

Value Investing

Tano Santos

David L. and Elsie M. Professor of

Finance MBA - Spring 2021 – Term A -

Bidding Syllabus

COURSE DESCRIPTION & OBJECTIVES

This course aims to familiarize the student with the principles and techniques of value investing, the investment philosophy pioneered by Ben Graham and David Dodd during their years at Columbia Business School and further deepened by Roger Murray and Bruce Greenwald. This will be done through a combination of formal lectures and in class valuation discussions.

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 and the valuation approach inform and support each other. In this way, the value investor obtains a coherent view on the firm.

The valuation approach is rather different than the DCF-like calculations that are standard in the industry. The DCF method 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.

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.

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

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You should contact the teaching assistant with any questions throughout the course. All email communications with the TA or me should have "Value Investing – MBA – Spring – 2020" 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). I will have office hours after class but if you want to meet me at any other time, we can schedule it. Please do email Caroline Reichert, at Heilbrunn, to cr2917@gsb.columbia.edu and she will get back to you with the time at which we can meet. Please write "MBA Value Investing – Meeting with Prof. Santos" in the subject line.

Questions about any of the homework should be submitted to the teaching assistant. As before all emails should feature "Value Investing – MBA – Spring – 2020" in the subject line.

RECOMMENDED COURSE MATERIAL

Main material

The main material for this course 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.

Required Textbooks

There is one required textbook:

- *Value Investing: From Graham to Buffett and Beyond*. Bruce C. N. Greenwald, Judd Kahn, Paul D. Sonkin and Michael van Biema, Wiley Finance, 2004.

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: 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. The “accounting equation” 2. Revenue and expense recognition 3. Resources and obligations – measurement and disclosure
Global Economic Environment	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 class features both class assignments and a final case. They are done in groups, which will be assigned at the beginning of class and cannot be changed. More specifically, grading is based on

- A. (30%) Four cases due 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. The four cases are
1. Intel – due February 6th
 - For this case compute Intel’s asset value and the earnings power value
 - 2 pages, double sided
 2. Nike – due February 18th
 - Complete case:
 - Assessment of Nike’s competitive position
 - Asset Value
 - Earnings Power value
 - Growth calculation
 - Four pages, double sided
 3. Nestle – due February 25th
 - EPV and growth calculation
 - 2 pages, double sided
 4. Deere – due March 3rd
 - Complete case
 - Assessment of Deere’s competitive position
 - Asset Value
 - Earnings Power value
 - Growth calculation
 - 4 pages, double sided
- B. (70%) Final case
- Term A Students only: A valuation exercise project to be assigned the last day of the Value Investing class, March 5th. The project is due on Monday March 23rd at 5:00 pm and it is group based
 - Term A and B (Value Investing with Legends) students
 - Grade Term A: A valuation exercise project to be assigned the last day of the Value Investing class, March 5th. The project is due on Monday March 23rd at 5:00 pm and it is group based
 - Grade Term B: A valuation exercise of your own choosing. The project is individual.
 - Term B students: A valuation exercise of your own choosing. The project is individual.
 - Note:
 - The projects of Term B students will be eligible for the 5X5X5 student portfolio.

CONTENTS

Lecture Note 1: Introduction and overview

- The premises of value investing
- Why does it work?
- The framework

Lecture Note 2: Asset Values

- The balance sheet
- The valuation of tangible and intangible assets
- Other adjustments
- Walmart: Asset Value

Lecture Note 3: Earnings Power Values

- The income statement
- Expenses related to growth activities
- Other adjustments
- Walmart: Earnings Power Value
- Comparing asset and earnings power values
 - Three cases

Lecture Note 4: Quantitative Strategies

- Building quantitative strategies
- Value strategies
- The value premium and the value premium puzzle
- Other quantitative strategies:

Lecture Note 5: ESB: A Primer

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

Lecture Note 6: Growth and Value

- The problem of growth
- Thinking in the space of returns
- Calculating the expected return
 - Cash-flow yields
 - Future earnings growth
 - Multiple corrections
- Risk adjustments

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 – 2020, Nestle – 2020, Nike – 2020, Deere-2020, and Intel-2020. In addition, there will two cases from the US financial crisis, one from the US (Magna-2009) and the other from the Eurozone crisis (Ferrovial-2012).

SCHEDULE

<i>Date</i>	<i>Material covered</i>	<i>Case covered</i>	<i>Case due</i>
Tuesday January 28 th	Introduction and overview		
Thursday January 30 th	Asset Values	Walmart	
Tuesday February 4 th	Earnings Power Values	Walmart	
Thursday February 6 th	Quantitative Strategies		Intel: AV and EPV
Tuesday February 11 th	ESB: A Primer	Intel: ESB	
Thursday February 13 th	Growth and Value	Walmart	
Tuesday February 18 th	Search		Nike: Complete case
Thursday February 20 th	Assessing Management		
Tuesday February 25 th	Risk Management Internal risks		Nestle: EPV and Growth
Thursday February 27 th	Risk Management External risks	Ferrovial – 2012 Magna – 2009	
Tuesday March 3 rd			Deere: Complete case
Thursday March 5 th	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?