Columbia Business School

Value Investing – Term A

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Spring Semester 2024

COURSE DESCRIPTION & OBJECTIVES

Value investing

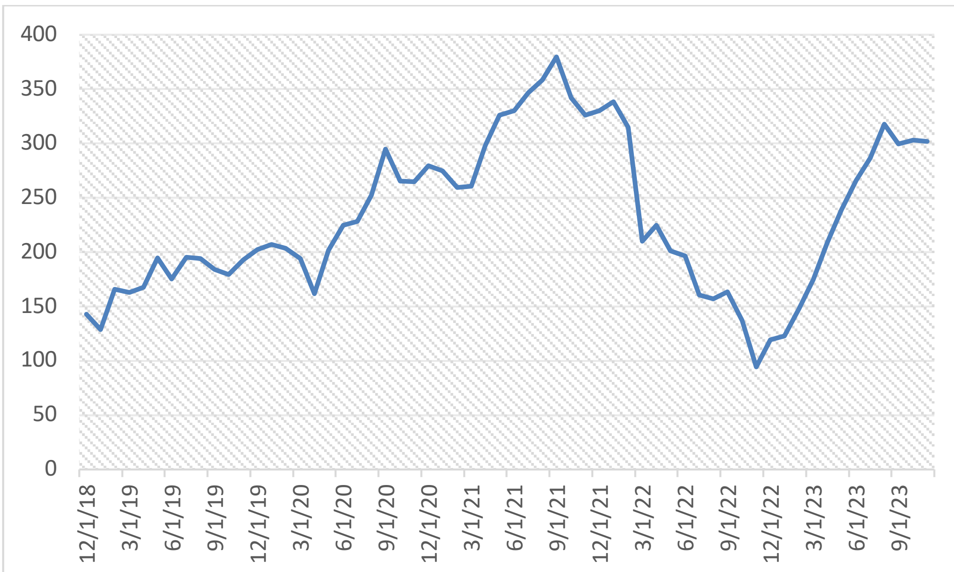
Value investing focuses on the economic analysis and the valuation of the business operations of the firm with the aim of obtaining an estimate of its fundamental value. It calls to invest in the firm if the fundamental value is sufficiently above the market value so that there is a margin of safety to protect the investor against unforeseen contingencies. The approach is integrated, that is, the economic analysis of the business operations of the firm and the valuation of those business operations inform and support each other. In this way, the value investor obtains a coherent view on the firm. I cannot think of a better moment to study value investing, given the enormous gyrations in the market (see the price of META over the last five years below) and the return of value.

The valuation approach is rather different than the DCF-like calculations that are standard in the industry. The DCF method is correct but difficult to implement and in particular it tries to do "too much". The DCF approach starts by positing a model of the dynamics of cash-flows. These cash-flows, properly discounted, are then added up to provide an estimate of the value of the firm. Operationally, these models typically start with an assumption regarding the rate of growth of earnings and the payout policy of the firm. DCF models are notoriously unreliable and moreover unnecessary in most situations.

Our approach starts with the economics of the firms and in particular with the competitive position of the firm in the industry in which it operates. Assumptions on the rate of growth of earnings are needed if and only if the business operations of the firm are protected by barriers to entry. Otherwise … we can simply forget about modeling (real) earnings growth for the simple reason that there is none. In that case an investor should not be willing to pay for any growth option, just for the existing operations of the firm. This is the earnings power value calculation. But how does the valuation support that conclusion: because if the business operations of the firm are not protected by barriers to entry, the asset value of the firms should be equal to the earnings power value.

It follows from the above discussion that a key component of the value investing process is the assessment of the existence of barriers to entry. We develop a protocol to assess the competitive position of the firm and what kind of evidence we should be looking for to ascertain the existence of competitive advantages. In the presence of barriers to entry we develop a valuation approach that estimates the expected rate of return of investing in the company; it is an approach pioneered by Charlie Munger and Warren Buffett at Berkshire.

Value investing is a process. It starts with an intelligent search for investment ideas. Value investors build on screens and monitor the investments of their most admired competitors by tracking their 13Fs; they are voracious in their readings and get ideas from reading not just the financial press but also industry periodicals and other specialized publications. Once an interesting idea has been selected, they proceed to the economic analysis as well as the valuation just described. A review of the entire process is undertaken in a third step. In particular, value investors are cognizant of the fact that if they are buying, someone else is selling and constantly ask themselves where the other side of the transaction is coming from. Value investors are keen observers of Mr. Market and its mistakes. For this, a good understanding of the institutional and behavioral constraints under which the market operates is essential.



