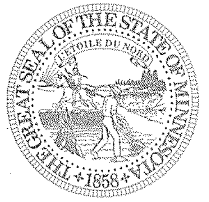
State of Minnesota \ LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT



TO: Members of the Legislative Commission on Pensions and Retirement

FROM: Ed Burek, Deputy Director

RE: Mandated Commission Study; Minnesota Combined Investment Funds and Minnesota Post Retirement Investment Fund Structure and Transfers: First Consideration

DATE: August 23, 2006

Introduction

Laws 2006, Chapter 277, Article 8, mandates the Legislative Commission on Pensions and Retirement to study the structure of the Minnesota Combined Investment Funds (Combined Funds) under Minnesota Statutes, Section 11A.14, the Minnesota Post Retirement Investment Fund (Post Fund) under Minnesota Statutes, Section 11A.18, and transfer requirements from the Combined Funds to the Post Fund. The Commission study shall include draft legislation to implement any recommended changes included in the report. The study is to be completed by December 1, 2006, and must be filed with the chairs of the Senate State and Local Government Operations Committee, the Senate Finance Committee, the House Government Operations and Veterans Affairs Committee, the House State Government Finance Committee, and the House Ways and Means Committee.

Commission staff suggests that the study be completed over the course of three meetings. This memo, provided for the Commission's first consideration of this topic, provides background on Section 11A.14 and 11A.18, identifies transfer requirements, reviews the ability of the post-retirement adjustment system to keep retirees whole with inflation, and it begins discussion of post-retirement policy.

Overview of Combined Fund/Post Fund

The Combined Fund and Post Fund act like mutual funds by combining and investing the assets of many investors. In the Combined Fund, active member and deferred member assets of various retirement funds and certain non-retirement assets are merged for investment purposes. In general, at the time of retirement, assets representing the full actuarial value reserves for the annuities are transferred from the Combined Fund to a fund which holds and invests assets for retirees, the Post Fund.

Merging the assets of numerous funds into the Combined Fund and Post Fund provides efficiencies by cutting management and custodial fees. In general, each investment manager that SBI retains is investing pooled assets with ownership interests held by numerous retirement plans in the Combined and Post Fund. Part of SBI's role is to make investment strategy decisions-establishing the Combined Fund and Post Fund asset mixes, deciding whether to use active management or passive management (indexing) for the various asset classes, and managing the investment managers by reviewing their performance and making hiring/firing decisions. SBI keeps track of the ownership interests within the Combined and Post Fund and is able to inform each plan of the value of its ownership share.

Background Information on the Minnesota Combined Investment Fund (Minnesota Statutes, Section 11A.14) – Creation and Changes Over Time

a. Created in 1980, by Laws 1980, Chapter 607, Article 14, Section 12. The Minnesota Combined Investment Fund, coded as Section 11A.14, was created in 1980 largely to serve as the joint investment vehicle for the assets of active and terminated members prior to retirement. The plans invested through the Combined Fund were the defined benefit plans of the Minnesota State Retirement System (MSRS), the Public Employees Retirement Association (PERA), and the Teachers Retirement Association (TRA), specifically, the MSRS General State Employees Retirement Plan (MSRS-General), the MSRS Correctional State Employees Retirement Plan (MSRS-Correctional), the Highway Patrol Plan (later renamed the State Patrol Retirement Plan), the Judges Retirement Plan, the PERA General Employee Retirement Plan (PERA-General), the Public Employees Police and Fire Retirement Plan (PERA-P&F), and TRA. Also included was "any other fund required to participate." The State Board of Investment (SBI) is responsible for investing the Combined Fund, and meets that responsibility by retention of outside money managers.

The first asset transfer to the Combined Fund occurred in July 1980. The transferred assets were valued at market including any accrued interest. Only two asset classes were specifically mentioned in

the provision, cash and equities. Cash investments (which were defined as fixed income investments with maturities of less than three years) were to be revalued daily, while equity investments were to be revalued at least monthly. Presumably, other debt investments were included in the Combined Fund, but there was no statement in the law regarding these other debt assets or how often they were to be valued. Each participating pension plan held shares or units, initially valued at $1,000, in the Combined Fund investment accounts. Earnings were used to purchase new shares and were allocated to the applicable plans, based on each plan's existing share of total assets. Following the initial asset transfers that created the Combined Fund in 1980, as a general rule all subsequent purchases or share redemptions were in cash, rather than some other form of financial asset. Investment earnings in a given account were distributed at least once each year, based on each participating fund's average holdings in each account during the period. The distributions were in the form of additional units unless the participating fund directed otherwise.

The section's statements on the treatment of unrealized asset appreciation or depreciation were confusing. Two subdivisions dealt with the matter, but it is unclear how the two provisions relate to one another, and the provisions could be read as being contradictory. Subdivision 8, Unrealized Appreciation/Depreciation Account, stated that any unrealized asset appreciation or depreciation must be recorded in an unrealized appreciation/depreciation account, while Subdivision 9, Valuation of Units, states that unrecognized appreciation or depreciation shall be reflected in the share value. If unrealized appreciation/depreciation is reflected in share value, it is unclear what purpose the Unrealized Appreciation/Depreciation Account or ledger specified in Subdivision 8 was intended to serve.

SBI was required to keep accounting records necessary to determine the shares owned by each participating fund and to annually provide each participating fund or plan with financial statements prepared in accordance with generally accepted accounting principles.

b. 1981 Change; Laws 1981, Chapter 37, Section 2. The 1981 change was technical, replacing Highway Patrol Plan references to the State Patrol Retirement Plan.

c. 1984 Changes; Laws 1984, Chapter 383, Section 1. The 1984 changes were substantive, addressing some of the omissions and inconsistencies in the initial 1980 legislation. The 1984 changes explicitly added fixed income accounts, and gave SBI authority to create any other accounts which it deemed appropriate. All language dealing with the maximum three year maturity on cash investments was removed, presumably because it was unnecessary given the addition of other debt assets to the provision, or was incorrect (the investment community generally defines cash investments as liquid debt investments with maturity of one year or less). Since an investment vehicle typically includes only one asset class (a cash account, bond account, or domestic stock account, for example), language was added authorizing investment accounts that include only one asset class. In contrast, the 1980 law had stated that the equity account could be invested in a single asset class, but did not mention requirements or options for investing cash or other accounts or asset classes.

   The confusion regarding the treatment of unrecognized gains and losses was removed by changing the nature of Subdivision 8. Rather than dealing with unrecognized losses and gains, that subdivision was revised to be a statement of the treatment of recognized gain or loss when a plan transfers its active member/terminated member assets to the Combined Fund. The revised subdivision stated that if a recognized gain or loss occurs when assets are transferred to the Combined Fund, that gain or loss will be reflected in the number of shares credited to the plan.

d. 1985 Changes; Laws 1985, Chapter 224, Section 1. The 1985 revisions explicitly added several other funds to be invested through the Combined Fund. These were the Permanent School Fund, the Supplemental Investment Fund, and the Variable Annuity Investment Fund. The Supplemental Investment Fund (coded as Section 11A.17) currently invests all assets of the MSRS-Unclassified Program, the Public Employees Defined Contribution Plan, the Hennepin County Supplemental Retirement Plan, and the Post Retirement Health Care Savings Plan. It is also one of the investment vehicles offered under the Individual Retirement Account Plan (IRAP) and the Minnesota State Colleges and Universities (MnSCU) Supplemental Retirement Plan. The Variable Annuity Fund (coded as Section 11A.19, and repealed in 1990) existed for the assets of TRA members who were in the Variable Annuity Program, which was officially ended in 1989.

e. 1990 Changes; Laws 1990, Chapter 426, Article 1, Section 3. The 1990 changes were technical corrections. Given the ending of the Variable Annuity Program in 1989, the Variable Annuity Fund was removed from the list of funds to be invested through the Combined Fund.

f. 1992 Changes; Laws 1992, Chapter 539, Section 1. This change was technical, a clarification that a fund which participates in the Combined Fund owns an undivided participation in the accounts in which it participates, rather than in the Combined Fund as a whole.

g. 1993 Changes; Laws 1993, Chapter 300, Section 2 to 5. Several subdivisions within this section were revised, probably to address federal government plan qualification requirements, by prohibiting the commingling of retirement and non-retirement assets. Subdivision 1, the Combined Fund establishment provision, was revised to state that the Combined Fund existed to invest the assets of public retirement funds and non-retirement funds, and that non-retirement funds were not to be commingled with assets of retirement plans. Subdivision 2, the Combined Fund assets provision, was amended to recognize that some assets were not retirement plan assets. Subdivision 4, the Combined Fund investments provision, was revised by stating that SBI could manage assets in a separate account, at its discretion. This would serve to keep retirement and non-retirement assets separate, or to allow SBI to invest the assets of certain short-term asset pools in appropriate debt investments. Finally, Subdivision 5, the participating funds provision, was revised to make inclusion permissive rather than mandatory. Any fund authorized by law to participate in the Combined Fund may, rather than must, have its assets invested by SBI through the Combined Fund, and the list of specific funds to be invested through the Combined Fund was stricken. The reasoning behind this change from mandatory to permissive is unclear.

Background Information on the Minnesota Combined Investment Fund (Minnesota Statutes, Section 11A.14) – Summary of Current Provision

The subdivisions of the current law version of the Minnesota Combined Investment Fund, Minnesota Statutes 2006, Section 11A.14, can be summarized as follows:

Subdivision 1, Establishment. The Combined Funds exists to provide investment vehicles for assets of the participating public retirement plans and non-retirement funds. Retirement plan assets must not be commingled with non-retirement assets. The Combined Fund consists of cash management accounts, fixed income accounts, equity accounts, and any other accounts the State Board of Investment (SBI) determines appropriate.

Subdivision 2, Assets. The Combined Fund assets consist of the retirement plan and non-retirement assets certified to the Combined Fund. Each participating plan or fund shall own an undivided interest in the accounts in which it participates.

Subdivision 3, Management. The SBI is responsible for managing the Combined Fund.

Subdivision 4, Investments. Combined Fund assets must conform to the SBI investment authority provision, Section 11A.24, except that any account may be completely invested in a single asset class if deemed appropriate.

Subdivision 5, Participation in Combined Fund. Any public retirement plan or non-retirement fund authorized by law to have its assets managed by SBI may participate in the Combined Fund.

Subdivision 6, Initial Transfer of Assets. As of July 1, 1980, or a later date as determined by SBI, the participating funds shall transfer to the Combined Fund all applicable securities, to be used to purchase Combined Fund units.

Subdivision 7, Initial Valuation of Assets and Units. All assets transferred to the Combined Fund transfer at market value, including any accrued interest. The initial value of each unit shall be $1,000, with each participating fund allocated units in the various accounts of the Combined Fund in the same proportion as their assets are to the total assets in the applicable account.

Subdivision 8, Realized Appreciation (Depreciation). Any realized gains or losses in the value of the investment that occurs when assets are transferred to the Combined Fund are recognized on the date of transfer.

