



Actuarial Equity Bias



Ryan Labs Conference

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Framework

- Modigliani-Miller
- Transparency
- Sole shareholder alternative
- Ignoring taxes
- Generalizes to public companies
- Generalizes to gov't pension plans

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Sole Shareholder Owns

Large Diversified portfolio

+

Company assets - company debts

+

Pension assets - pension liabilities

-
-
-

Shareholder Indifference

Pension assets +/- publicly traded assets

+

Diversified portfolio -/+ publicly traded assets

=

Pension assets + Diversified portfolio

=>

S/H ability to offset

=>

S/H indifference to pension allocation

-
-
-

Base Case

Pension assets (\$1 million)

=

Bonds

=

Liability cash flow

-
-
-

Swap

Pension assets - Bonds + S&P

+

Diversified portfolio + Bonds - S&P

=

Pension assets + diversified portfolio
(unchanged)

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-
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Actuarial Error

- Actuaries grossly misvalue worthless swap
- FAS 87 uses expected return
(e.g., S&P = Bonds + 6%)
- Earnings increase by \$60,000 (6%)
- With 15:1 P/E, Capitalized swap = \$900,000

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Next

- Ignoring taxes => shareholder indifference
- Actuarial error => equity investments
- Next: with taxes => all bonds