

Distribution of Pension Benefits on Divorce: Some Unresolved Analytical Issues

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Abstract

The authors were involved in a study of the analytical procedures and assumptions for the distribution of pension benefits on divorce. The purpose of the study was (1) to review the positions that the courts have taken; (2) to organize them within an analytical framework; and (3) to identify and articulate the unresolved issues which impede the court's ability to render economically unbiased decisions. This article presents the findings of that study.

Distribution of Pension Benefits on Divorce: Some Unresolved Analytical Issues

Virtually all states treat pension benefits earned during marriage as marital property¹ subject to division by the court on divorce (See generally Blumberg, 1986, p. 1253; Sellers, 1990; and Annotation, 1979, p. 180). It is not surprising, therefore, that significant increases in the number of divorces and in the value of pension benefits should result in increased litigation and commentary in the area (See Wright, 1986; Brown, 1985, p. 107, n. 3-4; and Cohen and Hennessey, 1989). The courts generally recognize that pension benefits are the most significant marital assets owned by a couple (See for example, *Bloomer v. Bloomer*, 1978, p. 238; *Koelsch v. Koelsch*, 1986, p. 1239; *Cearley v. Cearley*, 1976; and Brown, 1985). Wright (1986) has suggested that this activity in part has resulted in or from more sophisticated family law practitioners.² In any event, one of the most important issues that

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¹The term "marital property" as used in this article refers to property distributed on divorce in community property, common law and equitable distribution states. Most states have adopted either by case or statutory law the doctrine of equitable distribution which gives courts in divorce actions the right to distribute marital property in a "just," "fair," or "equitable" manner. For an analysis of property distribution by state, see Freed and Foster (1983).

²It is obvious that as the stakes rise higher in the marital property pension game, client representation will become more sophisticated.

has not been consistently resolved is that of valuing pension benefits for purposes of distribution on divorce.

The complexity of the pension valuation issue is well documented in numerous court opinions. It has been variously described in *Rosenberg v. Rosenberg* (1985), p. 496-97, as being "complex," in *Holbrook v. Holbrook* (1981), p. 347 and in *Ohm v. Ohm* (1981), p. 1371, as being "difficult, . . . imprecise," and in *Corliss v. Corliss* (1982), p. 221 as being "speculative". As a result, courts generally agree that the opinion of experts, typically actuaries, is preferable, if not required, for them to reach an equitable result.³

The courts generally "decline to impose rigid rules and leave the doing of equity to the trial courts" in the divorce area of pension valuation (See *Diffenderfer v. Diffenderfer*, 1986, p. 270; and *Trant v. Trant*, 1989, p. 429 citing *Diffenderfer v. Diffenderfer* with approval). Nonetheless, it seems clear that there should be some degree of equity, consistency and uniformity, preferably among all jurisdictions.⁴ The purpose of this study is to investigate the extent to which this is the case, and to identify the areas where analytical procedures and assumptions can be refined or clarified for the courts.

Two distinct steps are involved. The first step is to review the positions that the courts have taken, and to organize them within an analytical framework. Obviously, an analytical solution without consideration of judicial precedent may contain serious legal flaws. Having done this, the second step is to identify and articulate the unresolved issues which impede the court's ability to render economically unbiased decisions.

This article presents the findings of the study. It has three goals: (1) to present the findings of a review of major court cases, (2) to describe these findings within a quantitative framework, and (3) to identify major analytical issues which are as yet unresolved.

General Statement of the Problem

In general, the problem of equitable distribution is one of proportioning the property of the marriage, in an economically unbiased fashion. The essence of the problem may be formalized in the following manner. Given some assignment date, t ,⁵ let:

³For example, in *Wisniewski v. Wisniewski* (1982, p. 1306) the court stated that "[w]hile the possibility that expert testimony may not be necessary to properly value a pension . . . , we believe it the better view that such valuation should be supported by expert testimony." Some jurisdictions are more emphatic. Arizona, for example, implies that expert testimony is mandatory. (See *Miller v. Miller*, 1984, p. 322).

⁴In *Bednar v. Bednar* (1984, p. 19) the court urged the use of a common evaluation date for all marital assets and noted that "[t]here is no absolutely iron-clad rule for determining the date of evaluation but use of a consistent date is preferable. . . ."

⁵In this formulation, the date of assignment is taken as given. In practice, since the date of assignment is a principal determinant of property values, it is a critical factor, and, as such, is often a major point in the litigation.