Subdivision 9, Valuation of Units. Units are to be valued when deemed necessary, but at least monthly. The market value of all assets in an account, minus any undistributed income, shall be divided by the number of units to determine the unit value.

Subdivision 10, Purchase and Redemption of Units. Purchase and redemption of units shall occur on the first business day following a valuation date, with all transactions based on that applicable unit value. All transactions will be made in cash unless SBI allows an exception.

Subdivision 11, Earnings Defined. Investment earnings are the sum of dividends, interest received and accrued, income from the sale of options, rights, warrants, or security lending, and other income received through the valuation date.

Subdivision 12, Distribution of Earnings. At least annually SBI shall distribute net earnings to participating plans and funds, with the allocation based on the participant's average unit holdings in each account during the period. These distributions will be in the form of additional units, unless the participating fund directs otherwise.

Subdivision 13, Records Required. SBI shall keep accounting records necessary to determine the shares owned by each participating fund.

Subdivision 14, Reports Required. On each valuation date, SBI shall inform each participating fund of the number of shares owned and their value. Annually, SBI shall provide each participating fund or plan with financial statements prepared in accordance with generally accepted accounting principles.

Background Information on the Minnesota Adjustable Fixed Benefits Fund, the Predecessor to the Minnesota Post Retirement Investment Fund

Prior to creation of the Post Fund in 1980, benefits were adjusted during retirement through the Minnesota Adjustable Fixed Benefit Fund (MAFB), which was created in 1970. The plans participating in the Minnesota Adjustable Fixed Benefit Fund include the Minnesota State Retirement System (MSRS), Public Employees Retirement Association (PERA), and Teachers Retirement Association (TRA) plans previously mentioned, plus the Minneapolis Employees Retirement Fund (MERF). (In 1980 or 1981, when the Post Fund was created or soon thereafter, MERF was permitted to invest and manage the assets of its retirees in a separate investment fund invested by MERF, which was set up to be identical to the Post Fund in structure and operation.)

At least in theory, the Minnesota Adjustable Fixed Benefit Fund had a post-retirement adjustment process that allowed retiree benefits to increase or decrease during retirement, depending upon investment results, although the benefit amount was not permitted to go below that received at the time of retirement. In practice, the Minnesota Adjustable Fixed Benefit Fund operated differently. By amending the benefit floor language, the Legislature never permitted benefits to fall below the most recent levels.

Each retirement fund taking part in the Minnesota Adjustable Fixed Benefit Fund transferred sufficient reserves to permit level annuities to be paid to retirees, providing the fund continued to earn at least the actuarial interest requirement. The Minnesota Adjustable Fixed Benefit Fund annuities could be revised through an adjustment mechanism relying on a two-year average total rate of return measure compared to the actuarial return. The use of averaging presumably was intended to add some stability. The total rate of return included dividends, interest, and realized and unrealized gains or losses. Annually, a "benefit adjustment factor" was computed. This was calculated by dividing the quantity one plus the two-year average total rate of return, by one plus the actuarial return. If the fund was not meeting the actuarial investment earnings requirement, the ratio or benefit adjustment factor would be less than one. The ratio would be equal to one if the return equaled the actuarial return, and if the return exceeded the actuarial return the ratio would be greater than one. The law stated that benefits could be increased if the benefit adjustment factor was greater than 1.02, providing that annuity stabilization reserve requirements, discussed below, were met. If the benefit adjustment factor was less than .98, a benefit decrease was required, but at no time could the retirement payments drop below the level received at the date of retirement.

Sizable benefit changes occurred during the 1970s, but most of these were ad hoc changes authorized by the Legislature to address inadequate benefit amounts provided to certain older retirees, or to compensate the retired group for legislated changes in the post-retirement interest rate actuarial assumption, which would have the effect of lowering future increases. (This interest rate assumption was revised from 3.0 percent to 3.5 percent in 1969, and from 3.5 percent to 5.0 percent in 1973.) The benefit increases actually granted as a result of the operation of the Minnesota Adjustable Fixed Benefit Fund were minimal, due in part to the poor investment climate during the 1970's and to annuity stabilization reserve requirements that were part of the Minnesota Adjustable Fixed Benefit Fund adjustment process. Benefit

increases above four percent could not be paid unless the annuity stabilization reserve contained enough assets to cover 15 percent of the past year's benefit payments. If the reserve was insufficient, part of the new investment earnings were added to the reserve rather than being paid out as benefits. Benefit increases above four percent required correspondingly higher annuity reserves. The poor performance of the Minnesota Adjustable Fixed Benefit Fund during the 1970s, in part due to the investment climate during the period and in part due to the design of the adjustment mechanism, led to pressure to revise the system. This led in 1980 to the creation of the Post Fund.

Background Information on the Minnesota Post Retirement Investment Fund – Creation and Changes Over Time

The Minnesota Post Retirement Investment Fund (Post Fund) was created by Laws 1980, Chapter 607, Article 14, Section 16, to be the successor to the Minnesota Adjustable Fixed Benefit Fund. Like the Minnesota Adjustable Fixed Benefit Fund, the Post Fund included a benefit adjustment mechanism intended to offset, to some degree, increases in living costs. One difference was that while the old system based adjustments on total return, which includes unrealized gains, the original version of the Post Fund provided adjustments based solely on realized income. Post Fund procedures also ignored unrecognized gains and losses in determining whether the Post Fund's reserves were sufficient to sustain the existing benefit levels for the expected remaining lifetime of the benefit recipients. Another difference was that the Post Fund contained no provision to reduced benefit levels below that most recently received. Benefits could go up, but they could not go down. Third, the original Post Fund based adjustments on a single year's realized investment return, rather than using a multi-year period.

To determine adjustments, at the end of each fiscal year (June 30) the required reserves were calculated. The required reserves were the assets needed to pay the present stream of annuity payments to be paid to retirees over time, providing that the assets earned at least five percent, which was the Post Fund actuarial interest requirement at that time. The total reserves were multiplied by five percent to determine the amount of investment income needed to sustain the current benefit level. By subtracting this amount from total realized investment earnings, excess investment earnings, if any, were obtained – earnings which could be used to create a permanent increase in retiree benefits. The fiscal year excess earnings were used to determine the amount of increase, if any, payable the next January 1st, the effective date of any benefit change. To determine benefit increases payable as of January 1st, the excess investment income and the required reserves must be projected forward to that date. This requires increasing the excess investment income by 2.5 percent, the return which those funds must earn for the six month period in order to meet actuarial requirements, and estimating the total required reserves on January 1 for those eligible for a post-retirement adjustment.

If Post Fund assets had a book value that was less than the required reserves, a portion of any increase that would otherwise be paid was retained, to help build up the fund's asset value. Book value was defined in the provision as the cost of equity investments plus the amortized cost of fixed income investments. If book value, after adjustments for mortality gains or losses, was less than the required reserves, then 25 percent of the excess investment income must be retained, with the remaining 75 percent used to increase annuities. The retention of part of the excess reserves if the total required reserves is greater than book value would help address Post Fund unfunded liabilities. However, the fund could have a market value in excess of the required reserves and have a book value that was less than the required reserves. In this case, some of the excess earnings would be retained despite the excess of the fund's market value compared to book value. This system, in determining excess income and the level of existing assets, placed no reliance on unrecognized gain (any increase in the market value of an asset since the asset was purchased, but which has not been captured or recognized by selling the asset).

The original 1980 version of the Post Fund exposed the State Board of Investment to certain pressures, a consequence that may not have been foreseen or intended. Because post-retirement increases excluded any unrecognized gains, the size of any post-retirement adjustment was in part determined by SBI's willingness to sell appreciated assets. Retirees want post-retirement increases. If SBI were influenced by that pressure, it might sell certain appreciated securities although these sales were not in the best long-term interests of the fund and of retirees. If these securities were worth retaining, SBI might buy them back, resulting in the same portfolio but with higher transaction costs.

The Post Fund section, 11A.18, has been revised numerous times, with the most significant changes occurring in 1992, 1997, and 2006.

a. 1981 Changes; Laws 1981, Chapter 208, Section 2, and Laws 1981, Chapter 158, Section 1. Chapter 208, Section 2, provided a clarification stating that when projecting required reserves from June 30 to

January 1, SBI must assume that all eligible individuals alive on June 30 remain alive on the following January 1. Chapter 208, Section 2, and Chapter 158, Section 1, both revised excess investment income retention procedures. However, the Revisor of Statutes did not try to blend the two laws into a single provision. The Revisor incorporated the Chapter 208, Section 2, change into the Minnesota Statutes 1981 Supplement version of Minnesota Statutes, Section 11A.18, Subdivision 9, which stated that rather than retaining 25 percent of excess investment income if book value was less than the required reserves, as specified in the 1980 provision, the retained amount would be 25 percent or any amount sufficient to cause the book value to equal the required reserves, whichever is less. That same provision as it was changed by Laws 1981, Chapter 158, Section 1, appeared in a footnote. In that footnote, if the book value was less than the required reserve, the retained amount would be 5 percent rather than 25 percent, or any amount sufficient to cause the book value to equal the required reserves, whichever is less

b. 1982 Changes; Laws 1982, Chapter 424, Section 1. The 1982 change took the version that had appeared in a footnote in the 1981 Supplement, and placed in the revised statute. If book value was less than the required reserves, the portion of excess income retained amount would be five percent, rather than 25 percent, or an amount sufficient to cause the book value to equal the required reserves, whichever is less.

c. 1983 Changes; Laws 1983, Chapter 324, Section 4 to 6. The 1983 Legislature made two changes. First, some revision was made to the deferred yield adjustment subdivision. Second, the Post Fund mortality gain and loss subdivision was revised by requiring all reserve adjustments due to mortality gains and losses in a fiscal year to be completed by the following December 31, or interest will be assessed.

d. 1987 Changes; Laws 1987, Chapter 259, Section 3 to 5. Subdivision 6, dealing with the transfer of required reserves to the Post Fund, was revised by specifying that transfers occur no later than the last business day of the month in which the annuity commences, rather than the date the benefit commences; by requiring that the transferred amounts be determined under procedures specified by the Commission-retained actuary; and by allowing "best estimate" transfers if the exact amount has not been determined, with interest required on any required transfer amount that is later determined to be deficient. The interest rate was the applicable pre-retirement interest rate or the average short-term interest rate, whichever is greater. Subdivision 9, the provision specifying the post-retirement adjustment procedure, is revised by specifying that all reserve amounts must be determined by the Commission-retained actuary; and language is added specifying that a Social Security-leveling option annuity must be treated as the sum of a period certain annuity and life retirement annuity for purposes of any post-retirement adjustment. Any post-retirement increases granted on the period certain retirement annuity terminate when the period certain retirement annuity terminates.

e. 1989 Changes; Laws 1989, Chapter 319, Article 14, Section 1 to 3. The 1989 change allowed individuals who were receiving an annuity for less than one year as of June 30 to receive a partial post-retirement adjustment. Previously, individuals had to be receiving an annuity for at least one year to be eligible for any adjustment.

f. 1990 Changes; Laws 1990, Chapter 570, Article 9, Section 1. If the exact amount of a required transfer to the Post Fund was not known at the time of the transfer, the estimated transfer had to continue to be based on the best estimate if made by TRA or PERA, but MSRS is given more flexibility. Its estimated amount "may" be based on the best estimate. Also, the applicable interest rate on shortfalls would be the pre-retirement interest rate, rather than the pre-retirement interest rate or the actual average short-term rate, whichever if greater.

g. 1992 Changes; Laws 1992, Chapter 530, Sections 1 to 3. This chapter made significant changes, fundamentally changing the Post Fund post-retirement adjustment procedures, as follows:

   1. *Nature of Post-Retirement Increases*. Post-retirement increases would be based on total investment performance, not just realized gains, and for the most recent five-year period, rather than for a single year;

   2. *Inflation Match Component*. An annual post-retirement increase matching inflation, as measured by changes in the Consumer Price Index, but not to exceed 3.5 percent, was created; and

3. *Additional Investment-Based Increase.* An additional investment-performance based increase was permitted based on investment performance in excess of 8.5 percent total returns over five-year periods.

