Bobby Bonilla Teaches Present Value

JET SET 2024
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
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:

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

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

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.
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.
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.
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.

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

$$= \$12.74M$$

$12.74 million is a lot less money, but it’s still more than the $5.9 he was owed.

Why?
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:

$$PV = \frac{FV}{(1 + r)^t}$$
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.
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 for Being Here!