$\tilde{V}_{ti}$ = economic value at time t of marital property i

$$\tilde{V}_t = \sum_i \tilde{V}_{ti}$$

a_{tij} = proportion of property i assigned to spouse j at time t ,

where a tilde over a factor indicates a random variable. Then, disregarding the expenses associated with divorce,⁶ the problem becomes one of assigning:

$$\sum_i a_{tij} \tilde{V}_{ti} \quad j=1,2,$$

the total allocation to each spouse, such that

$$\sum_i a_{ti1} \tilde{V}_{ti} = k \cdot \sum_i a_{ti2} \tilde{V}_{ti} \quad k \geq 0$$

and

$$a_{ti1} + a_{ti2} = 1, \quad \forall t, i.$$

The proportion of the total property assigned to a given spouse need not be fixed, but often it is. Thus, for example, in community property states, such as California, an additional absolute constraint would be that each spouse is assigned one-half ($k=1$) of the total economic value of the marital property.

The foregoing represents a general statement of the problem. In practice, the primary marital property may be pension benefits and a house. In this case, the employee spouse may retain the pension benefits and the non-employee spouse may retain the house, with the balance of the assets allocated in such a way as to provide an equitable distribution.

The Model Before the Courts

One of the first concerns, from an analytical perspective, has to do with the model usually relied upon by the courts. Since $\tilde{V}_{ti}$ is a random variable, an economically unbiased model generally would require that

$$Pr\left[\left|\sum_i a_{ti1} \tilde{V}_{ti} - k \cdot \sum_i a_{ti2} \tilde{V}_{ti}\right| \geq \delta\right] \leq \alpha$$

where δ is the maximum tolerable deviation from economic unbiasedness and α is the probability of that occurrence. This fact, notwithstanding, the courts have invariably relied on expected value models which merely require that

$$\sum_i a_{ti1} E(\tilde{V}_{ti}) = k \cdot \sum_i a_{ti2} E(\tilde{V}_{ti})$$

where $E(\tilde{V}_{ti})$ denotes the expected value. Thus, the stochastic nature of the problem is not explicitly addressed by the courts.

The impetus for expected value models is their simplicity. However, it is interesting to note that even "actuarial experts" (See Projector, 1984) have argued in their favor.

Moreover, in some instances, since attorneys tend to think in terms of future lifetime, some court decisions have relied on models based on a period certain

⁶The expenses associated with a divorce include such things as attorney's fees, expert witness fees, and so on. The formulation is easily extended to incorporate this type of slippage.

equal to expected future lifetime. These models have well documented shortcomings (See, for example, Lowrie, Luckner, and Projector, 1984).

Methods of Dividing Pension Benefits as Marital Property

Turning to the specific topic of pension benefits as marital property, a review of the cases and the literature reveal that the two traditional methods of dividing pension benefits on divorce are the reserved jurisdiction method and the present value method.⁷ A third method, called a "qualified" domestic relations order (QDRO) became available in 1985 under the Retirement Equity Act of 1984 (I.R.C. Sec. 414(p), 1984). These methods are described in this section.

Reserved Jurisdiction

The reserved jurisdiction method provides that pension benefits are not made available until they are in pay status. This method has been given a number of different names or designations including "deferred distribution," (See Flynn v. Flynn, 1985, p. 161; Moore v. Moore, 1989, p. 25; and Tarr v. Tarr, 1990, p. 828), "pay as it comes in system," (See Ohm v. Ohm, 1981, p. 1380), and "wait and see approach" (See Haun v. Haun, 1984, p. 930). This approach has the obvious advantage that it does not require computation of the present value of the pension benefits, with its inherent difficulties (See Braderman v. Braderman, 1985, p. 619). It has the added advantage of spreading the risk between the divorcing spouses if the pension benefits have not yet vested (Shill v. Shill, 1979, p. 1008).

The primary disadvantage of the reserved jurisdiction method is that contact must be established and maintained between the nonemployee spouse and the pension plan administrator. This "forces parties who desire to dissolve their relationship by divorce to deal with each other, and deferred distribution continues to burden the court" (Flynn v. Flynn, 1985, p. 165). In addition, if the nonemployee spouse predeceases the employee spouse, the latter will receive a windfall if he/she resumes "full right to the benefit entitlements" (Flynn v. Flynn, 1985, p. 165).

