Valuation of Pension Entitlements on Relationship Breakdown

Building your future

1

Pat Johnston
FCIA, FSA

Senior Vice President & Actuary

GBL

403.249.1820 x 225

pat.johnston@gblinc.ca

2

Types of Pension/Retirement Plans

- Defined Contribution
  - DC Registered Pension Plan
  - RRSPs + DPSPs
  - Unregistered Supplemental DC arrangements
- PV of entitlement at any point in time is simply the market value of the account balance
  - Can be found on pension or account statement
  - Member will often have online access to statements
- An actuarial valuation is not required to determine the value.
- Remainder of this presentation is on Defined Benefit Pension Plan

3

Types of Pension/Retirement Plans

- Defined Benefit Pension Plan
  - DB Registered Pension Plan
  - Unregistered Supplemental DB arrangements
  - Might have a DC account supplement to the DB pension formula

4

DB Pension Plans

- Member has a right to receive a series of future payments:
  - starting at member's retirement date
  - continuing payments for lifetime of the member
  - may be additional aspects to future payment
- Payment amount is based on a formula, generally reflecting average earnings and credited service at the member's pension commencement date, or termination of employment date if earlier
- Determining the present value of the future lifetime pension payments is the purpose of the actuarial valuation.

5

Pension Division on Relationship Breakdown

- Two Important Questions – With Two Different Answers!
- Question 1: Pension Value for FPA
  - What is the value of the pension asset for purposes of the Alberta Family Property Act?
  - This is the question that Family Law Practitioners need the answer to.
- Question 2: Settlement Using Assets of Plan
  - How much of the assets of the plan can be made available as part of the settlement of the above amount?
  - This is the only answer that the pension plan administer will provide.
- The answer to Question 1 is very different than the answer to Question 2.

6

DB Plans

- For the Family Property Act:
  - A pension has value and is deemed to be family property (divisible)
  - Lawyers/Parties are looking to obtain the value (for purposes of the Family Property Act) to be divided between the parties:
    - This might be to include in a balance sheet (thus be settled through offsetting other assets)
    - This might be to divide the pension asset using funds from the pension plan itself.
    - Sometimes a blend

7

Understanding Pension Value

- What is meant by value, or present value ("PV"), of a pension?
  - Complex actuarial calculation
  - Several ways to describe it – but one useful way is:

    The PV is the amount of money that would be required to be invested today such that with investment earnings at the assumed interest rate, the amount would exactly provide the expected future payments.

8

Understanding Pension Value

- Determining the PV is straight forward for a payment stream like a bond with a series of future payments.
  - For each separate future payment to be made by the bond, determine how much money would be needed today, that with interest at the assumed interest rate, would grow to exactly equal that payment.
    - *Example, at 5% interest, the PV of a payment of $1,000 to be made 20 years from now equals $376.89*
  - Add up the PV amounts for each single future payment to determine the total PV for the series of payments.

9

Understanding Pension Value

- A lifetime pension is similar to a long-term bond, but with one key difference.
  - Each of the future payments are only made if the individual is alive to receive such payment.
  - The probability of the individual being alive to receive the payment is based on mortality probabilities, using a mortality table assumed by the actuary.

10

Understanding Pension Value

- This doesn't mean that the PV will, if invested, provide for the lifetime pension for the member
  - This is because despite having the probabilities, it isn't known how long that specific individual will live

The PV is the probability-weighted average
of the potential outcomes

11

Example of *"probability-weighted average"*

- Consider a game where an individual has won a prize where he/she will be permitted to toss a coin 10 times and will be paid $1,000 x the number of heads tossed.
- What is the present value of this game that is about to be played?
  - Player might get paid anywhere from $0 to $10,000.
  - With mathematics, the probability of receiving each result from $0 to $10,000 can be determined.
- The PV of this game would be the average outcome:
  5 heads, thus $5,000.
  - Only a 24.6% chance of getting exactly $5,000
  - There is a 5.5% chance of getting $2,000 or less and
    a 5.5% chance of getting $8,000 or more

