

# ANATOMY OF A COLLABORATIVE PENSION VALUATION

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**The terms and conditions of the plan, analysis and assumptions should be understood and determined before the calculation begins.**

## **Conducting a Preliminary Defined Benefit Pension Valuation**

The importance of valuing retirement benefits for divorce cannot be overemphasized. However, the difference between a written report from a pension valuation expert as opposed to using a trained collaborative financial specialist with expert knowledge on retirement plan issues incident to a Collaborative divorce is compelling. Viewed as an asset, the value of a retirement plan or multiple plans can constitute the single largest portion of the marital estate. Certain assumptions and tables used, which if altered, can significantly change the final present value of a participant's retirement plan.

Often a participant wishes to keep his/her entire interest in his/her retirement plan, in exchange the non-participant spouse will retain the equivalent value of other marital property. Property such as investment accounts, equity in a home, vehicles, etc. Often this can be an efficient alternative and cost effective means, instead of assigning a portion of the retirement plan to the non-participant spouse.

In a collaborative setting it is important to use assumptions that are suitable and logical, with respect to the divorcing party, in determining the present value of a retirement benefit for purposes of a property offset against other post-tax marital property. The assumptions used for a present value calculation in a collaborative case need to be focused on real life situations rather than a book statistics and tables.

Pension plans are contractual promises of future benefits. The terms and conditions of each plan differ and determine when and how benefits are paid. When conducting a valuation you are attempting to place a value on the purchasing power of a dollar at a future date, and then bringing it back through discounting to arrive at a present value. What is equally important to understand is that the value of a future dollar has a much different value to each of us. In addition, there are no guarantees that you will ever collect the actual payments.

When discussing retirement plan issues in a collaborative setting, the goal is to help your clients understand how they view their purchasing power of money today, and in the future, enabling them to make an informed decision. Your clients should understand that a pension plan will provide a future payment and it's not a pile of money sitting in a bank account growing with interest.

Assume we are dealing with a \$1000 accrued monthly benefit at retirement for a 45-year old husband and wife. Assuming the participant terminated employment on the date of divorce, the monthly benefit will remain fixed at \$1000 per month from the normal retirement age and over the remainder of the payout period. With that said, we know that the purchasing power of \$1000 today is significantly greater than the purchasing power in 20 years. Historically the inflation rate has been right around 3%, so inflating your monthly benefit out 20 years leaves you with roughly \$400/month of purchasing power. This simply means that \$1,000 in 20 years will purchase roughly the equivalent of \$400 of food, clothes and shelter that \$1000 purchases today. At retirement, it is not so much about how much money we will actually have, but how much we can buy with the money we have that will matter.

*Here are two examples:*

Let's say you place one dollar into a bank account and leave it there for 20 years earning 3% interest. That dollar grows to one dollar and eighty-one cents (\$1.81). Let's assume a mutual fund earns 10%, if you place one dollar into a mutual fund and leave it there for 20 years, that dollar grows to six dollars and seventy-three cents (\$6.73). That is a 272% difference in the value of a dollar to a person that retains an aggressive long-term investment strategy as opposed to a conservative long-term investor.

Now let's assume you have a collaborative case and that the only assets are the husbands \$1000 per month pension and the wife has a \$100,000 401(k) plan invested aggressively. Assume that the pension evaluator used a 4% discount rate on the pension to arrive at a \$100,000 present value. Assuming that the wife retained her 401(k) and the husband retained his pension. In 20 years at 10% the 401(k) plan could be worth over \$673,000 and the husband begins to collect \$1000 per month. On the other hand, factoring in a 4% rate of return on the 401(k) plan at retirement produces a monthly income of approximately \$3200 for the next 20 years to the wife.

In a Collaborative setting, valuation strategies, assumptions and variables can be *discussed* and *determined* before the calculations are performed. Conclusions such as these provided in the second example could be negotiated and avoided ensuring that both parties walk away with peace of mind in regard to a portion of their financial future.

### **Conventional Wisdom with Valuation Strategies**

There are two distinct methods for determining the present value of a defined benefit pension plan. The two methods to value an interest in a pension plan are referred to as an economic valuation and an actuarial valuation. These methods for determining the present value of a pension plan can yield startlingly different results in terms of a dollar amount. Different assumptions are used for these valuation methods.