Qualified Domestic Relations Order (QDRO)

The Retirement Equity Act of 1984 helped to reconcile the nonassignment of vested benefits and state law preemption by requiring pension plans to follow qualified domestic relations orders.⁸ The Internal Revenue Code defines a qualified domestic relations order (QDRO) as a judgment or decree of a state court "which creates or recognizes the existence of an alternative payee's right to, or assigns to an alternate payee the right to, receive all or a portion of the benefits payable with respect to a participant under the plan"

⁷See Troyan (1983); Skoloff (1984); and Wright (1986) for a general explanation of each method.

⁸For an explanation see Commerce Clearing House (1991), 2546-25471.

(I.R.C. Sec. 414(p)(1)(A)). In a divorce situation, an "alternative payee" is a nonemployee spouse.

In general, the earliest a nonemployee spouse can receive payment under a domestic relations order is the time when the employee reaches the earliest retirement age which is defined as the earlier of (i) the date on which the employee is entitled to a distribution under the plan, or (ii) the later of (I) the date the employee reaches age 50, or (II) the earliest date on which the employee could begin receiving benefits under the plan if separated from service (See I.R.C. Sec. 414 (p)(4)(B)).

The QDRO combines advantages of both the present value and reserved jurisdiction methods in that it does not require further court administration (this task is assumed by the employee spouse's pension plan administrator) and a present value calculation is not required. Other advantages exist for both parties. For the employee spouse, payments made from the plan are taxed for income tax purposes to the nonemployee spouse (See Wright, 1986, p.442). For the nonemployee spouse, as noted above, payment can begin before the actual retirement of the employee spouse.

Present Value Method

The present value method has been variously referred to by the courts as the "present cash value method," the "cash out method," (See Bergman v. Bergman, 1985, p. 664) the "immediate offset distribution method" (See Flynn v. Flynn, 1985, p. 161; Mantell v. Mantell, 1989, p. 541; and Liciardello v. Liciardello, 1990, p. 1065) and the "lump sum method" (See Koelsch v. Koelsch, 1986, p. 1234). But no matter how it is labeled, the effect is the same. The employee spouse retains the retirement benefits and the nonemployee spouse receives an offsetting distribution of other marital property, the value of which is equal to the expected present value of the retirement benefits.⁹

The present value method is preferred by most courts, (See Troyan, 1983) its greatest virtue being that it effects an immediate and final settlement of pension benefits (See Troyan, 1983, p. 3006 and Braderman v. Braderman, 1985, p. 619). The problem with the method is its inherent computational difficulties. Of course, the method is not feasible if the expected present value of the retirement benefits exceeds the value of the other marital property.

Comment

As a practical matter, most of the analytical problems are associated with the present value method of dividing pension benefits on divorce. In consequence, the remainder of this articles deals primarily with problems associated with the present value method.

⁹See Braderman v. Braderman (1985, p. 619). The terminology used by the Pennsylvania Superior Court to describe the present cash value method in the *Braderman* case was "immediate offset." See also, O'Callaghan v. O'Callaghan (1989) and Moore v. Moore (1989).

The Pension Benefits Payable to the Nonemployee Spouse

The pension benefits payable to the nonemployee spouse is given by the general formula (See Brown, 1985, p.107-79):

$$\left[\begin{array}{c} \text{non-EE} \\ \text{Spouse's} \\ \text{Portion} \end{array} \right] \times \left[\begin{array}{c} \text{Coverture} \\ \text{Fraction} \end{array} \right] \times \left[\begin{array}{c} \text{Value of} \\ \text{Pension} \\ \text{Benefits} \end{array} \right]$$

The first term (the nonemployee spouse's portion) is often taken to be one-half. In community property states, property is divided equally without regard to any equitable factors such as length of marriage or size of individual estates.¹⁰ Hence, one-half is an absolute amount in community property states. But the majority of jurisdictions take equitable factors into account; therefore, one-half may not be an absolute amount. However, with respect to pensions, equitable jurisdiction courts appear to apply one-half to pensions as a specific asset.

The coverture fraction, the second term of this formulation, controls the fractional division or apportionment of pension plan benefits. Thus, it has the basic form:

$$\frac{\text{Time married under plan}}{\text{Time employed under plan}}$$

A common example of the formulation of a coverture fraction is the case where separation occurred while the employee spouse was still a plan participant. In this instance, the coverture fraction is given by the ratio

$$\frac{\text{Date of Separation} - \max(\text{Date of Marriage}, \text{Date of Hire})}{\text{Date of Valuation} - \text{Date of Hire}}$$

The date of valuation might be the date of divorce or the date of a court hearing.