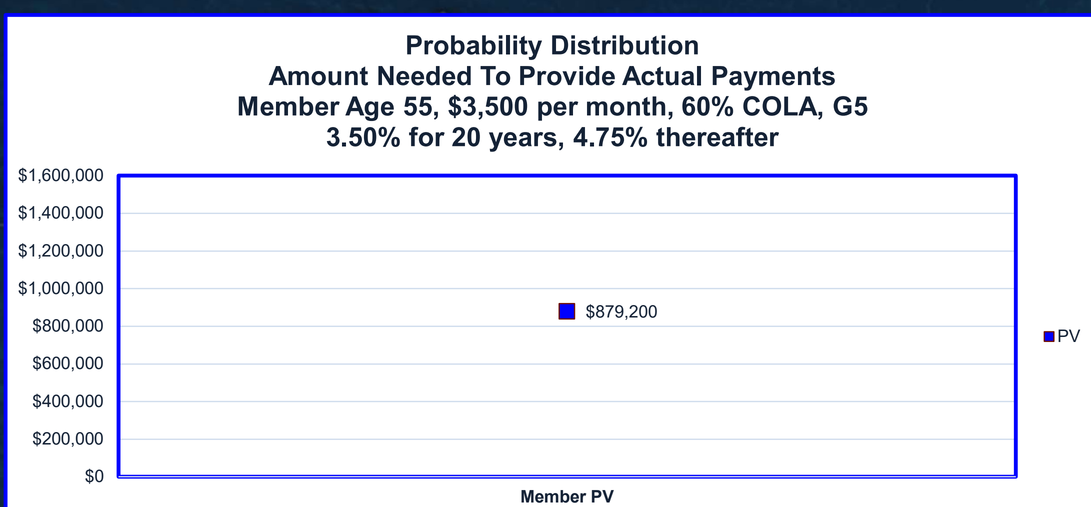
12

Present Value: Pension Example

- January 2024 calculation
- Male age 55, pension to commence immediately
- $3,500 monthly pension, COLA of 60% of increases in CPI
- Pension payable for lifetime of member, with a guarantee that at least 5 years of payments will be made.
- Assumptions (pursuant to CIA standards for Relationship Breakdown Value) for calculations in January 2024:
  - Interest/discount: 3.50% for 20 years, 4.75% thereafter
  - COLA: 0.96% for 20 years, 1.20% thereafter
  - Mortality Rates: 2014 CPM table
  - Mortality Improvement Rates: Scale CPM-B on generational basis