To demonstrate how the revamped Post Fund automatic post-retirement increase procedure worked, at least in good investment times, assume the Post Fund is fully funded and the fund's total return is greater than 8.5 percent. To determine the increase payable, SBI would first determine the total required reserves needed to sustain the current benefit level. To support that level, the reserves need to earn the actuarial rate of return for the Post Fund, which was five percent. The total amount needed to sustain the existing benefits is computed by multiplying the reserves by 1.05. Paying the inflation match up to 3.5 percent required additional reserves. If inflation as measured by changes in the Consumer Price Index was 3.5 percent, then the Post Fund would need to earn a return of 8.5 percent to cover the inflation match. (A return of five percent is needed just to sustain the existing benefit level, and an additional return of 3.5 percent, or a total of 8.5 percent, was needed to cover the inflation match component.) If the Post Fund's total return was in excess of 8.5 percent, then there are some additional assets generated through the investments which can be used to provide further investment-based post-retirement adjustments. To determine this last component, the money (assets) representing this additional return (amounts above that necessary to sustain the present benefit level and to cover the inflation match) is allocated in equal proportion to five accounts representing the current year and the following four years. The amount in the current year's account is the sum of this new allocated amount and all amounts that were added in the past by the operation of this allocation process. SBI then examines the account for the current year and computes how much of a benefit increase, expressed as a percentage, can be sustained by those reserves. This percentage is then added to the inflation match to determine the total percent increase provided to the Post Fund annuities.

The use of five (five-year) accounts for accumulating any excess reserves (the current year plus the next four), creates a form of averaging or smoothing. A very large return in a single year will not immediately impact benefit levels; some of it is allocated to future years, helping to provide later increases despite weaker investment returns. However, if there is a string of very good investment years, a prolonged period of very high benefit adjustments could occur. This did occur in the late 1990s. Similarly, if there is a prolonged period of low investment returns, there can be a prolonged period of no investment-performance based increases above the capped inflation match, even for several years after the return of good investment years. Also, the Post Fund is required to be fully funded before any positive asset amounts can be allocated to the yearly accounts. A period of weak investment returns can create a less than fully funded Post Fund, which must be recouped through investment performance before any positive asset amounts can be allocated to the annual accounts.

h. 1992 Changes; Laws 1992, Chapter 539, Section 8. This section revised the mortality gains and losses subdivision, requiring any delinquent charges or credits to include interest at the pre-retirement interest rate of the applicable fund, rather than at the short-term rate earned by the Post Fund.

i. 1994 Changes; Laws 1994, Chapter 604, Article 1, Section 6. The 1994 change clarified procedures for computing required reserves.

j. 1995 Changes; Laws 1995, Chapter 186, Section 6. In a Revisor's bill, a reference to a repealed provision is removed from the post-retirement payment provision.

k. 1997 Changes; Laws 1997, Chapter 233, Article 1, Sections 5 and 58. The inflation match was revised downward to 2.5 percent rather than 3.5 percent, and at the same time (in Section 58) the Post Fund investment return assumption was revised from five percent to six percent. (Raising the Post Fund investment return assumption from five percent to six percent lowered expected future annual increases by approximately one percent. In other law enacted that year, the annuities of existing retirees were revised to offset this effect on average.)

l. 2001 Changes; First Special Session, Chapter 10, Article 3, Section 2. In an administrative change, language is added stating that fair market value must be computed consistent with generally accepted accounting principles.

m. 2002 Changes; Laws 2002, Chapter 396, Article 11, Section 52. In an administrative change, some cross-references are revised to be consistent with a Chapter 356 recodification.

n. 2006 Changes; Laws 2006, Chapter 277, Article 1, Section 1. Language is added to the provision stating that post-retirement increases in any year can not exceed five percent, effective July 1, 2010.

Background Information on the Minnesota Post Retirement Investment Fund – Summary of Current Provision

Given the changes that have occurred over time to this section, the current version of the Minnesota Post Retirement Investment Fund (Post Fund) provision, Section 11A.18, can be summarized as follows:

Subdivision 1, Establishment. The Post Fund serves as an investment vehicle for the reserves of the various retirement annuities payable by the included plans. The Post Fund is a continuation of the Minnesota Adjustable fixed Benefits fund in existence on January 1, 1980.

Subdivision 2, Assets. The assets represent the reserves for the retirement annuities which have been transmitted to the Post Fund.

Subdivision 3, Management. SBI manages the fund.

Subdivision 4, Investment. The Post Fund assets must be invested consistent with SBI's investment authority provision, Section 11A.24.

Subdivision 5, Deferred Yield Adjustment Account. A deferred yield adjustment account exists which shall be increased by the sale of debt securities at less than book value and decreased by the sale of investment securities at more than book value. At the end of each fiscal year, a portion of this account's balance is offset against the investment income for that year, with the offset being proportional to the reciprocal of the average remaining life of the bonds sold. In any fiscal year in which the gains on the sale of debt securities exceed the discounts on these securities, the excess is used to reduce the balance of the account. If the balance of deferred yield adjustment account is zero, all excess gains are available for the calculation of postretirement adjustments.

Subdivision 6, Participating Plans, Transfer of Required Reserves. The full actuarial reserves for an annuity shall transfer to the Post Fund no later than the last business day of the month in which the benefit begins to accrue. If the exact amount of the necessary reserves is unknown, the transfer must be based on the best estimate by the TRA or PERA plan administrations, which ever is applicable, and may be base on the best estimate for other participating funds. Any necessary adjustments are to be made in later transfers, with interest paid on any deficiency at the pre-retirement interest rate for the applicable plan.

Subdivision 7, Participation and Financial Reporting in Fund. Each participating retirement plan has an undivided interest in the Post Fund. The participation on any valuation date is determined by revising the previous participation amount by any funds transferred by the applicable plan into the Post Fund, six percent interest on the plan's prior participation amount, and the reserves for any benefit adjustment made as of the current valuation date, adjusted for mortality gains and losses.

Subdivision 8. Withdrawal of Money. SBI can sell securities to raise cash to send to the applicable plan administration to cover benefit payments.

Subdivision 9. Calculation of Post-Retirement Adjustment. An annual permanent increase in annuities is payable matching inflation, not to exceed 2.5 percent, based on the fiscal year change in the consumer price index for urban wage earners and clerical workers. (The full capped increase is payable to annuitants retired at least one year, with those retired less than one year receiving a prorated increase.) To determine if an additional investment-return based increase can be paid, SBI will determine the required reserves for the Post Fund annuities as of June 30, including reserves needed for the capped inflation match. This total will be subtracted from the Post Fund market value. The difference, positive or negative, is allocated equally to five yearly accounts, representing the current year and the next four years. SBI will determine the amount in the current year's account, given the amounts allocated to this account this year and in prior years. If the net amount is positive, SBI determines the percentage by which annuities can be permanently increased given these additional reserves. If the amount in the current yearly account is negative, no investment performance based increase is payable, and this negative amount rolls forward to the next year's account.

Subdivision 10. Payment of Post-Retirement Adjustment. SBI certifies the percentage increase for Post Fund annuities to the plan administrations. These plan administrations begin paying the higher annuities (with applicable prorating for annuitants retired for less than one year on the June 30 determination date) on January 1. The revised annuities are paid automatically unless an annuitant files a written notice with the applicable plan administration that the increase should not be paid.

Subdivision 11. Adjustment for Mortality Gains and Losses. As of June 30 annually, the actuary shall determine the required reserves representing any Post Fund mortality gains or losses for each participating plan. If the amount is a gain, SBI shall sell sufficient securities to transfer applicable amounts to the plan administrations; if a mortality loss occurred, the applicable plan must send the necessary additional reserves to the Post Fund. The amount of the transfers must be determined before any postretirement benefit adjustments are computed. All transfers must be made by December 31 for the preceding June 30 without interest, or with interest at the applicable pre-retirement interest rate for any transfers after December 31.

Subdivision 12. Appropriation of Required Amounts. Amounts needed to pay annuities, including post-retirement adjustments, are appropriated from the Post Fund as needed.

Background Information on the Minnesota Post Retirement Investment Fund – Overview of Transfer Requirements

The first source of transfers to the Minnesota Post Retirement Investment Fund (Post Fund) is due to new annuitants. In general, when an annuity becomes payable to a member of one of the MSRS, PERA, or TRA defined benefit plans, assets representing the full actuarial required reserves for the annuity are transferred out of the Combined Fund into Post Fund. Two exceptions are the Elective State Officers Retirement Plan, which covered constitutional officers first elected before July 1, 1997, and the Legislators Retirement Plan. The Elective State Officers Retirement Plan had neither a pre-retirement nor post-retirement fund, operating as a pay-as-you-go plan. Any retirement plan contributions deducted from pay simply transferred back into the state's general fund. When individuals retired or a survivor benefit became payable, the necessary amounts to cover the monthly annuity payments were appropriated from the state's general fund. Postretirement adjustments are indexed to any adjustments provided by the Post Fund. Similarly, there was no pre-retirement fund for the Legislators Retirement Plan. Amounts deducted as employee plan contributions simply cancelled back to the state's general fund. When individuals retired from the Legislators Retirement Plan, or benefits became payable to a death-while-active-or-deferred surviving spouse, the full actuarial reserves for the annuity were transferred from the General Fund to the Post Fund. However, that changed in mid-2003. Since then, when an annuity commences, the amounts necessary to cover the benefit payments are appropriated, when needed, to cover the payments. Reserves for these retirements no longer transfer to the Post Fund. Another exception applies to retiring police officers or paid firefighters who were members of local relief associations which consolidated into PERA, and who elect to have post-retirement adjustments determined under local plan law rather than the adjustments generated by the Post Fund. The reserves for those annuities are not transferred to the Post Fund.

Annuitant reserves transfer into the Post Fund by the end of the month in which the benefit commences. In some cases, there may be minor flows into or out of the Post Fund to correct for earlier transfers that were based on estimates. If more reserves are needed by the Post Fund to correct an earlier transfer that proved to be insufficient, that subsequent transfer will include interest. Subdivision 6, which covers these transfers that were based on estimates, does not authorize the Post Fund to provide interest if an earlier transfer to the Post Fund proves to be an overestimate.

