback arrangement would be higher, compared to traditional debt financing. • The equity investor would achieve or exceed its projected rate of return.

Source: GAO analysis of information from TVA and TVA's IG.

Notes: We defined risk for TVA as incurring higher costs, as compared to a traditional debt financing. We defined risk for the equity investor as incurring a loss or earning a lower return than expected. If TVA elects not to exercise its purchase option, the equity investor may purchase title to the assets for $1.

In addition, the lease-leaseback arrangements could have implications for the federal treasury. For the equity investor, these transactions create tax deductions that would not be available to TVA as a tax exempt entity, but also generate income in the form of lease payments. Whether the transactions result in a net loss or a net gain to the federal treasury depends largely on if and when the equity investor's rights to the assets are sold and for what amount. For example, based on our analysis of the fiscal year 2002 lease-leaseback arrangement, if the equity investor sells the assets at the end of the 20-year leaseback period for an amount that is less than 8 percent of the original cost, the equity investor's tax deductions would have exceeded its income and the arrangement would result in a net loss to the federal treasury. If, on the other hand, the sales price were to exceed 8 percent of the original cost, the equity investor's income would have exceeded its tax deductions and the arrangement would result in a net gain to the federal treasury.

Lease-Leaseback Accounting Complies with Applicable Standards and Requirements

TVA's lease-leaseback arrangements are classified as liabilities in TVA's financial statements, as required by GAAP, and are classified as debt for budgetary reporting purposes, as required by OMB guidance. In addition, because in our opinion the relevant statute is unclear as to whether the arrangements should be counted against TVA's statutory debt cap, TVA's position that they should not be counted against the cap is not unreasonable.

TVA, with concurrence from its external auditor, appropriately recorded its lease-leaseback arrangements on its balance sheet as an increase to cash and as a financing obligation (increase to liabilities) while retaining the assets on its books at historical cost.[25] See appendix II for a more detailed analysis of TVA's treatment of the fiscal year 2002 lease-leaseback arrangement.

While GAAP does not require lease-leaseback arrangements to be classified as debt on the financial statements, it does provide guidance for classifying them as liabilities. Although the issuance of debt is an integral part of the lease-leaseback arrangements, the legal structure of the arrangements allows them to be recorded as liabilities instead of debt. We believe this is a distinction without a meaningful economic difference because, in this case, debt and liabilities have very similar characteristics. Since TVA is required to make semiannual payments for the duration of the 20-year leaseback period, provided no early buyout or termination options are exercised, future sacrifices of economic benefits are reasonably assured and an obligation to render payment clearly exists. Thus, while the lease-leaseback arrangements are not treated as debt for financial reporting purposes, they are in essence debt because they have substantially the same economic impact on TVA as traditional debt financing. Moreover, officials at Standard & Poor's and some state regulators generally view the lease-leaseback arrangements as debt.

TVA's lease-leaseback arrangements are treated as debt in the fiscal year 2004 President's Budget, in accordance with OMB guidance. TVA originally treated the fiscal year 2000 lease-leaseback arrangement as an obligation rather than debt, but OMB questioned this treatment when TVA's fiscal year

[25] The assets included in the fiscal year 2002 lease-leaseback arrangement have a historical cost of $226.4 million while cash proceeds received by TVA from the lease-leaseback arrangement were $320 million.

2003 budget submission treated the 2002 lease-leaseback arrangement similarly. Based on criteria for classifying leases established in OMB Circular A-11, OMB officials concluded the lease-leaseback arrangement was equivalent to the purchase of assets financed by the issuance of agency debt because (1) TVA retains legal ownership of the assets, (2) the present value of TVA's lease payments is very high compared to the fair market value of the assets, and (3) TVA controls use of the assets.

Under OMB's current treatment of the lease-leaseback arrangements, the lump-sum cash proceeds TVA receives from the private parties at the inception of the lease-leaseback arrangements are treated as borrowing. In addition, interest payments made to the private parties are scored as outlays in the budget as they are made. All of TVA's lease-leaseback arrangements are now treated as debt in the President's Budget.[26] While TVA has disagreed with OMB's position that the lease-leaseback arrangements should be treated as debt, it recognizes OMB's authority to decide how the arrangements should be presented in the President's Budget.

TVA's decision not to treat the lease-leaseback arrangements as debt for purposes of its statutory debt cap is not unreasonable. Section 15d(a) of the TVA Act authorizes TVA to "issue and sell bonds, notes and other evidences of indebtedness…in an amount not exceeding $30,000,000,000." It is TVA's position that Section 15d of the TVA Act effectively provided TVA with two new ways to acquire power system assets. One way is by selling bonds (section 15d(a)) and the other way by entering into leases, lease-purchase agreements, and power purchase agreements (section 15d(g)). The limitation in section 15d(a) applies to bonds, notes, and other evidences of indebtedness (collectively referred to in the statute as bonds).