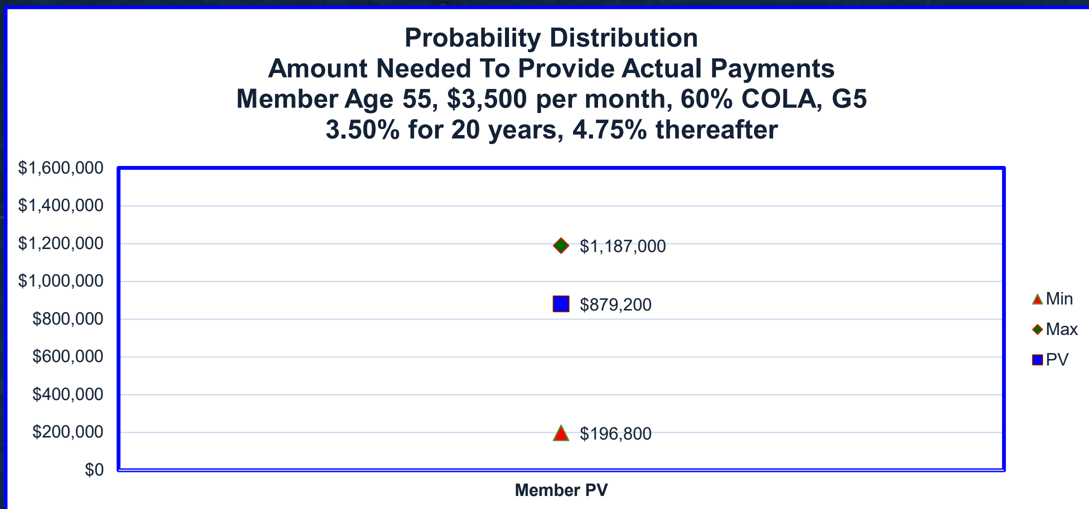
13

Present Value: Pension Example



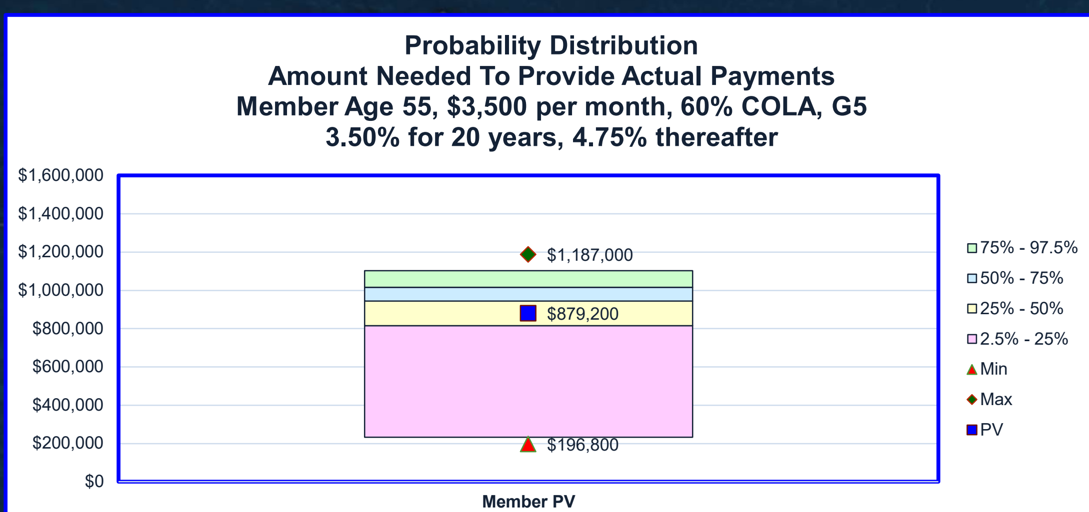
14

Present Value: Pension Example



15

Present Value: Pension Example



16

Present Value: Pension Example

- Note: The PV of $879,200 determined for this sample pension situation is based solely on the pension payments expected to be paid to the indicated member.
  - The PV is <u>not</u> dependent on the which pension plan might be paying it
  - The PV is <u>not</u> dependent on the Pension Legislation that the pension plan might be subject to

17

Pension Division – Membership Status

- Three typical situations
  - Member actively employed and accruing pension under the relevant pension plan.
  - Member has terminated employment from plan sponsor and is either:
    - Not eligible to commence the pension
    - Is eligible to commence the pension but has not yet done so.
  - The member's pension is already in pay:
    - Non-member spouse is eligible for survivor pension from plan
    - There is no survivor pension, or the non-member spouse is not eligible to receive it.
- Results vary by situation, as do division options.

18

Example – Active member:

- Relevant plan provisions are:
  - Pension is payable for lifetime of the member
  - If member is 55 with 80 points at termination of employment, member can retire without reduction in accrued pension.
  - If member terminates employment prior to either age 55 or 80 points, pension is reduced 3% per year below 65.
  - Normal retirement age defined in plan is age 65.
  - Pension is increased by 60% of increases in CPI after pension commencement.

19

Consider Example:

- Relevant member details are:
  - Member age 54.
  - Member has 30 years of service, so has more than 80 points.
  - Period of joint accrual is 30 years, so entire accrued pension is jointly accrued
  - Member's current earnings are $85,000.
  - Average earnings are $80,000.
  - Accrued pension is $48,000 per annum.

20

Actuarial Valuations for purpose of FPA

- Actuary will determine value of pension as explained earlier, using assumptions in accordance with SOP
  - Mortality rates, inflation, discount rates are all prescribed
  - Will show various ages of retirement – since the value is highly dependent on when that specific member chooses to retire
  - Will show values assuming pensionable earnings are frozen until retirement and assuming that pensionable earnings will continue to increase until retirement
    - Pensionable earnings is a major factor
    - Lots of reasons to include or exclude future salary increases
    - Including fut. salary is most consistent with McAlister Division

gbl

21

Actuarial Valuations for purpose of FPA

- For this example of the 54-year old, we would show the following pre-tax values (based on assumptions applicable for calculations in March 2023):

