Second Annual Value Investing Academic and Practitioner Research Consortium
Agenda

- 9:00-10:00 a.m.:
  - Bruce Greenwald and Eric Kirzner
    “Introduction to Research Consortium: Review of Mission”
  - Introduction of Participants – Presentation of Ideas
  - Eric Kirzner “Some Perspectives on Value Investing”

- 10:00-10:45 a.m.:
Agenda

10:45-11:00 a.m.  Break

11:00-12:00 p.m.

12:00-12:30 p.m.  Initial discussion on research ideas

12:30-1:30 p.m.    Lunch

1:30-4:00 p.m.    Open discussion- Research ideas in Value Investing for PhD students and junior faculty
The Value Investing Consortium

- The Heilbrunn Center for Graham and Dodd Investing at Columbia Business School and the Value Investing department at the Rotman School of Management at the University of Toronto is committed to improving the theory and practice of investing. To that end, the two institutions have established a committee of leading finance academics and investing professionals to continue to build bridges between theorists and practitioners.
The Value Investing Consortium

- The consortium will consist of academics from various Universities and research practitioners from value investing firms. The group will convene once a year to:

  - Share insight and discuss trends in the investment industry and security analysis
  - Present research to the group
  - Brainstorm ideas to add to the research agenda
Mission Statement

- The mission of this ‘research consortium’ is to generate a research agenda that will complement and advance research already done by value investing pioneers such as Ben Graham and David Dodd and modern day academics. Our annual meetings are designed to discuss and jointly develop research in the context of that agenda.
Introduction

Consortium Participants
Great Moments In Investment Finance History

Professor Eric Kirzner
John H. Watson Chair in Value Investing
Rotman School Of Management
University Of Toronto
June 8, 2007
Investment Finance History

1. Are notions of market efficiency and value investing compatible?

2. Do hedge funds fit in a value approach? What can we learn about hedge fund theory that is applicable to value investing?
Great Moments In Investment
Finance History

- The holy grail of investing is the search for intrinsic value
- From Roman Times to the present
- **DPV concept** at least over 2000 years old
- Annua traced back to ancient Rome
  - these contracts promised to pay the buyers a fixed yearly payment for life or term
  - Life annuities!
Tontines

- Named for Lorenzo Tonti who first recommended a tontine form of government financing in 1652
- Special annuity pools: In return for an initial lump-sum payment, purchasers of tontines received life annuities.
- Amount of the annuity was increased each year for the survivors who received the payouts that would otherwise have gone to those who died.
- When the last participant in a tontine pool died, the sole survivor received the entire remaining principal.
- The tontine thus combined insurance with an element of lottery-style gambling.
- First Option Pricing Model!
Great Moments In Investment Finance
History Edmond Halley (1656-1742)

- Astronomer, mathematician
  - Paid for publication of Newton’s Principia Mathematica
  - 1695 predicted that comet of 1531, 1607 and 1682 was periodic
- Edmond Halley “Of Compound Interest” (1761)
  - Formula for present value of a regular annuity
Early 1900’s

- Accounting book values widely used re valuation
- Stock market crash
  - DCF gains popularity re valuation approach
  - Irving Fisher, John Burr Williams
  - However not until 1951 that NPV accepted as model for in capital expenditure decision

Joel Dean, “Capital Budgeting” 1951.
Early 1900s: Two Paths to Security Analysis

- Value Investing and the accounting approach
- Growth Models and The DPV approach
Great Moments In Investment Finance
History: Market Efficiency

1907 “Random Walk”
Nature Magazine

- How Do You Find A Drunk in a Vacant Field?

Drunk X
Intrinsic Value
Price = Value

Efficient Market?: What do we mean by market efficiency?

- Security prices reflect all available information
- Security prices efficiently adjust to new information

\[
E \left[ \frac{r_{jt}}{\phi_t} \right] = r_{jt} - 1
\]
Benjamin Graham

- Benjamin Graham (1894-1976)
  - 1928 taught course on security analysis at Columbia
  - Observes Great Crash
  - Focuses on crunching numbers not on qualitative factors
  - Techniques that could be universally applied
  - Available from publicly available sources
  - Price-to-earnings (P/E) ratios, debt-to-equity ratios, dividend records, net current assets, book values, and earnings growth.
Great Moments In Investment Finance History: Graham and Dodd and Fritzmeier

- 1934 Benjamin Graham and David Dodd
  - "Security Analysis"
  - Birth of organized approach to fundamental analysis

- 1936 Louis H. Fritzmeier (JB April 1936, pp, 133-154)
  - Classic paper on price-level analytics
  - First of anomaly papers?