The last term of the formula relates to the valuation of the pension plan benefits. For example, the determination of the present value of retirement benefits for an active employee, which exemplifies this term, consists of two steps: first, determine the future value expressed as a lump-sum at the retirement age; and second, apply discount factors to calculate the present value of this sum at the valuation age (See *In re Marriage of Pilant*, 1985, p. 1245). The concepts are straightforward and are embodied in the observations that the present value (PV) is:

$$\widetilde{PV}_r = \int_{t=0}^U B_{r+t} \int_{s=0}^t e^{-\delta_s} ds dt$$

and

¹⁰The community property states are Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas and Washington.

$$\widetilde{PV}_x^r = \left[\int_{t=0}^{\tilde{T}} e^{-\delta_t} dt \right] \widetilde{PV}_r^r \quad \tilde{T} = \tilde{r} - x,$$

respectively, where U is the future lifetime at the retirement age r , given the current attained age x , $x \leq r$, B_{r+t} is the annual retirement benefit at age $r+t$ which is potential marital property, δ_t is the force of interest at time t , and T is the future time until retirement for a life aged x . As before, a tilde over a factor denotes a random variable.

If one disregards the stochastic nature of retirement benefits, and assuming that the accrued benefit (AB) is fully vested, a simple statement of the foregoing is that

$$PV_r^r = AB_x \cdot APR(r),$$

and

$$PV_x^r = v^{r-x} {}_{r-x}p_x \cdot PV_r^r,$$

where the total deferral period is $r-x$ years; v^{r-x} discounts for the time value of money; ${}_{r-x}p_x$ is the probability that an individual aged x will persist to age r ; and $APR(r)$ is the annuity purchase rate at age r .

The courts recognize the importance of the interaction of the computation of the coverture fraction and the computation of the expected present value of pension benefits. For example, the Texas Court of Appeals in *May v. May* (1986), p. 707, concluded that the dates at which these two variables should be calculated is the central question. Both the courts and commentators have noted that the use of date of divorce or retirement in the denominator of the coverture fraction can produce substantially different results.¹¹

The function of the coverture fraction, the *May v. May* court reasoned, is to shield the employee spouse's premarriage and postdivorce earnings from the nonemployee spouse. This led the *May v. May* court to conclude, for example, that "where the parties are divorced after employee spouse has retired or terminated employment under the plan . . . [and] apportionment is the only issue," the date of retirement is more appropriate for the denominator of the coverture fraction (See *May v. May*, 1986, p. 710).

It can be argued that postmarriage pension benefits should not be totally shielded from the nonemployee spouse. Brown (1985), who analyzed *Berry v. Berry* (1983), the case relied upon by *May v. May* (1986), expressed concern that the choice of divorce date could lead to an injustice to both the employee and nonemployee spouse. It may be unfair to the employee spouse to permit the nonemployee spouse to "partition pension interests which were not subject to division at divorce (for example nonvested pension benefits in certain jurisdictions), yet were influential in a trial court's "just and right" division of the community" (See Brown, 1985, p. 146). Brown makes the point that it may be unfair to the nonemployee spouse because it may unfairly jeopardize

¹¹ For example Brown, 1985, p. 145 n. 198 hypothetically calculated monthly benefits using date of retirement and divorce as \$195.65 and \$562.50 respectively.

that spouse's "true interest in the future benefit at the date of divorce. The fact that both spouses own interests in a future benefit should be emphasized" (See Brown, 1985, p. 153). The latter observation is particularly appropriate because, for at least a decade, courts have recognized that pension benefits represent a form of deferred compensation for services rendered which are derived from an employment contract. They are not mere expectancies. Rather, they are a chose in action (personal property), a contractual property right subject to division as marital property (See *In re Marriage of Brown*, 1976; *In re Marriage of Carnall*, 1989; *In re Marriage of Oler*, 1989; and *Powell v. Powell*, 1989).

