REPORT OF THE
JOINT LEGISLATIVE
AUDIT AND REVIEW COMMISSION ON

Proposal for a Revenue Stabilization Fund in Virginia

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

SENATE DOCUMENT NO. 24

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Preface

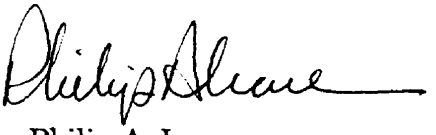
The JLARC proposal for the Revenue Stabilization Fund grew out of JLARC's study of the executive budget process. JLARC was mandated by the 1990 Appropriation Act to review the executive budget process, including revenue forecasting, and budget preparation and execution. As the study began, it became apparent that there would be unusually large revenue shortfalls for the State in fiscal years 1990, 1991, and 1992. To answer questions about why these shortfalls occurred, JLARC's review was intensified, with priority attention given to revenue forecasting issues.

The JLARC forecasting review found that, historically, Virginia's forecast accuracy has been similar to that of other states and the federal government. Although the forecasts for FY90 through FY92 were unusually far off, the State's revenue shortfall does not appear to be the result of an unsound revenue forecasting process. While improvements could be made, the process meets the majority of criteria for an optimal forecasting process. Simply stated, forecast error is a normally occurring part of the forecast process. Shortfalls -- and surpluses -- can be expected.

Given the uncertainty of revenue forecasting, the JLARC Subcommittee on the Executive Budget Process examined "rainy day" funds as a means coping with shortfalls. Funds in 39 states were examined. The subcommittee then sought to adopt the best of each and apply it to Virginia. In addition, several concepts unique to Virginia were adopted. The result is the Revenue Stabilization Fund proposal. The Revenue Stabilization Fund is designed to skim off above-average revenue growth in prosperous years. Deposits to the fund draw interest and are available when forecast error results in a revenue shortfall.

As this document went to press, the Senate Finance Committee reported an amendment in the nature of a substitute for SJR 159 -- the JLARC subcommittee proposal for a Revenue Stabilization Fund. The committee substitute altered mandatory deposits and provided a mechanism for exempting revenues from tax increases. The other provisions of the fund remain as described in this report. No subsequent actions on the proposal are reflected in this report.

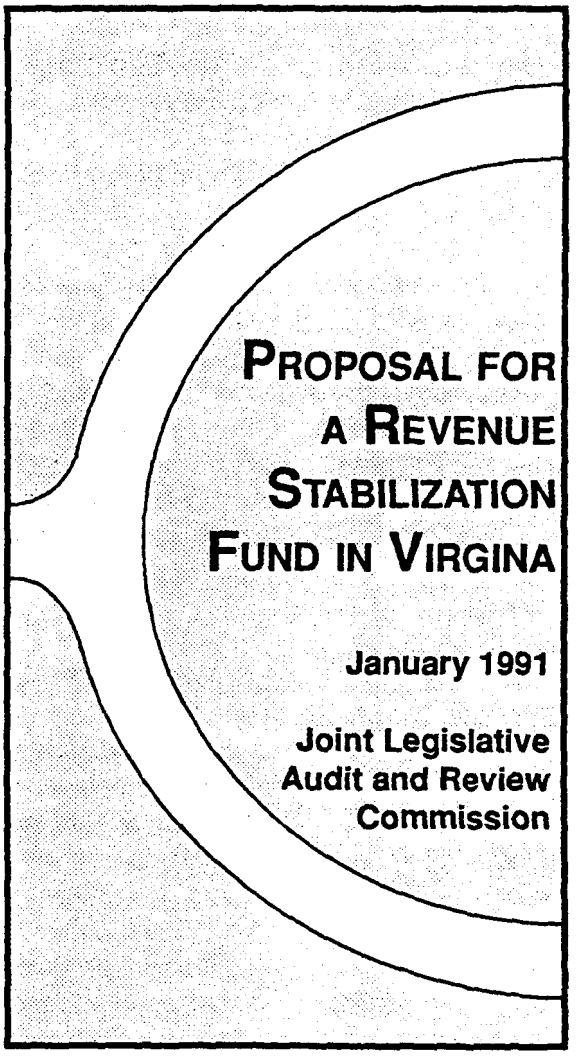
In addition to JLARC members and staff, staff from the Senate Finance Committee, the House Appropriations Committee, and the Division of Legislative Services contributed to the proposal. In addition, the Auditor of Public Accounts and Mr. A. E. Howard of the University of Virginia reviewed the proposal and made helpful remarks. On behalf of the JLARC staff, I wish to express our appreciation for their cooperation.



Philip A. Leone
Director

February 4, 1991

JLARC Report Summary



Revenue forecasting is not an exact science. As noted in the Joint Legislative Audit and Review Commission (JLARC) Interim Report *Revenue Forecasting in the Executive Branch: Process and Models,* while an increased role for the legislature and other improvements to the revenue forecasting process may improve accuracy and would enhance accountability, there will still be normally-occurring forecast error. Shortfalls and surpluses are both inevitable. But forecast error is most problematic when it results in revenue shortfalls. Given the inevitability of forecast error, Virginia needs a strategy to cope with shortfalls which periodically result.

The Revenue Stabilization Fund, or rainy day fund proposed in this report, would be such a mechanism. The fund would provide a cushion for the State during unforeseen downturns in the economy. Further, the fund would provide a mechanism for building up the fund when above-average revenue growth occurred. This feature would discourage building high revenue growth into the permanent spending base of the State.

The provisions of the proposed Revenue Stabilization Fund are contained in Senate Joint Resolution No. 159, which was pre-filed by the subcommittee in December 1990. The resolution proposed amending the *Constitution of Virginia* to establish the fund.

The proposed constitutional amendment addresses a maximum fund size, a deposit mechanism, and a withdrawal mechanism. The summary exhibit on page II highlights the key proposals.

The Fund Should be Constitutionally-Based

A constitutional amendment would ensure that the fund would be a permanent part of the fiscal process. A constitutionally-based fund would be more permanent than one contained in statute, since the former could not be overridden by the Appropriation Act. In addition, a constitutional amendment would avoid potential constitutional problems which could confront a statutory fund.

Proposal Summary:

The Revenue Stabilization Fund A Rainy Day Fund For Virginia

- Fund is established by constitutional amendment.
- Maximum fund size ($459.5 million) is ten percent of income and retail sales taxes. Maximum fund size grows as revenues grow.
- Funds may be deposited by policy decision (discretionary) or by formula (mandatory). Fund grows in prosperous years.
- In shortfall years, funds are withdrawn. Transfers out of the fund must be made by appropriation of the General Assembly.
- No more than one-half of a shortfall can be covered by the Revenue Stabilization Fund.
- A projected shortfall must exceed $95 million (for FY91 before withdrawals may be made.
- No more than one half of the fund may be used in any one fiscal year

Source: JLARC analysis of proposed amendment.

The Fund Should Have a Maximum Allowable Fund Size

Establishing the maximum size of the fund annually, by formula, is important if the fund is to keep pace with inflation and the increasing responsibilities of government. The proposed formula bases the fund size on ten percent of the State's average income (individual and corporate) and retail sales tax revenues for the prior three years. At the current time, the maximum fund size would be $459.5 million. The maximum fund size is to be computed by the Auditor of Public Accounts and reported to the General Assembly.

Both Mandatory and Discretionary Deposits Would Be Made By the General Assembly

There are two basic deposit provisions: deposits guided by a formula and discretionary deposits. All deposits are to be made by legislative appropriation. The proposed formula requires the deposit of 75 percent of the above-average revenue growth from income (individual and corporate) and retail sales taxes. The proposed mandatory deposit mechanism is designed to be a slow-growing one. The maximum fund size could be reached more quickly through the use of additional discretionary deposits.

Withdrawals by the Legislature Would Address Major Shortfalls

Under the proposal, a withdrawal may be made only by legislative appropriation. An appropriation may be made only in the event of a shortfall that exceeds two percent of certified tax revenues. (At the present time, a shortfall would have to be in excess of $95 million.) In addition, no more than one-half of the fund may be withdrawn in any fiscal year. Further, a withdrawal cannot exceed one-half of the projected shortfall.

Several objectives are achieved using the proposed withdrawal policy. First, the entire fund cannot be depleted in the first year. In fact, there would never be a zero balance in the fund. Second, the fund would not be used to address all of a projected shortfall. Spending cuts or other measures would also have to be employed. Finally, the two percent threshold would ensure that the fund is not used to compensate for relatively minor shortfalls.

Recommendation. *The General Assembly may wish to establish, by constitutional amendment, a Revenue Stabilization Fund for Virginia containing the following general characteristics: (a) a maximum fund size that is ten percent of income and retail sales taxes for the three immediately preceding fiscal years; (b) funds may be deposited by a discretionary appropriation or by a mandatory appropriation determined by a formula; (c) funds may be withdrawn by appropriation of the General Assembly during years in which there is a projected revenue shortfall; (d) a projected revenue shortfall must exceed a threshold amount of two percent of the prior fiscal year's certified tax revenues in order for a withdrawal to be made; (e) funds may be applied to no more than one-half of a shortfall; and (f) no more than one-half of the fund balance may be withdrawn in any one fiscal year.*

NOTE: As this document went to press, the Senate Finance Committee reported an amendment in the nature of a substitute for SJR 159 -- the JLARC subcommittee proposal for a Revenue Stabilization Fund. The committee substitute lowered mandatory deposits from 75 percent to 50 percent of above -average revenue growth. The substitute also provided a mechanism for exempting revenues from tax increases for up to six years. The other provisions of the fund remain as described in this report. A copy of the committee substitute is included in Appendix A of this report and several references to the substitute have been added to the report. No subsequent actions on the proposal are reflected in this report.

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A Revenue Stabilization Fund for Virginia

The Joint Legislative Audit and Review Commission (JLARC) was mandated by Item 13 of the 1990 Appropriation Act to "review the Commonwealth's executive system of financial planning, execution and evaluation." This study was prepared as part of JLARC's fulfillment of that mandate.

JLARC, at its September 10, 1990 meeting, established the Subcommittee on the Executive Budget Process. The subcommittee was directed to provide ongoing guidance to JLARC staff as it conducted its research and review of the executive budget process. The subcommittee, at its October 10, 1990, meeting, directed JLARC staff to study the issue of establishment of a rainy day fund in Virginia. During its November 14, 1990, meeting, the subcommittee directed JLARC staff to prepare suitable options and a framework for proposed legislation to establish a rainy day fund in Virginia.

In order to address the issue of a rainy day fund, JLARC staff reviewed reports by the National Conference of State Legislatures (NCSL) and the National Association of State Budget Officers (NASBO) from 1983 to 1990 which discussed the establishment of rainy day funds. Fiscal staff from NCSL and NASBO who had conducted research on the establishment of rainy day funds were also contacted. In addition, JLARC staff conducted a 49-state telephone survey, in which additional information concerning rainy day funds was obtained. Also, a variety of executive and legislative staff in Virginia were interviewed on these issues.

The *Constitution of Virginia*, the *Code of Virginia* and the 1990 Appropriation Act were reviewed to determine what provision, if any, has been made for the establishment of reserve funds as part of the State budget. Legislation introduced during the 1990 session of the General Assembly which called for the establishment of a revenue stabilization fund was reviewed. One of the major products prepared by JLARC staff as the result of their research was an issue paper prepared for the subcommittee on budget stabilization (rainy day) funds (Appendix B).

Rainy day funds are one of a variety of instruments used by states to alleviate the adverse effects of revenue shortfalls. There is a need for such "coping" mechanisms given the inevitability of error in revenue forecasting, and the shortfalls which periodically result. Rainy day funds offer key advantages other coping mechanisms do not, as shown in Appendix C.

The subcommittee met on December 10, 1990, and modified and approved a staff concept for a Revenue Stabilization Fund. This fund is similar in some respects to rainy day funds established in as many as 39 states nationwide. The purpose of such funds, including the one proposed by the subcommittee, is to set money aside during years of revenue growth as a cushion for revenue shortfalls experienced in years of declining growth.

A proposed amendment to the *Constitution of Virginia* (Senate Joint Resolution No. 159) was prefiled by the subcommittee on December 11, 1990 (Appendix A). The subcommittee's proposal draws upon the experience of other states that have established and implemented particularly successful and effective rainy day funds. The proposal includes a maximum fund size, a deposit mechanism, and a withdrawal mechanism.

The subcommittee believes that passage of its proposal will provide the Commonwealth with an important tool for improving long-term fiscal management. Were the constitutional amendment filed by the subcommittee to be approved by the 1991 and 1992 sessions of the General Assembly, it would be submitted to the voters for ratification in November of 1992. This report consists of a detailed review and explanation of the provisions of Senate Joint Resolution No. 159.

WHY A CONSTITUTIONAL AMENDMENT?

The subcommittee proposed a constitutional amendment to ensure that the fund would become a permanent part of the Commonwealth's budgetary system. It is the subcommittee's opinion that creating the fund constitutionally rather than statutorily provides three general advantages. First, a constitutional amendment is more permanent than a statute. Second, a constitutional amendment cannot be overridden by the Appropriation Act. Finally, a constitutionally-based fund would avoid possible constitutional issues that could confront a statutory fund.

The Constitution is More Permanent than Statute

The long-term integrity of a revenue stabilization fund should be made a priority of the Commonwealth. The subcommittee believes that the constitutional approach to establishing the fund would be the most advantageous to the State over the long term. Four other states have chosen to amend their constitutions to establish rainy day funds. Two of those four (Delaware and Oklahoma) have fund balances that are, as a percentage of General Fund appropriations, among the largest in the country.

The permanence provided by the *Constitution* is due primarily to the fact that, once ratified by the people, constitutional provisions are rarely repealed. The lengthy process required for the enactment or repeal of a constitutional amendment may account for a great deal of that permanence. This degree of longevity is vital to protecting the fund balance, over the long term, from competing budgetary demands. Such demands might also tend to weaken the language of statutory enabling legislation so that uses of the fund for other purposes would be increasingly likely.

Constitution Cannot be Overridden by Appropriation Act

It is the opinion of the subcommittee that any statutorily-created rainy day fund in Virginia would be weaker than a constitutionally-based fund. The provisions and requirements of the fund, or any other statutorily-created fund, could always be modified or overridden by the Appropriation Act. A statutorily-created fund, to which no money is appropriated, would be a non-entity and of no value to the short- or long-term fiscal interests of the Commonwealth.

The subcommittee is fully cognizant of the political environment in which State budgetary decisions are made. Therefore, it is the subcommittee's opinion that a constitutional amendment, specifying the maximum size of the fund, and also specifying the conditions and mechanisms for depositing and withdrawing money from the fund, would provide the greatest protection for the fund. This degree of protection would be, in the subcommittee's estimation, in the greatest long-term interest of the Commonwealth. This is consistent with the subcommittee's intent to create a continuing legal obligation, of the highest order, to maintain and administer a Revenue Stabilization Fund.

Overcomes Time Limitation Imposed by Article X, Section 7

Article X, Section 7 of the *Constitution of Virginia* provides that:

> No money shall be paid out of the State treasury except in pursuance of appropriations made by law; and no such appropriation shall be made which is payable more than two years and six months after the end of the session of the General Assembly at which the law is enacted authorizing the same.
>
> Other than as may be provided for in the debt provisions of this Constitution, the Governor, subject to such criteria as may be established by the General Assembly, shall ensure that no expenses of the Commonwealth be incurred which exceed total revenues on hand and anticipated during a period not to exceed the two years and six months period established by this section of the Constitution.

The subcommittee believes that the limitations imposed by Article X, Section 7 are clear, in that extended appropriations are prohibited. This limitation has been upheld by the Virginia Supreme Court. (*See Button v. Day*, 203 Va. 687, 127 S.E.2d 122 (1962); *Terry v. Mazur*, 234 Va. 442 (1987)). In order to best balance existing constitutional restrictions on long-term appropriations with the Commonwealth's need for the long-term maintenance of a Revenue Stabilization Fund, the subcommittee determined that constitutional language requiring minimum appropriations to the fund was necessary.

While the subcommittee's proposal does not amend Article X, Section 7, it does specifically amend Article X, Section 8. It is the subcommittee's belief that the proposed amendment, if passed and ratified, would be able to withstand a legal challenge on the time limitation issues.

Overcomes "Necessary Expenses of Government" Issue Raised by Article X, Section 8

Article X, Section 8 of the *Constitution of Virginia* states:

> No other or greater amount of tax or revenues shall, at any time, be levied than as may be required for the necessary expenses of the government, or to pay the indebtedness of the Commonwealth.

The subcommittee thinks that the establishment, funding, and long-term maintenance of the Revenue Stabilization Fund are a necessary expense of the Commonwealth. The fund is necessary to enable the State to stabilize fluctuations in revenues and, consequently, to stabilize the amount and quality of services it provides during economic downturns. It is also the subcommittee's intent that the fund be created by the General Assembly as a policy decision, in order to systematically save a portion of above-average revenue collections during prosperous years so that funds remain available for stabilization purposes during poor economic years.

Consistent with this thinking, it is the subcommittee's intent that its proposal be implemented by amending Article X, Section 8 of the *Constitution*. The subcommittee believes the fund to be necessary in order to promote greater stability in the State's revenues, and accordingly, in the State's budgetary policy.