The interest or discount rate is one assumption that differs between the two methods and as interest rates have declined precipitously since 1982, it has changed the landscape of the valuation industry. Twenty years ago, interest rates were at all-time highs and actuaries were using a three or four tiered interest rate structure along with tables and rates published by the PBGC. That rate structure had numerous guarantees and insurance premium costs built into the tables. In other words, actuaries were using the same tables they use to calculate the "cost" of the

plan to the employer, which is not the same as the “value” of the plan to the employee. The interest rates used by actuaries in the 1980’s had a tendency to dramatically overstate the value of the plan to the employee.

The Actuarial Society took notice of the deficiencies and addressed the issues. The Pension Committee of the Actuarial Standards Board of the American Academy of Actuaries developed the Actuarial Standards of Practice No. 34 for members and Other Persons Interested in Actuarial Practice Concerning Retirement Plan Benefits in Domestic Relations Actions. Today, if you would request a pension valuation from 10 different actuaries, they should all yield an approximate same value. Practice Rule No. 34 dictates the assumptions that an actuary is allowed to use for domestic relation’s valuations. Therefore, Practice Rule No. 34 addresses the issue of interest rates, discounts, and mortality issues and is now considered the “standard” for valuations. The interest rate discount required to be used under Practice No. 34 is determined by the 30-Year Constant Maturity Rate, which is published daily by the Federal Reserve. The mortality factors used under rule No. 34 are the Group Annuity Mortality tables or GAM-83 and/or UP-94 as they are referred to. The 30-Year Constant Maturity Rate is a long-term factor with minimal standard deviations over a 3 and 5 year period compared to the more volatile combination of short and long-term Treasury rates used by economic evaluators.

An economic present value calculation will usually use an interest rate that is based on the U.S. Treasury Bond Yield. However, the rates used are usually a combination of the 10 plus year rate averaged into the 1 to 10 year rate. The conventional wisdom of using Treasury rates was also born in the 1980’s during a historically high interest rate period. Using U.S. Treasuries make some sense because they are the most creditworthy of all debt instruments since they are backed by the "full faith and credit" of the U.S. Government. The Actuarial Society was using factors and assumptions that were not suitable for a valuation in a divorce and as such those factors artificially increased the present value of a pension. Using Treasuries as the barometer was considered the risk-free rate, meaning the *minimum* rate of return an individual can expect when considering all other types of investments.

The problem faced today is that many of the economic factors that shaped the valuation process during the 1980’s have completely changed. Interest rates are at all-time lows and inflation is relatively non-existent. Therefore today’s economic valuations are using the combination of short and long term yields that tend to render an extremely low interest rate factor, which is artificially increasing the value of the plan.

Life expectancy of a participant based on (gender and race) is another element to consider. Life expectancy tables calculate the percentage of people that may decrease prior to commencing their pension benefit. They will also calculate the age at death, or for how long the participant will collect benefits after commencement? The United States Life Tables and National Vital Statistics reports are the resources used mostly by economists for estimating life expectancy.

The concern with using these tables is that they are calculated “averages” and a fixed date of death is assumed. So the calculation of a present value using Vital Statistics is exactly correct only in the “average” case. Where the problem exists is the average case doesn’t exist. To arrive at an average would mean half the population lives longer than the fixed date of death and the other half doesn’t. In actuarial science, that means an economic evaluation is never correct.

On the other hand, an actuarial valuation measures the “probability” the participant will reach retirement age, and the probability if they will collect the “next” benefit, as opposed to fixed dates. Is that a big deal? According to the National Vital Statistics a male infant born today has a life expectancy of approximately 79 years old. However, we also know that a 65 year-old in 2005 has a life expectancy to approximately age 85. When the male infant that is born today turns age 65, what do you think his life expectancy will be in year 2070? No one knows for certain but assuming the current trends his life expectancy is likely to increase dramatically. Actuarial mortality tables take all these variables into consideration, and are not based on fixed dates of death. They provide much more realistic and “probable” mortality figures.