The fractional division or apportionment issue remains a source of confusion. Most courts that have considered the pension benefits distribution problem do not describe how they arrive at valuation, let alone differentiate between fractional division and valuation. The assumption, therefore, is that if a specific date is selected for valuation, the same date also applies for apportionment. However, in *Koelsch v. Koelsch* (1986), the Arizona Supreme Court, in a case of first impression relating to a matured pension plan,¹² used mixed dates in the general formula. The pension's maturation date was used for valuation. The "date of dissolution" was used in the denominator of the apportionment fraction. The court reasoned that by taking this approach, "we avoid the problem of dividing the fruits of separate labor" (See, *Koelsch v. Koelsch*, 1986, p. 1242). To complicate the issue, a number of courts that have dealt with the valuation issue have suggested other possible dates including the dates of separation and trial, which will be discussed in the following section.

The Parameters of the Valuation

The determination of the appropriate present value of retirement benefits for an active plan participant presents a major obstacle to the realization of an equitable division.¹³ In addition to date selection issues inherent in both steps of the present value calculation (date of retirement applicable to the first step and date of valuation applicable to the second step) (See *May v. May*, 1986), there is the overriding question of dealing appropriately with the numerous variables that affect the discount rate in calculating the present value of pension benefits. They generally include mortality, interest, inflation, disability, probability of continued employment, taxes and probability of vesting.¹⁴ There is no consistent manner in which the courts deal with these variables other than to recognize their existence. They may deal with them

¹² A matured pension is one in which the employee has an unconditional right to immediate payment prior to divorce. See *Ohm* (1981, pp. 1371-72).

¹³ There is general agreement among the courts that present value is the proper test. See *Kis v. Kis* (1982).

¹⁴ When reaching the valuation issue, courts typically recognize the "[v]arious actuarial calculations are used to discount the present value of the retirement plan to reflect contingencies affecting the eventual payout, including discounts for mortality, interest, probability of vesting, and probability of continued employment" (*Johnson v. Johnson*, 1981, p. 709).

individually, in combinations, or stipulate to the rate,¹⁵ all of which provides little guidance for subsequent cases. It is clear that without relevant evidence pertaining to present values, a trial court may not be in a position of making an equitable distribution of pension benefits (See, for example *Olsher v. Olsher*, 1979).

The Retirement Age

Troyan (1984) indicates that on dissolution of a marriage, it is usually impossible for courts to determine the exact date at which the employee spouse will retire. Selection of the wrong retirement date by the court can produce gross inequities. If the court assumes a retirement date that substantially precedes the actual retirement date, the value of the pension benefits will be artificially high resulting in a windfall to the nonemployee spouse (See *Wright*, 1986, p. 432). Conversely, if the court assumes a retirement date that substantially succeeds the actual retirement date, the value of the pension benefits will be artificially low resulting a windfall to the employee spouse (See *Wright*, 1986, p.432).

To the extent that the goal is to obtain an economically unbiased estimate of the retirement age, the analyst must guard against inadvertently taking an advocacy position. The potential problem is exemplified by the comments of Troyan (1984, p. 11) who suggested resolving the retirement age problem by using the date on which the employee has an "unqualified right to retire," which he called the "initial maturity point." Although recognizing the "Normal Retirement Age or some point between the initial maturity point and Normal Retirement Age" as possibilities, he urged "use of the initial maturity point on the basis of equity, uniformity and a desire to prevent advocates from putting a wide variety of numbers before the court" (Troyan, 1984, p. 11). However, in a subsequent article Troyan (1989, p. 3020) observed that "Because of the potential number and variety of assumptions, a range of [present values] becomes the standard output of a well-prepared [actuarial evaluation]." These two positions seem irreconcilable from an economically unbiased perspective.

One resolution to this problem would be to select a date that would have been reasonable had the divorce not taken place. Other things being equal, it seems logical that the employee would have retired at an economically optimal date. That is, a rational employee may well have chosen to retire at the age which maximized the expected present value of the future earnings and pension benefits.

¹⁵ For example, in *Rimmele v. Rimmele* (1981), the only variable considered was interest. The parties stipulated to present values at discount rates ranging from 5 percent to 12 percent. The court settled on 8 percent.

Date Of Valuation

It is obvious that the date of valuation is a primary determinant of the value of the benefits.¹⁶ Despite this fact, the date of valuation required by the courts has not been uniform. The date of divorce, or some variation thereof, and the date of separation represent the two relative extremes in this regard.

