

*Models for Real-World Investors, and the Abyss Between
Value Investing and Financial Engineering, II*

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The Abyss Between FE and Value Investing

“Let us mince no words at the outset” (“The Intelligent Investor,” p. 228)

My view: Financial engineering is too abstract and theoretical; heavy duty mathematics; little or no regard for the real world

The literature seems to be of little use, if any, to managers of “little-people money”

Christopher Browne joked that he and his colleagues should endow chairs in academia to fund professors who teach EMH

When professors train students in EMH theory, it makes life easier for bargain-hunting money managers

Note: My criticisms come from someone who is well-disposed to higher mathematics

If I see the financial engineering literature as impractical then, maybe I'm not as smart as the authors but, I won't let their students manage my hard-earned money

Financial engineers need to ask the fundamental questions:

Why are their journal publications of no interest to many prominent real-world money managers?

When do they start to bridge the abyss?

Theory vs. Practice

Some financial engineering assumptions (“Theory”) vs. real-world conditions (“Practice”):

Theory: The number of assets is fixed

Practice: The number of assets is random

Theory: Risk is quantified by beta, a measure of volatility

Practice: Risk is measured by “how much we can lose and the probability of losing it.”

See [Seth Klarman's comments](#) on risk

Martin Whitman: At times, the risk is lowest when volatility is highest and people are scared (General Motors' bonds)

Theory: A “continuum” (and therefore infinite number) of traders

Practice: A finite number of traders, random in number (in times of panic, there may be no buyers)

Theory: All traders are assumed to be rational and competitive

Practice: The majority of traders, plausibly, lose money over the long term and therefore are irrational

See “The Intelligent Investor,” p. 325, for the incredible-but-true story of the Aetna Maintenance Co.

As for traders being “competitive,” have you heard of insider-trading? Competitive with whom?

Theory: Market makers are competitive.

Practice: Some market makers pleaded guilty recently to federal indictments for front-running

Competitive with whom?

Theory: “To enhance tractability of the model, we assume that all random variables are normally distributed”.

Practice: Assumptions are the parents of permanent loss of capital (bankruptcy).

A future annual report: “We lost all your money because the stock market contained two non-normal random variables ...”

Theory: Research papers that study the “thermodynamics of the stock market”

Practice: These authors are “trying to substitute theory for experience” and disguising speculation as investment.

Theory: A graph, appearing in certain academic papers, which shows that the market “conforms to Marčenko-Pastur” and provides an arrow labeled “Market”

Fall, 2006: Neither Jack Silverstein nor I can get a clear explanation of how this graph is related to the stock market. When we asked, we were told:

Practice: “They surely know what they’re doing because they’re running a hedge fund”!

J. K. Galbraith: “The end was at hand but was not yet in sight”

I recommend that us real-world people stay away from financial engineers

An insidious consequence of financial engineering

The literature has many results which start with:

“The stock market consists of n risky assets. Let p_i be the proportion of our funds which we put into the i th risky asset ... Then (p_1, \dots, p_n) is a vector in the *open unit simplex* ...”

Each proportion p_i is strictly positive and they add to 1

When the FE folks enter the real world, will they put a portion of their money into each and every stock?

FE folks seem willing to trade anything

Imagine a restaurant that will cook anything: stale carrots, veal

You'd be gullible to say, eagerly, “Bring it on!”

The FE crowd, by being willing to trade everything, seem to be:

Unable to distinguish between sense and nonsense in corporate finance

Believe in The Greater Fool Theory: We may be fools to buy Enron but we'll flip it to a greater fool

Thompson and Williams: "Future Enrons await, unless ..."

Financial engineering made it easier for Enron to maintain a facade longer after value investors smelled a rat

FE may foster the development of fraudulent corporate operators

None of the 16 Graham-style funds owned a share of Enron

Going beyond assumptions in a financial engineering book

In the middle of an abstract theorem, they'll suddenly make a comment about a related real-world item

The authors repeatedly serve tantalizing real-world data on the dollar value of American put options traded in 1994, etc.

Real-world data interlaced repeatedly with FE theory

The reader's mouth kept watering in the hope that concrete stuff was just around the corner

As for the Efficient Market Hypothesis, read the incisive and trenchant comments by Whitman, Browne, and by Lowenstein

Still, the tide may be turning

Thompson, et al., “Models for Investors in Real World Markets”

They use high-level math, but only for high-quality companies

Thompson, et al. are willing to eat at only the finest restaurants!

The FE crowd may have much to learn from this book.

The FE crowd seem unaware that the money managers they influence are handling the sweat-and-blood-saved money of little people

It is unwise to assemble abstract theorems that may enable fraudulent behavior

It may be arrogance to write material which seems to be (sort-of) linked with the real world

It even suggests a lack of concern for “the whole truth”

No overriding concern for the kind of truth which can't be exploited by fraudsters

On Bullshit

And speaking of a lack of concern for truth ...

Some time ago, I bought “On Bullshit,” a little book by Harry Frankfurt, professor emeritus of philosophy, Princeton University

I noticed some strong resemblances between FE and some b.s.-type behavior described in Frankfurt’s book

Let’s watch a short movie containing an interview of Prof. Frankfurt

By means of this movie, we’ll see strong resemblances between some aspects of FE and “buncombe”

[Frankfurt’s interview](#)

Note Frankfurt's comment connecting b.s. with arrogance, and the increasing amount of b.s. due to the constant marketing of products (stocks, bonds, auction-rate securities, CPDOs, ...)

The correlation between "level of [formal] education" and "production of b.s."

"humbug, balderdash, claptrap, hokum, drivel, buncombe, imposture, or quackery" all come from Frankfurt's book.

Why, then, should our students study FE? Well, maybe they shouldn't

I think we need some students to learn the language so as to be able to understand and repel the worst of the FE stuff

Some ageless comments from Benjamin Graham

“The Intelligent Investor”:

p. 37:

“The work of a financial analyst falls somewhere between that of a mathematician and an orator.”

Graham is very clear that, in the financial markets, the precision of mathematics is a false precision:

p. 147:

“... security analysts today find themselves compelled to become most mathematical and ‘scientific’ in the very situations which lend themselves least auspiciously to exact treatment.”

The Warning!

p. 321 of “The Intelligent Investor”:

“In forty-four years of Wall Street experience and study I have never seen dependable calculations made about common-stock values ... that went beyond simple arithmetic or the most elementary algebra. Whenever calculus is brought in, or higher algebra, you could take it as a warning signal that the operator was trying to substitute theory for experience, and usually also to give to speculation the deceptive guise of investment.”

Advice for people who attend talks on financial engineering

Ask the speaker to prove that they are not merely trying to substitute theory for experience

How do you judge whether they know what they're talking about?

Ask them some penetrating questions and see whether they answer without hesitation

Seven important questions to ask of any FE speaker

Have you personally ever bought or sold a stock or bond?

Have you ever LOST money on a stock or bond purchase?

What percentage of your pension funds have you committed to your FE models?

What percentage of your financial assets have you committed to your models?

Does your strategy require any assumptions about the ethics of traders, brokers, market-makers, specialists, etc.?

What is your favorite book on accounting?

What is your favorite book on corporate finance?