	No Projection of Salary Escalation to Retirement		
Retirement Age:	55	60	65
Pre-Tax Value (joint accrual):	$992,000	$781,000	$576,000
	Projection of Salary Escalation to Retirement		
Retirement Age:	55	60	65
Pre-tax Value (joint accrual):	$992,000	$838,000	$694,000

gbl

22

Actuarial Valuations for purpose of FPA

- We would also show a scenario where the member terminates employment on the date of the calculation.
- In this example, the value is $680,000.
- Termination value is substantially less than the age 55 value [in this example the member is only entitled to the unreduced pension at age 55 if the member had attained age 55 before terminating employment].
  - These provisions are different from APSC administered plans

23

Actuarial Valuations for purpose of MPO

- We do not show a single number:
  - The age at which the member will retire is a personal decision based on his/her own personal factors
  - Retirement is the member's choice to make at the relevant time
- The PV of the pension that the member will actually receive for the period related to joint accrual is highly dependent on the date that the member ultimately retires
- The parties need to agree (or have the court decide) the reasonable retirement date to assume for the member:
  - The actuary's role is to indicate what the PV of the pension under the indicated retirement scenario, not to specify what the appropriate scenario for retirement is.

24

Fundamental Questions

- The preceding "answers" the first question:
  - *What is the value of the pension asset for purposes of Alberta Family Property Act?*
  - This is the value that should be reflected.
- Issues arise in answering the next question:
  - *How much of the assets of the plan can be used?*

25

Dividing using assets of the plan

- The division "rules" vary by source of pension, specifically:
  - Status of Member (active, deferred or retired)
  - Registration of Plan / employment of member:
    - Alberta – Private Sector Single ER (such as oil company)
    - Alberta – Private Sector Multi ER (such as trade union)
    - Alberta Public Sector (ATRF, Alberta Judges)
    - Alberta Public Sector (LAPP, PSPP, SFPP, MEPP)
    - Federal Employment – Private Sector (such as bank, airline)
    - Federal Public Sector (such as PSSA, RCMP, Cdn Forces)
    - Unregistered Supplemental Plans

26

Dividing using assets of the plan

- Making the division using the assets of the pension plan often changes the focus from the Family Property Act to the relevant Pension Plans Act
  - Now dealing with the rules for the Plan with respect to making assets available, not the value for purposes of Family Property Act
- Rules are complex, and will depend on:
  - jurisdiction of plan
  - in some cases, age of member
  - type of plan
  - form of intended settlement

27

Actuarial Valuations for purpose of FPA

- Recall from a prior slide, for this example of the 54-year old, we would show the following pre-tax values (based on assumptions applicable for calculations in January 2024):

	No Projection of Salary Escalation to Retirement		
Retirement Age:	55	60	65
Pre-Tax Value (joint accrual):	$992,000	$781,000	$576,000
	Projection of Salary Escalation to Retirement		
Retirement Age:	55	60	65
Pre-tax Value (joint accrual):	$992,000	$838,000	$694,000

28

Dividing using assets of the plan

- Assume that in this example the parties agree that the member is going to continue to work until age 55, and then retire.
  - Retiring at age 55 had always been the member's plan
  - He is eligible for an unreduced pension at that age
  - He is not intending to change this retirement plan despite the marriage breakdown.
- As a result, the PV of the lifetime pension that the member is entitled to for this scenario is $992,000
- But…. What does the plan administrator say?

29

Dividing using assets of the plan

- Value of pension entitlement is different than assets available from plan to use in division:

	Alberta Private	LAPP, PSPP, SFPP, MEPP *	Other Alta Public	Federal Private	Federal Public
Total Value	$581,000	$522,000	$509,000	$581,000	$592,000
Max Value that can be provided to spouse from Plan	$290,500	$261,000	$254,500	$581,000	$296,000

** Results would vary, potentially significantly, between LAPP, PSPP, SFPP and MEPP because each of these plan uses its own assumptions on interest rates and assumed pension commencement age. LAPP assumptions used for this estimate that took effect in April 1, 2023, modified to reflect these non-LAPP provisions (but will be changing in April 2024).*

30

Using Total Entitlement as FPA Value

- The variation in the prior results indicate a major concern for determining value for purposes of FPA:
  - The plan administrator is not trying to indicate the value of the pension entitlement for purposes of the FPA.
  - They are only indicating what funds can be made available as part of the settlement from the assets of the plan (pursuant to pension legislation).
  - The total entitlement provided by plan administrator is generally not a "reasonable" value determination of the pension entitlement that has been jointly accrued.
  - Complication: Logan v Logan (more on this later)

31

Options for Dividing the Pension Value

- Varies (widely) by jurisdiction of the plan entitlement
- All entitlements can be divided by offsetting with other assets and leaving the pension entitlement alone.
  - Put the PV of the jointly accrued portion of the pension in member's column of the balance sheet of assets you are creating for the parties (and don't divide the pension)
  - Pension value is a pre-tax asset (similar to an RRSP), so a tax-adjustment is required if you are comparing it to already-taxed assets such as bank balance or value of personal residence.