In TVA's opinion, the language, structure, and legislative history of section 15d clearly demonstrate that lease obligations are not bonds for the purpose of the limitation. TVA asserts that the descriptive references of the bonds in section 15d make sense when applied to bonds as the traditional financial instrument but not to TVA's obligations under the lease-leaseback arrangements. TVA also asserts that the legislative history demonstrates

[26] Based on its conclusion that all of TVA's lease-leaseback arrangements are similar and should be treated consistently, in the fiscal year 2004 President's Budget, OMB classified the fiscal year 2002 and 2003 lease-leaseback arrangements as debt and reclassified the fiscal year 2000 arrangement as debt.

that the Congress was aware that the limitation of TVA's authority to issue bonds did not limit TVA with respect to leases, lease-purchase agreements, and power purchase agreements. Therefore, it is TVA's position that the section 15d limitation on bonds does not apply to the lease-leaseback arrangements.

Based on our analysis of the law and its legislative history, we conclude that the current law does not clearly and unambiguously address whether the amount of the lease-leaseback arrangements should be counted against the debt cap. However, there is support for the view that bonds are treated as separate means of financing the expansion of facilities from leases and lease-purchase agreements. There is also support for the view that, although bonds are covered by the ceiling in section 15d(a) of the TVA Act, leases and lease-purchase agreements are not. Finally, there is support for the view that lease-leaseback arrangements are sufficiently analogous to lease and lease-purchase agreements to support the conclusion that they are not bonds for the purpose of section 15d(a) of the TVA Act. Therefore, TVA's decision that its lease-leaseback arrangements should not be treated as debt for purposes of the debt cap in section 15d(a) of the TVA Act is not unreasonable, even though these arrangements have the same impact on TVA's financial condition and future competitiveness as traditional debt.

Based on our discussions with OMB officials, they are also of the opinion that the TVA Act is unclear regarding whether TVA's lease-leaseback arrangements should be counted against the $30 billion bond ceiling established by section 15d of the TVA Act. As a result, the fiscal year 2004 President's Budget proposes that legislation be drafted to ensure that lease-leaseback arrangements and other arrangements equivalent to traditional debt financing are included under TVA's debt cap.

Conclusions

TVA has entered into substantial (about $945 million) lease-leaseback arrangements with private investors and is considering expanding its use of these and other nontraditional financing arrangements. While the lease-leaseback arrangements provide TVA with a lower cost of financing over the first 20 years, they also pose risks. The savings in financing costs TVA achieves over the first 20 years will be lowered by (1) costs it will incur if it purchases the remaining interest in the assets or replaces the assets or (2) revenue it will forgo due to loss of generation capacity. The risk that TVA's total costs under the lease-leaseback arrangements could be higher than under traditional bond financing is offset by two advantages: (1) TVA has the ability to walk away from the assets at the end of 20 years if they

have become obsolete or their generating capacity is no longer needed and (2) the TVA Act has been interpreted such that the arrangements do not count against TVA's statutory debt cap, thereby allowing TVA to maintain ready access to capital in the debt market. However, these arrangements essentially have the same economic impact on TVA's financial condition as traditional debt and therefore could negatively affect TVA's future competitiveness. The federal treasury could experience a net benefit or loss, depending on whether the private equity investor's tax deductions exceed its taxable income, with the ultimate impact depending largely on the future value of the assets.

Matter for Congressional Consideration

The Congress may want to consider amending the TVA Act to clarify whether the debt cap should include alternative sources of financing (such as lease-leaseback arrangements) that have the same impact on TVA's financial condition and competitive position as traditional debt financing.

Agency Comments and Our Evaluation

In written comments on a draft of this report, TVA's Chairman generally agreed with the report and characterized it as a fair and thorough analysis on this complex subject. However, the Chairman expressed concern over our suggesting that the Congress may want to consider amending the TVA Act to clarify whether the debt cap should include nontraditional sources of financing such as lease-leaseback arrangements. He pointed out that both TVA and its outside counsel are of the view that the current statute and legislative history are clear in the authority provided to TVA to issue debt securities (to which the debt cap applies) and to enter into leasing arrangements (to which the debt cap does not apply).

As stated in the report, based on our analysis of the law and its legislative history, we conclude that the current law does not clearly and unambiguously address whether the amount of the lease-leaseback arrangements should be counted against the debt cap. Therefore, we have made no changes to the report in response to this comment. TVA's written comments are reproduced in appendix III.