META: The stock price of the social network
12/1/2018 – 11/1/2023

Finally, there is a fourth step devoted to risk management and portfolio construction. Given that most value investors hold relatively concentrated portfolios they don't have the benefits of diversification. As a result, they have to have a detailed understanding of the risks in their portfolio, whether they are temporary or permanent in nature, whether they are holding excessive regulatory, technological or industry risk and what is that can be done to ameliorate the risk profile of the overall portfolio.

What arises from this analysis is a rich and coherent view of investing, one that integrates a sound understanding of the economics of the business operation of the firm, a robust valuation approach, and a toolbox of risk management techniques beyond mindless diversification.

CONTACT INFORMATION

Professor: Tano Santos

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Teaching assistants

Section 1 – 3:50pm – 5:20pm: TBA

Section 2 – 5:40pm -7:10pm: TBA

You should contact the teaching assistants with any questions throughout the course. All email communications with the TA or me should have "Value Investing – MBA – Spring – 2024" in the subject line.

Office Hours and communication with me: I will respond to emails within 24 hours (make sure the subject line is as above, otherwise we risk losing your email in the endless river that is my Inbox):

1. Refer all communication regarding the availability of echo360 recordings to Julia Kimyagarov, at Heilbrunn; her email address is jk3396@gsb.columbia.edu.
2. I will be available for office hours; see below.
3. There will be four assignments.

RECOMMENDED COURSE MATERIAL

Office hours

I will hold office hours Thursday morning from 9:00am to 11:00am. Please book an appointment with Ms Kimyagarov. The meetings will be for fifteen minutes, the reason being that there is a large number of students and I want to make myself available to the largest number of you as possible. If you want to see me outside that time, please contact Ms Kimyagarov; she has access to my calendar and can facilitate the scheduling. The teaching assistants will also hold office hours.

Main material

The main material for the Value investing – Term A is the lecture notes which will be posted ahead of the corresponding class on the class website. In addition, the website will include the annual reports and whatever relevant data is needed for the cases that will be due in class. I will also post the sides with the solutions to the cases. For Term B, I will be positing material that is relevant for the guest visit (such as interviews, Barron's profiles and the like). Please visit the website weekly for updates.

Suggested Textbooks

There is one required textbook:

- *Value Investing: From Graham to Buffett and Beyond*. Bruce C. N. Greenwald and Judd Kahn, Wiley Finance, 2020, 2nd edition.

Other important references

The Intelligent Investor: The Definitive Book on Value Investing. A Book of Practical Counsel (Revised Edition) [with comments by Jason Zweig and introduction by Warren Buffett].

Other interesting books that immediately come to mind are:

- *The Little Book that Still Beats the Market*. Joel Greenblatt. John Wiley & Sons, 2010.
- *Accounting for Value,* Stephen Penman, Columbia Business School Publishing, 2011.
- *Margin of Safety: Risk Averse Value Investing Strategies for the Thoughtful Investor.* Seth Klarman. Harper Business, 1991.
- *The Little Book of Behavioral Investing.* James Montier. John Wiley & Sons, 2010.
- *Berkshire Hathaway, Letters to shareholders.* Warren Buffett.
- *The essays of Warren Buffett.* Edited by Lawrence Cunningham. Carolina Academic Press.

There are two books in the intersection of accounting and valuation that are useful supporting material

- *The Analysis and Use of Financial Statements*. Gerald White, Ashwinpaul C. Sondhi and Dov Fried. J. Wiley, 2013, 3rd edition
- *Financial Statement Analysis and Security Valuation*. Stephen Penman, 5th edition

REQUIRED PREREQUISITES AND CONNECTION TO THE CORE

Co-requisite: Term A - Capital Markets

The learning in this course will utilize, build on and extend concepts covered in the following core courses:

Core Course	Connection with Core
Corporate Finance	1. Cost of Capital 2. Valuation 3. Financing Options 4. Time value of money 5. Opportunity cost (of capital) 6. The Capital Asset Pricing Model (CAPM) 7. Firm Valuation Model
Financial Accounting	1. The "accounting equation" 2. Revenue and expense recognition 3. Resources and obligations – measurement and disclosure
Global Economic Environment	1. Risk Management 2. What is Gross Domestic Product and how is it measured? 3. What causes inflation? 4. What causes changes in exchange rates? 5. What are the causes of business cycles? 6. What are the effects of monetary policy? 7. What are the effects of fiscal policy? 8. What is the role of financial markets in the economy?
Managerial Economics	1. Barriers to entry 2. Moats 3. Maximization and thinking on the margin 4. Analyzing complex decision-making under uncertainty 5. Decision-based cost analysis 6. Pricing with market power 7. Market segmentation and other advanced pricing strategies 8. Understanding market competition and equilibrium thinking (in the short-run) 9. Market equilibrium thinking (in the long-run) and barriers to entry 10. Strategic interaction among firms and Nash equilibrium
Strategy Formulation	1. Trade-offs, value-added, efficiencies 2. Creation of value vs. value capture 3. Competing firms 4. Competition and Complementors 5. Strategic interaction analysis 6. Diversification and scope 7. Ethics & IBS 8. Behavioral and evidence-based strategy 9. Management