Date Of Divorce. Some variation of the date of divorce appears to be used by the majority of courts in valuing pension benefits on divorce. However, even within the same jurisdiction there is not agreement among the decisions. For example, in *DiPietro v. DiPietro* (1984), p. 85 the New Jersey Superior Court purported to follow the general rule that the valuation date is the date the complaint for divorce was filed.¹⁷ But in *Bednar v. Bednar* (1984) the same court stated "[t]here is no absolutely iron-clad rule for determining the date of evaluation but use of a consistent date is preferable, such as filing of complaint, (citations omitted) or perhaps the time of the hearing, depending on the nature of the asset and any compelling equitable considerations" (*Bednar v. Bednar*, 1984, p. 19).

To compound the question relating to trial date, courts have been faced with the question, on remand, of whether the original trial date should apply or the subsequent trial date after remand. A California Court of Appeal concluded that while normally the trial date prevails, it may also be the remand date after appeal (See *In re Marriage of Hayden*, 1981). In any event, the court should consider equitable factors in determining which date to apply (See *In re Marriage of Hayden*, 1981, p. 183, n. 17).

*Date of Separation.*¹⁸ Although it appears that date of separation is not widely used by the courts for valuation purposes on divorce,¹⁹ a California Court of Appeals in *In re Marriage of Behrens* (1982),²⁰ concluded that date of separation was appropriate (See contra *In re Marriage of Marsden* (1982)). The court reasoned in *In re Marriage of Behrens* (1982, p. 209), that post-separation increases in pension benefits were a form of compensation and should be regarded as the employee spouse's separate property. In *Sergi v. Sergi* (1986), the Pennsylvania Superior Court used the date of trial (Also see *DeMasi v. DeMasi*, 1987). But with respect to date of separation, the court suggested that its use is appropriate in situations where there is "unbridled consumption" of marital property between separation and trial dates (*Sergi v. Sergi*, 1986, p. 931). Furthermore, the court stated, "to require a trial court to

¹⁶See Annotation (1984) for a summary of the various views taken by courts with respect to valuation date of marital assets on divorce.

¹⁷Similarly, the New York Supreme Court, Appellate Division, in *Cohen v. Cohen* (1989, p. 87) concluded that a pension should be valued "as of the time of the commencement of the divorce action."

¹⁸The specific time when separation occurs has not been uniformly agreed upon by the courts. Some courts, for example, may require a well-defined physical separation of the parties, i.e. a leaving of the personal residence. Other courts may base it upon intent. For purposes of this article, the period when separation begins is when all cohabitation ceases to exist.

¹⁹This is based upon the approximately 100 cases read in preparing this article.

²⁰For an excellent discussion and analysis of *In re Marriage of Behrens*, see Campbell (1984).

value property as of the date of separation may . . . result in the use of stale financial data and subsequent inequitable distribution of marital property" (Sergi v. Sergi, 1986, p. 931). The court also considered the possibility of using the date of the equitable distribution hearing because it could provide the court with "the most recent information available" (Sergi v. Sergi, 1986, p. 932).²¹ But in concluding that the date of trial was the most appropriate valuation date, the court adopted a neutral posture similar to *Bednar*. "[W]e do not attempt at this time to establish a valuation to be used in every situation. To recognize a specific valuation date as a matter of law would deprive the trial court of the necessary discretion required to effectuate economic justice" (DeMasi v. DeMasi, p. 932).

Campbell (1984) agreed that flexibility should be maintained in the selection of a date to value pension benefits on divorce, but at the same time guidelines must be established to provide a basis for selecting a date (Campbell, 1984, pp. 1017-1018). As a guideline, he suggested that when post-separation increases in pension benefits are due to personal factors such as merit raises (to the extent they can be distinguished from inflation increases), the date of separation should apply in which case the employee spouse benefits. Conversely, Campbell (1984, p. 1015) recognizes that when post-separation increases are due to non-personal factors such as longevity and cost-of-living raises, the date of trial should apply so that the nonemployee spouse may share in the gain.

Mortality and Interest

Mortality and interest are the most common discount variables when determining the present value of pension benefits on divorce. The courts generally seem to accept a wide range of discount rates. For example, in *Rimmele v. Rimmele* (1981), the parties stipulated discount rates ranging from 5 percent to 12 percent. The court elected to use 8 percent which was not overturned on appeal. In *Bouchard v. Bouchard* (1982), the court concluded that the trial court's use of a 5 percent discount rate did not abuse its discretion.