- 1949 Graham, “the Intelligent Investor”
  - (Warren Buffett claims best investment book ever written)

  - The background on Benjamin Graham’s approach; foundation for a disciplined approach to security analysis
“Many common stocks do involve risks of deterioration. But it is our thesis that a properly executed investment in common stocks does not carry any substantial risk of this sort and that therefore it should not be termed “risky’ merely because of the element of price fluctuation.”

The Intelligent Investor pp.121-122.
Great Moments In Investment Finance History: Margin of Safety

- Margin of safety!
- Graham and Dodd
  - If price established by Mr. Market is lower than intrinsic value by a sufficient margin of safety stock is a buy for the value investor!
Great Moments In Investment Finance History : 1948/1949

- Markowitz (’48, ’52); Tobin (1957); Sharpe, Lintner, Mossin et. al. (1964)
- Portfolio Theory
- Capital Asset Pricing Model
  - Splitting risk into systematic and unique
  - Pick your portfolio; beta!

- Alfred Jones (1949)
  - market exposure = (long exposure - short exposure) / capital
  - Buy the stock/short the market
    - get the hedge ratio right!

- Pick your stock!
Basis of Hedge Fund Returns

- Wide variety of hedge funds: single finance belief or proposition
- Find mispriced securities/commodities/currencies and exploit temporary mis-pricing
  - undervalued/overvalued
  - Spread trading
Pure Theory of Hedge Funds

- Prices and value can diverge: search for intrinsic value: compare to actual price
  - Pricing anomalies exist
  - Behavioral finance
  - Regulatory constraints
  - New investment ideas creates new information

- Manager skill in identifying opportunities
  - Focused on “imperfect” market sectors
  - Depend critically upon special skills and knowledge
  - Markets long run tendency to efficiency
1950s

- Chairman Sen. William Fulbright
  - Fulbright Q: “What causes a cheap stock to find its value?”

- Graham A:
  “That is one of the mysteries of our business, and it is a mystery to me as well as to everyone else. But we know from experience that eventually the market catches up with value.”
  - Benjamin Graham testimony to the Committee on Banking and Commerce, 1955

Basis of Hedge Fund Returns

- The Time Travelers Paradox
  - *Scientific American Black Hole Special March 2007*
  - So where does the idea come from?
The Theory of Hedge Funds

- **Depend upon the tendency of markets towards efficiency:**
  - Hedge funds discover and define the frontiers of finance universe
  - They exploit temporary deviations from economic value.
  - Basic economics: idea once discovered, analyzed and used, the frontier recedes, extraordinary profit replaced by modest gains.
  - If the model is right, market drives prices to model.
    - Replicators replace innovators
Hedge Funds Theory: Exploiting the Finance Universe

- Steady State
  - Efficient frontier
  - Diversification is generally good

- Unstable
  - Asset pricing
  - Market efficiency
  - Central tendency of asset class returns
  - Equity risk premium
Macro Universe

- The macro financial universe.
  - Global supply and demand for money.
  - Political economy of sovereign debt.
  - Evaluating developing markets
  - Exploit imperfect diffusion across borders.
    - Interest rate parity, forward pricing

\[ F_{A/B} = S_{A/B} \left( \frac{(1+i_A)}{(1+i_B)} \right) \]
Micro Universe

- Micro-structure of how security prices formed.
  - Supply and demand in a complex, strategic time-series of interactions.
  - Do exploitable patterns in security prices develop?
  - Do technical analysis models work?
  - Do momentum traders create efficiency?
Manager Selection

- Operating at the edge
  - Who are the great managers in the finance universe
Some discussion topics for today

1. What are the issues in security analysis/value investing that students should be thinking about?
2. Why are these important?
3. How should they pursue their research?