It could be argued, however, that the State has functioned successfully in the past without such a fund and one is therefore unnecessary. While it is uncertain whether a constitutional challenge to the fund would be made on those grounds, a constitutional amendment would address that uncertainty.

Established Separate and Distinct from the General Fund

The majority of states that have established rainy day funds have done so by making their funds separate and distinct from their General Fund. The subcommittee's proposal adopts this "separate and distinct" approach. This is consistent with the subcommittee's intent that the long-term integrity of the fund be protected. It is also consistent with the subcommittee's intent that the General Assembly play a vital role in the long-term maintenance and administration of the proposed fund.

MAXIMUM FUND SIZE

The second paragraph (lines 27-35) of the proposed constitutional amendment (SJR 159) prefiled by the subcommittee addresses the maximum size of the fund.

> The General Assembly shall establish the Revenue Stabilization Fund. The Revenue Stabilization Fund shall consist of an amount not to exceed ten percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts for the three fiscal years immediately preceding. The Auditor of Public Accounts shall compute the ten percent limitation of such fund annually and report to the General Assembly not later than the first day of December. "Certified tax revenues" means the Commonwealth's annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts.

The subcommittee's proposal contains three basic concepts governing the maximum size of the fund. First, the maximum size of the fund for an upcoming fiscal year is determined annually by formula. Second, the formula bases the fund size on a percentage of the State's average income (individual and corporate) and retail sales tax revenues for the prior three years. Third, the maximum fund size is computed annually by the Auditor of Public Accounts and reported to the General Assembly. The maximum fund size ($459.5 million in FY91), would be ten percent of income and sales tax revenue. Because the fund size is a percentage, the maximum fund size will grow as income and sales tax revenues increase.

Maximum Size of Fund Determined Annually By Formula

This provides the State with a explicit policy, based on specific criteria, for establishing the initial maximum size of the fund, and for revising the size of the fund on an annual basis. The subcommittee believes that this provision will help the fund to "grow" with the State and avoid ongoing controversy concerning the proper size of the fund. It is the belief of the subcommittee that the annual calculation of the maximum fund size would refocus legislative attention on the potential need for appropriations to the fund.

Maximum Size Based on Income and Retail Sales Tax Revenues

The subcommittee's proposal provides for the maximum fund size to be based on ten percent of the sum of the State's income (individual and corporate) and retail sales tax revenue for the three immediately preceding fiscal years. The subcommittee based the formula for fund size on ten percent of the previously cited revenues in order to provide a cushion for normally occurring revenue shortfall.

On average, the State's General Fund revenue forecast error as used by the General Assembly for budgeting has varied from actual collections by three to four percent over the past 16 years. Fifteen of the last 16 fiscal years experienced shortfalls or surpluses within this range. However, the variance between the forecast and actual collections in FY90 was approximately ten percent. The subcommittee believes that the fund size should be large enough to at least partially compensate for risks incurred by the State during its budget cycle. One of those risks is above-average revenue forecast error. Another factor considered by the subcommittee was a bond-rating guideline that a "Rainy Day Fund of 3%-5% should be available and used only for emergencies."

To derive the formula, three steps were used. First, the subcommittee took the normally-occurring three to four percent annual forecast error. Next, this percent error was doubled to account for the biennial budget cycle. Third, a small increment was added to reflect the fact that the three tax sources on which the maximum fund size is based do not comprise the total General Fund. For example, in the December 17, 1990, revised FY91 forecast, individual income tax, corporate income tax, and the sales tax will comprise about 86 percent of the General Fund.

The subcommittee based the formula for fund size on income and retail sales tax sources, and on a three-year time period, in part to make the constitutional language governing the maximum fund size uniform with the constitutional language which places limitations on the amount of outstanding State general obligation bonded debt (Article X, Section 9b). In addition, basing the maximum fund size on these specific tax sources, as opposed to basing it on the entire General Fund, avoids conflicts over how to define the General Fund. It is the subcommittee's intent, by basing the fund size on these three distinct tax sources, to eliminate any possible confusion as to the tax base on which the formula calculation is to be based.

It is the opinion of the subcommittee that its proposal is an improvement over mechanisms used by other states to determine the maximum fund size. No other state, to the subcommittee's knowledge, bases the maximum size of its fund on average revenues calculated over a three-year period. For example, other states use a shorter time horizon. The use of the three-year period should promote a more stable fund size over time, as years with unusually high and unusually low revenue collections would be averaged together.

In practice, the larger the average revenue from income and retail sales taxes, the larger the maximum allowable fund size. Thus, the maximum fund size would grow over the years to keep pace with inflation and the State's economic growth. This provision is based on the subcommittee's belief that it is fiscally prudent for the State to promote the accumulation of a revenue reserve during times of above-average growth in the tax base and revenue collections, since such growth is unsustainable over the long term.

Maximum Fund Size Computed by the Auditor of Public Accounts

The subcommittee's proposal provides for the maximum fund size to be calculated and certified annually by the Auditor of Public Accounts. This ensures that the maximum fund size will be computed by an agency that is constitutionally required, possesses strong financial expertise, and is located within the legislative branch of State government. Hence, the General Assembly will receive a reliable and consistent calculation of the maximum allowable fund size in a timely fashion.

The subcommittee's proposal requires that the Auditor of Public Accounts annually report the calculation of the certified revenues to the General Assembly by December 1. This time requirement should provide the General Assembly's standing committees, particularly the Senate Finance, House Appropriations, and House Finance committees, with sufficient time to incorporate the maximum fund size calculation into their planning for the upcoming fiscal year's budget.

Using data on income and retail sales tax revenue for the last three fiscal years, the subcommittee's proposed formula for determining the maximum fund size would yield the following results.

$$.10 \times [(\underset{FY88}{\$4286.1M} + \underset{FY89}{\$4749.7M} + \underset{FY90}{\$4750M})/3] = \underset{FY91}{\$459.5M}$$

where M=millions

Therefore, as of December 11, 1990, the maximum allowable fund size would have been $459.5 million had the fund been established previously. In practice, the maximum fund size will increase as income and sales tax revenues increase. The maximum fund size of $459.5 million is equal to the entire General Fund of FY68, but only equal to one-fourth of the shortfall estimated for the 1990-92 biennium.

DEPOSITS TO THE FUND

The third paragraph of the subcommittee's proposed constitutional amendment addresses deposits to the fund.

> Deposits to such fund shall be made by appropriation of the General Assembly and shall equal at least seventy-five percent of the product of the certified tax revenues collected in the most recently ended fiscal year times the difference between the annual percentage increase in the certified tax revenues collected for the most recently ended fiscal year and the average annual percentage increase in the certified tax revenues collected in the six fiscal years immediately preceding the most recently ended fiscal year. Additional appropriations may be made at any time so long as the ten percent limitation

established herein is not exceeded. All interest earned on the Revenue Stabilization Fund shall be part of such fund; however, if the fund's balance exceeds the ten percent limitation, the amount in excess of the ten percent limitation shall be paid into the General Fund after appropriation by the General Assembly.

There are two basic provisions for deposits to the fund: mandatory deposits guided by formula and discretionary deposits made as a policy decision. All deposits are to be made by appropriation of the General Assembly. It is the subcommittee's intent that the fund will grow during prosperous years.

Deposits Guided by the Formula

The basic concept embodied by the formula for deposits is that most (75 percent), but not all, of the above-average growth in income and retail sales tax revenues would be deposited into the fund. Using this approach, several objectives are achieved:

- Spending is stabilized. Extraordinary increases in revenues do not become an automatic part of the State's spending base. Therefore, the base does not become overly inflated in periods of revenue growth.

- A small portion of above-average growth (25 percent) is available for appropriation to growing program needs.

While the deposit formula may sound complex, it is relatively simple in practice. The formula can be stated as shown below.

$$.75 \left[\begin{array}{c}\text{Above-average}\\ \text{growth}\\ \text{rate}\end{array}\right] \text{X} \left[\begin{array}{c}\text{Most recent FY's}\\ \text{collections from}\\ \text{income and retail}\\ \text{sales taxes}\end{array}\right] = \begin{array}{c}\text{Minimum}\\ \text{Appropriation}\end{array}$$

Using FY88 as the basis for 1989 session appropriations, the mathematical values for the formula are shown below. (Rates are percentages and dollars are in millions.)

.75 [.12374]* X [$4286.1] = $3.98 million

* = 10.74335 - 10.61961**

** = (8.37783 + 7.11981 + 15.95507 + 11.14816 + 9.840518 + 11.27627)/6

Thus, using the recommended formula, a required deposit of $3.98 million would need to have been made at the 1989 session.

While many states make deposits to their funds by appropriation, the amount of the appropriation is often completely discretionary and not guided by any specific economic criteria. The formula contained in the subcommittee's proposal ensures that a minimum appropriation, based on actual revenue collections data, will be made during years of above-average growth in income and retail sales tax revenue. This is consistent with the subcommittee's intent to create and properly maintain a permanent Revenue Stabilization Fund within the State's budgetary system. Under the proposal, deposits to the fund are based on the above-average rate of growth of income and retail sales tax revenue collections, which the subcommittee believes to be a reliable and direct indicator of the State's fiscal health.

The subcommittee believes that its proposed deposit mechanism constitutes an improvement over the deposit mechanisms used by other states. The four other states which employ formula mechanisms to determine the amount of deposits use indicators of personal income in their formulas. The subcommittee believes that the use of actual revenue collection data has two advantages over the use of personal income data. First, revenue collections are more closely related to the problem that the fund is designated to address — revenue shortfalls. Second, revenue collection data are more current than personal income data. Personal income data is received from the federal government. There is typically a lag of approximately 12 months between the period represented by the data and the receipt of the data by states.

The subcommittee used a factor of .75 in the formula to ensure that a large percentage of above-average revenue collections is deposited into the fund. However, use of the .75 factor provides that 25 percent of the above-average revenue growth remain available for the funding of program priorities. In addition, the subcommittee thinks the use of this factor would provide the General Assembly with sufficient latitude, should it be judged desirable in the future, to increase the percentage of above-average revenues required for deposit. The subcommittee also believes that the use of this percentage would result in the accumulation of a credible fund balance over the long term. The opinion of the subcommittee is that the use of the .75 factor in the deposit formula is consistent with its intent to maintain a fund balance over the long term that will lessen a declining economy's impact on the State budget. However, the subcommittee also recognizes the State's ongoing need to provide funding for vital public programs.

The subcommittee's proposed deposit mechanism is based on income and retail sales taxes, in order that it be consistent with the tax base used to calculate the maximum fund size. In addition, the use of these specific tax sources is designed to avoid any definitional problems, which the subcommittee thought could arise if the mechanism was based on the total General Fund.

The proposal makes the deposit a function of an above-average rate of growth in the most recent fiscal year's income and sales tax collections. It is the subcommittee's intent that the actual annual growth rate of these revenue sources be analyzed, for purposes of making deposits to the fund, within the context of their historical growth rate. That portion of the growth rate of these sources that is accounted for by the

average growth rate over the previous six years would remain available for expenditure under the subcommittee's proposal. In addition, this element of the subcommittee's proposal will help ensure that a portion of the above-average revenue growth experienced during a fiscal year is appropriated to the fund soon after it is received. This is consistent with the subcommittee's intent that the integrity of the fund balance be properly maintained and protected over the long term.

It is the judgment of the subcommittee that its proposed deposit mechanism will serve to help stabilize State spending. Since 75 percent of above-average revenue growth has to be deposited into the fund, extraordinary increases in State revenues will not become an automatic part of the State's expenditure base. Rather, they will become a part of the Revenue Stabilization Fund. This aspect of the proposed deposit mechanism will help to prevent the State from making the operation and maintenance of its programs overly dependent on revenue growth that is unusual, unexpected, and unsustainable over the long term.

The subcommittee envisions that, upon implementation of the Revenue Stabilization Fund, State government expenditures would not grow as rapidly as it has in the past during periods of above-average revenue growth. Consequently, it is the intent of the subcommittee that slowed growth of expenditures will help the State avoid the need for sudden and drastic cutbacks in services during the next economic downturn and revenue shortfall. This is consistent with the subcommittee's intent that the fund provide a means of protecting the integrity of the Appropriation Act during the course of a biennium, by enabling actual State expenditures to remain as close as possible to the amounts authorized in the Act.

The subcommittee intends for the proposed mandatory deposit mechanism to be a relatively slow-growing one. Table 1 lists mandatory deposits that would have occurred since 1985, using the formula. Therefore, the fund balance would currently equal $196.6 million, assuming no withdrawals had taken place and with eight percent interest, compounded.

The subcommittee did examine the effects of using factors other than .75 in the deposit mechanism formula. Using a factor of .5 (or one-half of above-average income and sales tax revenue growth) in the formula, the fund would currently equal $131.1 million. Use of a .5 factor would result in a slower-growing fund, but would provide for more legislative flexibility.

Using a factor of one (all of the above-average income and retail sales tax revenue growth) in the formula, the fund balance would currently equal $262.1 million. Use of a factor of one would result in a faster-growing fund but would provide for less legislative flexibility.

Table 1

Hypothetical Deposits to the Revenue Stabilization Fund (Using a .75 Deposit Factor)

Session	Minimum Deposits $ Millions	Balance With Interest* $ Millions
1985	100.5	$100.5
1986	8.2	116.7
1987	0	126.1
1988	16.2	152.4
1989	4.0	168.5
1990	0	182.0
1991	0	196.6

*Assumes eight percent interest. The 1991 balance using deposit factors of .5 and 1.0 would be $131.1 million or $262.1 million, respectively.

Source: JLARC analysis of proposed amendment.

Discretionary Appropriations

The formula proposed by the subcommittee for guiding the amount of deposits merely determines the minimum required appropriation. It is the subcommittee's intent that the General Assembly retain the prerogative to appropriate a greater percentage of above-average revenue growth in any fiscal year. If policy-makers choose to reach the maximum fund size more quickly, they could increase the fund balance through discretionary appropriations.

During the 1980s, the General Assembly made a total of $234.5 million in "rainy day" or reserve type appropriations. These funds, plus the $200 million unappropriated reserve balance of 1990 would have brought the fund up to its maximum allowable size, as illustrated by Table 2 (assuming eight percent interest and no withdrawals).

In summary, the deposit mechanisms proposed by the subcommittee are consistent with its intent that the Revenue Stabilization Fund provide the State with an additional instrument for promoting long-term stabilization of the budget. Through a combination of formula-driven and discretionary deposits, the Revenue Stabilization Fund would provide a healthy and credible reserve for use by the State during economic downturns.

Table 2

Rainy Day Type Appropriations in the 1980s

Session	Amounts Appropriated $ Millions	Balance With Interest* $ Millions
1980	$8.5	$ 8.5
1981	8.2	17.4
1982	0.0	18.8
1983	0.0	20.3
1984	23.0	44.9
1985	13.0	61.5
1986	76.4	142.8
1987	27.9	182.1
1988	0.0	196.7
1989	77.5	289.9
1990	**	313.1
1991	NA	338.2
	234.5	

*Assumes eight percent interest and no withdrawals.

**Deposit of the $200 million unappropriated balance in the 1990 Appropriation Act would have taken the Revenue Stabilization Fund balance beyond its maximum limit without withdrawals.

Source: JLARC analysis and Appropriation Acts for years specified.

WITHDRAWAL MECHANISM

The fourth paragraph of the subcommittee's proposed constitutional amendment addresses the method for withdrawing money from the fund.

> The General Assembly may appropriate an amount for transfer from the Revenue Stabilization Fund to compensate for no more than one-half of the difference between the total General Fund revenues appropriated and a revised General Fund revenue forecast presented to the General Assembly prior to or during a subsequent regular or special legislative session. However, no transfer shall be made unless the General Fund revenues appropriated exceed such revised General Fund revenue forecast by more than two percent of certified

tax revenues collected in the most recently ended fiscal year. Furthermore, no appropriation or transfer from such fund in any fiscal year shall exceed more than one-half of the balance of the Revenue Stabilization Fund. The General Assembly may adopt such laws as may be necessary and appropriate to implement the Revenue Stabilization Fund.

The amendment contains four general provisions governing withdrawals from the fund. First, withdrawals from the fund may only be made by appropriation of the General Assembly. Second, withdrawals are to compensate for no more than one-half of a projected shortfall. Third, no more than one-half the fund may be withdrawn in any fiscal year. Finally, a projected shortfall must exceed a threshold amount of two percent of certified tax revenues. A shortfall would have to exceed $95 million in FY91 before withdrawals could be made.

Withdrawals May be Made Only by Appropriation

This aspect of the proposal would ensure a strong role for the General Assembly in managing the fund. The General Assembly, guided by projected revenues, would make the final determination of when withdrawals will be made. In the event that a sudden, dramatic downturn in the forecast suggested use of the fund, the Governor would have to call a special session of the General Assembly were it not already in session.

Withdrawals to Compensate for Only One-Half of Shortfall

The fund balance cannot be used to address all of a projected revenue shortfall. Rather, at least 50 percent of a projected shortfall must be resolved through other means, such as expenditure reductions. This provision of the subcommittee's proposal would ensure that the State does not become overly dependent on withdrawals from the fund as a means of budget stabilization. This component of the fund's withdrawal mechanism is compatible with the subcommittee's intent that the fund serve as an additional revenue stabilization tool at the State's disposal, rather than as an absolute defense to the effects of any economic downturn.