The Arizona Supreme Court also described the conditions under which mortality should be taken into account and the table that should be used in determining value. "If the right to be paid under the plan is contingent upon the employee's surviving to a certain age, the calculation of present value must take into account the probability that the employee will attain that age, based on standard mortality tables and on the employee's physical condition" (See *Johnson v. Johnson*, 1984, p. 706). The Washington Supreme Court in *In re Pilant v. Pilant* (1985, p. 1246) urges its lower courts to use "actuarial tables of 'average expectancy of life' . . . computed and maintained by the Insurance Commissioner." There, if statutory mortality tables are not used, other evidence is generally acceptable by the courts if it is more accurate than the

²¹ In two previous cases, *King v. King*, (1984) and *Braderman v. Braderman*, (1985) the Pennsylvania Superior Court used the date of hearing.

statutory tables, the best evidence being the testimony of an expert (See *Boyd v. Boyd*, 1982, p. 556, n. 2).

Troyan (1983) suggested that by utilizing Pension Benefit Guaranty Corporation (PBGC) interest and mortality tables, much of the confusion surrounding present value computations could be avoided. Furthermore, he noted that their use requires minimal training and permits a speedy and accurate calculation of a pension's present value. There has been general support for this concept. So much so, that now it has become almost standard procedure. Skoloff (1984) also advocated utilizing the same interest and mortality tables.

The most notable characteristic of the PBGC rates is that the interest rates vary with duration.²² The interest assumptions are chosen so that, when used with the mortality assumptions mandated by the regulations, the present values for immediate and deferred annuities are comparable with similar annuity purchase rates found in the industry. The rates contain an allowance for expenses.

Inflation

In a recent case of first impression (See *Lowry v. Lowry*, 1988), the Pennsylvania Superior Court concluded that use of an inflation factor to determine the present value of pension benefits on divorce is appropriate only when the pension plan itself provides for an inflation adjustment. It allows the nonemployee spouse to share in this aspect of the benefit plan. Conversely, when the pension plan does not provide for an inflation adjustment it is inappropriate to include an inflation factor. The reason is that protection against inflation is not part of the benefit package being valued (See *Lowry v. Lowry*, 1988, pp. 983-984). The Pennsylvania Superior Court followed an earlier New Jersey Superior Court decision in *DiPietro v. DiPietro* (1984). At the trial level, the judge discounted the future value of a fixed pension by using the same method used in a wrongful death action. But on appeal, the appellate judge disallowed this method saying, "by contrast, fixed pension payments are unaffected by inflation and should not be inflated to offset the interest discount." (p. 85)

The issue of the relevance of the total offset approach in situations of this sort is an ongoing debate, and the search for alternative solutions to this problem is a continuing one (See, for example, Carlson (1976); and Carpenter, Lange, Shannon and Stevens (1986)). However, the time and expense to develop more theoretically correct solutions should become a decreasing concern, given the proliferation of sophisticated computers and software packages. The merit of simplicity is less compelling given modern technology.

²² The general form for the expected discounted annuity purchase rate is:

$$\prod_{k=1}^K [1 + i_k]^{-n_k} p_x \cdot APR(r)$$

where i_k is the interest rate earned for n_k years of the deferral period. For PBGC purposes, $K = 3$, and the maximum values for the n 's are $n_1 = 7$, $n_2 = 8$, and $n_3 = r - x - n_1 - n_2$.

Taxes

Taxation has generated healthy discussion by the courts. For example, in *Simpson v. Simpson* (1984), the employee spouse argued that the face value of his pension plans should be reduced by his current federal income tax rates since such taxes would be payable when the money was withdrawn from the account at some future date. The nonemployee spouse countered by arguing that in fact the employee's tax rate may be lower when the monies are withdrawn and that this is a major reason for contributing to the pension plan in the first place. The court agreed with the nonemployee spouse. "These assets have a prima facie value equal to their face value in the absence of proper evidence of a reasonable deduction for the future tax liability" (*Simpson v. Simpson*, 1984, p.42). In *Helland v. Helland* (1984), the Minnesota Court of Appeals was in general agreement with *Simpson v. Simpson*. It is too speculative, the court concluded, to predict the government's tax structure and the employee's financial condition in the future (11 years in this case). Nevertheless, the court conceded that if the taxable event (distribution from the pension plan) will occur within a short time after dissolution of the marriage, it should consider the tax consequences in computing the present value of pension benefits on divorce.