TVA also provided us with oral comments of a technical nature, which we have incorporated into the final report as appropriate.

As arranged with your office, unless you announce the contents of this report earlier, we will not distribute it until 30 days from its date. Then we will send copies of this report to appropriate House and Senate committees, interested members of the Congress, TVA's board of directors, and the Director of the Office of Management and Budget. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staff have any questions on matters discussed in this report, please contact me at (202) 512-9508 or calboml@gao.gov. Major contributors to this report are listed in appendix IV.

Sincerely yours,

Linda M. Calbom
Director, Financial Management
and Assurance

Objectives, Scope, and Methodology

Description of Lease-Leaseback Arrangements

To describe the lease-leaseback arrangement(s) used to date, we did the following:

- Interviewed officials from the Tennessee Valley Authority's (TVA) Office of Inspector General (IG), TVA's external auditor, and the Office of Management and Budget (OMB).
- Reviewed TVA's annual reports and the fiscal year 2003 and 2004 President's Budgets.
- Interviewed representatives of the investor-owned utility members of TVA Exchange Group, Standard & Poor's, the Electric Power Supply Association, and the Edison Electric Institute.
- Reviewed a sample of annual reports and financing statements of electric utilities.
- Obtained and reviewed copies of the lease-leaseback arrangements entered into in fiscal years 2000 and 2002, and December 2002, which covered 20 of the 24 generating units.
- Limited our detailed analysis to the fiscal year 2002 lease-leaseback arrangement. Based on our limited review of the fiscal year 2000 and December 2002 lease-leaseback arrangements, we found them to be structured similarly to the fiscal year 2002 arrangement. In addition, TVA officials told us that the fiscal year 2000 and 2003 arrangements are substantially the same in structure as the fiscal year 2002 arrangement.

Alternative Financing Options Being Considered by TVA for Future Capital Projects, Including the Restart of Browns Ferry Nuclear Plant Unit 1

To identify proposals under consideration for financing future capital projects, including the restart of Browns Ferry Nuclear Plant Unit 1, we

- interviewed officials from TVA, OMB, and the Congressional Budget Office (CBO);
- reviewed a TVA IG report on TVA's use of lease-leaseback financing;
- reviewed TVA's proposed 2003 and 2004 federal budgets; and
- reviewed recent press reports related to TVA.

Legal Ownership and Risk If the Lease-Leaseback Arrangements Do Not Work Out as Planned

To determine who has legal ownership of the assets financed by lease-leaseback transactions, and who is at financial risk if the projects do not work out as planned, we

- obtained and reviewed copies of the fiscal years 2000 and 2002, and December 2002 lease-leaseback arrangements covering 20 of 24 power generating units;
- interviewed officials of TVA's IG, Chief Financial Officer (CFO) Organization, and Office of General Counsel (OGC), OMB, and CBO;
- reviewed summary documents prepared by TVA's OGC and IG that identify and explain the responsibility of the different parties to the agreements;
- reviewed an economic analysis of the fiscal year 2002 lease-leaseback arrangement prepared by TVA to compare its borrowing cost under traditional debt financing with its cost under the lease-leaseback arrangements;
- compared TVA's cash flow under the fiscal year 2002 arrangement to traditional debt financing if TVA were to exercise the early buyout and termination options in the fiscal year 2002 arrangement; and
- analyzed the equity investor's cash flows under the fiscal year 2002 arrangement.

Classification of Lease-Leaseback Arrangements According to Generally Accepted Accounting Principles, OMB Guidance, and the TVA Act

To determine whether TVA was treating the lease-leaseback arrangements according to generally accepted accounting principles in its external financial statements, we

- reviewed the accounting journal entries used by TVA to record the fiscal year 2000 and 2002 lease leaseback transactions covering 16 of 24 power generating units in TVA's accounting system;
- interviewed officials of TVA's IG, CFO Organization, and external financial statement auditor;
- reviewed authoritative accounting literature on accounting for leases including Statement of Financial Accounting Standards (SFAS) 13,

Accounting for Leases, SFAS 66, *Accounting for Sales of Real Estate*, and SFAS 98, *Accounting for Leases*, to evaluate TVA's accounting treatment;

- obtained and reviewed annual reports for publicly traded utility companies to identify financial reporting disclosures related to leasing transactions; and
- obtained and reviewed copies of the fiscal years 2000 and 2002, and December 2002 lease-leaseback arrangements covering 20 of 24 power generating units.