No More than One-Half of the Balance Can Be Withdrawn

The entire fund balance cannot be depleted in the first year of a precipitous economic downturn. Once established and funded, the fund would never have a zero balance. At least one-half of the existing balance is guaranteed to remain available for use during the next fiscal year. The subcommittee is aware of only one other state (Oklahoma) that has incorporated this type of element into its withdrawal mechanism. Interestingly, Oklahoma has one of the largest state rainy day fund balances. This provision of the subcommittee's proposal would help protect the long-term integrity of

the fund, and would be consistent with the subcommittee's intent of making the fund a permanent institution within the State's budget framework. Even after a prolonged economic downturn, some money would remain in an active, interest-drawing fund. Even relatively nominal withdrawals from the Revenue Stabilization Fund could aid the Commonwealth in its management of cash flow.

Projected Shortfall Must Exceed Threshold Amount

Under the proposal, a projected shortfall must be greater than two percent of the State's certified tax revenues in order for a withdrawal to be made. The subcommittee is not aware of any other state that has incorporated the concept of a withdrawal threshold into its withdrawal mechanism. The subcommittee believes that the use of a withdrawal threshold represents an improvement over the withdrawal mechanisms being used by other states. This aspect of the subcommittee's proposal will ensure that the fund not be used to compensate for shortfalls that are relatively minor, and that could be readily addressed through other means. For instance, for FY91, only shortfalls greater than $95 million would meet the withdrawal threshold. This would reduce the frequency of fund withdrawals, and help to promote the fund's integrity. This provision is consistent with the subcommittee's intent that the fund be available in the event of a genuine "rainy day," and not be used up when economic conditions are merely "cloudy" or "overcast."

Laws Implementing the Fund

Every contingency or technical provision cannot be specified in the Constitution. The provision allowing the adoption of "such laws as may be necessary" is intended to provide flexibility in fund administration. For example, cash flow constraints may require monthly fund deposits in some years, even if the standard practice is a lump sum deposit by appropriation. Provisions might also be added to statute suggesting when and how the Governor might initiate a plan entailing proposed uses of the fund.

Recommendation. **The General Assembly may wish to establish, by constitutional amendment, a Revenue Stabilization Fund for Virginia containing the following general characteristics: (a) a maximum fund size that is ten percent of income and retail sales taxes for the three immediately preceding fiscal years; (b) funds may be deposited by a discretionary appropriation or by a mandatory appropriation determined by a formula; (c) funds may be withdrawn by appropriation of the General Assembly during years in which there is a projected revenue shortfall; (d) a projected revenue shortfall must exceed a threshold amount of two percent of the prior fiscal year's certified tax revenues in order for a withdrawal to be made; (e) the fund may be used to address only one-half of a projected shortfall; and (f) no more than one-half of the fund balance may be withdrawn in any one fiscal year.**

Properties of the Revenue Stablization Fund Proposal

It is important to note that the Revenue Stablization Fund has been designed to provide for withdrawals when forecast amounts drop below appropriated amounts. Were forecasts to be perfect, no withdrawals would be made from the fund. Under the unlikely scenario of perfect forecasting, economic downturns would be addressed through the normal appropriations process. The fund would reach its maximum eventually, and interest from the fund would serve as a kind of endowment. Forecasts are not perfect, however, and withdrawals can be expected.

To examine the properties of the rainy day fund formulas, JLARC staff simulated the effects of having a rainy day fund in place from 1994 to 2016. This simulation was based on some hypothetical assumptions:

- The pattern of growth in revenues in the next 23 years (FY1993 through FY2016) is the same as the pattern that can be observed in the most recent 23 fiscal years (FY1970 through FY1992).

- The most recent revenue forecasts (as of December 17, 1990) for FY1991 and FY1992 are accurate.

- Forecasts revisions, which may produce shortfalls that could meet conditions for withdrawals from the rainy day fund, will follow the same pattern as forecast revisions observed for the most recent 18 fiscal years (FY1975 through FY1992).

In addition, it is assumed in this simulation that only mimimum deposits required by the formulas will be made to the fund, and that maximum amounts that can be withdrawn will indeed be withdrawn when allowed. This simulation is intended only to illustrate properties of the rainy day fund formulas through some hypothetical examples; it is not a forecast for future years. Details of the simulation are provided in Appendix D.

The simulation was run under two alternative scenarios. Under one scenario, the formula would require 75 percent of above-average growth in certified tax revenues to be deposited in the rainy day fund. Under the other scenario, the formula would require 50 percent of above-average growth in revenues to be deposited.

75-percent Deposits. Results from the simulation under this scenario indicate that:

- For the 23 years simulated, the fund balance would be on average 57 percent of its maximum.

- For 7 out of the 23 years simulated, the fund balance would be less than half of its maximum.

- For 3 years, required minimum deposits would be approximately $500 million or more.

50-percent Deposits. In contrast, results from the simulation under this scenario indicate that:

- For the 23 years simulated, the fund balance would be on average 43 percent of its maximum.

- For 13 out of the 23 years simulated, the fund balance would be less than half of its maximum.

- For 1 year, the required minimum deposit would be approximately $500 million or more.

In conclusion, there is a tradeoff between how quickly the fund is automatically filled (which could limit spending for certain years), versus how much required funding is available to help offset shortfalls when they occur. Under the 75-percent scenario, the fund would fill up more quickly, especially by requiring in some years deposits of $500 million or more, which could significantly limit spending in those years. In contrast, under the 50-percent scenario, the fund would be filled and refilled more slowly. As a consequence, there would be aproximately one-third less required funding available to help offset future situations similar to the FY1990 through FY1992 revenue shortfalls. Under the 50 percent scenario, however, the General Assembly would have more flexibility in appropriating above-average revenue growth. Theoretically, some of this flexibility could be used to make discretionary deposits to the fund.

Other Properties. Other properties of the fund are also illustrated in the simulation described in Appendix D. For example, in a few years, deposits to and withdrawals from the fund may be made by the same session of the General Assembly. This property exists because deposits are based on past *actual* revenues received while withdrawals are based on anticipated differences between an appropriation (based on an earlier revenue forecast) and a subsequent, lower revenue forecast.

JLARC NOTE: As this document went to press, the Senate Finance Committee reported an amendment in the nature of a substitute for SJR 159 -- the JLARC subcommittee proposal for a Revenue Stabilization Fund. The committee substitute lowered mandatory deposits from 75 percent to 50 percent of above average revenue growth. The substitute also provided a mechanism for exempting revenues from tax increases for up to six years. The other provisions of the fund remain as described in this report. A copy of the committee substitute is included in Appendix A of this report and several references to the substitute have been added to the report. No subsequent actions on the proposal are reflected in this report. A discussion of the tax rate increase issue is contained in Appendix E.

Appendixes

Appendix A

JLARC Study Mandate

Item 13, 1990 Appropriation Act:

B. The Joint Legislative Audit and Review Commission shall review the Commonwealth's executive system of financial planning, execution and evaluation. The scope and duration of the review shall be determined by the Commission. The Commission shall report on its progress to the 1991 General Assembly Session and to each succeeding session until its work is completed. In carrying out this review, all agencies shall cooperate as requested and make available all records, information and resources necessary for the completion of the work of the Commission and its staff.

SENATE JOINT RESOLUTION NO. 159

Offered January 9, 1991

Prefiled December 11, 1990

Proposing amendments to Section 8 of Article X of the Constitution of Virginia, relating to limits on the levying of state taxes and the establishment of a revenue stabilization fund.

Patrons—Buchanan, Truban, Andrews, DuVal, Russell, Schewel, Miller, K.G., Wampler and Earley; Delegates: Quillen, DeBoer, Ball, Stosch, Howell, McClanan, Cooper, Harris, E.R., Woods, Johnson, Callahan, Clement, Crouch, Almand, Andrews and Cunningham, R.K.

Referred to the Committee on Privileges and Elections

RESOLVED by the Senate, the House of Delegates concurring, a majority of the members elected to each house agreeing, That the following amendment to the Constitution of Virginia be, and the same hereby is, proposed and referred to the General Assembly at its first regular session held after the next general election of members of the House of Delegates for its concurrence in conformity with the provisions of Section 1 of Article XII of the Constitution of Virginia, namely:

Amend Section 8 of Article X of the Constitution of Virginia as follows:

ARTICLE X

TAXATION AND FINANCE

Section 8. Limit of tax or revenue.

No other or greater amount of tax or revenues shall, at any time, be levied than may be required for the necessary expenses of the government, or to pay the indebtedness of the Commonwealth.

The General Assembly shall establish the Revenue Stabilization Fund. The Revenue Stabilization Fund shall consist of an amount not to exceed ten percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts for the three fiscal years immediately preceding. The Auditor of Public Accounts shall compute the ten percent limitation of such fund annually and report to the General Assembly not later than the first day of December. "Certified tax revenues" means the Commonwealth's annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts.

Deposits to such fund shall be made by appropriation of the General Assembly and shall equal at least seventy-five percent of the product of the certified tax revenues collected in the most recently ended fiscal year times the difference between the annual percentage increase in the certified tax revenues collected for the most recently ended fiscal year and the average annual percentage increase in the certified tax revenues collected in the six fiscal years immediately preceding the most recently ended fiscal year. Additional appropriations may be made at any time so long as the ten percent limitation established herein is not exceeded. All interest earned on the Revenue Stabilization Fund shall be part of such fund; however, if the fund's balance exceeds the ten percent limitation, the amount in excess of the ten percent limitation shall be paid into the general fund after appropriation by the General Assembly.

The General Assembly may appropriate an amount for transfer from the Revenue Stabilization Fund to compensate for no more than one-half of the difference between the total general fund revenues appropriated and a revised general fund revenue forecast presented to the General Assembly prior to or during a subsequent regular or special legislative session. However, no transfer shall be made unless the general fund revenues appropriated exceed such revised general fund revenue forecast by more than two percent of certified tax revenues collected in the most recently ended fiscal year. Furthermore, no appropriation or transfer from such fund in any fiscal year shall exceed more than one-half of the balance of the Revenue Stabilization Fund. The General Assembly may adopt such laws as may be necessary and appropriate to implement the Revenue Stabilization Fund.

SENATE JOINT RESOLUTION NO. 159
AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the Senate Committee on Finance
on January 30, 1991)
(Patron Prior to Substitute—Senator Buchanan)

Proposing amendments to Section 8 of Article X of the Constitution of Virginia, relating to limits on the levying of state taxes and the establishment of a revenue stabilization fund.

RESOLVED by the Senate, the House of Delegates concurring, a majority of the members elected to each house agreeing, That the following amendment to the Constitution of Virginia be, and the same hereby is, proposed and referred to the General Assembly at its first regular session held after the next general election of members of the House of Delegates for its concurrence in conformity with the provisions of Section 1 of Article XII of the Constitution of Virginia, namely:

Amend Section 8 of Article X of the Constitution of Virginia as follows:

ARTICLE X
TAXATION AND FINANCE

Section 8. Limit of tax or revenue.

No other or greater amount of tax or revenues shall, at any time, be levied than may be required for the necessary expenses of the government, or to pay the indebtedness of the Commonwealth.

The General Assembly shall establish the Revenue Stabilization Fund. The Fund shall consist of an amount not to exceed ten percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts for the three fiscal years immediately preceding. The Auditor of Public Accounts shall compute the ten percent limitation of such fund annually and report to the General Assembly not later than the first day of December. "Certified tax revenues" means the Commonwealth's annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts.

The General Assembly shall make deposits to the Fund to equal at least fifty percent of the product of the certified tax revenues collected in the most recently ended fiscal year times the difference between the annual percentage increase in the certified tax revenues collected for the most recently ended fiscal year and the average annual percentage increase in the certified tax revenues collected in the six fiscal years immediately preceding the most recently ended fiscal year. However, growth in certified tax revenues, which is the result of either increases in tax rates on income or retail sales or the repeal of exemptions therefrom, may be excluded, in whole or in part, from the computation immediately preceding for a period of time not to exceed six calendar years from the calendar year in which such tax rate increase or exemption repeal was effective. Additional appropriations may be made at any time so long as the ten percent limitation established herein is not exceeded. All interest earned on the Fund shall be part thereof; however, if the Fund's balance exceeds the limitation, the amount in excess of the limitation shall be paid into the general fund after appropriation by the General Assembly.

The General Assembly may appropriate an amount for transfer from the Fund to compensate for no more than one-half of the difference between the total general fund revenues appropriated and a revised general fund revenue forecast presented to the General Assembly prior to or during a subsequent regular or special legislative session. However, no transfer shall be made unless the general fund revenues appropriated exceed such revised general fund revenue forecast by more than two percent of certified tax revenues collected in the most recently ended fiscal year. Furthermore, no appropriation or transfer from such fund in any fiscal year shall exceed more than one-half of the balance of the Revenue Stabilization Fund. The General Assembly may enact such laws as may be necessary and appropriate to implement the Fund.

Appendix B

Budget Stabilization ("Rainy Day") Funds (A Paper Prepared for the JLARC Subcommittee on the Executive Budget Process)

NOTE: This paper was a staff working paper submitted to the JLARC Subcommittee on the Executive Budget Process. The paper contains research on rainy day funds in other states. It also contains a series of options that the subcommittee considered in its deliberations. These options, along with the ideas and contributions of subcommittee members, provided a starting point for the development of the proposal now detailed in Senate Joint Resolution 159.

The slump in Virginia's economy has generated considerable legislative and executive interest in the creation of a permanent budget stabilization fund. Several members of the JLARC Subcommittee on the Executive Budget Process, at its meeting held on October 10, 1990, expressed special interest in having the General Assembly permanently set aside, as a "rainy day fund", a portion of the State's budget. The general purpose of such a fund would be to provide protection to the State's budget in the event of an economic downturn. JLARC staff were directed to study the issue of establishment of a rainy day fund in Virginia.

Action Taken By The 1990 General Assembly

The 1990 General Assembly concurred with the Governor's request to earmark $200 million of the General Fund balance to be used as an unappropriated reserve. (Item 766.2 of the 1990 Appropriation Act). The reserve could be used to compensate for a downward revision to the General Fund revenue estimate resulting from economic factors or tax policy changes. Item 766.2 also includes provisions for the expenditure of the $200 million for other express purposes, for example the funding of salary increases for State employees in the second year of the biennium. Thus far in the biennium, the $200 million has not been designated for any purpose. It remains part of the State's unappropriated General Fund balance. Part of the JLARC research effort has been to compare this unappropriated reserve with rainy day funds in other states.

JLARC Research Activities

JLARC staff reviewed reports by the National Conference of State Legislatures (NCSL) and the National Association of State Budget Officers (NASBO) from 1983 to 1990 which discussed the establishment of rainy day funds. Fiscal staff from NCSL and NASBO who have conducted research on the establishment of rainy day funds were also contacted.

JLARC staff also conducted a 50 state telephone survey, in which additional information concerning rainy day funds was obtained. A variety of executive and legislative staff were interviewed on these issues. The *Constitution of Virginia*, the *Code*

of Virginia and the 1990 Appropriation Act were reviewed to determine what provision, if any, has been made for the establishment of a reserve fund as part of the State budget. Legislation introduced during the 1990 session of the General Assembly which called for the establishment of a revenue stabilization fund was reviewed. Other papers, letters, and reports deemed relevant were also examined as part of the research.

MANY STATES HAVE ESTABLISHED RAINY DAY FUNDS

Many states have created "rainy day funds" in order to provide their budgets with a measure of protection against an unexpected downturn in revenues. Rainy day funds vary in type among the states in the method for depositing and withdrawing monies, and in the total amount of money contained in the fund.

Rainy Day Funds Are Popular But Some Don't Work

According to NCSL, 39 states, including Virginia, have created some type of "budget stabilization" fund. Based on the results of the 50 state survey conducted by JLARC staff, Alaska and Kentucky do not currently have rainy day funds. (These two states were among the 39 identified by NCSL as having such funds.) The 37 states with confirmed rainy day funds and their fund balances are shown in Figure B-1. About one-third of these funds contain no money.