32

Division using plan assets:

- Note – this is brief. We could hold a completely separate session just on this one topic.
- Rules vary by plan jurisdiction
- Rules vary depending on whether member has already commenced receiving pension entitlements or not
- In some jurisdictions, if the pension hasn't commenced to be paid, rules vary depending on member age at the end of the period of joint accrual

33

Division using plan assets:

- Form of providing spouse's share of value differs by plan jurisdiction and circumstances (whether member is retired or not):
  - Might be a lump sum transfer to LIRA
  - Might be a deferred or immediate pension
  - Might be a share of the actual pension payments made to the member
  - Might be a delayed lump sum transfer to the spouse's LIRA at the date the member actually commences the pension.

34

Division using plan assets:

- A major concern is how the plan administrator will adjust the member's pension at his/her subsequent retirement to reflect the pension value distributed to the non-member spouse.
  - Exceptionally poor communication by the plan administrator
  - The erroneous presumption is that:
    - if the value of 50% of the jointly accrued pension is paid out to the spouse, with such pension amount determined at the end of joint accrual,
    - then the member's pension at subsequent termination/retirement will be reduced by the same 50% of jointly accrued pension.
  - In reality – the reduction to the member's pension at subsequent retirement can easily be substantially more than 50% of the jointly accrued pension!

35

Difference between ATRF CV and ATRF Total Entitlement

- Female, just under 55
- 30 years credited service
- $42,000 accrued annual pension.
- Payable Lifetime G5
- COLA at 70% of increases in Alberta CPI

36

Difference between ATRF CV and ATRF Total Entitlement

- If member terminates employment, and chooses to receive the CV as a lump sum:
  ATRF CV = $878,800
- If member, or spouse requests a Total Entitlement, ATRF will calculate the CV assuming that member terminates employment, but chooses not to start the pension until attaining age 65 (i.e., member forfeits 10 years of pension payments)
  ATRF Total Entitlement = $538,300
  Reduction of $340,500 or 38.7%

37

ATRF: Subsequent retirement of member

- ATRF doesn't keep this difference in value:
- Accrued Pension is based on $42,000 per annum, with cost of living adjustments (COLA)
- By age 65, with expected COLA, the $42,000 pension would have expected to grow to $46,856
  - If member actually retires at age 65, would have his/her fully accrued pension at that date reduced by $23,428 (fair amount related to value paid to spouse)
  - If member actually immediately retires at age 55, his fully accrued pension would only be reduced by $14,350 instead of $23,428 (i.e., member wins, not the ATRF pension plan)

38

Division of Pensions in Pay

- Pension is often payable in joint & survivor form, with the non-member spouse being the nominee to receive survivor pension benefits if member dies and non-member spouse is still alive.
  - This can remain unchanged after divorce (and/or subsequent remarriage of member) if division of pension entitlement occurs outside of the plan.
  - Some exceptions to the preceding rule (e.g., federal public sector or some private sector with unusual optional forms), so be careful.

39

Division of Pensions in Pay

- Important for the valuation to recognize value of survivor pension
  - This value is often significant!
- Like the present value of the member's entitlement, it is a probability weighted average of the future potential outcomes:
  - One difference, however, is that there is a significant probability of the non-member spouse not receiving anything.