A second source of transfer to or from the Post Fund is adjustments for mortality gains or losses. Subdivision 11, Adjustment for Mortality Gains and Losses, does seem to require interest to be paid by the Post Fund in some instances. The provision states that transfers to or from the Post Fund will be without interest if made before December 31 relating the actuarial gain or loss analysis for the prior June 30, and with interest at the plan's pre-retirement interest rate (8.5 percent) if the adjustment occurs after December 31.

Post-Retirement Policy: Discussion of Post Fund Changes

a. Overview Comments. Retirees have a need to be kept whole. Inflation erodes purchasing power unless benefits are adjusted to compensate. A problem for public employers is that guaranteeing retirees will be kept whole, or at least will not suffer serious erosion of purchasing power over time, creates liabilities. For decades, the Executive Branch and the Legislature have not been willing to take on these liabilities, at least not explicitly. At the same time, they face pressure from retirees to provide some form of adequate pension adjustments after retirement.

   In response to this pressure, a somewhat unusual structure was been created. Various defined contribution notions were layered on top of the defined benefit plans. Prior to retirement, workers are in defined benefit pension plans, with the benefit at the time of retirement determined by formulas in

law based on the member's high-five average salary, the years of covered service, and the accrual rate (the proportion of the high-five average salary which the individual receives in retirement per year of service). At the time of retirement, this is transformed into a structure with defined contribution plan elements. Under the Post Fund or its predecessor, the initial benefit level and the reserves needed to support that level are known; what is not known are the benefit increases during retirement. They will be determined by the investment performance over time. Since investment market returns and inflation are not highly correlated, sometimes the adjustments failed to keep the retirees whole, leading to pressure to revise the system and/or provide some form of ad hoc adjustment to allow the retirees to catch up for past losses in purchasing power. At other times, increases have been excessive, leading to windfalls for some groups while other groups feel shortchanged.

The Minnesota Post Retirement Investment Fund, or Post Fund, was created in 1980, but an inflation match component was not added until much later, in 1992. One feature of this early Post Fund, which seems odd in retrospect, was basing adjustments solely on realized income rather than on total return. Presumably, this was in response to the 1970s, when equity markets were weak and erratic, with some years having strong negative returns. The new system would considerably downplay the role of equities. Therefore, a large drop in the value of equities would not influence the post-retirement adjustment unless the stocks were sold creating a recognized loss. Given this emphasis on realized income, the State Board of Investment invested the Post Fund heavily in bonds. The Minnesota Adjustable Fixed Benefit Fund had based adjustments on two years of investment returns, while the original Post Fund that replaced it used only one year of investment results. That lack of any averaging is another feature that now seems odd. Perhaps it was thought that averaging would not be needed if bond returns were sufficiently stable.

During much of the 1980s, the Post Fund provided generous increases for retirees, considerably in excess of inflation. In part this was due to good investment returns in that decade for both stocks and bonds. Specific actions by the Federal Reserve may also have contributed. The Federal Reserve was concerned about levels of inflation during the 1980s and in part of this decade sharply increased interest rates to cool the economy and lessen inflationary pressure. SBI was a lender, a holder of bonds. By tapping into those high rates, SBI could use the high bond yields to finance post-retirement increases.

Despite the success during the 1980s, by late in that decade SBI had concerns about the Post Fund's future. The Post Fund of the 1980s could not provide adequate yields if the economy moved to a low interest rate environment, a change which sooner or later must occur. Diversifying back into stock would further lower the fund's yield, because stocks provide very little yield. Most of the return to stock is due to the growth in the stock portfolio's value through capital gains, but these gains could not be recognized and used in the post-retirement adjustment unless the stock was sold. SBI also recognized that a Post Fund dominated by bonds had a lower total return than a portfolio with a reasonably high stock allocation. This meant that the Post Fund would be better off in the longer run if it were invested with a large stock allocation. There would be more asset growth which could be used to lower the cost of the system or provide more increases for retirees. But moving to stock could not occur in a system where the post-retirement increases were based on yield. It would be necessary to change back to a total return–based system, and also to go back to some form of multi-year averaging. Moving to stocks might raise the return, but the portfolio's return is likely to be less consistent over time than bond yields.

b. 1992 Creation of Inflation Match, but with Limitations. The need to restructure the Post Fund post-retirement adjustment procedures to operate more effectively in a low interest rate environment led to the 1992 changes in the Post Fund's operations, and to considerable changes in that fund's asset mix. The Post Fund law was revised to provide post-retirement increases based on total investment performance rather than realized gains, and based on a five-year period rather than for a single year. Corresponding to that change in law, SBI restructured the portfolio, largely shifting out of bonds to a portfolio dominated by domestic stock, foreign stock, and other equity investments. An inflation match was created, not to exceed 3.5 percent, plus an additional increase based on total rates of return in excess of 8.5 percent over five-year periods.

From a policy standpoint, the inflation match is an important feature of this system. This was the first time that an inflation match had been included in the post-retirement adjustment system. *The Commission's Principles of Pension Policy states that benefit levels should be adequate at the time of retirement and should be kept adequate by adjusting the benefit to compensate for the rate of inflation, as measured by a valid economic indicator.*

It is also important to recognize two restrictions or limitations regarding this inflation match, and the way it is financed. First, the capped 3.5 percent inflation match could not keep retirees whole when inflation exceeded that limit. When inflation is higher, retirees must hope for very high investment returns to provide sufficient additional investment performance-based increases. Unfortunately, as shown in the following section, inflation and high investment returns are not well correlated, leading to windfalls for some and harm for others. Second, although the law stated that the Post Fund had to provide these capped inflation-related benefit increases, the law did not permit the pension funds, the employers, or the state to provide any financing to pay for those increases. The inflation match within the Post Fund adjustment mechanism is paid for by investment returns. Investment performance above five percent and under 8.5 percent covers the inflation match. If the returns are sufficient to cover or more than cover the cost of the inflation match, then there are some surplus assets to add to the five year accounts discussed earlier, used to determine whether further investment-performance based increases may be paid. If the return is not sufficient to cover the inflation match, the shortfall is added to the five yearly accounts discussed previously as a negative amount, which must be repaid before any money is available for additional investment based post-retirement adjustments. Within this system, providing the inflation match when the investment returns are not sufficient to cover the cost requires borrowing against future increases, and can pull the entire Post Fund into a deficit situation.

c. Reduction of Inflation Match. In 1997, the Post Fund was again revised, this time by using a six percent Post Fund investment return assumption rather than five percent, and the inflation match was decreased from 3.5 percent to 2.5 percent. These changes were part of a package which for the MSRS, PERA, and TRA plans increased benefits at the time of retirement but at the expense of lower post-retirement increases. Unfortunately, reducing the cap on post-retirement increases from 3.5 percent to 2.5 percent weakened the inflation match element introduced in 1992, and seems inconsistent with the Commission's Policy Statement regarding the importance of keeping retirees whole.

Post-Retirement Increases Compared to Inflation

a. Decade of the 1970s, Post-Retirement Adjustments. The Minnesota Adjustable Fixed Benefit Fund (MAFB) was created in 1970 and replaced by the Post Fund in 1980. Post-retirement benefit changes that occurred for TRA during decade of the 1970s are shown below. Benefit changes for retirees from MSRS or PERA plans are likely to differ somewhat. In more recent years the Legislature generally has followed a policy of providing comparable percentage increases in retirement to TRA, PERA, and MSRS retirees, but that was not the case during the 1970s. Ad hoc adjustments differed between plans, and the Adjustable Fixed Benefit Fund might also not produce identical increases for all the included plans due to the way mortality gains and losses were handled. If mortality gains or losses differed between plans, the computed benefit adjustments would also differ.

Table 1 is based on a Commission staff memo from 1979 which displayed post-retirement adjustments for TRA retirees. The percentage increase in annuity amounts relating to the lump sum increases presumably were based on an average annuity amount during the applicable period. The inflation rates are derived from the annual changes in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), which is produced by the U.S. Department of Labor Bureau of Labor Statistics, and represents inflation in the year prior to the post-retirement adjustment.

The changes shown in the table for TRA indicate that during the 1970s the Minnesota Adjustable Fixed Benefit Fund provided increases in 1972, 1973, and 1978. Ad hoc adjustments were more common. The first adjustment shown in Table 1 is referred to as the Money Purchase Adjustment. This was an ad hoc adjustment provided by the 1971 Legislature to boost the annuities of teachers who retired under the prior money purchase plan, which by the late 1960s was deemed to be an inadequate pension plan. TRA's pension plan after TRA was established in 1935 was a variation on a defined contribution plan, and was referred to as the Money Purchase Plan. The Money Purchase Plan was revised numerous times over the next three decades and in 1969 was replaced by an Improved Money Purchase Plan (IMP), which would create higher annuities at the time of retirement. In the early to mid 1970s high-five average salary defined benefit plans were created, and accompanying that the retirement interest assumption was increased from 3.5 percent to 5.0 percent. The mandated 12.5 percent adjustments that occurred on July 1, 1973, and July 1, 1974, are referred to in the table as interest assumption adjustments, intended by the Legislature to offset at least part of the impact on retirees of the revised retirement interest assumption, which was likely to lessen future post-retirement increases. In 1975, ad hoc increases of $50 for coordinated TRA retirees and $100 for basic member TRA retirees were granted. In 1976, another ad hoc increase was granted, this one based on the years of service prior to retirement and the number of years in retirement. In 1977, the Legislature changed the timing of monthly annuity checks, which caused an additional check in the year of enactment, referred to in the

table as a "thirteenth check." Also provided in that year was an additional lump sum increase. The final adjustment during that decade was the MAFB adjustment provided in 1978.

While there were numerous increases during the period, the total increase during the 1970s was less than the amount needed to maintain retiree purchasing power. *During the 1970s, inflation rates and benefit increases were rarely similar, and for the decade as a whole, retirees lost some purchasing power.* For an individual retired for the entire decade and eligible for every increase provided during the 1970s, the individual's pension amount increased about 63 percent. However, inflation during this decade raised prices by 87.5 percent. For every $100 in benefits at the start of the decade, the individual was receiving $163 by the end, but because of inflation the individual would need $187.50 to stay whole. The increases actually generated by the Adjustable Fixed Benefit Fund (MAFB) operations were particularly discouraging. Given the 1972, 1973, and 1978 MAFB increases, a $100 benefit at the start of the decade would have only grown to $111.14 by the end of the decade, far short of the $187.50 needed to offset the full impact of inflation. Given the investment markets during the period, the inflation rates, and the structure of the MAFB, t*he MAFB was not capable of keeping retirees whole. Without the ad hoc increases provided by the Legislature, the harm would have been extreme.* In the first half of the decade, from 1970 through 1974, retirees did well, but that was due largely to ad hoc adjustments provided by the Legislature rather than MAFB adjustments. From 1970 through the end of 1974, benefits actually increased nearly 50 percent while inflation raised the price level by 28 percent. However, from 1975 through the end of the decade retirees lost considerable ground. Inflation rates were high while benefit adjustments were minimal.