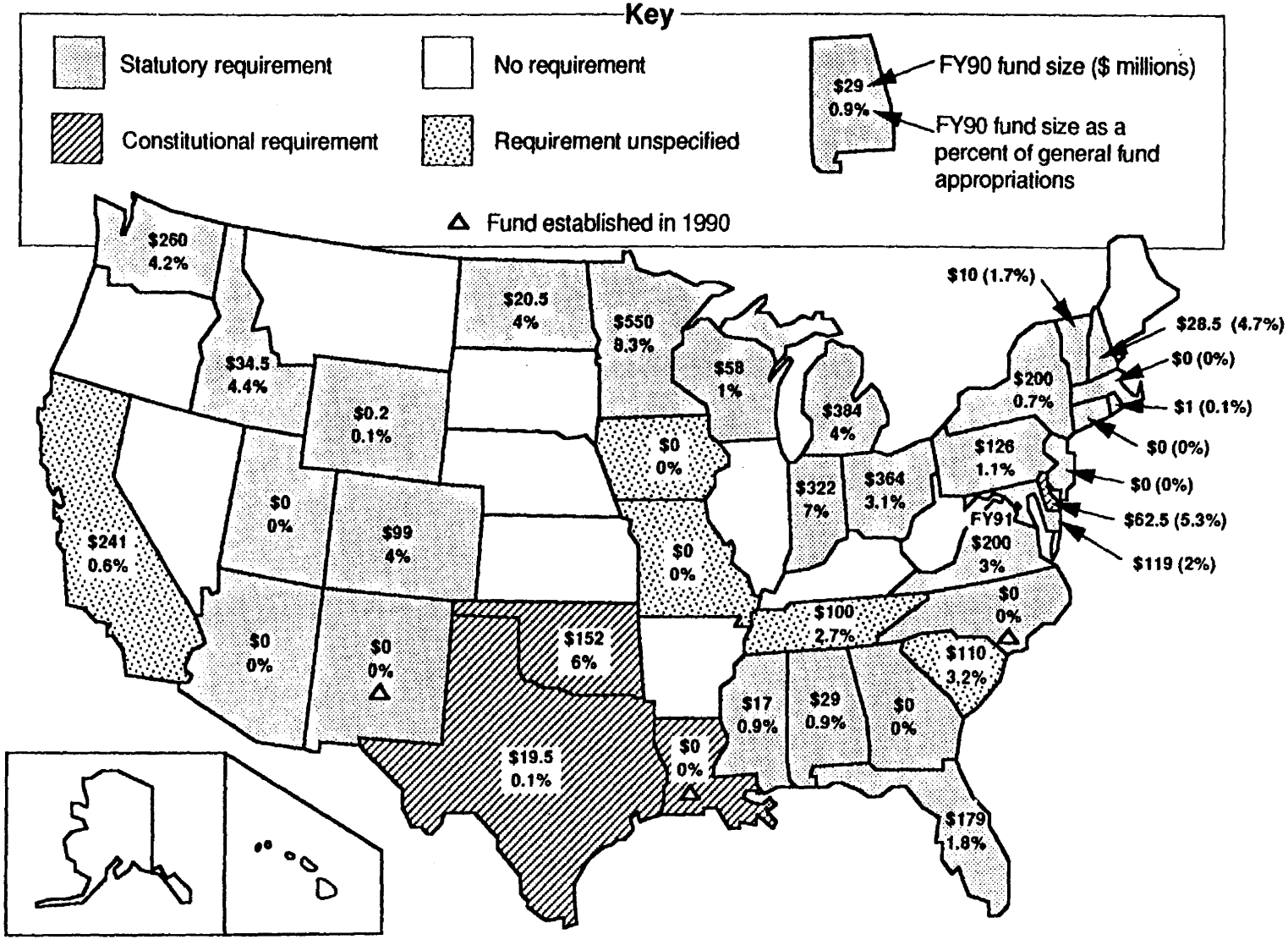
Purpose of a Budget Stabilization Fund. Many states have left themselves vulnerable to the negative fiscal and budgetary effects of an economic slump by failing to prepare in advance. Due in large part to the severe recessions of 1974-75 and 1981-82, budgetary reserve funds increased in popularity as prudent budgetary tools for state governments. States have used rainy day funds to cushion their finances against unexpected contingencies, particularly an unexpected downturn in revenues associated with an economic recession. Some states also use their stabilization funds to protect their budgets against errors in revenue estimates and unanticipated spending demands. Circumstances under which fund balances are available for use vary greatly from state to state.

Rainy day funds are counter-cyclical by nature. Funds are designed to accrue a large balance during periods of economic growth and prosperity, particularly when state revenue collections exceed revenue estimates. A reserve fund so acquired is to be drawn upon during periods of economic slowdown or recession, and particularly when state revenue collections fall short of revenue estimates. In addition to providing funds for recessions, however, a rainy day fund can also flatten expenditures during good times. This happens because new revenues are not automatically spent. Some are siphoned off to build up the rainy day fund. This dampening effect on spending would also tend to stabilize state budgetary practices.

Rainy day funds represent an effort on the part of state governments to adopt a more conservative, long-term approach to fiscal and budget policy, and by so doing lessen the need for hasty tax increases or severe "cut-back management" in the operation of

Figure B-1

Types and Amounts of Rainy Day Funds Established by the States



Source: NCSL *State Budget and Tax Actions 1990*; and JLARC survey of the states.

government. Rainy day funds can be designed to serve as a form of forced savings for state government, by creating a pool of money that cannot be spent in normal circumstances. Today, such rainy day funds are one of the most commonly used techniques to guard against state budget deficits.

While the most logical time for a state to establish a rainy day fund would appear to be during times of economic prosperity and surplus, rainy day funds instead tend to be the products of recessions and severe revenue shortfalls. The establishment of a rainy day fund, even in recession, enables a state to be in a position to have at least a small reserve to add to when a healthy economy strengthens the state's revenue collections. That, in turn, allows the state's budget to be better prepared and protected for the next recession or fiscal crisis.

Various Methods Are Used to Establish Rainy Day Funds

An issue to be considered by states contemplating establishment of rainy day funds is whether there is the need for the creation of a separate, formal reserve fund. States have established funds both as separate funds outside of the General Fund and as special accounts within the General Fund. There are advantages to establishing a separate, formal budget stabilization fund as opposed to simply maintaining a larger than normal balance in the General Fund. First, the state, by having an explicit, conscious policy about maintaining a reserve of a certain size, would avoid repetitive controversy. In addition, a rainy day fund separate and distinct from the General Fund, and permanently established by law as part of the state budget, would make it easier to maintain a financial reserve given the political nature of the budget process. A vast majority of the states have created their rainy day funds by enacting a statute. However, according to the results of the survey conducted by JLARC staff, at least four states have amended their constitutions to provide for a rainy day fund.

When rainy day funds are statutorily or constitutionally authorized, state legislatures are able to set legal guidelines for the purpose and size of the reserve and to determine procedures for funding and spending the reserve. A constitutional amendment providing a rainy day fund has the added advantage of being much harder to repeal or amend than an ordinary statute, thereby making it much more difficult to use the accumulated balance for a different purpose. It can also be tempting to raid a large reserve for tax rebates, new programs, or operating expenses. Fiscal discipline is needed to maintain a reserve. Such discipline can be difficult to maintain. NCSL reports that at the end of fiscal year 1990, 11 state rainy day funds contained no money.

CHARACTERISTICS OF A RAINY DAY FUND

Key issues for the subcommittee to consider in proposing a rainy day fund for Virginia are:

- How and under what conditions should monies be deposited in the fund?

- How and under what conditions should withdrawals be made from the fund?

- What should the size of the fund be?

The various types of rainy day funds established by different states were recently examined by NCSL.

Methods of Deposit

NCSL has grouped states with budget stabilization funds into five categories according to how money is deposited:

- by surplus only,
- by legislative appropriation only,
- by formula,
- by surplus or appropriation, and
- by other methods.

By Surplus Only. Eighteen states specify that all or a portion of the unobligated General Fund surplus be designated for the stabilization fund. Using this method, the legislature establishes the deposit mechanism, and generally sets limits on the percentage of the surplus that can be deposited into the fund. However, the actual amount transferred ultimately depends on revenues. For example, under Florida's Working Capital Fund, created in 1959, all monies accruing to the General Fund in excess of those amounts necessary to meet appropriations must be placed in the Working Capital Fund, up to a maximum of ten percent of General Fund revenue for the preceeding year. Florida's estimated fund balance for FY90 was $179.3 million, which equaled 1.8 percent of its General Fund appropriations. Delaware, which has a constitutional fund, makes an automatic deposit into the fund from the previous year's unencumbered funds.

By Legislative Appropriation Only. Ten states appropriate money to their budget stabilization funds. Under this type of arrangement, the legislature decides when it enacts the budget the exact dollar amount to be placed in the fund. Even within this category, states have designed their funds to address their particular needs and situations. For example, Maryland's Revenue Stabilization Account must be increased by $5 million each year whenever its balance is less than $100 million or two percent of General Fund revenues. Minnesota's legislature appropriates a relatively large amount to the rainy day fund. Minnesota's policy is to maintain $550 million in the fund at all times. (According to JLARC staff's telephone survey of the states, Minnesota's rainy day fund balance for FY91 is $532 million.)

By Formula. Indiana, Michigan, Washington, and Arizona make deposits based on a formula calculation. These formulas are based on personal income growth rates. Michigan's fund, created in 1978 in the aftermath of a national recession which hit its budget

particularly hard, has been the subject of a great deal of attention by NCSL. Under its statutorily created Budget and Economic Stabilization Fund, an appropriation to the fund of an amount is required equal to the following.

> (annual growth rate in real personal income in excess of two percent) X (General Fund revenues of the prior fiscal year)

In the states that have adopted this method of deposit, the legislature determines the formula, but does not control the specific dollar amount to be deposited. That remains a function of personal income growth. In addition, the amount deposited does not appear to be based on the relationship between the amount of General Fund revenues and General Fund appropriations.

Arizona's fund uses a formula that determines the amount to be deposited by comparing the annual growth rate of adjusted Arizona personal income for the calendar year ending in the fiscal year to the trend growth rate of real, adjusted Arizona personal income for the seven calendar years ending in the fiscal year. If the annual growth rate exceeds the trend growth rate, the excess multiplied by the General Fund revenue of the prior fiscal year is paid into the rainy day fund. Regardless of the results of the formula calculation, the legislature, by a two-thirds majority and with the concurrence of the governor, can decrease the amount of the required deposit. The fund balance is limited to no more than 15 percent of the prior year's General Fund revenue. Estimates of the required deposit are made by both the Executive Budget Office (EBO) and the Joint Legislative Budget Committee (JLBC). Final estimates are made by the Economic Estimates Commission (EEC) based upon economic data supplied by the U.S. Department of Commerce, Bureau of Economic Analysis, and testimony received from the staff of the EEC, EBO and JLBC. The state treasurer administers the fund and invests and divests monies in the fund. (Arizona's fund was established in 1990 but does not yet contain any money.)

It should be noted that Michigan, Indiana, Washington, and Arizona all multiply a personal income growth indicator by the prior year's General Fund revenue in order to determine the amount to be deposited into the fund. None of these states use an indicator of actual state revenue collections as a factor in determining the deposit or withdrawal amount. Revenue collections would seem to have several advantages over an income measure. Collection data is more closely related to the problem that a rainy day fund is supposed to address -- a shortfall in funds. In addition, collection data is usually much more current than income data, which originates with the federal government and typically is not available until more than a year after the end of the calendar year.

By Surplus Or Appropriation. California and Wyoming deposit money into their funds either by appropriation or surplus or both.

By Other Methods. Colorado requires that four percent of the total General Fund appropriation plus supplementals automatically

be set aside. Rhode Island designates a portion of its lottery revenues for fund deposits.

Methods of Withdrawal

NCSL has classified states with rainy day funds into the following five general categories of how fund withdrawals are performed:

- by appropriation,
- by transfer,
- by formula,
- by automatic expenditure, and
- by other methods.

By Appropriation. Seventeen states require appropriations to withdraw money from their funds. In eight states, including Florida, Delaware and Tennessee, such an appropriation is allowed only to address budgetary problems such as estimated revenue shortfalls or deficits. Delaware, for example, requires a three-fifths vote of the legislature prior to making a fund withdrawal appropriation. Four states permit withdrawals for budget problems or for some other specified purpose. Five states place no requirement on the use of the appropriated money although Texas requires a two-thirds vote of each house before withdrawals can be made. This method of withdrawal provides the legislature with considerable power and responsibility over the use of the fund proceeds, and gives very little flexibility to the executive branch. Presumably, this method would require a special session of the legislature if a severe revenue shortfall develops after the legislature has recessed or adjourned.

By Transfer. Seven states allow funds to be withdrawn by executive transfer, with certain states requiring legislative notification or approval prior to the actual transfer.

By Formula. Five states base fund withdrawals on formula driven calculations. In Indiana, Michigan, and Arizona the formulas are based on personal income. Maryland uses a calculation involving the state unemployment rate and Ohio uses growth in general revenue. Indiana's formula is based on the annual growth rate in personal income minus two percent. A case example of the Arizona withdrawal procedure follows:

> *Arizona uses a formula which compares the annual growth rate of real, adjusted personal income with the seven year average growth rate of real, adjusted personal income. If the annual growth rate is less than the trend growth rate, an amount equal to the deficiency multiplied by the General Fund revenue of the prior fiscal year is withdrawn from the rainy day fund.*
>
> *Similar to Arizona's procedure for deposit, estimates of the required withdrawal are made by*

both the Executive Budget Office (EBO) and the Joint Legislative Budget Committee (JLBC). Final estimates are made by the Economic Estimates Commission (EEC) based upon economic data supplied by the U.S. Department of Commerce, Bureau of Economic Analysis, and testimony received from the staff of the EEC, EBO and JLBC. The legislature, by a two-thirds vote and with the concurrence of the governor, can increase the amount of a withdrawal.

It should be noted that Michigan, Indiana, and Arizona all multiply a personal income growth indicator by the prior year's General Fund revenue in order to determine the amount to be withdrawn from the fund. None of these states use an indicator of actual state revenue collections, such as General Fund revenue collections, as a factor in determining the deposit or withdrawal amount.

By Automatic Expenditure. Colorado, Connecticut, Georgia, and Rhode Island authorize automatic expenditures from their funds in the event of budget deficits or revenue shortfalls. "Automatic Expenditure" refers to an automatic transfer to the General Fund to support expenditures for existing appropriations. In a 1987 report, NCSL cautioned that "this automatic transfer of funds ... may not be the most efficient use of the reserve. It may be preferable to draw down the (rainy day fund) when a deficit is pending, but not exhaust it. At the very least, a state can use reserves to slow budget reductions, spreading reductions across two or three years instead of making them all at once."

By Other Methods. Three states utilize fund withdrawal mechanisms that do not really fit into any of the categories described above. Minnesota allows funds to be withdrawn either by appropriation or executive transfer with no specification as to how the funds should be used. New Jersey allows appropriations or, in the event of an emergency, executive transfer. California allows automatic expenditures for a revenue shortfall but also permits an executive order to deal with responses to natural disasters.

Size of the Fund

Possible Criteria. NCSL has identified six general policy criteria for legislative consideration in determining the appropriate size of a state's rainy day fund:

- The degree to which the legislature feels it is appropriate to return excess revenues to the taxpayers, as opposed to holding the excess funds in reserve.
- The legislature's view about the desirability of stable taxation and expenditure levels.
- Whether the legislature wants to place the state's revenue reserves in a separate fund, or maintain a large balance in the General Fund.

- The sensitivity of the state's tax revenues to changes in the state and national economies.

- Recent changes in the state and federal tax code that create the possibility of an inaccurate revenue forecast.

- Legislative suspicion that state spending may need to be more than originally budgeted.

In 1983, NCSL's Fiscal Affairs and Oversight Committee recommended that a state budget stabilization fund comprise at least five percent of a state's budget. Although there does not appear to be a definitive economic or technical justification for adopting a five percent standard, financial institutions which lend capital to state governments have advocated that states adhere to a three to five percent standard in order to ensure a high bond rating. It should be noted that NCSL's 1983 recommendation did not distinguish between annual and biennial state budgets. NCSL reports, however, that only four of the 39 states had balances larger than five percent of General Fund appropriations.

Other ways of establishing the size of the fund balance could relate to measures of error in the revenue forecasts, such as the average absolute difference between General Fund estimates and collections. In Virginia, such differences have averaged about three to four percent over the past decade. Alternatively, the fund size could be based on a percentage of total state revenues.

Experience in Other States. The size of a state's rainy day fund balance may be closely related to the deposit and withdrawal mechanism chosen by the legislature, as well as the condition of the state and national economy. Based upon the results of state surveys conducted by JLARC and NCSL, three of the states with the largest rainy day fund balances, both in terms of dollars and as a percentage of annual General Fund appropriations, have established funds that use formulas to regulate deposits and withdrawals. These three states (Washington, Michigan, and Indiana) have funds that contained $260, $384, and $322 million, respectively, in FY90. Their funds totaled (as a percentage of annual General Fund appropriations) 4.2 percent, four percent, and seven percent, respectively. It should be noted that Washington and Indiana have a biennial budget while Michigan (see case study) uses an annual budget.

Based on the results of the state survey conducted by JLARC, the three states with the largest rainy day fund balances in FY91 as a percentage of their General Fund appropriations were Minnesota (7.4 percent), Indiana (seven percent), and Delaware (5.3 percent). Minnesota and Indiana have biennial state budgets, while Delaware has an annual budget.

Minnesota's fund so far seems to have met its objective of compensating for budgetary shortfalls resulting from economic factors and tax policy changes. Minnesota has been able to maintain the fund and withstand short term revenue shortfalls without resorting to

budget cuts or tax increases. Indiana's fund also seems to be meeting its objective of compensating for a severe revenue shortfall or an unexpected downturn in economic conditions. However, Delaware's experience with its rainy day fund has been different. In its survey, JLARC staff learned that despite maintaining a healthy fund balance, Delaware's fund has never been used out of fear that the state's bond rating would be affected if it did not maintain the reserve.

CASE EXAMPLE: MICHIGAN

Michigan's rainy day fund serves as a good case study of the effect that a legislature's chosen method of deposit and withdrawal can have on the size of a state's fund. Michigan enacted its fund in 1977, with the intent of saving state revenues during good times in order to prevent a cutback in state services during bad times. In particular, Michigan's bipartisan effort to smooth out the impacts of its cyclical economy was motivated by the very disruptive mid-year budget cutbacks that were required during the recession of 1974-75.

