



The Effect of Current Market Conditions on Wisconsin Retirement System Participants who Participate in the Core Fund and Previously Cancelled Variable Fund Participation

This document is designed to help employees who are covered by the Wisconsin Retirement System (WRS) understand the impact that the 2008 WRS investment losses and current market conditions may have on future retirement benefits and how past variable participation affects retirement benefits. It is important to note that it is impossible to predict future investment returns and an employee’s optimal retirement date given the current market conditions.

Explanation of How Interest is Credited to the WRS Core Fund

Interest credited to the Core Fund is based on investment earnings as of December 31st and is credited to the account once per year. Investment gains and losses are recognized evenly over a five year period to keep interest crediting and contribution rates stable. The impact of the 2008 investment losses will be spread over the next five years. The 2009 Core Fund interest rate is based on the investment returns from 2005 – 2009. The years 2005 – 2007 all had positive investment returns but 2008 had a -26.2% rate of return so the negative returns of 2008 will have a negative effect on the core effective interest rate for the years 2008 – 2012. As of November 30, 2009, the preliminary Core Fund investment return was up 21.1% for the year.

In October 2009, ETF released the following projections regarding the Core Fund:

Core Effective Rate / Annuity Adjustment Projections					
If SWIB’s net investment return on 12/31/09 is...	25%	20%	15%	10%	5%
...the Core Effective Rate will be...	4.5% to 4.9%	3.7% to 4.1%	3.0% to 3.4%	2.2% to 2.6%	1.4% to 1.8%
...the Core Annuity Adjustment will be...	-0.9% to -1.3%	-1.6% to -2.0%	-2.3% to -2.7%	-3.1% to -3.5%	-3.8% to -4.2%

Per ETF, a 2009 investment return of 27.9% to 30.7% will be needed for a 0% annuity adjustment in May 2010.

Brief Explanation of How Past Variable Fund Participation Affects Retirement Benefit Calculations

Once you cancel Variable Fund participation and your variable balance is moved to the Core Fund, you no longer receive variable interest crediting. When you cancel Variable Fund participation, a variable excess or deficiency is placed on your WRS account. This is an accounting mechanism that tracks whether or not there is more or less money in your total WRS account because of your Variable Fund participation. Each year this amount is credited with the Core interest rate and will be used to adjust your formula annuity calculation. Your current variable excess or deficiency is listed on the annual ETF Statement of Benefits that you received in the spring of 2009.

At retirement, your annuity is calculated under two different methods, the formula and the money purchase calculation methods. The retirement annuity you receive is based on the HIGHER of the two calculations. You do not select your calculation method; you automatically receive the higher of the two calculations.

A **money purchase calculation** is based on the total value of your WRS account and a money purchase factor based on your age at the time of retirement. Past variable participation affects your overall account balance but your variable excess or deficiency has no impact on the money purchase annuity calculation.

A **formula calculation** is based on years of WRS service, three highest years of earnings, formula factors based on employment category and age at retirement. Once the formula retirement benefit is calculated, it is adjusted upwards if there is a variable excess or downwards if there is a variable deficiency on your WRS account. For a detailed explanation of retirement benefit calculations, see the ETF brochure, [Calculating Your Retirement Benefits](#).

Examples of How a Variable Excess/Deficiency Grows and Impacts Formula Retirement Benefits

Your formula retirement annuity calculation will increase if you have a variable excess on your account at the time of retirement but if there is a variable deficiency on your account, the formula annuity calculation will decrease. The size of the increase or decrease is based on your total variable excess or deficiency. Each year prior to retirement, the value of the variable excess or deficiency is credited with the Core interest rate so its value changes over time.