Table 1

Post-Retirement Adjustments
Teachers Retirement Association
1970-1979

Year	Post-Retirement Adjustment	% Increase in Annuity Amount	Inflation Rate (CPI-W)
1970	--	--	5.4%
1971	Money Purchase Adjustment	10.71%	5.7%
1972	Minnesota Adjustable Fixed Benefit Fund (MAFB) Adjustment	2.5%	4.4%
1973	MAFB Adjustment	4.5%	
	Interest Assumption Adjustment	12.5%	
1974	Interest Assumption Adjustment	12.5%	6.2%
1975	$50/$100 Lump Sum Increase	1.07%	11.0%
1976	Service/Retirement Years Formula Adjustment	2.34%	9.1%
1977	Thirteenth Check	0.80%	5.7%
	$225/$250 Lump Sum Increase	0.40%	
1978	MAFB Adjustment	4.0%	6.5%
1979	--	--	7.7%
	Cumulative increase	63%	87.5%
	Cumulative increase due to 1972, 1973, and 1978 MAFB adjustments	11.4%	87.5%

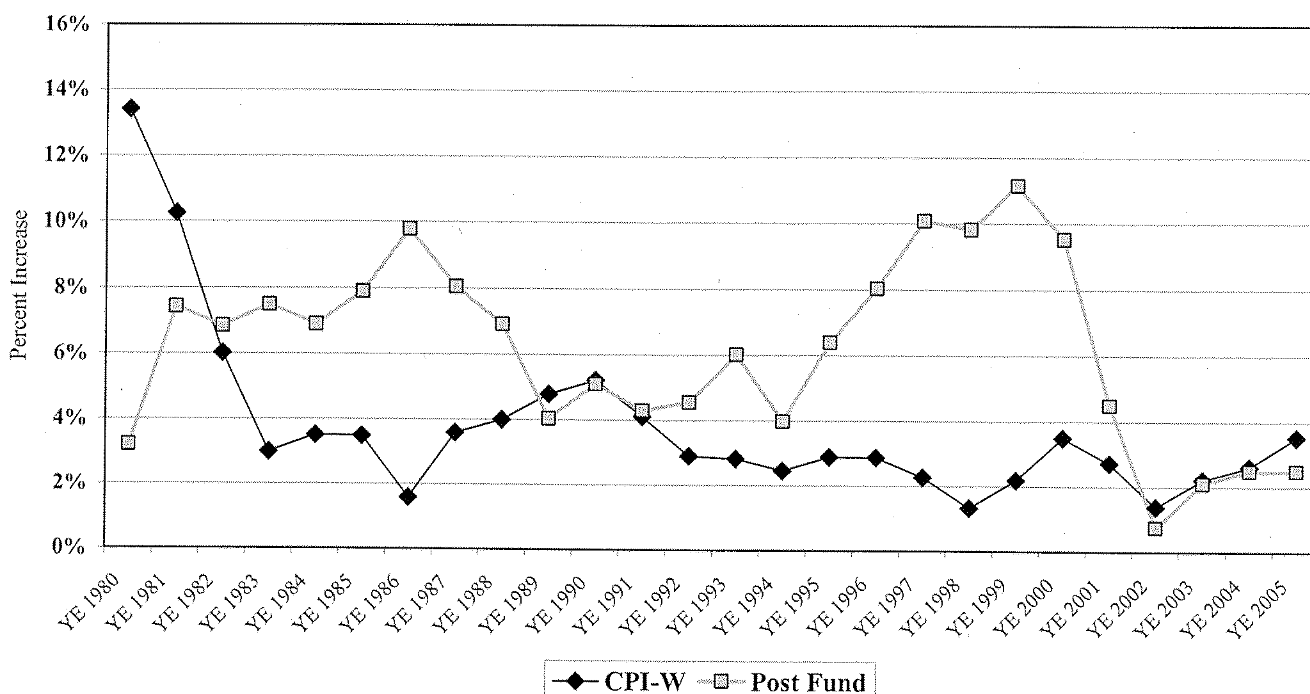
b. 1980s to Current, Post Fund Increases. Table 2 and the accompanying graph compare inflation with total post-retirement increases provided by the Post Fund since its creation 1980. Inflation is again measured by the CPI-W. Comparable to the observation earlier about results for the 1970s, the inflation rate and the total Post Fund adjustment are rarely similar. In 1982 and earlier, inflation was much higher than the adjustment. For 1980 through 1982, inflation raised prices by 39 percent, while retiree benefits only went up by 11 percent. (Table 1 also indicated that no adjustment was paid in 1979 either, despite 7.7 percent inflation.) This was followed by a prolonged period from 1983 to 2002 where the Post Fund adjustments were in excess of inflation, often by considerable amounts, except for a brief period in the early 1990s. *On whole, for the last two decades, the Post Fund adjustments greatly exceeded inflation.* The impact this had depended on when individuals retired. For retirees from the 1960s and early 1970s, and who lived through the 1980s, the high increases of the 1980s helped these individuals to catch up, in whole or part, offsetting some of the harm due to inadequate benefit changes during the 1970s. For those who retired during the 1980s or early 1990s, the high increases provided by the Post Fund provided a considerable windfall. Assets used to support the considerably increased annuities of these retiree groups are not available for a rainy day, to provide needed adjustments when recent investment returns are insufficient to provide the added reserves that are needed.

Table 2

Post-Retirement Adjustments
MSRS, PERA, and TRA
1980-2006

Year	Post-Retirement Adjustment Percentage Increase	Inflation Rate (CPI-W)
1980	0%	11.4%
1987	3.2%	13.4%
1982	7.4%	10.3%
1983	6.9%	6.0%
1984	7.5%	3.0%
1985	6.9%	3.5%
1986	7.9%	3.5%
1987	9.8%	1.6%
1988	8.1%	3.6%
1989	6.9%	4.0%
1990	4.0%	4.8%
1991	5.1%	5.2%
1992	4.3%	4.1%
1993	4.6%	2.9%
1994	6.0%	2.8%
1995	4.0%	2.5%
1996	6.4%	2.9%
1997	8.0%	2.9%
1998	10.1%	2.3%
1999	9.8%	1.3%
2000	11.1%	2.2%
2001	9.5%	3.5%
2002	4.5%	2.7%
2003	0.7%	1.4%
2004	2.1%	2.2%
2005	2.5%	2.6%
2006	2.5%	3.5%

Minnesota Post Fund Post-Retirement Increases
vs.
Consumer Price Index for Urban Wage Earners and Clerical Workers



Impact on Retiree Cohorts

The Adjustable Fixed Benefit Fund and the more recent Post Fund provide post-retirement increases based on measures of investment performance. The previous section amply demonstrates that inflation and investment performance do not move together. Thus, these systems create groups of winners and losers. Those who have the good fortune to retire just before the start of a period that provides high investment returns may do very well, receiving increases that exceed inflation, perhaps by large amounts. Those who happen to retire at the start of a period where inflation exceeds the post-retirement increases they are receiving can face considerable harm. If they fall considerably behind inflation, an extended period of excellent investment returns is necessary for them to catch up with inflation, and by that time the individuals may either be very elderly or deceased. The system in place is not consistent with the Commission's Principles of Pension Policy, which states in relevant part that benefit levels should be adequate at the time of retirement and should be kept adequate by adjusting the benefit to compensate for the rate of inflation, as measured by a valid economic indicator.

In this section these issues are demonstrated by examining several cohorts of retirees through retirement. Table 3 assumes the individuals retired in 1970. Later tables (Tables 4-9) show comparable information for individuals assumed to retire in 1975, 1980, 1985, 1990, 1995, and 2000. Each individual is assumed

to begin retirement with a $1,000 monthly benefit. (The amount of the assumed benefit impacts the size of the numbers displayed , but is irrelevant to the general trends that are shown and to the relationships between the columns. If the initial benefit were $500 rather than $1,000, every number in the tables would be halved. If the initial benefit were $2,000, every number would be doubled. To determine the effect per dollar of initial pension, all numbers would be divided by 1,000.) The computed benefit amounts include the increases generated by the Adjustable Fixed Benefit Fund and the Post Fund, where applicable, plus the various ad hoc increases that occurred during the 1970s as indicated earlier in Table 1. The following tables use a simplifying assumption that individuals are eligible for post-retirement increases beginning in the year after retirement.

In Table 3, the individual is assumed to retire in 1970. The "Benefit Amount" column shows the assumed $1,000 benefit in 1970, and the remainder of that column shows how that initial benefit would increase given the various ad hoc increases during the 1970s and the increases provided by the Adjustable Fixed Benefit Fund and Post Fund over time. The next column shows the inflation indexed benefit – how that initial $1,000 benefit amount would need to grow to keep the individual whole by matching inflation as indicated by the CPI-W. The final column is the difference between the two. There is no difference on the starting date, 1970. In 1971, however, the increase provided to the individual was $50 higher than needed to match inflation. By 1974, this excess has grown to $282, since the individual is receiving a $1,494 benefit, while only $1,212 would have been sufficient to match inflation. Starting in 1975, this advantage to the individual begins to erode. In 1975, the difference falls to $163 from $282 a year earlier, which indicates that the inflation rate in that year was greater than the percent increase in benefit that was provided. By 1978, after several years of benefit increases that generally were less than inflation, the benefit needed to match inflation has grown to $1,652, while the actual benefit is less, only $1,622. The next several years were generally characterized by high inflation and minimal benefit increases. By 1983, the benefit is $707 less than is needed to match inflation. As the fairly high Post Fund benefit increases of the mid to late 1980s began to impact the individual's benefit level, the benefit begins to approach that needed to match inflation, but it is not until 1995 that the individual again has a benefit amount that is greater than a benefit that fully matches inflation. The benefit has grown to $3,973, while the inflation indexed benefit is $3,950. From that date forward, the very high benefit increases provided by the Post Fund begin to impact the benefit, and by 2001 the hypothetical individual's benefit is more than $2,000 greater than is needed to keep pace with inflation.

Although in 1995 the individual begins to receive a benefit that matches or exceeds inflation, this does not mean the individual becomes whole on that date. In 1995, they are finally again receiving a benefit with equivalent purchasing to power to the benefit they received when they retired. They have not received anything to compensate them for all the years in which the benefit lagged the inflation indexed benefit. It would take several years of very high benefits compared to inflation after 1995 to compensate the individual for the 17 years prior to 1995 in which the individual's actual benefit was less than the inflation indexed benefit.