Michigan indexed its rainy day fund to the annual rate of growth in its personal income. State General Fund revenues would be transferred into the rainy day fund when the real growth in personal income exceeded two percent. The budget stabilization portion of the state's rainy day fund legislation provided for monies in the rainy day fund to be returned to the General Fund when the real growth in personal income became negative. When real growth in personal income was between zero and two percent, there were to be neither deposits into nor withdrawals from the rainy day fund.

Additionally, the economic stabilization provisions of the rainy day fund provided for a portion of the fund to be used to create jobs during periods when the unemployment rate was greater than eight percent. Specifically, whenever the unemployment rate was between eight and 11.9 percent during a given quarter, the legislature was authorized to appropriate up to 2.5 percent of the fund during the subsequent quarter for a state jobs program; when the unemployment rate was 12 percent or greater, up to five percent of the fund was allowed to be used for jobs programs.

Michigan's rainy day fund did not become effective until FY78, when $108.7 million was transferred to it. An additional $104.1 million was transferred

to the fund in FY79, but withdrawals in fiscal year 1980 ($263.7 million) and FY81 ($16.9 million) almost completely depleted the fund. As a result of this experience, Michigan's legislature generally realized that the rainy day fund had helped the state ease into its fiscal dilemma rather than having to face everything all at once. However, the fund's relatively small size was inadequate to completely cope with the severity of the state's fiscal crisis, according to NCSL.

ESTABLISHMENT OF A RAINY DAY FUND IN VIRGINIA: CURRENT STATUS

Does Virginia currently have a rainy day fund? Yes, and no. Reserve funds have been set aside in the past and efforts to establish a permanent fund are being made.

Both NCSL and NASBO have identified Virginia as one of the states having a rainy day fund. Whether or not Item 766.2 of the 1990 Appropriation Act actually establishes a rainy day fund is debatable. Technically it may not be a rainy day fund. (Certainly, it is not a permanent institution within the State's budget process.) The Governor has made establishing a rainy day fund a priority and the Department of Planning and Budget has established a task force on the establishment of a revenue reserve. Legislation to create a rainy day fund has been carried over to the 1991 Session of the General Assembly. The General Assembly established some type of revenue reserve within the budget during seven of ten legislative sessions in the 1980's.

NCSL and NASBO Studies

Both NCSL and NASBO have recently identified Virginia as one of the states having some type of a rainy day fund. Virginia is so listed by NCSL in State Budget and Tax Actions 1990. However, NCSL's report, which is based on survey data, shows Virginia's rainy day fund balance, both in terms of dollars and as a percentage of General Fund appropriations, to be zero. NASBO listed Virginia as having a rainy day fund in the Fiscal Survey of the States: September, 1990. The survey reported that Virginia had a $200 million revenue reserve. In its report, NASBO identified Virginia's revenue reserve to be a budget stabilization fund.

In a 1988 report, NCSL stated that Virginia had a $55 million balance in a "Revenue Reserve and Economic Contingency Fund" in FY86. A 1987 NCSL report listed Virginia as having a rainy day fund in FY85 with a $15 million balance. However, in two separate reports that NCSL prepared in 1983 on rainy day funds, Virginia was not among the states listed as having such a fund.

JLARC staff questioned researchers at NCSL and NASBO about the information concerning Virginia's rainy day fund contained in their 1990 reports. The NCSL researcher who prepared the report

informed JLARC staff that she does not currently consider Virginia to have a rainy day fund, since Virginia has not established a separate fund. NCSL advised JLARC staff that it is currently planning a more detailed study of rainy day funds in which this issue will be addressed. NASBO advised JLARC staff that it simply reported the results of its national survey of state fiscal officers, and that Virginia apparently responded that it considered the $200 million revenue reserve to be a rainy day fund.

The 1990 Appropriation Act

Item 766.2 of the Act states, in part, as follows:

> A sum of $200 million of the unappropriated balance contained in this act is hereby designated for the following express purposes:
>
> 1. To compensate for a downward revision of the official 1990-92 general fund revenue estimate, due to economic factors, or re-estimates of the fiscal impact of tax policy changes enacted by the U.S. Congress or the Virginia General Assembly;
>
> 2. Salary increases in the second year for employees subject to the Virginia Personnel Act; eligible employees in the Executive, Legislative and Judicial Departments, and Independent Agencies which are not subject to the Virginia Personnel Act; faculty and administrative personnel of the several public colleges and universities; public school teachers; locally elected constitutional officers and their employees; and local employees supported by the Commonwealth.

Sub-items 3 through 6 of Item 766.2 of the Act contain other purposes toward which the $200 million may be legally applied. Those include adjusting base rates of pay in the second year of the biennium; adjusting for overtime pay in the second year; providing for salary increases in the second year for salaried positions listed elsewhere in the Act, and employer costs of employee benefit programs.

Item 766.2 of the Act concludes as follows:

> Prior to obligation or expenditure of amounts from this unappropriated balance, the Governor shall notify the Chairmen of the House Appropriations and Senate Finance Committees of his plan to do so.

According to JLARC staff's interpretation, this portion of Item 766.2 applies principally to expenditures in the second year of the

biennium -- or the provisions referred to in subparagraphs 2 through 6.

Item 766.2 of the Act has several characteristics that differentiate it from most other rainy day funds. First, there is no money appropriated. Item 766.2 does "designate" $200 million of the State's unappropriated balance. Second, there is no separate fund. The $200 million amount mentioned in Item 766.2 is part of the General Fund and is not readily or apparently distinguishable from it.

Finally, and perhaps most fundamentally, Item 766.2 remains in effect only until July 1, 1992, at which time the Act expires. At that point in time, in the absence of any other action, the State could revert back to the position of not having any amount of revenue reserve designated for the possible purpose of compensating for a downward revision of revenue estimates or for the negative fiscal impact of tax policy changes. No rainy day fund is permanently institutionalized within the State's budget process. It should be noted, however, that Item 766.2 is unquestionably consistent with the provisions of the *Constitution of Virginia* that prohibit extended appropriations, and that limit State revenues to the amount required for the necessary expenses of the government.

Executive Branch Interest in a Rainy Day Fund

Governor L. Douglas Wilder has articulated the establishment of a large revenue reserve as a key fiscal objective of his administration. The Secretary of Finance and the Department of Planning and Budget (DPB) have created a task force to examine the issue of a revenue reserve. DPB expects that the task force will produce a paper concerning a revenue reserve in late 1990. The paper has not been made available to JLARC staff at this time. However, on November 29, 1990 the Governor said that the Secretary of Finance report would be presented to "the relevant legislative committees."

Status of Proposed Rainy Day Fund Legislation

Senate Bill No. 227, introduced during the 1990 session, would, if enacted, require the Governor to create a Revenue Stabilization Reserve Fund. The bill was carried over to the 1991 session.

The rationale behind the legislation is expressed in the following manner:

> It is hereby declared that the ability of the Commonwealth to withstand the economic effects of a recession or slowdown in economic growth is a basic tenet of sound, prudent, and responsible financial and tax policy and that the creation and funding of the Revenue Stabilization Reserve Fund is a necessary expense of fiscally prudent government.

The legislation requires the Governor's budget bill to contain a reserve fund to consist of an amount "not to exceed five percent of the Commonwealth's tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts for the immediately preceeding fiscal year." The fund is to be created "in the Department of Treasury as a special nonreverting fund." The bill provides that the fund "shall be phased in over a five-year period in increments of one percent each year."

The bill provides the following mechanism for withdrawals from the fund:

> In the event, at any time during the fiscal year, that receipts from taxes, fees and other sources required to be paid into the General Fund of the Commonwealth fall below the amount projected in the general appropriation law, the State Treasurer shall transfer from the Revenue Stabilization Reserve Fund to the general fund, to the extent there are sufficient moneys in such reserve fund, an amount equal to the difference between the general appropriation law's projections and the amounts of such receipts.

The bill makes the following provision for replenishing the Revenue Stabilization Reserve Fund, "Repayments...shall be made as soon as practicable, without interest, and in the event not made, shall be stipulated to at the next session of the General Assembly." In addition, the bill provides that "at the close of each fiscal year, any unexpended fund balances in the general fund shall be transferred to the Revenue Stabilization Reserve Fund unless such transfer would increase the reserve fund to an amount in excess of the five percent level."

The Revenue Stabilization Reserve Fund described in Senate Bill No. 227 contemplates adhering to the five percent of revenue standard advocated by NCSL. Its planned method of depositing monies into the fund is similar to Colorado's in that a specified percentage of revenues is required to be set aside each year. In addition, its language requiring unexpended General Fund balances to be transferred into the reserve fund resembles that of a large number of states which require that a portion of the unobligated General Fund surplus be designated to the stabilization fund. The method of fund withdrawal proposed in the bill is by transfer, a method currently used by seven other states. The bill authorizes this transfer when "receipts from taxes, fees and other sources...fall below the amount projected in the general appropriation law." Senate Bill No. 227 was referred to the Senate Finance Committee, where it was held over to the 1991 Session.

There are potential constitutional issues with any Virginia rainy day fund. Article X, Section 7 of the *Constitution of Virginia* provides that:

> No money shall be paid out of the State treasury except in pursuance of appropriations made by law; and no such appropriation shall be made which is payable more than two years and six months after the end of the session of the General Assembly at which the law is enacted authorizing the same.

Senate Bill No. 227 requires that the Governor's Budget Bill provide for a Revenue Stabilization Reserve Fund containing, in the first year, an amount equal to one percent of the prior year's revenue from taxes on income and retail sales. Presumably, that provision of the Budget Bill would become part of the subsequent Appropriation Act. The bill, however, creates a requirement that the State increase this "appropriation" of tax revenue by a certain percentage each year over a five year period. Since Senate Bill No. 227 would seem to create an obligation of the State to appropriate a specific sum of money to the Revenue Stabilization Reserve Fund over a period of time longer than two years and six months, it could be interpreted as being at odds with the language of Article X, Section 7 and may raise a constitutional issue.

In addition to the issue regarding the time limitation, another provision of the *Constitution* should be noted. Article X, Section 8 of the *Constitution of Virginia* states as follows:

> No other or greater amount of tax or revenues shall, at any time, be levied than may be required for the necessary expenses of the government, or to pay the indebtedness of the Commonwealth.

To the extent that the creation of a Revenue Stabilization Reserve Fund could be shown not to be a necessary expense or a "proper governmental function", then legislation enacted from Senate Bill No. 227 could raise a constitutional issue. In interpreting Article X, Section 8 of the *Constitution*, the Virginia Supreme Court has relied upon the "proper governmental function" standard in determining whether actions of the Commonwealth were constitutional. See Harrison v. Day, 200 Va. 764, 107 S.E.2d 594 (1959); Fairfax County Industrial Development Authority v. Coyner, 207 Va. 351, 150 S.E.2d 87 (1966), commented on in 53 Va. L. Rev. 1556 (1967). In his Commentaries on the Constitution of Virginia, A.E. Howard noted that:

> The courts have treated section 8's language as having but one purpose: to assure that public funds are used only for public purposes. The section has never been seriously thought, for example, to prevent a budgetary surplus....

Howard further explained that "The 'public purpose' test is not, indeed could not realistically be, a severe one. Any 'governmental function' is thought to serve a public purpose."

Presumably in recognition of these potential constitutional concerns, Senate Joint Resolution No. 84 was introduced during the 1990 session in the form of a constitutional amendment. The substance of SJR 84 is identical to that of SB 227. The joint resolution was referred to the Senate Committee on Privileges and Elections, where it was approved. SJR 84 was then referred to the Senate Finance Committee, where it was held over to the 1991 session.

Four states (Delaware, Oklahoma, Texas, and Louisiana) have amended their constitutions to provide for the establishment of a rainy day fund. In FY90, Delaware and Oklahoma had fund balances that equaled at least five percent of the state's General Fund appropriations. Texas's fund balance totaled less than one percent of General Fund appropriations. Louisiana's fund, which was only established in 1990, had a zero-balance.

Prior Revenue Reserves in Virginia

In addition to the $200 million revenue reserve in 1990, the General Assembly included some type of revenue reserve in the 1980, 1981, 1984, 1985, 1986, 1987, and 1989 Appropriation Acts (Table B-1).

1980 Appropriation Act. Item 663 of the Act appropriated $8.5 million to a "Revenue Deficiency Reserve". This appropriation, made from the General Fund, was only for the first year of the biennium. The Act stated that this appropriation was to be used by the Governor "to provide for unbudgeted increases in costs to State Agencies for essential commodities and services". Based on JLARC staff's review of the language in the Act, this revenue deficiency reserve was not contemplated for use in the event of a revenue shortfall resulting from economic conditions or tax policy changes.

1981 Appropriation Act. In 1981, Item 663 of the 1980 Act was renamed "Economic Contingency" and provided with a second year appropriation of $8.2 million. The item was amended to authorize the Governor to transfer a portion of the appropriation to supplement capital outlay appropriations.

1984 Appropriation Act. A "Revenue Reserve" was established by Item 665.1 of the Act. During the first year of the biennium, $23 million was appropriated from the General Fund and $13 million during the second year. In view of the fact that the 1982 Act did not contain any type of revenue reserve, the establishment of this revenue reserve appears to have been a reaction to the fiscal problems produced by the recession of the early 1980's. According to Item 665.1, the Governor:

> is authorized to reduce the appropriation in this item in the event the revised estimated general fund revenues are exceeded by the total of the general fund appropriations

including a revised estimate of amounts to be expended from sum sufficient appropriations.

JLARC staff's interpretation of this language is that it did establish a rainy day fund. Money was appropriated to be used in the event of a General Fund revenue shortfall. However, this rainy day fund was effective for only one biennium, and not permanently protected by the Constitution. In addition, although the language authorized the Governor to make expenditures from the appropriation in the event of a revenue shortfall, it did not explicitly require him to.

1985 Appropriation Act. In the 1985 Act, Item 665.1 of the 1984 Act was amended in order to provide the Governor with authority to use this appropriation for additional purposes. Item 665.1, which appropriated $13 million from the General Fund for fiscal year 1986,

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Table B-1

RECENT EFFORTS TO SET ASIDE REVENUES IN VIRGINIA

Year	Amount of Reserve	Fund Established to Offset Revenue Shortfall
1980	$8.5 million	No
1981	$8.2 million	No
1984	$23 million	Yes
1985	$13 million	Yes
1986	$76.4 million	Yes
1987	$27.9 million	Yes
1989	$77.5 million	Yes
1990	$200 million	Yes

Source: Appropriation Acts for years specified.

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authorized the Governor to:

> supplement second year appropriations in this Act to offset federal fund reductions resulting from the Federal Fiscal Year 1986 Budget and to address unbudgeted wage and salary costs necessitated by federal actions.

Item 665.1 of the 1985 Act also authorized the Governor to use a portion of the appropriation to "provide for unbudgeted increases in costs to state agencies for essential commodities and services."

1986 Appropriation Act. Item 658 of the Act appropriated $76.4 million from the General Fund, during the first year of the biennium, for "Revenue Reserve and Economic Contingency." This item contained identical language from Item 665.1 of the 1985 Act, in that the Governor was "authorized to reduce the appropriation ... in the event the revised estimated general fund revenues are exceeded by the total of the general fund appropriations including a revised estimate of amounts to be expended from sum sufficient appropriations." Item 658 also included language similar to that in Item 665.1 of the 1985 Act, authorizing the Governor to:

> supplement appropriations in this Act to offset federal fund reductions resulting from the federal budget and to address unbudgeted wage and salary costs necessitated by federal actions.

The language of Item 658 appears to contemplate the use of the revenue reserve in situations where State revenues are found to be insufficient to fund the existing level of State appropriations, and also in situations where federal actions negatively impact on the State budget.

1987 Appropriation Act. Item 658 of the Act, "Revenue Reserve and Economic Contingency" remained substantially the same as Item 658 of the 1986 Act. However, Item 658.1 was added to the Act, establishing a "Tax Reform Reserve Fund". Item 658.1, which appropriated $27.9 million for FY88, authorized the Governor to supplement other General Fund revenues from this reserve under the following conditions:

> 1) in the event that the 100th United States Congress enacts tax legislation that necessitates the reduction of Virginia's corporate and/or individual income tax receipts estimates or reduces the estimated additional revenues resulting to Virginia from the Federal Tax Reform Act of 1986; or
> 2) if changing economic conditions require the Governor to lower the General Fund Revenue Forecast for FY1987 or FY1988.

Item 658.1 further specified that if Congress did not enact any tax legislation that reduced Virginia's corporate or individual income tax receipts, that the Governor was directed to develop a plan to utilize the appropriation to "eliminate or reduce the Virginia Accelerated Cost Recovery System addbacks and/or subtractions...."

1989 Appropriation Act. Item 669.3 of the 1989 Act

appropriated $77.5 million to a "Revenue Reserve Fund." The Governor was authorized to "supplement other general fund appropriations from this reserve" under the following conditions:

> (1) in the event that the 101st United States Congress enacts tax legislation that necessitates the reduction of Virginia's official corporate and/or individual income tax receipts estimates; or (2) if changing economic conditions require the Governor to lower the official general fund revenue forecast for the fiscal year ending June 30, 1990.