### **Collaborative Pension Valuation:**

A present value of a pension calculation has 5 basic variables that affect the final present value computation. They are (1) duration of the payout period, (2) mortality, (3) dollar amount of benefit, (4) the participant’s tax bracket, and (5) the assumed interest rate discount. These variables become a chain of assumptions that are supported only by the weakest link. Meaning, if one variable is inappropriate for your collaborative case, the entire valuation is effected.

In a collaborative setting, when determining the present value of a retirement benefit for purposes of a property offset, it is imperative that you make suggestions or discuss which assumptions should be used. These assumptions should be suitable and logical in regard to the divorcing party based upon the dynamics of their current financial risk tolerance. The assumptions used in an economic present value calculation and/or an actuarial present value are more appropriately geared towards a litigated case where the participant is seeking the lowest value of his/her plan, while the non participant is looking for just the opposite. Through our experience we have noticed that the evaluator will not take the time to interview the parties to determine these assumptions. Without this interview process, the evaluator tends to be uninformed regarding other financial issues of the parties and the family dynamics that take shape in a collaborative setting. A collaborative evaluation should be geared toward a real life situation and yield a rational result rather than a result from a book of numbers and tables.

Of the five variables used, three of the key factors should be of particular interest to you in determining whether or not the valuation is suitable for your client. The key factor that has the most affect on the valuation is the interest rate discount applied. The second most important factor affecting the end result is the tax discount followed by the life expectancy or probability of the payout period. A key relationship for the Collaborative attorney to understand is that the higher the interest rate assumed, the lower the present value. While the lower the interest rate used the higher the present value. The longer the duration or payout period, the higher the present value of a pension and the shorter the payout period the lower the present value. The tax discount applied varies from case to case and is fairly easy to ascertain. Once these variables are understood, the relationship between the short and long payout periods, the high or low interest rates and the tax rates, becomes apparent.

A pension valuation prepared for a litigated case is not the same as a pension valuation prepared for a collaborative case. In a collaborative case you need a specially trained collaborative financial professional to assist your clients throughout their case.

The Chart below illustrates the common variables that effect pension valuations and shows the outcome.

<b><u>FACTORS AND ASSUMPTIONS</u></b>	<b><u>AFFECT ON PRESENT VALUE</u></b>
High Interest Rate	Lower Present Value
Low Interest Rate	Higher Present Value
Early Retirement Age	Higher Present Value
Normal Retirement Age	Lower Present Value
Shortened Life Expectancy	Lower Present Value
Cost of Living Adjustment	Higher Present Value
Marriage Coverture adjustment	Lower Present Value
Larger Tax Discount	Lower Present Value

Other issues can and will affect the valuation including: vesting, cost of living adjustments (COLA), coverture fraction formulas, shortened life expectancy, survivorship benefits, control point and tax discounts.

Collaborative Pension Process:

1. Determine the type of plan. Defined Benefit, Defined Contribution or Hybrid. Usually, only defined benefit and some hybrid plans require a valuation.
2. Determine the terms and conditions of the plan. Earliest retirement date, normal retirement date, date benefits may commence with unreduced benefits, benefit commencement options, joint and survivor benefit commencement options, pre and post-retirement survivor options, subsidized benefits, disability issues, etc.
3. Discuss and determine the dollar amount of the accrued benefit. May need seek a copy of Plan Document and calculate the benefit based on the Plan's formula.
4. Discuss and determine the retirement date used for valuation purposes. It could be the earliest retirement date, earliest retirement date the participant could retire with unreduced benefits, normal retirement date or any date agreed upon by the parties.
5. Discuss and determine the mortality table to be used. It may be acceptable to consider a fixed date of death such as age 85 or another age that is agreed upon by the parties.
6. Discuss and determine the tax discount to be used. This could create an issue because both parties could be in different tax brackets.
7. Finally discuss and determine the interest rate discount. The rate selected will have the most profound affect on the calculation. You could use ranges, which require several calculations.

It is also negotiable to divide the benefit in half and use one discount rate for one half and another discount rate for the other half in order to determine value to each party.

8. Run the calculations.