Market Imperfections and Concepts

(Welch, Chapter 11)

Ivo Welch

(No) Maintained Assumptions

1. Differences in opinion.
2. Taxes.
3. Transaction costs.
4. Large sellers/buyers
5. Risk and Risk-Aversion
6. and so on.

- (chapter completes all basic topics.)

Intel Corp Equity Shares

How perfect is the market for shares in Intel Corp?

What Markets Seem Perfect?

- Muni Bonds (Municipal Securities)?
- Houses?
- Airline Tickets?
- Jewelry? Engagement rings?
- Marriage?
- Children?
- Funeral Services?
- Suicide? Schizophrenic Choices?

Expected Borrowing Rate

In a PCM, is the *expected* borrowing rate equal to the *expected* savings (lending) rate?

Quoted Borrowing Rate

In a PCM, is the *quoted* borrowing rate equal to the *quoted* savings (lending) rate?

Disagreements

What happens to borrowing vs lending interest rates if everybody does not share the same information/opinion?

Market Power

What happens to borrowing vs lending interest rates if there is only one seller (lender)?

What happens to borrowing vs lending interest rates if there is only one buyer (borrower)?

Transaction Costs

What happens to borrowing vs lending interest rates if there are transaction costs to lending?

Taxes

What happens to borrowing vs lending interest rates if there are (specific) taxes?

- Specific taxes are on borrowing or lending.

(Expected) Inflation

What happens to borrowing vs lending interest rates if there is inflation?

Is inflation compatible with a PCM?

Any Imperfect Capital Markets

Generically, what can happen to borrowing and lending interest rates if the financial market is not perfect?

ICM Premia?

In a ICM, imperfections can cause higher expected RoRs,

. . . just like risk-aversion.

So What?

Not So What!

The consequences are a lot worse than you imagine!
Let me show you.

Objective Value

A project costs \$950 and returns \$1,000.
What is its exp RoR $E(r)$?

Buy Project If?

If the capital market were perfect, what would you do if the economy-wide cost of capital $E(r)$ for this type of project were 10%?

Buy Project If?

If the capital market were perfect, what would you do if the economy-wide cost of capital $E(r)$ for this type of project were 1%?

What if?

Your project costs \$950 and returns \$1,000,
your alternative investment opportunities would earn you a RoR $E(r)$ of 1%,
but you can borrow only at $E(r) = 10\%$?
Now what is the project's value?

Objective Value

In a PCM, can the value of an object depend on its owner?

In a ICM, can the value of an object depend on its owner?

The Plague (Covid)

The project value is no longer unique.

- **It depends on whether you have money or not!**
- **It depends on *who* you are!**

Specific Project Example CBR

If you have no money, the project is worth $\$1,000/1.10 \approx \$909$.

If you have a ton of money, the project is worth $\$1,000/1.01 \approx \$990$.

If you have between \$0 and \$950, the project is worth somewhere between \$909 and \$990.

Worse Plague (Smallpox)

Dependence of project value on who owns it is what we tried to avoid—like the plague.

- If project value depends on who owns it, then how can financial economists value projects?
- But this is indeed often the case. C'est La Vis.
- It is more important to teach thinking and tools than to teach PCM formulas.

What The PCM Did For Us

Same interest rates in PCMs mean:

- Project values do not depend on how much wealth the project owners have.
- There is one unique project value.

Otherwise, project value depends on heterogeneity in buyers and sellers.

PCM Underlies Modern Finance

Every formula in finance has been derived and is known to work, only in PCMs

- Minor exc: some (tax-)adjustment formulas.
- Think of PCM assumptions: is gravity 9.81 m/s^2?
- PCM are an approximation and never actually true.
- May or may not be appropriate.

First Valuation Question

What is the first concept you should judge when looking at a valuation?

What should you ask yourself?

Entrepreneurial Finance

Imperfect capital markets (ICMs) are at the core of *Entrepreneurial Finance*.

Small, privately held firms do not face near-perfect financial markets, in the same way that large, established publicly traded firms do.

Value is What You Pay For It

"Cynical View":

The value of an object is what you pay for it.

PCM Arms-Length Deals

In a PCM, can one arms-length deal be better than another?

Real-World Arms-Length Deals

In an ICM, can one arms-length deal be better than another?

Isn't PCM Depressing?

If there is "no special deals to be had," isn't this bad news for buyers and sellers?