

Bobby Bonilla Teaches Present Value

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Present Value

- Let's start our conversation today with a two-part question:
 - What do you think of when you hear the words “lump sum” or “annuity?”
 - What do students in an introductory level economics or finance course think?
- Here's what I think of:

Present Value



Present Value

- Teaching present value in an introductory setting can be quite useful in helping students decide if they are interested in finance.
- But few students have any real-world experience with annuities or lump-sum payments.
- And the math does us no favors:

$$PV = \frac{FV}{(1 + r)^t}$$

$$PV = P * \left[\frac{1 - (1 + r)^{-t}}{r} \right]$$

- How can we make this topic more accessible to introductory-level students?

Bobby Bonilla

- There are fantastic real-world examples of annuities and lump-sums in the world of Major League Baseball.
 - The most famous example being Bobby Bonilla.
 - Bobby Bonilla was an exceptional third baseman and right fielder for the New York Mets in the early 1990's.
 - From 1992-1994, he was the highest paid player in the league, earning over \$6 million per year.
 - For comparison, Shohei Ohtani's contract is worth around \$70 million per year.
 - In the late 90's, Bobby Bonilla started to age, and his skills began fading.
 - After being traded several times, the Mets decided to release Bonilla in 2000.

Bobby Bonilla

- There was a bit of an issue, however.
 - The Mets still owed Bonilla \$5.9 million on his contract, which would have to be paid if they released him.
 - At the time, the Mets were a bit cash poor (they had the money, it just wasn't liquid).
- Bobby Bonilla's agent proposed what is known as a deferred payment schedule to settle the account.
 - He proposed that the Mets could forego paying Bonilla for 10 years, but afterwards, would pay Bonilla \$1.193 million per year for the next 25 years.

Bobby Bonilla

- That works out to roughly \$29.8 million dollars in total paid to Bobby Bonilla by 2035.
- That seems like a lot for an initial \$5.9 million balance.
- Every July 1st, ESPN celebrates “Bobby Bonilla Day” when he receives his annual payment.
 - And without fail, people wonder why the Mets ever agreed to such a huge contract settlement.
- Let's analyze it!
 - One more piece of information: this deferred contract settlement has an 8% interest rate.

Bobby Bonilla

- We have 25 annual payments of \$1.193 million at an interest rate of 8% compounded annually.
- This is just an annuity, and we have everything we need to calculate its present value.

$$PV = P * \left[\frac{1 - (1 + r)^{-t}}{r} \right]$$
$$= \$12.74M$$

- \$12.74 million is a lot less money, but it's still more than the \$5.9 he was owed.
- Why?

Bobby Bonilla

- Let's go back to the original deferred contract settlement.
 - The agreement was signed in 2000, but payments did not begin until 2010.
 - What we just calculated was the present value of the settlement in 2010, so we're still 10 years in the future!
- We can move this back from 2010 to 2000 by treating it as a lump sum with a future value of \$12.74 million, 10 years, and an 8% interest rate compounded annually.
 - Applying the formula:

$$PV = \frac{FV}{(1 + r)^t}$$

Bobby Bonilla

- Thus, this yearly payment that Bobby Bonilla receives had a present value of exactly what he was owed by the Mets.
 - We just had to make use of both a lump sum and an annuity to figure it out.
- To the Mets' owner, this was a great deal for him, because he could pay an 8% annuity and leave his current investments that were earning 12% alone.
 - You see, he had this genius investment manager that was getting unprecedented returns in the market during the early 2000's.
 - His name? Bernie Madoff.
 - But that's a story for another time.

Bobby Bonilla

- Deferred contract settlements are becoming more common for professional athletes.
 - It's a pseudo retirement plan for them and allows teams to better navigate around salary cap issues.
- Steve Young, Ichiro Suzuki, and other athletes have either had one of these settlements or are currently on one.
- Shohei Ohtani is a special case.
 - He deferred most, if not all his contract at a 0% interest rate.
 - Not entirely sure what the plan is for that one.
 - Time will tell!

Thank You

Thank You for Being Here!