An individual who retired in 1970 is likely to have been better off under a system that matched inflation, rather than the combination of ad hoc and automatic adjustments generated by the Adjustable Fixed Benefit Fund and Post Fund. The individual did receive benefit increases for the first several years that were greater than inflation. That situation quickly eroded, however, given inflation in the late 1970s and early 1980s combined with benefits that did not keep pace. Despite benefit increases during the mid to late 1980s that typically were generous, the individual continued to have benefits that were less than needed to compensate for the cumulative impact of inflation, because the individual started the 1980s with such a serious shortfall. It was not until 1995, two-and-one half decades after retirement, that the individual again reached a benefit level that matched or beat the inflation indexed benefit level. From that point to the current time, the individual's benefit would be much greater than is needed to match inflation. However, as noted previously, many years of benefits which exceed an inflation-matching amount are needed to compensate the individual for the many years in which the individual received benefits which were considerably less than an inflation-matching amount. Also, to properly value these amounts they should be discounted, which is not attempted in this table. A very large payout occurring decades into retirement would be discounted heavily by an individual who is just beginning retirement. The individual is likely to value more money now rather than a large payout when the individual is very elderly. Finally, there is good chance that an individual who retired in 1970s did not survive to receive benefits into the late 1990s or 2000s. If the individual retired at age 60 in 1970, he or she would be age 85 in 1995, age 90 in 2000, and age 96 at the current time. An individual who retired at age 65 in 1970 would now be over age 100.

Table 3

$1,000 Initial Monthly Benefit
1970 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1970	$1,000	$1,000	$0	1989	3,023	3,174	-151
1971	1,107	1,057	+50	1990	3,143	3,326	-183
1972	1,135	1,104	+31	1991	3,304	3,499	-195
1973	1,328	1,141	+187	1992	3,446	3,643	-197
1974	1,494	1,212	+282	1993	3,605	3,748	-143
1975	1,508	1,345	+163	1994	3,821	3,853	-32
1976	1,544	1,467	+77	1995	3,973	3,950	+23
1977	1,559	1,551	+8	1996	4,228	4,064	+164
1978	1,622	1,652	-30	1997	4,566	4,182	+384
1979	1,622	1,779	-157	1998	5,023	4,278	+745
1980	1,622	1,982	-360	1999	5,515	4,334	+1,181
1981	1,673	2,248	-575	2000	6,122	4,429	+1,693
1982	1,797	2,479	-682	2001	6,703	4,584	+2,119
1983	1,921	2,628	-707	2002	7,005	4,708	+2,297
1984	2,065	2,707	-642	2003	7,054	4,774	+2,280
1985	2,208	2,801	-593	2004	7,202	4,879	+2,323
1986	2,382	2,900	-518	2005	7,382	5,006	+2,376
1987	2,616	2,946	-330	2006	7,566	5,181	+2,385
1988	2,828	3,051	-223				

Table 4 provides comparable information assuming the individual retired in 1975 rather than in 1970. This cohort did not do as well as the 1970 retiree. For individuals who retired in 1970, benefit increases in 1970-1974 exceeded inflation, giving that cohort a cushion as the last half of the 1970s arrived. In contrast, the new 1975 retiree entered retirement just as benefit increases were less than inflation. This caused the 1975 retiree to start the 1980s with a much larger deficit compared to inflation-matching benefits than was true of the 1970 retiree. Therefore, it took many more years of high post-retirement adjustments during the 1980s and 1990s for the 1975 retiree to reach the point where the individual's benefit level was higher than a fully inflation indexed benefit. That point was not reached until 1998, which was 23 years after retirement. While the benefit adjustments of the late 1990s and early 2000s have raised this cohort's benefit levels to amounts considerably in exceed of the inflation matching benefit level, a windfall 25 to 30 years into retirement would be valued far less highly than more generous benefits early in retirement, when this cohort had benefits considerably lower than a fully inflation indexed benefit. Also, the generous benefits in recent years are of no value to those who did not live to receive them.

Table 4

$1,000 Initial Monthly Benefit
1975 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1975	$1,000	$1,000	$0	1991	2,189	2,602	-413
1976	1,023	1,091	+68	1992	2,284	2,708	-424
1977	1,033	1,153	-120	1993	2,389	2,787	-398
1978	1,075	1,228	-153	1994	2,532	2,865	-333
1979	1,075	1,323	-248	1995	2,633	2,936	-303
1980	1,075	1,474	-399	1996	2,802	3,022	-222
1981	1,109	1,671	-562	1997	3,026	3,109	-83
1982	1,191	1,843	-652	1998	3,329	3,181	+148
1983	1,273	1,954	-681	1999	3,654	3,222	+432
1984	1,369	2,012	-703	2000	4,057	3,293	+764
1985	1,436	2,083	-647	2001	4,442	3,408	+1,034
1986	1,579	2,156	-577	2002	4,642	3,500	+1,142
1987	1,733	2,190	-457	2003	4,675	3,549	+1,126
1988	1,874	2,269	-395	2004	4,773	3,627	+1,146
1989	2,003	2,360	-357	2005	4,892	3,722	+1,170
1990	2,083	2,473	-390	2006	5,014	3,852	+1,162

Table 5 displays results for 1980 retirees. This group started off retired life with several years of benefits that did not keep pace with inflation, due to high inflation in the 1981 and 1982 and benefit increases

which did not keep up. By 1986, however, this group had benefits which began to exceed the inflation matching benefit amount. This occurred much sooner for this group than for the 1970 and 1975 retirees, because the 1980 retirees were working through the last half of the 1970s, when the 1970 and 1975 retirees lost so much purchasing power relative to inflation. The 1980 retirees had much less of a deficit to overcome. From 1986 onward, this group has benefit levels that exceed the inflation-matching level. This group benefited substantially from the system that is in place. For most of their retired lives, these individuals have received benefits which are considerably in excess of that needed to keep them whole.

Table 5

$1,000 Initial Monthly Benefit
1980 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1980	$1,000	$1,000	$0	1994	2356	1944	+412
1981	1032	1134	-102	1995	2451	1993	+458
1982	1108	1250	-142	1996	2607	2051	+556
1983	1185	1326	-141	1997	2816	2110	+706
1984	1274	1366	-92	1998	3098	2159	+939
1985	1361	1413	-52	1999	3401	2189	+1,214
1986	1469	1463	+6	2000	3775	2235	+1,540
1987	1613	1486	+127	2001	4134	2313	+1,821
1988	1744	1540	+204	2002	4320	2375	+1,945
1989	1864	1601	+263	2003	4350	2409	+1,941
1990	1939	1678	+261	2004	4442	2462	+1,980
1991	2038	1766	+272	2005	4553	2526	+2,027
1992	2125	1838	+287	2006	4666	2614	+2,052
1993	2223	1891	+332				

Table 6 shows results for 1985 retirees. In retrospect, these individuals retired at a very opportune time. Inflation has generally been modest over the 1985 to current period, and the markets have been generous. Since the very first post-retirement adjustment for this group in 1986, this group has received benefits which exceed the inflation indexed benefit. An individual who had a $1,000 benefit in 1985 would need a $1,849 benefit currently to compensate for inflation. Given the post-retirement adjustments that have occurred, however, the individual who started with a $1,000 benefit is now receiving $3,427, which is 85 percent higher than the inflation matching amount. (Alternatively, for every dollar of initial benefit, the individual would need $1.85 in 2006 to stay whole. The individual would actually be receiving $3.43 now for every dollar of initial benefit, which is 85 percent higher than the inflation matching amount.)

Table 6

$1,000 Initial Monthly Benefit
1985 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1985	$1,000	$1,000	$0	1996	1,915	1,451	+464
1986	1,079	1,035	+44	1997	2,068	1,493	+575
1987	1,185	1,052	+133	1998	2,275	1,527	+748
1988	1,281	1,089	+192	1999	2,498	1,547	+951
1989	1,369	1,133	+236	2000	2,773	1,581	+1,192
1990	1,424	1,187	+237	2001	3,036	1,636	+1,400
1991	1,496	1,249	+247	2002	3,173	1,681	+1,492
1992	1,561	1,300	+261	2003	3,195	1,704	+1,491
1993	1,633	1,338	+295	2004	3,262	1,742	+1,520
1994	1,731	1,376	+355	2005	3,344	1,787	+1,557
1995	1,800	1,409	+391	2006	3,427	1,849	+1,578

Table 7 displays the results for the 1990 cohort. This is another group that did well under the current system. In 1991 and 1992 increases for this group matched inflation (technically losing $1 to inflation in 1991, gaining $1 in 1992) and then benefits escalate to be considerably more than the inflation matching amount. An individual who started 1990 with a $1,000 would need $1,558 in 2006 to stay whole given inflation, but would be receiving $2,409, an amount 55 percent greater than the inflation-matching amount.

Table 7

$1,000 Initial Monthly Benefit
1990 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1990	$1,000	$1,000	$0	1999	1,756	1,303	+453
1991	1,051	1,052	-1	2000	1,949	1,332	+617
1992	1,096	1,095	+1	2001	2,134	1,378	+756
1993	1,147	1,127	+20	2002	2,230	1,415	+815
1994	1,215	1,158	+57	2003	2,246	1,435	+811
1995	1,264	1,187	+77	2004	2,293	1,467	+826
1996	1,345	1,222	+123	2005	2,350	1,505	+845
1997	1,453	1,257	+196	2006	2,409	1,558	+851
1998	1,599	1,286	+313				

Table 8 shows the 1995 retiree results. This is another group which from the first post-retirement adjustment to the current time has exceeded inflation, starting retirement just prior to the very high post fund adjustments of the late 1990s and early 2000s. This group's current benefits are 45 percent above the inflation-matching amount.

Table 8

$1,000 Initial Monthly Benefit
1995 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
1995	$1,000	$1,000	$0	2001	1,688	1,161	+527
1996	1,064	1,029	+35	2002	1,764	1,192	+572
1997	1,149	1,059	+90	2003	1,777	1,209	+568
1998	1,265	1,083	+182	2004	1,814	1,235	+579
1999	1,389	1,097	+292	2005	1,859	1,267	+592
2000	1,542	1,121	+421	2006	1,906	1,312	+594

Table 9 shows results for the 2000 retirees. This group retired after the large increases of the late 1990s, but currently is receiving benefits modestly in excess of inflation matching amounts. The most recent amount is five to six percent above the inflation-matching amount.

Table 9

$1,000 Initial Monthly Benefit
2000 Retirement Date

Year	Benefit Amount	Amount Needed to Match Inflation	Difference	Year	Benefit Amount	Amount Needed to Match Inflation	Difference
2000	$1,000	$1,000	$0	2004	1,176	1,102	+74
2001	1,095	1,035	+60	2005	1,206	1,130	+76
2002	1,144	1,063	+81	2006	1,236	1,169	+67
2003	1,152	1,078	+74				

Current Situation and Troubled Future

The Post Fund, which during the 1990s was providing extraordinarily high benefit increases due to the boom in the stock market, is now facing considerable trouble. The very high benefit increases of the 1990s and early 2000s were sustainable providing that the assets continued to earn investment returns sufficient to keep the system healthy, the six percent return to support the existing annuity benefits and up to an additional 2.5 percent return to pay for any newly awarded inflation match. Unfortunately, a few years ago the domestic stock market, and to a lesser extent the foreign stock market, plummeted. In one calendar year the domestic market had a negative ten percent return, followed by a year with a negative ten percent return, followed by a year with a negative 20 percent return. The returns for the Post Fund as a whole were very low or negative. The fund was not making the minimum six percent return needed to sustain the existing annuities, and was required under law to keep matching inflation up to 2.5 percent. Although inflation in a few years was less than the 2.5 percent cap, there was some degree of inflation, and the inflation match further added to the funding problem. The low or negative returns created unfunded liabilities in the Post Fund. Under the operation of the Post Fund, these asset shortfalls

(unfunded obligations) are allocated to the five (five-year) accounts as negative amounts, which must be covered before there is any net positive amount in the yearly accounts to generate some investment-based increases above any required inflation match.

