ASU W. P. Carey School of Business
Center for Responsible Investing

The Science Behind Responsible Investing

Knowns and Unknowns in Climate, Biodiversity and Governance

The Center for Responsible Investing

Purpose

1. Generate, interpret, and share knowledge.
2. Provide useful tools.
3. Encourage collaboration between academic researchers and practitioners.

Theory-meets-Practice **AND** Practice-meets-Theory

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Knowns and Unknowns in Climate, Biodiversity, and Governance

Purpose

- Recognize and **understand** the issues.
- Explore complete economic impact (including externalities) in **equilibrium** and in the context of **market clearing**.

  No man is an island
  Entire of itself
  Everyman is an piece of the continent
  A part of the main *(John Donne, 1572-1631)*
- Isolate **implementable** solutions even if they are imperfect.

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Investing in an Imperfect World

A Framework

Models and Markets

A Perfect World

1. Investors know everything.
2. Investors agree about everything.
3. Investors only care about wealth.
4. There are no agents. Everyone does everything themselves.
    - If there are agents, they are well-behaved.
5. There are no taxes.

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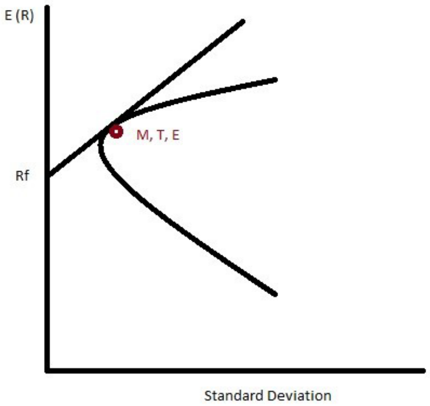
Are these useful abstractions?

This is the world we teach CFPs, CFAs, MBAs, PhDs, etc.



Everyone holds the “market” (M)

Everyone knows and agrees on what the “**market**” actually is.

The market is “optimal” (T, E)

The market portfolio is the **tangency** portfolio and is mean-variance **efficient**.

Why do we love this portfolio?

Almost self-rebalancing.

Minimal but non-zero effort to build and deliver.

Imperfections and Deviations

There are many reasons why investors may (rationally or irrationally) deviate from the market portfolio. Relevant cases:

1. ~~Investors know everything~~: **Imperfect knowledge**
2. ~~Investors agree about everything~~: **Disagreement and Beliefs**
3. ~~Investors only care about wealth~~: **Preferences**
    - **Money is not everything**
    - **Home Bias, ESG, Responsible Investing, Apartheid**

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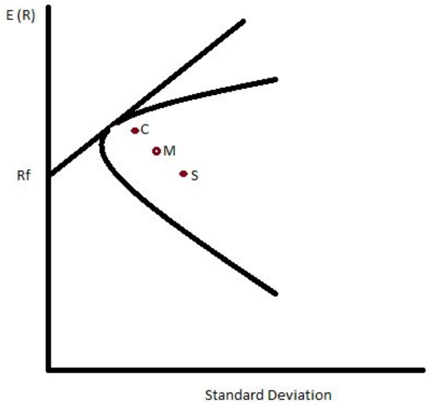
Consequences of Deviations

This is closer to the “real” world.



Deviations “punished”

If someone deviates from **M** to a suboptimal portfolio **(S)**, then others must hold the complementary portfolio (**C)** to offset, earning a higher return or lower risk.

Magnitude Matter

Small deviations are likely inconsequential. Details of portfolio construction and investment matter.

Not so fast

This is still a phantasmal world

Not so Fast: Preferences Matter

Short-Lived

1. Gamestop type events. Noise-trader risk is real.

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Not so Fast: Preferences Matter

Long-lived / Permanent.

Risk aversion plays an important role. Are your clients risk-averse?

- Price inducement can be insufficient to hold brown or green stocks.
- Divestment/deviations can have **real** consequences.
  - Gas lamps no longer exist and the median life of a stock is…
- One cannot know whether one investor's aversion to a stock will for sure generate a higher return or lower risk for other investors.
- Preferences **can** tie to cash flows and returns.

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