40

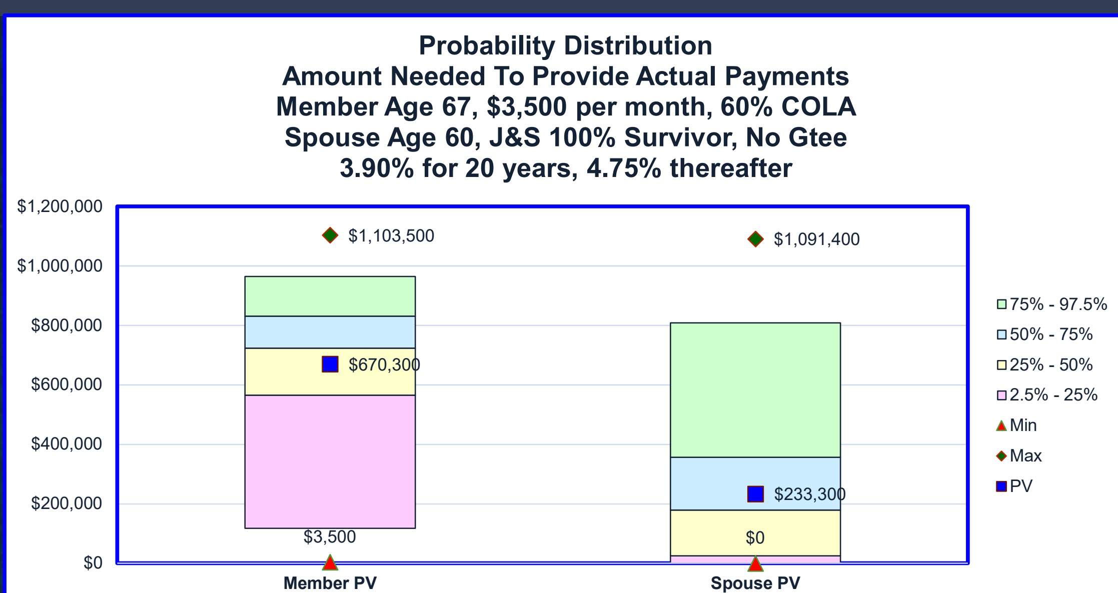
Division of Pensions in Pay

- Consider $42,000 annual pension
- Male Member age 67, Female Spouse age 60
- Pension payable J&S 100% form

	Present Value	
	Member	Spouse
Value	$670,300	$233,300
Member – Spouse	$437,000	
Share (Member ➔ Spouse)	$218,500	

41

Division of Pensions in Pay



42

Mortality Concerns

- Often ignored, to the detriment of one of the parties
  - Unless expert evidence of mortality adjustment is provided to actuary, valuation will assume standard mortality rates.
  - Expert report is generally provided by a medical opinion from a doctor with insurance underwriting expertise
  - Actual value of expected future pension payments to the member is highly dependent on mortality expectations for member and/or spouse
  - Consider prior example for the pension in pay, where the entire pension was jointly accrued, but assume an expert report is provided that indicates member mortality rates are 3 x the rate of standard mortality.

43

Mortality Concerns

- This means – instead of a standard mortality rate of 0.6% in a particular year, it would be 1.8%; instead of a standard mortality rate of 1.2% in a future year, it would be 3.6%; and so on.
- For the 67-year-old male in the example, this would result in a life expectancy of 13.7 years, instead of 20.9 years.
- It would change the valuation sheet as follows:

	Standard Mortality		Adjusted Mortality	
	Member	Spouse	Member	Spouse
Value	$670,300	$233,300	$473,600	$401,100
Member - Spouse	$437,000		$72,500	
Share (Member → Spouse)	$218,500		$36,250	

44

Unexpected Opportunities?

- Might be financial planning opportunities
  - Some plans provide a "marriage bonus" at retirement that might be worth $100,000+
  - If retirement/pension commencement is imminent, and if the parties have not been separated more than 3 years, it might be very worthwhile to both parties to consider delaying the division until immediately following retirement.

45

Valuation Date v. End of Joint Accrual

- Although FPA largely indicates that the joint accrual period is the trial date, the parties may agree to a prior date as the end of joint accrual
  - This is a legal issue, not an actuarial issue
  - Our valuations reflect the end of joint accrual period that we are instructed to use.
- If a prior date is used for end of joint accrual, the question that always arises is what date do you want the value of the jointly accrued pension determined at?