Due to these events, by last year the Post Fund had over $4 billion in unfunded liabilities. Under current law, these unfunded liabilities must be covered by asset growth through investment returns before there can be any positive amounts to generate any investment-based increases above the maximum 2.5 percent inflation match. *Even with a prolonged period of above average returns, it is expected that at least 10 years will pass before any increases above the 2.5 percent capped inflation match can be generated.*

Given the current condition of the Post Fund, as we look into the future it is clear that retirees are particularly vulnerable to inflation. We should hope for low inflation. If inflation is modest, 2.5 percent or less per year, the inflation will be matched by post fund increases and individuals will not lose ground. In contrast, if inflation exceeds 2.5 percent by a large amount or for and extended period, considerable harm will occur. In one sense, those who have just retired are the most vulnerable. They have no cushion. If inflation exceeds 2.5 percent, these individuals will retire and immediately begin to lose ground. As earlier tables demonstrated using historical information (see, for example, Table 4 which depicted the 1975 retirees) if individuals retire and lose ground to inflation for the first several years of retirement, it can take an extended period, a decade or two, perhaps more, before these individuals may reach the inflation-matching benefit level. That assumes that strong investment markets and a healthy Post Fund. Unfortunately, the Post Fund current has about $4 billion in unfunded liability. Even with strong investment markets, it may take another decade or more before the Post Fund could begin to make any headway against the losses in purchasing power retirees might suffer due to inflation in excess of 2.5 percent.

For those groups who retired in the past, the 2000 cohort currently has benefits only modestly higher than an inflation-indexed benefit. With an uptick in inflation, that cushion would almost immediately disappear. The 1980, 1985, 1990, and 1995 retirees currently have benefits considerably in excess of an inflation indexed benefit. They could go many years before their benefits dropped below an inflation indexed benefit. However, most retirees are not aware of whether their current retirement benefit is less or greater than a benefit that was fully indexed to inflation. They pay attention to the latest information, the benefit increase due to the Post Fund which is announced by the retirement plan administrations, and the inflation rate. A few years of high inflation with the Post Fund providing only a capped 2.5 percent increase will cause political pressure to revise the system.

2006 Post Fund Legislation

Laws 2006, Chapter 277, Article 1 (derived from S.F. 70 (Betzold); H.F. 40 (Smith)), capped the increase payable from the SBI Post Fund (the sum of the up to 2.5 percent inflation match and any further investment-based adjustment) at five percent in any given year. If the assets allocated to the current year account are sufficient to provide more than a five percent total increase, the increase must be capped at five percent and any additional assets that are not needed to support the increase must be allocated to the future. This will help to support an increase in a future year when the increase might otherwise be minimal and insufficient.

The pension fund directors ran simulations assuming the proposed system had been in place in the past, and the results indicate that the cap would have been more than fair to the retirees and that there would be no current Post Fund funding problem. In the simulation, the Post Fund would be able to soon provide additional increases above inflation. This would be accomplished by eliminating the high Post Fund increases that occurred in much of the 1990s and into the early 2000s. Although the increases are capped at five percent, inflation was lower than five percent in every year during that period except 1991 (in 1991, the Post Fund provided a 5.1 percent increase while inflation was 6.1 percent). Thus, even with a five percent cap the retirees would have received increases that exceeded inflation by considerable amounts for the period as a whole. The cap would have freed up considerable reserves (all the reserves that were needed to support the increases above five percent), which could then be used currently, as needed.

While the 2006 legislation has the advantages indicated, it also has shortcomings. Like so many of the changes in the past to the Minnesota Adjustable Fixed Benefit Fund and to the Post Fund, the proposed change seems motivated by looking backward rather than by beginning with a clean conceptual slate. The legislation addressed a past problem: for nearly two decades the Post Fund provided adjustments that greatly exceeded inflation, and in the process used up assets in order to support these higher annuities, assets which are desperately needed now to support the increases that will be needed in the future to keep retirees whole. The five percent cap would provide reasonable results looking at the past. But the legislation does nothing to address the actual current large unfunded liability of the Post Fund, or the inability provide anything more than a 2.5 percent inflation match into the indefinite future.

Minnesota Statutes 2005, 11A.14

Copyright 2005 by the Office of Revisor of Statutes, State of Minnesota.

Minnesota Statutes 2005, Table of Chapters

Table of contents for Chapter 11A

11A.14 Minnesota combined investment funds.

Subdivision 1. **Establishment.** The Minnesota combined investment funds are established for the purpose of providing investment vehicles for assets of the participating public retirement plans and nonretirement funds. The assets of participating nonretirement funds may not be commingled with the assets of participating public retirement plans. The combined funds shall consist of the following investment accounts: cash management accounts, equity accounts, fixed income accounts, and any other accounts determined appropriate by the state board.

Subd. 2. **Assets.** The assets of the combined investment funds shall consist of the money certified to and received by the state board from participating retirement plans and nonretirement funds which shall be used to purchase investment shares in the appropriate investment accounts. Each participating plan or fund shall own an undivided participation in all the assets of the particular accounts of the combined funds in which it participates. As of any date, the total claim of a participating plan or fund on the assets in each account shall be equal to the ratio of units owned by a plan or fund in each account to the total issued units then outstanding.

Subd. 3. **Management.** The combined investment funds shall be managed by the state board.

Subd. 4. **Investments.** The assets of the combined investment funds shall be invested by the state board subject to the provisions of section 11A.24, except that any individual account may be completely invested in a single asset class or managed in a separate account by the state board at its discretion.

Subd. 5. **Participation in Minnesota combined investment funds.** Any public retirement plan or nonretirement fund authorized by law to have its assets managed by the state board may participate in the Minnesota combined investment funds.

Subd. 6. **Initial transfer of assets.** As of July 1, 1980, or a later date as determined by the state board, the participating funds shall transfer to the combined investment funds all appropriate securities then held together with cash necessary for the purchase of units in the combined fund accounts.

Subd. 7. **Initial valuation of assets and units.** All assets transferred to the Minnesota combined investment funds shall be valued at their current market value as determined by the state board, including accrued interest. The initial value of each account unit shall be $1,000 with each participating fund allocated units in the various accounts of the Minnesota combined investment funds in the same proportion as their assets are to the total assets in each account.

Subd. 8. **Realized appreciation (depreciation).** Any realized gains or losses in the value of investments incurred by a transferring fund pursuant to subdivision 7 shall be recognized on the date of the transfer.

Subd. 9. **Valuation of units.** (1) Valuation of units for the accounts in the Minnesota combined investment funds shall be performed as of the last business day of each month, or more frequently should the state board determine that additional valuation dates are necessary.

(2) The value of a unit for each account shall be determined by the following procedure:

(a) As of the close of business on the valuation date the state board shall determine the fair market value of each asset in each account, using the references, pricing services,

consultants, or other methods as the state board deems appropriate.

(b) The sum total of the market value of all securities plus cash, less the value of undistributed income in each account, shall be divided by the number of units issued and outstanding for the account to determine the value per account unit.

Subd. 10. **Purchase and redemption of units.** Purchase and redemption of units shall be on the first business day following the valuation date. All transactions shall be at the unit value established on the immediately preceding valuation date. Except for the initial purchase of units by an authorized participant, all purchases and redemptions shall be made in cash unless the state board determines that an exception is necessary.

Subd. 11. **Earnings defined.** Investment earnings shall be the sum total of the following of each account:

(1) Dividends receivable on securities trading ex-dividend to and including the valuation date.

(2) Cash dividends received to and including the valuation date that were not accounted for on a previous valuation date.

(3) Accrued interest to and including the valuation date.

(4) Interest received which had not been accrued and accounted for on a prior valuation date.

(5) Income from the sale of options, rights, warrants, or security lending.

(6) Other income received to and including the valuation date.

Subd. 12. **Distribution of earnings.** At least once each year the state board shall distribute to each participant net earnings determined proportionately in accordance with their average unit holdings in each account during the period. Unless otherwise directed by the participating fund, any distributions shall be used to purchase additional units in the accounts.

Subd. 13. **Records required.** The executive director of the state board shall keep accounting records. The records shall reflect the number of units in the Minnesota combined investment funds owned by each participating fund. No certificates or other evidence of ownership shall be required.

Subd. 14. **Reports required.** As of each valuation date, or as often as the state board determines, each participant shall be informed of the number of units owned and the current value of the units. Annually, the state board shall provide each participant financial statements prepared in accordance with generally accepted accounting principles.

HIST: 1980 c 607 art 14 s 12; 1981 c 37 s 2; 1984 c 383 s 1; 1985 c 224 s 1; 1990 c 426 art 1 s 3; 1992 c 539 s 1; 1993 c 300 s 2-5

Minnesota Statutes 2005, 11A.18

Copyright 2005 by the Office of Revisor of Statutes, State of Minnesota.

Minnesota Statutes 2005, Table of Chapters

Table of contents for Chapter 11A

11A.18 Minnesota postretirement investment fund.

Subdivision 1. **Establishment.** There is hereby established a postretirement investment fund for the purpose of providing an investment vehicle for the reserves for various retirement annuities and benefits payable by the participating retirement funds and plans. The postretirement investment fund shall be a continuation of the Minnesota adjustable fixed benefit fund in existence on January 1, 1980.

Subd. 2. **Assets.** The assets of the postretirement investment fund shall consist of the money representing the reserves for various retirement annuities and benefits payable by participating retirement funds and plans which have been certified to and received by the state board from the participating public retirement funds and plans.

Subd. 3. **Management.** The postretirement investment fund shall be managed by the state board.

Subd. 4. **Investment.** The assets of the postretirement investment fund shall be invested by the state board subject to the provisions of section 11A.24.

Subd. 5. **Deferred yield adjustment account.** There is hereby established a deferred yield adjustment account which shall be increased by the sale or disposition of any debt securities at less than book value and shall be decreased by the sale or disposition of debt securities at more than book value. At the end of each fiscal year, a portion of the balance of this account shall be offset against the investment income for that year. The annual portion of the balance to be offset shall be proportional to the reciprocal of the average remaining life of the bonds sold, unless the amounts are offset by gains on the future sales of these securities. The amount of this account shall be included in the recognized value of assets other than corporate stocks and all other equity investments. In any fiscal year in which the gains on the sales of debt securities exceed the discounts realized on the sales of such securities, the excess shall be used to reduce the balance of the account. If the realized capital gains are sufficient to reduce the balance of the account to zero, any excess gains shall be available for the calculation of postretirement adjustments made according to subdivision 9.