In *Corliss v. Corliss* (1982), the Wisconsin Court of Appeals reached the opposite conclusion (Also see *Mann v. Mann*, 1989). Admitting that calculation of the present value of a pension plan is speculative, the court more realistically assumed that future tax rates will "at least equal" present rates. The court reasoned that pension plans are a method of postponing and reducing the impact of income taxes; therefore, calculating the effect of those taxes is important.

While the formulation of a tax component is relatively straightforward (See *Vernon*, 1985), it leaves unresolved the actual tax rates that should be used. Clearly, since income over and above the pension may have an impact on the tax rate, the model should be expanded to encompass this issue. Similarly, the feasible parameters of an economically unbiased resolution of this problem need to be explored.

Although not dealing directly with tax as a discount variable, an interesting variation of the tax issue occurred in *In re Marriage of Rimmele* (1981). The employee spouse unilaterally withdrew and spent monies from his pension plan which triggered income tax liability on the amount withdrawn. The court concluded that the pension valuation should not be reduced by the income tax liability because it was the result of an unnecessary unilateral action and the nonemployee spouse did not share in the fruits of the early withdrawal (See *In re Marriage of Rimmele*, 1981, p. 881).

Probability of Vesting

Virtually all courts recognize that vested pension benefits constitute property for purposes of division on dissolution of marriage. However, only during the past two decades have nonvested pensions received the same

consideration. Previously, the theory was that nonvested pension rights are not property, but mere expectancies (See *French v. French*, 1941). In *re Marriage of Brown* (1976), the often cited, leading case in the area, overruled that theory. There the California Supreme Court reasoned that:

Since pension benefits represent a form of deferred compensation for services rendered, (citations omitted) the employee's right to such benefits is a contractual right, derived from the terms of the employment contract. Since a contractual right is not an expectancy but a chose in action, a form of property . . . an employee acquires a property right to pension benefits when he enters upon the performance of his employment contract (p. 561).

The economic and social climate and the legal logic developed in *In re Marriage of Brown* and other cases of treating nonvested pension benefits as marital property has become the majority rule.

Although some courts have argued that nonvested pension benefits require no different treatment than vested but unmatured benefits, since both contain contingencies on actual payment (See, *Janssen v. Janssen*, 1983, p. 756), valuing nonvested pensions clearly further complicates the issue.²³ The added complication arises out of the necessity to take into account the probability of vesting. But, as indicated in a number of opinions, this is not regarded as an "insurmountable barrier" (See, for example, *Wisniewski v. Wisniewski*, 1982, p. 1303). Of course, the valuation of nonvested benefits may be problematic because of the difficulty of procuring the appropriate decrement data.

The Pennsylvania Superior Court recently addressed the question of which method of distribution of nonvested pension benefits on divorce is better, deferred distribution or immediate offset. The majority in the case of *Flynn v. Flynn* (1985, p. 160) concluded that "given the very nature of a non-vested pension benefit, i.e. that it is speculative, deferred distribution is the preferred method of effectuating economic justice between the parties and insuring a just settlement of property rights." But in a vigorous concurring and dissenting opinion, one member of the court seemed to say that it is unreasonable to conclude that simply because a pension is nonvested, it is too speculative to calculate a valuation. Rather, given the clear advantages of the immediate offset method, the case should be remanded and the lower court should obtain actuarial testimony as to the present value of the pension benefits (*Flynn v. Flynn*, 1985, p. 162). Other than general statements concerning its speculative nature and the added difficulty of discounting for nonvested interests, the courts offer little help providing guidelines to deal with nonvested pension benefits.

²³ As a note writer observed: "In order to encourage settlement and ensure equal treatment under the law, courts must agree on more refined guidelines for determining how and when to distribute, value and allocate pension rights. Such guidelines will become even more essential if unvested factors are added to the already formidable list of calculations." Meyer, (1982, p. 199).

Comment

There are a number of areas where the analytical procedures and assumptions for the distribution of pension benefits on divorce can be refined or clarified for the courts. These include fundamental concepts like the difference between stochastic and deterministic models, areas of sensitivity analysis involving such things as the choice of a valuation date, and the determination of appropriate parameters. There are obvious theoretic questions to be resolved, like the limitations of expected value models, but there is also the pragmatic constraint of communicating difficult concepts and their implications to a court. The challenge, from an analytical perspective, is to balance these two objectives of theoretic soundness and ease of communication.

This article has focussed on some of the unresolved analytical issues. To the extent it clarifies these issues and promotes further research on this topic, it will have served its purpose.

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