46

Valuation Date v. End of Joint Accrual

- It appears to us that the most logical choice for the Valuation Date would be the same date that the rest of the family property assets are being valued as at.
  - If you are looking to offset the value of the pension against the value of the house or the value of the other party's RRSPs, it would make sense that value of all the assets be determined at the same time.
  - We still only reflect the jointly-accrued portion of the pension, even if the value is determined after the end of the period of joint accrual.
- Ultimately – we are instructed on the Valuation Date to use (it isn't an actuarial assumption)

47

Residual Pension Determination

- Important to understand how administrator will reduce member's pension after a division is paid to the spouse from the plan:
  - There is real potential for the portion of the member's pension related to joint accrual to be reduced by substantially more than 50% after the division.
  - There are potential situations where reduction to the member's pension at his actual future retirement date could be 75% to 100% (or even higher) of the accrued pension at his division date.

48

Residual Pension Determination

- Some plans simply accumulate lump sum value paid to spouse until member retires and then converts that value into a lifetime pension offset for the member at actual retirement.
  - This can effectively reduce the members pension by:
    - the ½ of accrued that was paid to spouse (reasonable)
    - the value of early retirement enhancements paid to the spouse that the member didn't receive
    - the value of joint & survivor pension entitlements included in the value provided to the spouse
    - the fund rate of return on the value even though the member has not earned the fund rate of return

gbl

49

Fee for Total Entitlement Estimate

- Some pension plans have insisted that the member/spouse pay a fee in advance to receive a total entitlement <u>estimate</u>
  - Predominately have been multi-employer union plans, but some single employer plans have also adopted this improper stance.
  - Situation not helped by erroneous examples in the pension regulator's draft interpretive guidelines
- The Employment Pension Plans Act and Regulations explicitly prohibits charging a fee for providing a total entitlement estimate.
  - A fee can only be charged for the actual division of the pension (if an order is subsequently filed to make the division – but the total entitlement estimate must be provided on request <u>without charge</u>.

gbl

50

Fee for Total Entitlement Estimate

- This issue continues to evolve, however!
  - Pension regulator put out consultation paper asking for input to change rules to permit plans to charge for total entitlement estimates
  - Pension regulator has backtracked a bit, and is now considering permitting plans to charge for estimates if more than what is required under the regulations is requested
  - Indicates that they will be updating guidance shortly – but timing is unknown – they have been indicating that they will update guidance for the past several years

51

Logan v Logan

- Member had entitlement from multi-employer plan that used unreasonably low value of pension entitlement (similar unreasonably low value as used for member choosing lump sum instead of lifetime pension)
- Parties decided to divide through plan
- Although member ends up with 50% pension entitlement after division, member's remaining pension substantially more valuable as lifetime pension, than CV tranfer spouse is forced to take
- Experts for both parties agreed that equalization of overall value would have additional transfer from Member to spouse
- Judge ruled that if division made through plan, what plan provides is the entire settlement, no additional adjustment.

52

Life Insurance Policy Value

- Unrelated to pension
- Might be substantial insurance value that is not being captured in family property
- Requires an actuary to determine PV of policy (or in their terms, it is referred to a "FMV" or Fair Market Value):
  - Routinely performed in corporate situations
  - Mandatory (under Income Tax Act) if policy is transferred from corporation to individual
- Is it an asset for Family Property purposes?

53

Life Insurance Policy Value

- Consider a situation where a 60-year-old male has a 20-pay life insurance policy for $1,000,000 of face amount that he purchased at age 35 (so is now fully paid-up, with no future premiums required)
  - Cash surrender value reported by the insurance company might be $325,000
  - Standard mortality rates, FMV of insurance might be $370,000
  - If member is known to have mortality issues, and say appropriate mortality rates are 2.5x standard rates, FMV of insurance might be $480,000

54

Life Insurance Policy Value

- How are you currently reflecting life insurance policies?
- In general, cash surrender value is absolute floor of value.
- Often there is substantial additional value within insurance policy, particularly where there is substandard mortality.
- There is material deviation between various insurance plans, future premium obligations, loan balances, etc.
  - Will require substantial disclosure of policy details to perform a valuation.

55

Discuss with Actuary

- Unless you are dealing with a small period of service for a young member, consider speaking with an actuary about the implications:
  - There may be strategies that specifically benefit your client, or even both parties
  - This includes understanding the pension accrual, “bonuses” being provided under the plan if certain milestones are met, etc.
  - Major issues may arise with ultimate determination of member entitlement after the division.
- An actuary will likely be able to identify significant errors made by the pension administrator, in the process, and/or in values

56

Questions?

Building *Your* Future

57