SUMMARY OF BACKGROUND MATERIAL

Thirty-seven states, according to the JLARC staff survey, have established some type of budget stabilization fund. However, the balance of these funds in 11 states is zero. At least 22 of those states have established a budget stabilization fund that is *separate and distinct from their General Fund.* Virginia's revenue reserve is not a separate fund and is not permanent.

Virginia established some type of revenue reserve in seven appropriation acts during the 1980's. In each case, the revenue reserve was funded by legislative appropriation, with the Governor authorized to allocate money from the appropriation in specified situations. The reserve funds established by the 1984 and 1987 Acts were for the purpose of compensating for a revenue shortfall caused by economic conditions or tax policy changes. The revenue reserves established by the 1985 and 1986 Acts could be used, among other purposes, to compensate for reductions in federal funds.

Item 766.2 of the 1990 Act has several characteristics that differentiate it from most other state rainy day funds:

- There is no fund established separate and distinct from the General Fund.
- Money is designated, not appropriated.
- Item 766.2 of the Act does not permanently establish a rainy day fund as an institution within the State's budget process.

Senate Bill No. 227 contains provisions that may be at odds with Article X, Section 7 and Article X, Section 8 of the *Constitution of Virginia.* This contingency was recognized by the introduction of Senate Joint Resolution No. 84.

OPTIONS FOR A RAINY DAY FUND FOR VIRGINIA

Under the direction of the JLARC Subcommittee on the Executive Budget Process, JLARC staff reviewed and presented background information on rainy day funds in October and November of 1990. At the November 14th subcommittee meeting, the subcommittee directed the staff to prepare suitable options for Virginia and to develop a framework for proposed legislation for the subcommittee's consideration. This section discusses the choices available for the subcommittee. For illustrative purposes, JLARC staff have chosen options for the subcommittee's discussion.

It should be noted that a rainy day fund would provide the State with an additional instrument for making a good faith effort to manage its fiscal affairs in a prudent manner. A rainy day fund cannot provide the State with a perfect defense against the effects of a precipitous economic downturn.

Based on background research by JLARC staff, an appropriate rainy day fund for Virginia would contain four general characteristics.

- First, it would contain a fund balance large enough to at least partially compensate for shortfalls when revenue collections are low.
- Second, it would include a deposit mechanism to ensure the accumulation of tax revenues in prosperous years when revenue collections are high.
- Third, it would include an adequate withdrawal mechanism to ensure that a portion of the fund balance would be transferred to the General Fund during years in which there is a revenue shortfall.
- Fourth, the fund would be established by the *Constitution of Virginia*.

Fund Balance Large Enough to Compensate for a Revenue Shortfall

The size of a state's rainy day fund balance is typically analyzed either in absolute dollar terms or as a percentage of its General Fund appropriations. However, the fund could also be analyzed in terms of General Fund revenue collections. There are a number of fund balance sizes that the General Assembly could consider:

- five percent of biennial General Fund appropriations,
- five percent of annual General Fund appropriations,
- three percent of General Fund revenues for the two preceding fiscal years, or
- five percent of annual income and retail sales tax revenue.

Five Percent of Biennial General Fund Appropriations. This option could be considered due to the fact that it is based on the fund size recommended by NCSL's Fiscal Affairs and Oversight Committee in 1983. NCSL recommended that the size of a state's rainy day fund should equal five percent of the state's budget. In addition, financial institutions which lend capital to state governments have advocated that a state's rainy day fund balance equal between three and five percent of the state's budget in order to ensure a high bond rating.

It should be noted that although neither of these recommendations distinguish between annual and biennial state budget cycles, both recommendations appear to be based on the theory that the size of the fund balance should be based on the period for which major budget allocations are made. In other words, the fund balance should be adequate to cover reasonable risk during a state's normal budget cycle. In Virginia, a fund balance satisfying this criterion for both years of the current biennium would have to equal approximately $657 million. In comparison, Virginia's current $200 million revenue reserve represents approximately 1.5 percent of the State's General Fund appropriations for the 1990-1992 biennium.

Five Percent of Annual General Fund Appropriations. This option, which is based on NCSL's recommended criterion, could be considered by the General Assembly as a means of requiring a lesser dollar amount in the rainy day fund. For the first year of the current biennium, a fund balance adhering to this standard would total approximately $315 million dollars. However, adopting a fund balance standard based on annual appropriations would ignore Virginia's normal biennial budget cycle.

Five Percent of Annual Income and Retail Sales Tax Revenue. This option is proposed by Senate Bill No. 227. For the current biennium, a fund balance adhering to this criteria based on FY90 collections would equal approximately $237.5 million. This option differs from the previous option in that it bases the size of the fund on only a select portion of General Fund revenues.

Three Percent of General Fund Revenue for the Two Preceding Fiscal Years. Using this option, the General Assembly would establish the maximum fund size as three percent of the sum of the General Fund revenues of the Commonwealth of Virginia, for the two fiscal years immediately preceding an even year session of the General Assembly. This option could be considered on the basis that the State's General Fund revenue forecast has varied from actual revenue collections, on average, by about three to four percent over the past 16 years. Therefore, a fund of this size should, in theory, be sufficient to compensate for the difference in estimated and actual General Fund revenue collections in an average year. This option differs from the first two options in that it bases the size of the fund balance on an indicator of State revenues received during the preceding fiscal years, as opposed to an indicator of State spending.

JLARC staff have calculated that the maximum fund size of

Virginia's rainy day fund would have been $320.3 million in 1990 using this option.

(3/100) X	(5,121.0 +	5,554.9) =	$320.3 million
Three Percent	FY88 General Fund Revenues ($ millions)	FY89 General Fund Revenues ($ millions)	Maximum Fund Size ($ millions)

Size of Fund Balance Choice for Illustrative Staff Proposal. The maximum size of Virginia's rainy day fund balance could equal three percent of the sum of the General Fund revenues of the Commonwealth of Virginia, for the two fiscal years immediately preceding an even year session of the General Assembly.

Deposit Mechanism Linked to Revenue Collections

The General Assembly should consider implementing a mechanism which will make deposits to the rainy day fund dependent on revenue collections. Deposits to the fund would not be immediately required under such a mechanism given the current economic climate. Instead, Virginia's deposits into the fund would grow gradually. The General Assembly should consider adopting an adequate deposit mechanism so that the fund balance will grow as the economy recovers and State revenues increase. There are various types of alternative deposit mechanisms that the General Assembly could consider adopting:

- discretionary appropriation,
- appropriation of surplus,
- appropriation guided by formula,
- appropriation as policy decision,
- treasurer's transfer determined by formula, and
- phased-in appropriation.

Discretionary Appropriation. Under this deposit mechanism, the General Assembly would be guided by its own judgment, or by a proposal of the Governor in determining the timing and amount of deposits into the fund. The advantage of this approach is that it would provide the General Assembly with a great deal of flexibility in determining the amount of the deposit. The disadvantage is that, without relying on specific economic indicators for guidance, each General Assembly would have to continually revisit the issue of the relative importance of the reserve fund as it compares to other program priorities.

Appropriation of Surplus. Under this type of mechanism, the General Assembly would be required to appropriate either all, or a portion, of the State's unexpended and undesignated General Fund surplus. This type of mechanism would help ensure that all excess State revenue received during a fiscal year would be deposited into the rainy day fund during the next fiscal year. However, this could be an "all or nothing" mechanism. In the event of a surplus, the State might not have the option of using a portion of the extra revenue for the funding of program priorities. In addition, if the mechanism were designed to require appropriation of a fixed

percentage of the surplus to the rainy day fund, that percentage would not necessarily be based on any specific criteria.

Appropriation Guided by Formula. The General Assembly, using this type of deposit mechanism, would appropriate an amount no less than the results of a formula calculation. (It would remain the prerogative of the General Assembly to deposit an amount greater than the calculated amount.)

A formula calculation compares State General Fund revenue growth in the most current fiscal year with the average growth rate of State General Fund revenues for the prior six fiscal years. This option provides for a minimum appropriation of 50 percent of the State's above average General Fund revenue growth for a fiscal year.

The advantage of using the factor of 50 percent is that it ensures that a portion of above average revenue growth will remain available for expenditure on vital public programs. On the other hand, the 50 percent requirement also guarantees that one-half of any above average revenue growth will be deposited into the rainy day fund. The rationale for selecting the six prior fiscal years for the revenue growth comparison period is that it conforms to the State's revenue forecasting period for any given fiscal year.

This mechanism can be stated as a formula as follows.

Minimum Appropriation = .5(Above Average Growth Rate of General Fund Revenue Collections X Prior Fiscal Year General Fund Revenue)

Using this deposit mechanism, JLARC staff have determined that the most recent appropriation to the fund would have been required in 1988. The amount of that appropriation has been calculated as follows.

.5 X [(3.77/100)	X	(4,746.5)]	=	$89.5 million
Above Average Growth Rate in FY87		General Fund Revenue FY87 ($ millions)		Minimum Appropriation

This deposit option has several advantages. First, it is based on growth in State General Fund revenue collections. This links the timing and amount of deposits to a key indicator of the State's financial condition.

Several states, by comparison, use formulas based on the rate of growth of personal income to determine the amount of deposits. Personal income may serve as a proxy indicator of other economic growth variables and revenue collection variables. In addition, personal income may be less susceptible to manipulation than a revenue collection indicator. However, an indicator of personal income may not be the best indicator of the State's actual revenue collections. For example, although Virginia tax-based

economic income increased from FY89 to FY90, net individual income tax collections actually declined.

Second, General Fund revenue data are readily available, while personal income data are not available to the State on a timely basis. Personal income data, which are supplied by the federal government, are typically about 12 months old when received by the State.

Finally, this option requires that actual growth in State General Fund revenues in any given fiscal year be analyzed in the context of the State's long term rate of General Fund revenue growth. A portion of the State's above average growth rate remains available for expenditure. This will help ensure that a balance exists between deposits to the fund and program needs.

It should be noted, however, that revenue collection indicators may theoretically be susceptible to manipulation. This might occur either as a result of forecasting practices, tax policy changes, tax collection practices or accounting practices.

Appropriation as Policy Decision. Under this option, the Governor may propose, and the General Assembly may appropriate, the deposit of monies into the fund. Such deposits could not result in the fund exceeding its legal maximum size.

Treasurer's Transfer Determined by Formula. Under this deposit mechanism, the General Assembly would require the executive branch, in the form of the Treasurer, to automatically transfer an amount equal to that determined by a formula from the General Fund to the rainy day fund. The following formula could be used.

> Appropriation = .5(Above Average Growth Rate of General Fund Revenue Collections X Prior Fiscal Year General Fund Revenue)

This formula is based on the formula described previously. The advantage of this approach is that it may make the fund deposit more of an automatic accounting function. The disadvantage is that it isolates the General Assembly from the deposit mechanism.

Phased-In Appropriation. Under this deposit mechanism, which is proposed in Senate Bill No. 227, the General Assembly would make appropriations to the fund over a five year period. In each year of the five year period, the bill calls for the appropriation of an amount equal to one percent of the prior year's income and retail sales tax revenue. According to the bill, the fund balance would at the end of the five year period equal no more than five percent of State income and retail sales tax collections of the immediately preceding fiscal year. Any monies in the fund in excess of the five percent cap would be returned to the General Fund.

An advantage of this option is that a specified percentage of revenues is required to be appropriated to the fund. On the other hand, it is not dependent in any way on economic growth. The bill requires the one percent incremental appropriations over five years

regardless of the extent to which State revenue collections may be increasing or decreasing.

Deposit Mechanism Choice for Illustrative Staff Proposal. A two-pronged deposit mechanism could be selected. First, it could provide for the General Assembly to make an appropriation which is guided by the result obtained by the following formula.

> *Minimum Appropriation = .5(Above Average Growth Rate of General Fund Revenue Collections) X (Prior Fiscal Year General Fund Revenues)*

Second, the Governor could be able to propose, and the General Assembly appropriate, the deposit of funds into the rainy day fund, up to the maximum size of the fund balance, as a policy decision.

Withdrawal Mechanism Linked to Revenue Collections

The General Assembly should consider implementing a mechanism which will make withdrawals from the rainy day fund dependent on projected declines in State General Fund revenue collections. An adequate withdrawal mechanism is needed so that the fund balance will decline as estimates of State General Fund revenue collections decrease. There are various types of alternative withdrawal options that the General Assembly could consider adopting:

- gubernatorial prerogative with legislative notification,
- appropriation guided by projected shortfall, or
- treasurer's transfer determined by projected shortfall.

Each of the options laid out in this section provides for the withdrawal of no more than one-half of the rainy day fund in any given year. This provision would preclude the total depletion of the fund in the first year of a protracted downturn. While the amount of the fund would dwindle as a protracted downturn continued, one would expect State forecasters and policy-makers to have made most of their budget adjustments in the first two years.

Gubernatorial Prerogative with Legislative Notification. The use of this option would provide the Governor with a great deal of control over withdrawals. This method could be designed to limit the Governor's withdrawal to no more than 50 percent of the fund balance. This should be predicated on notification of the General Assembly. In the event that the Governor desired to withdraw greater than 50 percent of the fund balance, he would have to receive the approval of the General Assembly. Presumably, that could involve convening a special session of the General Assembly. This option could also be structured to allow the Governor, subject to notification of the General Assembly, to transfer an amount from the rainy day fund sufficient to compensate for no more than one-half of the difference between the official revenue forecast and a revised forecast.

This option would place responsibility for prudent

withdrawal practices within the executive branch. Nevertheless, while legislative notification could be required, any withdrawals performed while the General Assembly is not in session might not provide members with a real opportunity to actively oppose an objectionable withdrawal.

Appropriation Guided by Projected Shortfall. Under this option, the General Assembly may, during the Session, appropriate an amount for transfer from the fund to compensate for no more than one-half of the difference (shortfall) between the Total General Fund Revenues Available for Appropriation in the preceding Appropriation Act and the revised General Fund revenue forecast presented to the General Assembly during the session.

Prior to the session, the Governor may prepare and submit to the General Assembly a plan to withdraw, during any fiscal year, an amount from the fund sufficient to compensate for no more than one-half of the difference (shortfall) between the Total General Fund Revenues Available for Appropriation in the Appropriation Act and a revised General Fund revenue forecast approved by the Governor. The Governor's plan may provide for a total withdrawal of no more than one-half of the rainy day fund balance in any given fiscal year.

Upon receipt of the Governor's plan, the General Assembly may confirm or modify the plan to withdraw, during any fiscal year, enough funds to compensate for no more than one-half of a revenue shortfall. The General Assembly may amend the Appropriation Act to modify or conform to the details of the Governor's plan.

This option would include a withdrawal threshold. Projected General Fund revenue shortfalls would be required to equal at least one percent of the sum of the total General Fund revenues of the Commonwealth of Virginia for the two fiscal years immediately preceding an even year session of the General Assembly. If the projected shortfall was less than that amount, a rainy day fund withdrawal would not be permitted.

JLARC staff have calculated what the maximum allowable withdrawal would have been during 1990 had a rainy day fund been in operation. The calculation assumes that, going into 1990, the rainy day fund balance was at its maximum level of $320.3 million. Under the proposed mechanism, the first step in determining the amount of the withdrawal would be to calculate one-half of the projected 1990 General Fund revenue shortfall.

Calculation of One-Half of Shortfall During 1990 session is displayed below.

$6,144.3 million (FY90 forecast from 1990 session)

- $5,842.3 million (FY90 forecast from 1989 session)

= $302.0 million (FY90 revenue shortfall)

$302.0 million/2 = $151.0 million

One-half of the projected shortfall having been determined, the next step using this option is to determine the maximum withdrawal allowed during the 1990 session.

Calculation of Maximum Withdrawal During 1990 session is displayed below.

$320.3 million/2 = $160.15 million

It should be noted that while the withdrawal cannot exceed one-half of the rainy day fund balance ($160.15 million), it also cannot exceed one-half of the projected shortfall ($151.0 million). Therefore, in this case, $151.0 million could be withdrawn from the fund.

The final calculation required using this mechanism is to determine what the rainy day fund withdrawal threshold would have been for 1990. In other words, it must be determined if the size of the projected General Fund revenue shortfall would have been large enough to warrant a withdrawal.

Calculation of Withdrawal Threshold During 1990 session is displayed below.

1/100	X	(5,121.0	+	5,554.9)	=	$106.8 million
One Percent		FY88 General Fund Revenues ($ millions)		FY89 General Fund Revenues ($ millions)		Withdrawal Threshold

Since the projected General Fund revenue shortfall for fiscal year 1990 ($302.0 million) exceeds the withdrawal threshold ($106.8 million), a withdrawal, up to the maximum withdrawal limit, can be made from the fund.

Assuming the maximum fund level of $320.3 million had been attained by 1990, a withdrawal of the maximum allowable amount ($151.0 million) would have left remaining a fund balance of $169.3 million. (It should be noted, however, that using the deposit option proposed by JLARC staff, the rainy day fund balance would not have reached the maximum level without a supplemental, discretionary appropriation by the General Assembly.)

The advantage of this option is that it would be tied to the same criterion that State expenditure reductions usually are, namely, projected revenue shortfalls. An additional advantage of this option is that it ensures the fund will not be depleted during one particularly bad year.

Treasurer's Transfer Determined by Projected Shortfall. Senate Bill No. 227 provides for this type of fund withdrawal mechanism. The bill requires that at any point during the fiscal year at which revenues "fall below the amount projected," the Treasurer shall transfer from the rainy day fund to the General Fund

an amount equal to the difference between revenue projections and receipts.