To determine whether the lease-leaseback arrangements are being classified properly in the federal budget, we

- reviewed the fiscal year 2003 and 2004 President's Budgets;
- interviewed officials from TVA, OMB, and CBO; and
- reviewed OMB's Circular A-11 for guidance on how OMB classifies and scores leases for budgetary reporting purposes.

To determine whether the lease-leaseback arrangements should be counted toward the limitation on TVA's authority in the TVA Act to issue bonds and notes, we

- reviewed the fiscal year 2002 lease-leaseback arrangement;
- interviewed officials from OMB and TVA's OGC;
- obtained and reviewed a memo prepared by TVA's OGC summarizing its position;
- reviewed the fiscal year 2004 President's Budget; and
- reviewed and interpreted language included in section 15d of the TVA Act, and reviewed the legislative history of the act.

Organizations Contacted

During the course of our work, we contacted the following organizations.

Federal Agencies

- Tennessee Valley Authority
- Congressional Budget Office
- Office of Management and Budget

Bond Rating Agencies

- Standard & Poor's

Customer Representative or Trade Groups

- American Public Power Association
- TVA Exchange Group
- Electric Power Supply Association
- Edison Electric Institute

Electric Utilities

- Entergy Corp.
- Duke Energy Corp.

Other

- Dexia – Global Structured Finance

Analysis of TVA's Treatment of the Fiscal Year 2002 Lease-Leaseback Arrangement for Financial Reporting Purposes

Authoritative Accounting Standards for Leases

Table 6 lists authoritative accounting standards for leases (which include the applicable standards for lease-leaseback arrangements) that we reviewed to determine whether the Tennessee Valley Authority's (TVA) treatment of the lease-leaseback arrangements for financial reporting purposes is in accordance with generally accepted accounting principles (GAAP). The Financial Accounting Standards Board (FASB) issues all Statements of Financial Accounting Standards (SFAS), Financial Accounting Standards Board Interpretations (FIN), and Financial Accounting Standards Board Technical Bulletins (FTB).

Table 6: Applicable GAAP Standards

Standard	Title
SFAS-13[a]	*Accounting for Leases*
SFAS-66[a]	*Accounting for Sales of Real Estate*
SFAS-71[a]	*Accounting for Effects of Certain Types of Regulation*
SFAS-98[a]	*Accounting for Leases*: • Sale-leaseback transactions involving real estate • Sales-type leases of real estate • Definition of the lease term • Initial direct costs of direct financing leases
FIN-23[a]	*Leases of Certain Property Owned by a Governmental Unit or Authority*
FTB79-10[a]	*Fiscal Funding Clauses in Lease Agreements*
FTB79-12[a]	*Interest Rate Used in Calculating the Present Value of Minimum Lease Payments*
FTB79-14	*Upward Adjustment of Guaranteed Residual Values*
FTB79-15	*Accounting for Loss on a Sublease Not Involving the Disposal of a Segment*
FTB86-2	*Accounting for an Interest in the Residual Value of a Leased Asset*: • Acquired by a third party • Retained by a lessor that sells the related minimum rental payments
FTB88-1	*Issues Relating to Accounting for Leases*: • Time pattern of the physical use of the property in an operating lease • Lease incentives in an operating lease • Applicability of leveraged lease accounting to existing assets of the lessor • Money-over-money lease transactions • Wrap lease transactions

Source: GAO analysis of GAAP.

[a]We performed a detailed review of these standards.

Summary of GAAP Accounting for Leases

A lease is an agreement that conveys the right to use property, usually for a specified period. Leases typically involve two parties: the owner of the property (lessor) and the party contracting to use the property (lessee).

A key accounting issue associated with leases is the identification of those leases that are treated appropriately as sales of the property by lessors and as purchases of property by lessees (e.g., capital leases). A capital lease transfers the benefits and risks inherent in the ownership of the property to the lessee, who accounts for the lease as an acquisition of an asset and the incurrence of a liability. Leases that are not identified as capital leases are called operating leases and are not treated as sales by lessors and as purchases by lessees. If, at its inception, a lease, including lease-leasebacks, meets one or more of four criteria, the lease is classified as a capital lease per SFAS No. 13, *Accounting for Leases*, paragraphs 6 and 7. The four criteria are (1) ownership of the leased property is transferred to the lessee by the end of the lease term, (2) the lease contains a bargain purchase option, (3) the lease term is substantially (75 percent or more) equal to the estimated useful life of the leased property, and (4) at the inception of the lease, the present value of the minimum lease payments, with certain adjustments, is 90 percent or more of the fair value of the leased property.[1] TVA's fiscal year 2002 lease-leaseback arrangements meet criteria 3 and 4 above and therefore were recorded on the balance sheet in accordance with capital lease accounting criteria.