Subd. 6. **Participating public retirement funds or plans; transfer of required reserves.** (a) Any public retirement fund or plan authorized by law to participate in the postretirement investment fund shall no later than the last business day of the month in which the benefit payment from the postretirement investment fund begins to accrue, certify and transfer to the state board money equal to the reserves required for those retirement annuities and benefits which are payable by the public retirement fund or plan and which are specified in law to be included in the participation in the fund as determined by or determined under a procedure specified by the actuary retained by the Legislative Commission on Pensions and Retirement.

(b) If the exact amount of the actuarially determined required reserves is not readily calculable on the required transfer date, the initial transfer must be based on the best estimate for the teachers retirement fund and the public employees retirement fund and may be based on the best estimate for the other participating funds. Any necessary adjustments based on specific calculations of actuarially determined required reserves must be made in later transfers. If a transfer is insufficient, the later transfer from the retirement fund must include interest on the amount of the required reserve insufficiency at the preretirement interest assumption for the retirement fund as specified in section 356.215, subdivision 8, stated as a monthly rate.

Interest on the amount of a required reserve insufficiency payable by a retirement fund shall be compounded on a monthly basis. No interest shall be payable from the postretirement investment fund in the event of a required reserve oversufficiency.

(c) The state board shall confirm in writing each certification and transfer of money made by a participating public retirement fund or plan. Each participating public retirement fund or plan shall maintain adequate records to account for money transferred to or from the postretirement investment fund.

Subd. 7. **Participation and financial reporting in fund.** (a) Each participating public retirement fund or plan which has transferred money to the state board for investment in the postretirement investment fund shall have an undivided participation in the fund. The participation on any valuation date must be determined by adding to the participation on the prior valuation date:

(1) funds transferred in accordance with subdivision 6;

(2) the amount of required investment income on its participation as defined in subdivision 9, paragraph (c), clause (1); and

(3) the reserves for any benefit adjustment made as of the current valuation date with the result adjusted for any mortality gains or losses determined under subdivision 11.

(b) The total fair market value of the postretirement fund as of June 30 must be calculated in accordance with generally accepted accounting principles. The fair market value share of each fund participating in the postretirement investment fund must be allocated by adding to the fair market value at the beginning of the fiscal year:

(1) 100 percent of the funds transferred in accordance with subdivision 6; and

(2) a pro rata distribution of unrealized gains or losses, based on a weighted percentage of participation at the end of each month of the fiscal year.

Subd. 8. **Withdrawal of money.** Upon certification by the applicable executive director that a portion of the certified money representing the required reserves for various retirement annuities or benefits payable from the participating public retirement fund or plan are required for the payment of a retirement annuity or benefit, the state board shall sell sufficient securities or transfer sufficient available cash to equal the amount of money certified as required and shall order the transfer of that amount to the appropriate executive director.

Subd. 9. **Calculation of postretirement adjustment.** (a) Annually, following June 30, the state board shall use the procedures in paragraphs (b), (c), and (d) to determine whether a postretirement adjustment is payable and to determine the amount of any postretirement adjustment.

(b) If the Consumer Price Index for urban wage earners and clerical workers all items index published by the Bureau of Labor Statistics of the United States Department of Labor increases from June 30 of the preceding year to June 30 of the current year, the state board shall certify the percentage increase. The amount certified must not exceed the lesser of the difference between the preretirement interest assumption and postretirement interest assumption in section 356.215, subdivision 8, paragraph (a), or 2.5 percent. For the Minneapolis Employees Retirement Fund, the amount certified must not exceed 3.5 percent.

(c) In addition to any percentage increase certified under paragraph (b), the board shall use the following procedures to determine if a postretirement adjustment is payable under this paragraph:

(1) The state board shall determine the market value of the fund on June 30 of that year;

(2) The amount of reserves required for the annuity or benefit payable to an annuitant and benefit recipient of the participating public pension plans or funds must be determined by the commission-retained actuary as of the current June 30. An annuitant or benefit recipient who has been receiving an annuity or benefit for at least 12 full months as of the current June 30 is eligible to receive a full postretirement adjustment. An annuitant or benefit recipient who has been receiving an annuity or benefit for at least one full month, but less than 12 full months as of the current June 30, is eligible to receive a partial postretirement adjustment. Each fund shall report separately the amount of the reserves for those annuitants and benefit recipients who are eligible to receive a full postretirement benefit adjustment. This amount is known as "eligible reserves." Each fund shall also report separately the amount of the reserves for those annuitants and benefit recipients who are not eligible to receive a postretirement adjustment. This amount is known as "noneligible reserves." For an annuitant or benefit recipient who is eligible to receive a partial postretirement adjustment, each fund shall report separately as additional "eligible reserves" an amount that bears the same ratio to the total reserves required for the annuitant or benefit recipient as the number of full months of annuity or benefit receipt as of the current June 30 bears to 12 full months. The remainder of the annuitant's or benefit recipient's reserves must be separately reported as additional "noneligible reserves." The amount of "eligible" and "noneligible" required reserves must be certified to the board by the commission-retained actuary as soon as is practical following the current June 30;

(3) The state board shall determine the percentage increase certified under paragraph (b) multiplied by the eligible required reserves, as adjusted for mortality gains and losses under subdivision 11, determined under clause (2);

(4) The state board shall add the amount of reserves required for the annuities or benefits payable to annuitants and benefit recipients of the participating public pension plans or funds as of the current June 30 to the amount determined under clause (3);

(5) The state board shall subtract the amount determined under clause (4) from the market value of the fund determined under clause (1);

(6) The state board shall adjust the amount determined under clause (5) by the cumulative current balance determined pursuant to clause (8) and any negative balance carried forward under clause (9);

(7) A positive amount resulting from the calculations in clauses (1) to (6) is the excess market value. A negative amount is the negative balance;

(8) The state board shall allocate one-fifth of the excess market value or one-fifth of the negative balance to each of five consecutive years, beginning with the fiscal year ending the current June 30; and

(9) To calculate the postretirement adjustment under this paragraph based on investment performance for a fiscal year, the state board shall add together all excess market value allocated to that year and subtract from the sum all negative balances allocated to that year. If this calculation results in a negative number, the entire negative balance must be carried forward and allocated to the next year. If the resulting amount is positive, a postretirement adjustment is payable under this paragraph. The board shall express a positive amount as a percentage of the total eligible required reserves certified to the board under clause (2).

(d) The state board shall determine the amount of any postretirement adjustment which is payable using the following procedure:

(1) The total "eligible" required reserves as of the first of January next following the end of the fiscal year for the annuitants and benefit recipients eligible to receive a full or partial postretirement adjustment as determined by clause (2) must be certified to the state board by the commission-retained

actuary. The total "eligible" required reserves must be determined by the commission-retained actuary on the assumption that all annuitants and benefit recipients eligible to receive a full or partial postretirement adjustment will be alive on the January 1 in question; and

(2) The state board shall add the percentage certified under paragraph (b) to any positive percentage calculated under paragraph (c). The board shall not subtract from the percentage certified under paragraph (b) any negative amount calculated under paragraph (c). The sum of these percentages must be carried to five decimal places and must be certified to each participating public pension fund or plan as the full postretirement adjustment percentage.

(e) A retirement annuity payable in the event of retirement before becoming eligible for Social Security benefits as provided in section 352.116, subdivision 3; 353.29, subdivision 6; or 354.35 must be treated as the sum of a period certain retirement annuity and a life retirement annuity for the purposes of any postretirement adjustment. The period certain retirement annuity plus the life retirement annuity must be the annuity amount payable until age 62 or 65, whichever applies. A postretirement adjustment granted on the period certain retirement annuity must terminate when the period certain retirement annuity terminates.

Subd. 10. **Payment of postretirement adjustment.** Upon receiving the certification of the amount of the full postretirement adjustment from the state board, each participating public pension fund or plan shall determine the amount of the postretirement adjustment payable to each eligible annuitant and benefit recipient. The dollar amount of the postretirement adjustment shall be calculated by applying the certified postretirement adjustment percentage to the amount of the monthly annuity or benefit payable to each eligible annuitant or benefit recipient eligible for a full adjustment.

The dollar amount of the partial postretirement adjustment payable to each annuitant or benefit recipient eligible for a partial adjustment shall be calculated by first determining a partial percentage amount that bears the same ratio to the certified full adjustment percentage amount as the number of full months of annuity or benefit receipt as of the current June 30 bears to 12 full months. The partial percentage amount determined shall then be applied to the amount of the monthly annuity or benefit payable to each annuitant or benefit recipient eligible to receive a partial postretirement adjustment. The postretirement adjustments shall commence to be paid on January 1 following the calculations required pursuant to this section and shall thereafter be included in the monthly annuity or benefit paid to the recipient. Any adjustments pursuant to this section shall be paid automatically unless the intended recipient files a written notice with the applicable participating public pension fund or plan requesting that the adjustment not be paid.

Subd. 11. **Adjustment for mortality gains and losses.** As of June 30 annually, the commission-retained actuary shall calculate the amount of required reserves representing any mortality gains and any mortality losses incurred by each participating public pension fund or plan during the fiscal year and report the results of those calculations to the applicable participating public pension fund or plan. The actuary shall report separately the amount of the reserves for annuitants and benefit recipients who are eligible for a postretirement benefit adjustment and the amount of reserves for annuitants and benefit recipients who are not eligible for a postretirement benefit adjustment. If the net amount of required reserves represents a mortality gain, the participating public pension fund or plan shall certify that amount to the state board, which shall sell sufficient securities or transfer sufficient available cash to equal the amount of money certified. If the amount of required reserves represents a mortality loss, the participating public pension fund or plan shall transfer to the state board an amount equal to the amount of the net mortality loss. The amount of the transfers shall be determined before any postretirement benefit adjustments have been made. All transfers resulting from mortality adjustments shall be completed annually by December 31 for the preceding June 30. Interest shall be charged or credited on any transfers after December 31 based upon the preretirement interest assumption for the participating

plan or fund as specified in section 356.215, subdivision 8, stated as a monthly rate. Book values of the assets of the fund for the purposes of subdivision 9 shall be determined only after all adjustments for mortality gains and losses for the fiscal year have been made.

Subd. 12. **Appropriation of required amounts.** All money necessary to meet the requirements of the certification of withdrawals and all money necessary to pay postretirement adjustments pursuant to this section are hereby and from time to time appropriated from the postretirement investment fund to the state board.

HIST: 1980 c 607 art 14 s 16; 1981 c 208 s 2; 1982 c 424 s 1; 1983 c 324 s 4-6; 1987 c 259 s 3-5; 1989 c 319 art 14 s 1,2; 1990 c 570 art 9 s 1; 1992 c 530 s 1; 1992 c 539 s 8; 1994 c 604 art 1 s 6; 1995 c 186 s 6; 1997 c 233 art 1 s 5; 1Sp2001 c 10 art 3 s 2; 2002 c 392 art 11 s 52