The disadvantage of this approach is that no limit is placed on the amount to be transferred. If the revenue shortfall equals the amount in the rainy day fund balance, the provisions of Senate Bill No. 227 require that the Treasurer transfer the entire fund balance. This could entirely deplete the fund in the first year of a prolonged downturn.

Withdrawal Mechanism Choice for Illustrative Staff Proposal. The rainy day fund could employ a withdrawal mechanism in which the General Assembly may appropriate an amount for withdrawal. The appropriation would be guided by a formula based on one-half of a projected General Fund revenue shortfall. No more than one-half of rainy day fund balance could be withdrawn during any fiscal year. Projected General Fund revenue shortfalls would be required to equal at least one percent of the sum of General Fund revenues for the two prior fiscal years for a withdrawal to be permitted. Appropriations under this option could be in response to a proposed plan for withdrawal submitted by the Governor.

Establish a Constitutional Fund

Most states that have established rainy day funds have done so in statute. Four states, however, have amended their constitutions to require a rainy day fund. The fund balances in two of these states (Delaware and Oklahoma) are, as a percentage of General Fund appropriations, among the largest state rainy day funds in the country.

Statutory Option. Virginia could establish its rainy day fund simply by amending the *Code of Virginia*. The advantage of this approach is that a statutory fund could be established during the 1991 session, as opposed to having to go through the lengthy constitutional amendment process. The disadvantage of this approach is that the rainy day fund balance would not enjoy the degree of protection from competing interests that it would were it established constitutionally.

Constitutional Option. Virginia could establish its rainy day fund by amending the *Constitution of Virginia*. While this approach would take longer than the statutory option, the final result would be superior. The integrity of the fund would receive greater protection and permanence over the long term were it to be made a constitutional requirement. A constitutional amendment would protect Virginia's rainy day fund balance from a variety of possible attempts at encroachment. Such a fund would be afforded greater protection from uses of the fund for purposes other than budget stabilization. A statutorily-created rainy day fund may not be able to withstand such attempts. In addition, a constitutional amendment would address concerns regarding the constitutionality of (1) appropriating funds beyond two and one half years, and (2) collecting more revenues than necessary for the operation of government. However, a major disadvantage would be the restrictive nature of a

constitutional amendment, in that future amendments would be difficult to make.

Choice for Illustrative Staff Proposal. Virginia could establish its rainy day fund by amending the Constitution of Virginia to require such a fund. The constitutional amendment could contain, at a minimum, a number of specific provisions. First, it could state that the fund is separate and distinct from the General Fund. Second, it could state the maximum size of the fund balance. Third, the amendment could specify the deposit and withdrawal mechanisms to be used by the fund. Fourth, the amendment could designate the State Treasurer as the Fund Administrator. Fifth, the amendment could state that the General Assembly will determine the disposition of interest or other amounts in the rainy day fund in excess of the maximum size of the fund balance. Finally, the amendment could state that any such excess amounts accruing to the fund balance shall not be included in any official revenue forecast of the Commonwealth.

SUMMARY OF ILLUSTRATIVE STAFF PROPOSAL

The illustrative staff proposal discusses a constitutional amendment that establishes a State rainy day fund with a balance equal to three percent of the sum of State General Fund revenue collections for the two fiscal years immediately preceding an even year session of the General Assembly. That would amount to approximately $320.3 million at the current time.

The fund could include a deposit mechanism in which the General Assembly would appropriate at least 50 percent of the above average growth of General Fund revenues. The fund could include a withdrawal mechanism in which appropriations made by the General Assembly are guided by a projected shortfall in State General Fund revenues. Withdrawals based on that indicator should be of an amount sufficient to compensate for no more than one-half of the revenue shortfall.

The State Treasurer could be designated the fund manager. The General Assembly should determine the disposition of interest or other amounts accruing in the rainy day fund in excess of the maximum size of the fund balance. Any such excess amounts accruing to the fund balance should not be included in any official revenue forecast of the Commonwealth.

Appendix C

Methods for Coping with Revenue Uncertainty

Revenue estimates will never be certain. It is unlikely that changes to the process would substantially improve forecast accuracy. Shortfalls -- and surpluses -- of some magnitude are inevitable uncertainties. An examination of methods other states use to cope with anticipated revenue uncertainty points to rainy day funds and contingent budgeting as the most advantageous methods for Virginia's use.

Examining Methods Used By Other States

A 1986 report by Michigan's House Research Department identified five different methods states use to cope with revenue uncertainty:

- contingent taxation,
- tax stability,
- delegation of authority,
- contingent spending, and
- rainy day funds.

Each of these methods has conceptual advantages and disadvantages. JLARC staff identified certain key advantages that would be appropriate for methods Virginia might adopt. The five methods were evaluated to determine if they incorporate these key advantages. While none of the methods incorporates all the key advantages, two methods -- rainy day funds and contingent budgeting -- incorporate a majority.

Contingent Taxation. The first of these "coping mechanisms," contingent taxation, ties increases and decreases in a state's tax rates to economic growth. States using this method cited in the Michigan study were North Dakota and Iowa. North Dakota increases its sales tax by one percent if General Fund revenues fall below $400 million by a specified date while Iowa indexes its income tax brackets based upon the projected balance in the General Fund.

Tax Stability. In the second method, tax stability, the actual tax structure is altered to rely on more stable and reliable sources of income. According to a 1988 study by the National Conference of State Legislatures (NCSL), ten states (Alaska, Connecticut, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming) do not impose a broad-based personal income tax. For example, as noted in The Book of the States, 1988-89 Edition, by the Council of State Governments, Washington state, with $5.6 billion in revenue, raises $4.2 billion through a sales tax and does not utilize individual or corporate income taxes.

Delegation of Authority. Delegation of authority to the executive branch was the third method identified. With this method, the Governor or his designee is given interim authority to reduce appropriations to deal with revenue shortfalls. According to the 1988 NCSL study, 20 states give maximum discretion to the executive branch for dealing with revenue shortfalls. Despite the significant powers delegated to Virginia's Governor, Virginia was not included as one of the 20 since the Governor is not granted complete discretion.

Contingent Spending. With contingent spending, the fourth method, a portion of state spending is contingent on the fiscal condition of the state. Two states that have adopted this method, Arkansas and Kentucky, illustrate the variation in the way states can use this method. Arkansas designates each separate appropriation item as an "A", "B", or "C", priority. If there is a revenue shortfall, all appropriations in the "C" category are cut proportionally until the total reductions needed to cover the shortfall are achieved. If all the "C" appropriation items are eliminated, cuts are made in the "B" appropriations. "A" appropriations are the last to be cut. On the other extreme, Kentucky designates five specific spending reductions in the event of a General Fund revenue shortfall in its appropriation act. If the actions outlined by the legislature are insufficient to eliminate the revenue shortfall, the Governor is then given authority to take any other actions necessary to balance the budget.

Rainy Day Funds. The final method, a "rainy day" fund (sometimes called a revenue reserve or stabilization fund), is a separate and distinct fund to be used when revenue collections fall short of the forecast. The way states employ this method also has wide variations (Appendix B). For example, Indiana uses a formula based on personal income growth to deposit money into a Counter-Cyclical Revenue and Economic Stabilization Fund. Funding is transferred from the rainy day fund to the General Fund if the growth in real personal income is less than two percent. However, Minnesota deposits money into its Budget Reserve Account by direct legislative appropriation, maintaining a reserve equal to five percent of General Fund appropriations. In yet a third variation, New Hampshire deposits its audited year-end surplus into its Revenue Stabilization Reserve Account. Withdrawals are made when: 1) a General Fund operating deficit occurs for the most recently completed fiscal year; and 2) unrestricted General Fund revenues in the most recently completed fiscal year are less than the budget forecast.

Criteria for Deciding Between Methods

Each of the methods identified above has specific conceptual advantages and disadvantages. For instance, contingent taxation would have the theoretical advantage of decreasing tax rates for taxpayers in a growth economy, while having the disadvantage of causing individual and corporate taxpayer uncertainty regarding current and future tax rates. Tax stability may promote stable

revenues but the taxes used, such as the sales tax, are generally regressive. In order to determine the methods most suitable for Virginia, JLARC staff identified six criteria that would be the most important to Virginia in developing a successful method of dealing with revenue uncertainty.

First, the method should accumulate a surplus in a growing economy. Second, it should address any shortfalls more than one year at a time. Third, a preferred method should help reduce uncertainty in program planning. Fourth, it should reduce the magnitude of revenue shortfalls and, fifth, it should provide an incentive to maximize the use of existing resources. Finally, a preferred method should preserve legislative fiscal authority.

Exhibit C-1 compares the five methods to determine which methods best meet these key advantages. From this comparison, rainy day funds and contingent budgeting would appear to be the best methods for Virginia.

Exhibit C-1
Key Advantages of Methods Used in Other States

Advantages	Contingent Taxation	Tax Stability	Delegation of Authority to Executive	Contingent Spending	Rainy Day Funds
Accumulates surplus in a growing economy					✔
Does not address shortfall only one year at a time		✔		✔	✔
Could help stabilize program planning	✔	✔		✔	✔
May reduce the magnitude of revenue shortfalls	✔	✔			✔
Could provide incentive to maximize the use of existing resources			✔	✔	
Preserves legislative fiscal authority	✔			✔	✔

Source: JLARC staff analysis and Forecasting State Revenues and Dealing With Revenue Shortfalls: 4 Working Papers, 1986.

Appendix D

Simulation of Revenue Stabilization Fund Formulas

The simulation of the rainy day fund formulas was run under two different scenarios, as shown in Tables D-1 and D-2. The first scenario, shown in Table D-1, assumes that the mandatory deposit formula requires 75 percent of above-average growth in certified tax revenues to be deposited to the rainy day fund. The second scenario, shown in Table D-2, requires 50 percent instead of 75 percent. The original version of SJR 159 included the 75 percent deposit requirement. The amendment in the nature of a substitute as reported by the Senate Finance Committee dropped the required deposit to 50 percent.

Each column of the spreadsheets used in the simulation is described below.

1. *Session.* This column represents the future legislative session for which the information in the other columns apply. As noted in the report body, figures for 23 future sessions were assumed to follow the same patterns observed in 23 past years (FY69 through FY92), as shown in Table D-3.

2. *FY of Collections.* The most recently completed fiscal year (modeled after a past year) is labeled in this column.

3. *Certified Tax Revenues.* This column represents the sum of individual income, sales, and corporate income taxes assumed to be collected in the fiscal year labeled in column 2. The number is derived by taking the assumed annual growth in certified tax revenues over the previous fiscal year (represented by the percentages in column 4), multiplying it by the previous fiscal year's certified tax revenues (for FY92 the certified tax revenues are assumed to be $5156.7 million), and adding the product to the previous fiscal year's certified tax revenues. (Because of rounding, the numbers in the spreadsheets may not be exactly equal to computations using data from Tables D-1 through D-4.)

4. *Annual % Chg.* The numbers here represent the assumed annual growth in certified tax revenues over the previous fiscal year. The key assumption is that the same pattern in certified tax revenue growth from FY69 to FY92 will apply to FY93 through FY15. The pattern of certified tax revenue growth from FY69 to FY92 is shown in Table D-3.

5. *Prior 6-Yr Change.* The values in this column represent the average growth in certified tax revenues for the six years prior to the most recently completed fiscal year.

Table D-1

Simulation of Rainy Day Fund Formulas Using 75 Percent Assumption
($ millions)

(1) SESSION	(2) FY OF COLLECTIONS	(3) CERTIFIED TAX REVENUES *	ANNUAL % CHG (4)	(5) PRIOR 6-YR CHANGE	(6) EXCESS/ DEFIC. GROWTH	(7) FUND MAXIMUM	(8) FORMULA APPROP. TO RAINY DAY FUND (75 %)	(9) 1/2 SHORTFALL	(10) MAXIMUM WITHDRAWAL	(11) RESULTING APPROP. TO RAINY DAY FUND	(12) INTEREST ON PREV. BALANCE (@ 8%)	(13) NET CHANGE IN FUND	(14) FUND TOTAL ($)
1994	FY93	5489.90	6.46	6.87	-.41	517.52				.00	0.00	0.00	.00
1995	FY94	5949.51	8.37	6.07	2.30	553.20	102.72			102.72	0.00	102.72	102.72
1996	FY95	6884.42	15.71	5.68	10.03	610.79	518.09			499.86	8.22	508.08	610.79
1997	FY96	8139.79	18.23	6.49	11.74	699.12	717.01			39.47	48.86	88.33	699.12
1998	FY97	8943.38	9.87	9.53	.34	798.92	22.97			22.97	55.93	78.90	778.02
1999	FY98	10047.83	12.35	10.72	1.63	904.37	122.78	273.42	273.42	122.78	62.24	-88.39	689.63
2000	FY99	11080.74	10.28	11.83	-1.55	1002.40					55.17	55.17	744.80
2001	FY00	12740.84	14.98	12.47	2.51	1128.98	239.98	403.27	372.40	239.98	59.58	-72.83	671.97
2002	FY01	15115.36	18.64	13.57	5.06	1297.90	574.19	183.26	183.26	574.19	53.76	444.69	1116.66
2003	FY02	16635.32	10.06	14.06	-4.00	1483.05					89.33	89.33	1205.99
2004	FY03	18539.44	11.45	12.70	-1.25	1676.34					96.48	96.48	1302.47
2005	FY04	20739.51	11.87	12.96	-1.09	1863.81					104.20	104.20	1406.67
2006	FY05	22477.03	8.38	12.88	-4.50	2058.53		604.16	604.16		112.53	-491.63	915.04
2007	FY06	24077.36	7.12	12.56	-5.44	2243.13		649.24	457.52		73.20	-384.31	530.72
2008	FY07	27918.92	15.96	11.25	4.70	2482.44	985.08			985.08	42.46	1027.53	1558.25
2009	FY08	31031.36	11.15	10.80	.34	2767.59	80.19			80.19	124.66	204.85	1763.10
2010	FY09	34085.01	9.84	10.99	-1.15	3101.18					141.05	141.05	1904.15
2011	FY10	37928.53	11.28	10.72	.56	3434.83	158.79			158.79	152.33	311.12	2215.27
2012	FY11	42003.32	10.74	10.62	.12	3800.56	38.98			38.98	177.22	216.20	2431.47
2013	FY12	46546.55	10.82	11.01	-.20	4215.95		2034.46	1215.74		194.52	-1021.22	1410.25
2014	FY13	46549.49	.01	11.63	-11.62	4503.31		3465.24	705.13		112.82	-592.31	817.95
2015	FY14	47812.70	2.71	8.97	-6.26	4696.96		4764.22	408.97		65.44	-343.54	474.41
2016	FY15	50535.11	5.69	7.57	-1.87	4829.91					37.95	37.95	512.36

* Certified tax revenues are assumed to grow across 23 years at an average annual rate of approximately 10.43 percent, which had occurred from FY69 to FY92.

Source: JLARC analysis.

Table D-2

Simulation of Rainy Day Fund Formulas Using 50 Percent Assumption
($ millions)

(1) SESSION	(2) FY OF COLLECTIONS	(3) CERTIFIED TAX REVENUES *	(4) ANNUAL % CHG	(5) PRIOR 6-YR CHANGE	(6) EXCESS/ DEFIC. GROWTH	(7) FUND MAXIMUM	(8) FORMULA APPROP. TO RAINY DAY FUND (50 %)	(9) 1/2 SHORT-FALL	(10) MAXIMUM WITH-DRAWAL	(11) RESULTING APPROP. TO RAINY DAY FUND	(12) INTEREST ON PREV. BALANCE (@ 8%)	(13) NET CHANGE IN FUND	(14) FUND TOTAL ($)
1994	FY93	5489.90	6.46	6.87	-.41	517.52				.00	0.00	0.00	.00
1995	FY94	5949.51	8.37	6.07	2.30	553.20	68.48			68.48	0.00	68.48	68.48
1996	FY95	6884.42	15.71	5.68	10.03	610.79	345.39			345.39	5.48	350.87	419.35
1997	FY96	8139.79	18.23	6.49	11.74	699.12	476.00			246.23	33.55	279.77	699.12
1998	FY97	8943.38	9.87	9.53	.34	798.92	15.31			15.31	55.93	71.24	770.36
1999	FY98	10047.83	12.35	10.72	1.63	904.37	81.86	273.42	273.42	81.86	61.63	-129.93	640.43
2000	FY99	11080.74	10.28	11.83	-1.55	1002.40					51.23	51.23	691.67
2001	FY00	12740.84	14.98	12.47	2.51	1128.98	159.99	403.27	345.83	159.99	55.33	-130.51	561.16
2002	FY01	15115.36	18.64	13.57	5.06	1297.90	382.79	183.26	183.26	382.79	44.89	244.43	805.58
03	FY02	16635.32	10.06	14.06	-4.00	1483.05					64.45	64.45	870.03
2004	FY03	18539.44	11.45	12.70	-1.25	1676.34					69.60	69.60	939.63
2005	FY04	20739.51	11.87	12.96	-1.09	1863.81					75.17	75.17	1014.80
2006	FY05	22477.03	8.38	12.88	-4.50	2058.53		604.16	507.40		81.18	-426.22	588.59
2007	FY06	24077.36	7.12	12.56	-5.44	2243.13		649.24	294.29		47.09	-247.21	341.38
2008	FY07	27918.92	15.96	11.25	4.70	2482.44	656.72			656.72	27.31	684.03	1025.41
2009	FY08	31031.36	11.15	10.80	.34	2767.59	53.46			53.46	82.03	135.49	1160.90
2010	FY09	34085.01	9.84	10.99	-1.15	3101.18					92.87	92.87	1253.77
2011	FY10	37928.53	11.28	10.72	.56	3434.83	105.86			105.86	100.30	206.16	1459.93
2012	FY11	42003.32	10.74	10.62	.12	3800.56	25.99			25.99	116.79	142.78	1602.71
2013	FY12	46546.55	10.82	11.01	-.20	4215.95		2034.46	801.36		128.22	-673.14	929.57
2014	FY13	46549.49	.01	11.63	-11.62	4503.31		3465.24	464.79		74.37	-390.42	539.15
2015	FY14	47812.70	2.71	8.97	-6.26	4696.96		4764.22	269.58		43.13	-226.44	312.71
2016	FY15	50535.11	5.69	7.57	-1.87	4829.91					25.02	25.02	337.73

* Certified tax revenues are assumed to grow across 23 years at an average annual rate of approximately 10.43 percent, which had occurred from FY69 to FY92.

