Pension Fund Analysis

BAN-630
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Overview

This analysis breaks down Armco Inc.'s strategy for funding pension payments while trying to keep initial cash needs as low as possible. We focus on two scenarios:

- **Base Case:** Stable 4% interest rate
- **Bad Case:** Dropping rates (4% → 0% → 2%)

To do this, I used linear programming and analyzed three available bonds.

Investment Moves (Base Case)

Best Investment Allocation:

- **Bond 1:** 73.69 units at $980 each
- **Bond 2:** 77.21 units at $970 each
- **Bond 3:** 28.84 units at $1,050 each

Total Initial Cash Required: $197,768.40
The focus here is on long-term bonds, aiming to keep our income consistent over time.

Risk Review

- **Extra Cash Needed (Bad Case):** $34,280 more upfront
- **Crucial Years to Watch:** 5, 11, 14, and 15

In the Bad Case, pension payments are more sensitive to changes, and Year 15 in particular allows more flexibility if adjustments are needed. This scenario also suggests shifting to shorter-term bonds when rates decline.

Key Takeaways & Strategies moving forward

- **Keep Some Buffer Funds:** It's smart to have extra cash for downturns.
- **Focus on Key Years:** Look at Years 5, 11, 14, and 15 as opportunities to adjust payments if needed.
- **Consider Adjusting Payment Schedules:** In critical years, renegotiating payments might add flexibility.
- **Stay Flexible with Interest Rates:** Investment choices should reflect the rate environment.
- **Monitor Regularly:** Keep an eye on how rate changes impact performance, so the strategy remains effective.