According to SFAS No. 98, *Accounting for Leases*, and SFAS No. 66, *Accounting for Sales of Real Estate*, the way a capital lease is accounted for depends on whether you are the lessor or the lessee. The lessor, TVA in the 50-year lease, would account for the lease as a sale (sales-type lease) or financing (direct financing lease), whichever is appropriate. A lease involving real estate is not classified by the lessor as a sales-type lease unless (1) the title to the leased property is transferred and (2) there is not any form of continuing involvement in the daily operations. Since TVA did not transfer legal title of the assets and continues to be involved in the operation and maintenance of the turbine units and to control the distribution of power produced by the facilities, TVA accounted for the lease proceeds of $320 million as a direct financing lease resulting in financing obligations.

[1] Lessor must determine that two additional criteria are met to account for the lease as a capital lease: (1) collection of the minimum lease payments is reasonably predictable and (2) no important uncertainties exist for unreimbursable costs to be incurred by the lessor.

Table 7 below shows the fiscal year 2002 accounting entries for the fiscal year 2002 lease-leaseback arrangement.

Table 7: Fiscal Year 2002 Accounting Entries for the Fiscal Year 2002 Lease-Leaseback Arrangement

Debit: Cash	$320,000,000	
Credit: Financing Obligation		$320,000,000
To record the receipt of the initial cash proceeds on November 14, 2001, and the lease financing obligation		
Debit: Financing Obligation	$ 23,993,689	
Debit: Operating Expense	6,642,333	
Credit: Cash		$30,636,022
To record the first (and largest) semiannual payment of principal and interest on May 1, 2002		
Debit:Operating Expense	$ 4,096,192	
Credit: Accrued Liability		$ 4,096,192
To accrue 4 months of interest expense at the end of the fiscal year 2002		

Source: TVA.

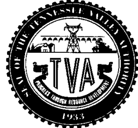
The accounting transactions for TVA's fiscal year 2002 lease-leaseback arrangements are presented in its financial statements as follows:

- Outstanding lease financing obligations are included in the "Current liabilities" and "Other liabilities" line items on the Balance Sheet.
- The cash proceeds were included in the "Proceeds from combustion turbine financing" line item on the Cash Flow Statement.
- The lease costs are included in the "Operating and maintenance" line item on the Income Statement.

In addition to the above journal entries, TVA records the normal accounting entries related to construction, capitalization, depreciation, and operation of the combustion turbine units consistent with all other generating assets it owns. The fiscal year 2002 lease-leaseback transaction assets were initially constructed at a historical cost of $226.4 million. TVA depreciates

the assets using the straight-line depreciation method over the 20-year term of the leaseback agreement.

Comments from the Tennessee Valley Authority



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1401

Glenn L. McCullough, Jr.
Chairman

June 12, 2003

Ms. Linda Calborn
Director, Financial Management
and Assurance
U.S. General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Calborn:

Thank you for the opportunity to comment on GAO's draft report entitled *Tennessee Valley Authority—Information on TVA's Lease-Leaseback and Other Financing Arrangements.* We commend GAO for producing a fair and thorough analysis on this complex subject.

As the report states, "TVA's lease-leaseback arrangements have been accounted for and reported in compliance with applicable standards and requirements for financial reporting, budgetary reporting, and debt cap compliance." TVA entered into these arrangements in order to lower its costs over the next twenty years by approximately $200 million.

We are concerned, however, about the report's recommendation that Congress consider whether the TVA Act should be amended to clarify what is counted under TVA's statutory debt cap. As explained in legal opinions of TVA's General Counsel and of outside counsel, the current statute and the legislative history are clear in the authority provided to TVA to issue debt securities (to which the $30 billion debt cap applies) and to enter into leasing arrangements (to which the $30 billion debt cap does not apply).

TVA is committed to continuing to reduce its debt over the long term and has no intention of exceeding the $30 billion debt cap including the lease-leaseback obligations. But we are concerned that an attempt to redefine tne meaning of "debt" for purposes of the TVA debt cap could lead to less clarity over this issue, would create an inconsistency with generally accepted accounting principles, could prevent TVA from entering into public-private partnerships for some projects, and would potentially preclude TVA's ratepayers from receiving the benefits of alternative forms of financing.

We recognize and respect the fact that this issue is ultimately up to the U.S. Congress.

Thank you again for the opportunity to provide these comments.

Very truly yours,

Glenn L. McCullough, Jr.

GAO Contact and Staff Acknowledgments

GAO Contact

Robert E. Martin, (202) 512-6131

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