Source: JLARC analysis.

Table D-3

Certified Tax Revenue Growth from FY69 to FY92
($ millions)

FY of Collections	Individual Income Tax	Sales Tax	Corporate Income Tax	Certified Tax Revenues	Annual % Change
FY69	273.4	185.3	67.5	526.2	-
FY70	282.8	210.0	67.4	560.2	6.46
FY71	313.0	229.4	64.7	607.1	8.37
FY72	365.4	259.5	77.6	702.5	15.71
FY73	441.9	292.1	96.6	830.6	18.23
FY74	469.0	337.2	106.4	912.6	9.87
FY75	547.1	361.1	117.1	1025.3	12.35
FY76	614.6	385.7	130.4	1130.7	10.28
FY77	714.1	426.8	159.2	1300.1	14.98
FY78	874.8	502.8	164.8	1542.4	18.64
FY79	966.6	534.7	196.2	1697.5	10.06
FY80	1103.0	595.0	193.8	1891.8	11.45
FY81	1288.8	645.2	182.3	2116.3	11.87
FY82	1446.1	670.5	177.0	2293.6	8.38
FY83	1552.1	721.6	183.2	2456.9	7.12
FY84	1770.7	835.5	242.7	2848.9	15.96
FY85	1948.2	930.6	287.7	3166.5	11.15
FY86	2174.3	1023.0	280.8	3478.1	9.84
FY87	2445.8	1105.7	318.8	3870.3	11.28
FY88	2757.9	1192.1	336.1	4286.1	10.74
FY89	3106.9	1292.9	349.9	4749.7	10.82
FY90	3082.0	1357.6	310.4	4750.0	0.01
FY91*	3266.7	1339.2	273.0	4878.9	2.71
FY92*	3434.2	1440.6	281.9	5156.7	5.69

* FY91 and FY92 are estimates that are presumed to be correct for the purposes of this simulation.

Source: JLARC analysis of Department of Accounts data.

6. *Excess/Defic. Growth.* This variable represents how much the most recent fiscal year's revenue growth is above or below the average growth from the prior six fiscal years. It is derived by subtracting "Prior 6-Yr Change" (column 5) from "Annual % Chg" (column 4).

7. *Fund Maximum.* The values here represent the maximum fund size, according to the formula specified in SJR 159. The formula is:

Max. fund size = .10 x (Avg cert. tax rev. of three most recent fiscal years)

For example, the fund maximum for the 1996 session would be 10 percent of the average certified tax revenues for FY93, FY94, and FY95.

8. *Formula Approp. to Rainy Day Fund (75%) [or (50%)].* The values in this column represent the minimum amount that should be deposited to the rainy day fund in a given session, according to the formula for mandatory minimum deposits specified in SJR 159. The formula is varied for two alternative scenarios: (1) 75 percent of the above-average growth rate is used, and (2) 50 percent of the above-average growth rate is used instead. The formula itself is alternatively:

Minimum deposit = .75 x ("Excess/Defic. Growth" / 100) x "Certified Tax Revenues"

or

Minimum deposit = .50 x ("Excess/Defic. Growth" / 100) x "Certified Tax Revenues"

9. *1/2 Shortfall.* This column represents one-half of the revenue shortfall simulated to occur during a given future session. It is based on the pattern of shortfalls that occured from FY74 to FY92. The pattern itself is shown on a separate spreadsheet in Table D-4, which is explained further later in this appendix. One-half of each entry for "Shortfall for Future Session ($)" from the speadsheet in Table D-4 is shown for the corresponding year in column 9 of Tables D-1 and D-2.

10. *Maximum Withdrawal.* The values in this column represent the maximum amount that could be withdrawn in a given legislative session, assuming that the General Assembly wishes to make the largest withdrawals possible across all 23 sessions simulated. If "1/2 Shortfall" (column 9) is less than or equal to one-half of the rainy day fund balance shown in column 14 for the previous session, then the "Maximum Withdrawal" is the same as "1/2 Shortfall." But if "1/2 Shortfall" is greater than one-half of the rainy day fund balance for the previous session, then the "Maximum Withdrawal" is equal to this smaller amount. (These values assume that interest on the existing fund balance is accrued once a year, and that deposits or withdrawals are made only once a year as well. Further, it is assumed that all interest payments, deposits, and withdrawals are made on the same day. Actual payments, deposits, and withdrawals would vary as

specified by law and practice of the General Assembly. Alternatives to these assumptions could cause the values in this column to change slightly.)

11. *Resulting Approp. to Rainy Day Fund.* Final required deposits to the rainy day fund may be less than "Formula Approp. to Rainy Day Fund" (column 8). The reason is that the previous fund balance (column 14) is sufficiently close to the fund maximum (column 7) that the full amount shown in column 8 does not need to be deposited. If the fund maximum is to be reached in a given year, the amount shown in column 11 is also affected by interest collected on the previous balance (column 12) and perhaps by maximum withdrawals that may be allowed simulateously (if a revenue forecast shortfall is also occurring). Otherwise, the value in column 11 is the same as that shown in column 8.

12. *Interest on Prev. Balance (@ 8%).* The fund total for the previous year (column 14) is assumed to accrue interest at the rate of 8 percent. The amount of annually accrued interest on the previous balance is shown in column 12.

13. *Net Change in Fund.* This amount represents how much the total fund balance (in column 14) changes from the previous year to the current year. This amount is the sum of "Resulting Approp. to Rainy Day Fund" (column 11) and "Interest on Prev. Balance" (column 12) minus "Maximum Withdrawal" (column 10), up to the cap allowed by "Fund Maximum" (column 7).

14. *Fund Total ($).* The amount shown for a given year represents the resulting rainy day fund balance <u>after</u> all deposits and withdrawals approved in the corresponding legislative session were implemented, and after accruing interest has been added. This amount is shown in millions of dollars. The column assumes the creation of the fund in 1994 with a zero balance.

<u>Simulated Revenue Forecast Shortfalls</u>

In this simulation, it was assumed that the pattern of revenue forecast shortfalls that occurred from FY74 to FY92 would again occur for FY98 to FY15. Revenue forecast data were not available for FY69 to FY73 that would be comparable to the data for FY74 to FY92. Therefore, in the simulation, it was assumed that no revenue forecast shortfalls would be occurring from FY93 to FY97.

Further, it was assumed in this simulation that the General Assembly would make withdrawals for the <u>current</u> fiscal years in which legislative sessions occur. In this way, larger amounts over the years could be withdrawn from the fund, compared to an approach which would combine shortfalls across fiscal years in a biennium.

The spreadsheet generating these simulated withdrawals is shown in Table D-4. An explanation of each column of the spreadsheet follows.

Table D-4

Simulated Revenue Forecast Shortfalls
($ millions)

(A) FUTURE SESSION	(B) PAST SESSION	(C) FISCAL YEAR	(D) FIRST APPROP. ACT (ACT1)	(E) SECOND APPROP. ACT (ACT2)	(F) FINAL FORE-CAST	(G) REVENUE FORECAST SHORTFALL AS % OF PRIOR FY COLLECTIONS (ACT1 TO) (ACT2)	(H) (ACT2 TO) (FINAL)	(I) (ACT1 TO) (FINAL)	(J) PAST SESSION SHORT-FALL (%)	(K) SHORTFALL FOR FUTURE SESSION ($)
	74	FY75	1329.50							
		FY76	1483.20							
1998	75	FY75		1319.30		1.12				
		FY76		1514.10		N.A.				
1999	76	FY76			1458.30		5.44		5.44	546.83
		FY77	1691.80							
		FY78	1929.20							
2000	77	FY77		1691.80		N.A.				
		FY78		1976.40		N.A.				
2001	78	FY78			1894.10		6.33		6.33	806.53
		FY79	2000.30							
		FY80	2256.50							
2002	79	FY79		2067.60		N.A.			2.42	366.52
		FY80		2219.10		2.42				
2003	80	FY80			2300.60		N.A.			
		FY81	2480.50							
		FY82	2711.20							
2004	81	FY81		2539.50		N.A.				
		FY82		2786.30		N.A.				
2005	82	FY82			2767.70		.88			
		FY83	3095.10							
		FY84	3464.00							
2006	83	FY83		2971.80		5.38			5.38	1208.33
		FY84		3322.20		6.18				
2007	84	FY84			3331.50		N.A.	5.39	5.39	1298.49
		FY85	3658.70							
		FY86	4053.80							
2008	85	FY85		3744.80		N.A.				
		FY86		4068.30		N.A.				
2009	86	FY86			4123.90		N.A.			
		FY87	4395.90							
		FY88	4738.90							
2010	87	FY87		4508.60		N.A.				
		FY88		4884.60		N.A.				
2011	88	FY88			4942.20		N.A.			
		FY89	5326.90							
		FY90	5736.70							
2012	89	FY89		5451.50		N.A.				
		FY90		6059.50		N.A.				
2013	90	FY90			5644.30		8.74		8.74	4068.92
		FY91	6246.30							
		FY92	6813.30							
2014	91	FY91		5539.10		14.89			14.89	6930.48
		FY92		5841.00		20.47				
2015	92	FY92			5841.00		N.A.	19.93	19.93	9528.44

NOTE: "N.A." represents Not Applicable, because forecast was revised upwards instead of downwards.

A. *Future Session.* This column labels the future legislative session with which the simulated shortfall is matched.

B. *Past Session.* This column labels the past legislative session with which the future legislative session is matched.

C. *Fiscal Year.* This column labels the fiscal years for which appropriations could be made in the corresponding past legislative session, and for which forecast data were available.

D. *First Approp. Act (Act1).* This column represents the forecasted general fund revenues (excluding transfers and ABC profits) in the first Appropriation Act of a biennium affecting a given fiscal year. It is assumed that all forecasted revenues are appropriated.

E. *Second Approp. Act (Act2).* This column represents the general fund forecast revisions (made a year after the number in column D), in the amended or second Appropriation Act affecting a given fiscal year of a biennium. Again, it is assumed that all forecasted revenues are appropriated.

F. *Final Forecast.* Historically, for odd-numbered fiscal years, the "Second Appropriation Act" forecast (column E) typically is made four to five months before the end of the fiscal year. For even-numbered fiscal years, the "Second Appropriation Act" forecast is made 16 to 17 months before the end of the fiscal year. Department of Taxation (DOT) staff have subsequently made forecasts for even-numbered fiscal years, typically four to five months before the end of the fiscal year. These DOT forecasts for even-numbered fiscal years are shown in this column as the "Final Forecast."

G. *Revenue Forecast Shortfall as % of Prior FY Collections (Act1 to Act2).* In this simulation, there are three possible ways that a shortfall can occur between appropriated general fund revenues and a revised general fund forecast: (1) the forecast on which the first Appropriation Act is based is higher than the subsequent revised forecast on which the second Appropriation Act is based; (2) the forecast for an even-numbered fiscal year that is the basis of the second Appropriation Act is higher than the subsequent revised Final Forecast; and (3) the forecast for an even-numbered fiscal year on which the first Appropriation Act is based is higher than the Final Forecast, which is made two years later. Column G computes shortfalls that occur in the first situation, as a percentage of the most recently completed fiscal year's certified tax revenues. For example, for FY75, general fund revenues were forecasted to be $1329.2 million during the 1974 legislative session, which eventually passed the first Appropriation Act for which funds for FY75 were initially allocated. A year later, in the 1975 session, the forecast for FY75 general fund revenues was revised downward to $1319.3

million, a shortfall of $9.9 million. At that time, the most recently completed fiscal year (FY74) certified tax revenues amounted to $912.6 million (see Table 1). This $9.9 million shortfall is 1.12 percent of the $912.6 million certified tax revenues from FY74; this percentage is shown in column G. (It should be noted that this particular percentage is less than two percent, the threshold specified in SJR 159 as the amount that must be exceeded before a withdrawal from the rainy day fund can be made.)

H. *Revenue Forecast Shortfall as % of Prior FY Collections (Act2 to Final).* This column represents shortfalls occurring when the forecast for an even-numbered fiscal year that is the basis of the second Appropriation Act is higher than the subsequent revised Final Forecast. As with columns G and I, the shortfall is represented as a percentage of the certified tax revenues from the most recently ended fiscal year.

I. *Revenue Forecast Shortfall as % of Prior FY Collections (Act1 to Final).* This column represents shortfalls occurring in the final possible situation, when the forecast for an even-numbered fiscal year on which the first Appropriation Act is based is higher than the Final Forecast, which is made two years later. As with columns G and H, the shortfall is represented as a percentage of the certified tax revenues from the most recently ended fiscal year.

J. *Past Session Shortfall (%).* This column shows the greatest percentage shortfall that could apply for the fiscal year in which a legislative session occured, and that is above the two-percent threshold. It is based on observed shortfalls and data from FY74 through FY92.

K. *Shortfall for Future Session ($).* This column uses a percentage shortfall from past years, and projects it as a simulated shortfall for a future legislative session, and as a dollar amount. In particular, the "Past Session Shortfall" (column J) as a percentage is assumed to occur again in a future legislative session. It is converted into a dollar amount by multiplying the percentage (divided by 100) by the assumed certified tax revenues from the most recently ended fiscal year prior to the future legislative session. For example, the 1999 legislative session is assumed to have a revenue forecast shortfall like the one that occurred in the 1976 session. The 1976 session shortfall was 5.44 percent of the certified tax revenues from the most recently ended fiscal year (FY75). In the 1999 session, the most recently ended fiscal year would be FY98. The certified tax revenues for FY98 is assumed to be $10047.83 million (see Table D-1 or D-2). Multiplying 5.44 percent (and dividing by 100) by 10047.83 results in 546.83, which is the shortfall assumed to occur for FY99, and to be acted upon in the 1999 General Assembly session. One half of the shortfalls shown in column K of this spreadsheet are shown in column 9 of the spreadsheets in Tables D-1 and D-2.

Appendix E

Effects of Tax Increases on the Revenue Stabilization Fund

After the introduction of Senate Joint Resolution No. 159, concerns were expressed regarding how the proposed Revenue Stabilization Fund would affect revenues resulting from tax increases. The concern was expressed that because deposits to the fund were based on above-average revenue growth, new revenues from a tax increase would be siphoned off into the fund. Consequently, the intended effect of a tax increase -- the availability of additional revenues -- would be diluted by deposit requirements of the fund.

JLARC staff agreed that given the mathmatical properties of the fund, such a dilution of new tax revenues would likely take place. Subsequent simulations involving the effects of a hypothetical tax increase showed that the expected property did, in fact, exist.

For purposes of simulating the effects of a tax increase, JLARC staff assumed that an increase in the sales tax was enacted in 1994, with $250,000,000 collected in additional revenues in FY 95 and in subsequent years. (Growth factors and base amounts are the same as those assumed in the simulations described in Appendix D.)

The simulation showed that approximately $162 million of the $250 million in new revenues would be required for deposit in the Revenue Stabilization fund in 1996. Consequently, only about one third of these revenues would be available for their intended purposes.

Given the effects of the fund's properties on revenues from new taxes, the Senate Finance Committee adopted an amendment in the nature of a substitute (Appendix A) which provided that:

> ...growth in certified tax revenues, which is the result of either increases in tax rates on income or retail sales or the repeal of exemptions therefrom, may be excluded, in whole or in part, from the computation immediately preceding for a period of time not to exceed six calendar years from the calendar year in which such tax rate increase or exemption repeal was effective.

The inclusion of this language in the amendment in the nature of a substitute should effectively address the concerns raised. Alternative simulations also examined the effects of either (1) excluding the revenues from a tax increase for a full six year period, or (2) phasing the new revenues into the calculations during the third, fourth, fifth, and sixth years. Excluding new revenues from the calculations for the entire six years resulted in the need for an additional $352 million in deposits in the seventh year. In contrast, the phase-in resulted in an additional $36 million deposit in the third year, an additional $36 million in the fourth year, no additional deposit in the fifth year, an additional $32 million in the sixth year, and an additional $38 million in the seventh year. Clearly, some kind of phase-in of new revenues would result in a more stable fund and require less of a "balloon"-type deposit after the exclusion period is over.

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