METHOD OF EVALUATION

The Value Investing class features both class assignments and a final case. The cases are done in groups. The final is individual. More specifically, grading is based on

A. (40%) Four *group* cases dues in class. Please submit your projects in canvas before class on the day that the case is due. It is a group project so only submit one project per group. There are only three grades for the homework (check minus, check, and check plus). For due dates see the grid below

1. Deere
   - For this case compute DE's asset value and the earnings power value
   - 2 pages, double sided
2. Nike
   - Complete case:
     - Assessment of Nike's competitive position
     - Asset Value
     - Earnings Power value
     - Growth calculation
   - Four pages, double sided
3. Nestle
   - EPV and growth calculation
   - 2 pages, double sided
4. Facebook
   - Complete case
   - 4 pages, double sided

B. (60%) Final *individual* case

- A valuation exercise project to be assigned the last day of the Value Investing class, March 2nd. The project is due on Thursday March 9th 2023 at 5:00 pm. It is an individual case.

CONTENTS

Lecture Note 6: ESB: A Primer

- Sources of competitive advantage
    - Supply based
    - Demand based
- Performing Strategic Analysis
    - The firm
    - The industry
    - The value chain

Lecture Note 7: Search

- The importance of knowing where to look
- Techniques
    - 13Fs
    - Screens
    - Special situations

Lecture Note 8: Assessing management

- Identification problems
- What managers do
- Management and barriers to entry
- Assessing management: Tools

Lecture Note 9: Risk Management – 1: Internal risks

- The two types of risk
    1. External risks
    2. Internal risks: overconfidence, extrapolation, self-attribution, …
- Protecting yourself against behavioral biases: Organizational repairs

Lecture Note 10: Risk management – 2: External risks

- Managing the risks: Stocks
    - Permanent impairment of capital and the margin of safety
- Managing the risks: Portfolios
- Managing the risks: Macro-risks
- Taking advantage of crises

Cases: Valuation cases are central the class. The cases are Walmart – 2022, Nestle – 2022, Nike – 2022, Deere-2022, and Dollar General-2022. In addition, there will, *only if time permits,* two cases from the US financial crisis, one from the US (Magna-2009) and the other from the Eurozone crisis (Ferrovial-2012).

Grid

	Material covered	Case covered	Case due
Class 1	*Introduction and overview*		
Class 2	*Asset Values*	*Walmart*	
Class 3	*Earnings Power Values*	*Walmart*	
Class 4	*Growth & Value*	*Walmart*	
Class 5	*Quantitative Strategies*		*DE: AV and EPV*
Class 6	*ESB: A primer*	*Intel: ESB*	
Class 7	*Search*	*DE Growth*	
Class 8	*Assessing Management*		*NKE: Complete case*
Class 9	*Risk Management* *Internal risks*		*Nestle: EPV and Growth*
Class 10	*Risk Management* *External risks*	*Ferrovial – 2012* *Magna – 2009*	
Class 11	*Thinking through technology*		*Meta: Complete case*
Class 12	*Summary and conclusions* *The future of value investing*		

COMPLETE CASE FORMAT

A. STRATEGIC ANALYSIS

- The firm
  - What does the company under study do?
  - What are the reporting segments?
  - Does the firm compete with the same firms across all reporting segments?
  - Is the firm reasonably managed?
  - Suppliers, customers?
- The industry
  - Who are the firm's competitors? Complementors?
  - Do all the firms in the industry have similar reporting segments?
  - Is the industry changing?
  - Are there any barriers to entry in the industry in which it operates?
  - Were there any barriers to entry that are now getting undermined by technological disruption?

B. VALUATION

- Asset values
  - What are the critical assets the firm owns?
  - Are the missing intangibles important?
  - Are there any off-balance sheet liabilities that compromise the viability of the company?
- Earnings power values
  - Is the measure of current earnings a good measure of sustainable earnings?
  - Are there any relevant corrections that need to be made to current earnings to arrive at a reasonable measure of sustainable earnings?
  - Are there cyclical components to earnings?
  - What is the appropriate discount rate?
- Growth
  - Is the company reinvesting?
  - Are they reinvesting in segments with high return on invested capital?
  - Are they returning cash to investors at the expense of profitable growth?

C. RISK ASSESSMENT

- What are the main risks to which the business operations are exposed to?
- Is there enough of a margin of safety against those risks?

D. REVIEW

- Why is the market undervaluing this opportunity?

NOTES