Example of How a Variable Deficiency and Excess Grow Over the Years

1-1-09 Variable Deficiency	-\$10,000		1-1-09 Variable Excess	\$10,000
4% 2009 Core Interest Rate*	x 1.04		4% 2009 Core Interest Rate*	x 1.04
1-1-10 Variable Deficiency	-\$10,400		1-1-10 Variable Excess	\$10,400
7% 2010 Core Interest Rate*	x 1.07		7% 2010 Core Interest Rate*	x 1.07
1-1-11 Variable Deficiency	-\$11,128		1-1-11 Variable Excess	\$11,128

**2009 and 2010 Core interest rate amounts are for illustrative purposes only*

The total value of your WRS account funds your eventual retirement benefit. If you cancel variable participation with a deficiency, your account is smaller than it would have been if you were never in variable and there is less money available to fund your annuity. For example, if you cancel variable participation with a -\$10,000 deficiency, that \$10,000 is not available to fund your annuity or to accrue interest over the years. The deficiency grows according to the Core Fund interest rate each year because if that money had been in your account, it would have been growing by the annual Core Fund interest rate. The “hole” in your account gets bigger each year there is a positive Core Fund interest rate.

At retirement, a variable deficiency will decrease your formula annuity calculation. Your formula annuity will be calculated as usual (based on years of WRS service, three highest years of earnings, a formula factor based on employment category and age) and adjusted downward relative to your variable deficiency.

The reverse holds true if you have a variable excess on your account. There is more money available to fund your annuity and this additional money is earning interest annually and increasing over time. A variable excess will grow whenever there is a positive Core Fund interest rate. At retirement, a variable excess will increase your formula retirement annuity calculation.

At the time of retirement, your variable excess or deficiency is multiplied by the money purchase factor for your age at retirement (money purchase factors available on [ETF’s website](#)) to determine the effect on your

formula retirement annuity. The examples below outline the effect of both a variable excess and a deficiency on the formula annuity calculation of a 60 year old.

Example 1: Small excess/deficiency

\$1,000 variable excess x .00616 (money purchase factor at age 60) = \$6.16

- The *For Annuitant's Life Only* annuity option under Formula Calculation would increase by \$6.16 due to variable excess. If the employee had a -\$1000 variable deficiency, the monthly annuity would decrease by \$6.16/month.

Example 2: Mid-size excess/deficiency

-\$11,128 variable deficiency x .00616 (money purchase factor at age 60) = -\$68.55

- The *For Annuitant's Life Only* annuity option under Formula Calculation will be reduced by \$68.55/month due to the variable deficiency. If the employee had an \$11,128 variable excess, the monthly annuity would increase by \$68.55/month.

Example 3: Large excess/deficiency

-\$50,000 variable deficiency x .00616 (money purchase factor at age 60) = -\$308.00

- The *For Annuitant's Life Only* annuity option under Formula Calculation will be decreased by \$308.00/month. If the employee had a \$50,000 variable excess, the monthly annuity would increase by \$308.00/month.

Per the examples above, it is clear that the larger your variable excess or deficiency, the larger the total impact on your formula annuity calculation.

Impact of Low or Negative Core Interest Rates on WRS Benefits

Low or negative Core Fund interest rates affect WRS separation, death and money purchase retirement benefits because they are all based on the total dollar value of your WRS account. Low interest rates will cause the dollar value of your WRS account to grow more slowly and negative interest rates may shrink the overall dollar value of your account. The lower the value of your WRS account, the lower the value of these three benefits.

When you cancel variable participation, there is either a variable excess or deficiency placed on your account. Each year, the excess or deficiency is multiplied by the Core Fund interest rate. If the interest rate is low, both the variable excess and deficiency will grow at a slower rate. If the interest rate is negative, it will shrink the value of both the variable excess and deficiency.

Financial Health of the WRS

The WRS is solvent, well-funded, has a diversified investment portfolio and is focused on long-term investing. The WRS is also the most fully funded public pension system in the United States and is designed to remain solvent during economic downturns. The payment of all WRS related benefits is also guaranteed by state statute. Employees in the Core Fund can be confident that the current market turbulence does not jeopardize future retirement benefits.

For Additional Information

ETF Brochure, [How Participation in the Variable Trust Fund Affects Your WRS Benefits](#)
Variable Excess/Deficiency [Calculator](#)

ETF's [Core Fund Projections Resource Page](#)
ETF Website, [Market Volatility and Your WRS Benefits](#)
State of Wisconsin Investment Board (SWIB) [website](#)
[Historical Investment Returns and Interest Rates](#)