

## ACCOUNTING FOR VALUE

**B8022, Spring, 2018**

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Course meeting time:

Section 1: Tuesday, 10:45am - 2:00pm, Uris 331

Section 2: Wednesday, 10:45am - 2:00pm, Uris 332

Office Hours: Tuesday 3-5pm

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### REQUIRED PREREQUISITES AND CONNECTION TO THE CORE

This course builds on material in *Financial Accounting* and *Corporate Finance* core courses and complements courses on equity investing in the Value Investing Program and elective courses on fundamental analysis in the Accounting Division. *Capital Markets* is a co-requisite, that is, it must be taken at the same time or before this course. Material from the *Managerial Economics* and *Strategy Formulation* core courses is also relevant. Students should have a reasonable understanding of financial accounting principles, the balance sheet, income statement, and cash flow statement, along with the basic principles of finance.

### COURSE DESCRIPTION AND OBJECTIVES

The course is about handling accounting information in value investing. The issue is straightforward: How do I infer value from such numbers as earnings, book value, cash flows, return on equity, and return on assets? What are the pitfalls? When can I be led astray? How do I make valid inferences? “Profitability” is an important valuation attribute, but do accounting measures of profitability convey real profitability? If not, how

do I handle the deficiency? How does accounting differ across industries, jurisdictions, and competitive situations? How is accounting handled to understand the economics of a firm under study?

The answers to these questions require, first, an understanding of the integrity of the numbers that financial statements report and, second, an understanding of what a “clean” number tells us and what it does not tell us. The first question is the issue of so-called “earnings quality.” While we will be sensitive to the quality of the accounting in this course—and indeed develop some striking criticisms and make adjustments—our focus will largely be on the second, the issue of appreciating the value implications of accounting numbers. (There is a detailed course on earnings quality at Columbia Business School, Fundamental Analysis and Earnings Quality, B8008.)

Accounting numbers, used appropriately, are powerful aids to the value investor in understanding a business and the value in that business. However, they can be easily misused. A P/E ratio, for example, serves as an important input to a value investor, but the investor is in danger of being falsely cued if he or she does not appreciate what that ratio captures. A too-simple form of “value investing” trades on P/E and price-to-book (P/B) under the label, “Value versus Growth” investing, but the uninitiated is in danger of falling into the Value Trap. In this course, you will understand the Value Trap and how to avoid it. More importantly, you will appreciate how a dedicated approach to value investing handles accounting numbers to understand when price is different from value. Indeed, the course will show how to bring the appropriate (possibly adjusted) accounting numbers together to challenge the market price and thus avoid the greatest risk in investing, the risk of paying too much.

In the course, accounting is dealt with as part of business analysis which is, after all, the prime focus in value investing. We learn about the business via accounting numbers if they are appropriately handled. We’ll apply accounting measurement to understand value added in (prospective) mergers and acquisitions, restructuring of operations, and other corporate strategies.

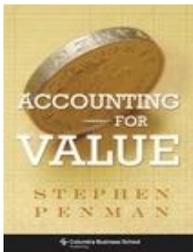
With an understanding of how accounting connects to value, the investor is ready to engage in “accounting arbitrage.” If the market fails to understand the subtleties on the accounting, that provides an arbitrage opportunity for the insightful investor. The “intelligent investor” is an intelligent accountant. He or she knows how to account for value.

The course title is that of my book, *Accounting for Value*. This easy-read develops the themes and the course flushes them out. By the end of the course, you should have the answers to the following questions:

- How do I understand the profitability of a business from the financial statements and what does that imply for the value of the business?
- Apple Inc. trades at a forward P/E of 14.6. What does that tell me? Is the stock cheap? What do you make of Amazon’s P/E of 144.3?
- Apple Inc. trades with a PEG ratio of 1.41. Is it cheap or expensive? A PEG of 4.8 for Amazon?

- The value investor is said to “anchor on the fundamentals” and eschew speculation. How does one establish an anchorage using the financial statements?
- Benjamin Graham saw investing as a matter of “negotiating with Mr. Market.” How do the financial statements become part of that negotiation...to argue with Mr. Market about the price?
- The value investor is wary of taking on leverage. How does leverage affect accounting numbers such as earnings and return on equity, and how can those levered numbers lead me astray?
- The value investor is wary of buying growth, for growth is risky. How does the accounting tell me that prospective growth is risky?
- How do I use accounting numbers to understand the growth expectations built into the market price?
- What is the Value Trap? How can I avoid it?
- Which accounting numbers do I have to be wary of?
- In sum, how do I challenge the market price using accounting numbers? How do I use accounting numbers to avoid the “risk of paying too much” for a stock?

## THE TEXT FOR THE COURSE



Penman, S., *Accounting for Value* (Columbia University Press, 2011). Available on Amazon for about \$28.

Read the Introduction and the first two chapters of this book before the class begins, then the remaining chapters as the course proceeds. It is written largely for practitioners, introducing and illuminating the issues addressed in the course.

### *Other Reading*

A more detailed text that digs into accounting issues in more depth is Penman, S., *Financial Statement Analysis and Security Valuation*, 5th ed. (Irwin/McGraw-Hill, 2013). If you buy this book, the international soft-cover version is the same material as the U.S. version but much cheaper.

You might also look at English, J., *Applied Equity Analysis* (McGraw-Hill, 2001) for a book that also handles accounting numbers in equity valuation.

## CLASS FORMAT

Class sessions will revolve around power point presentations, short exercise examples, and longer case discussions. Students will receive a complete copy of notes for each class, along with advance case material for

subsequent classes. Students should come to class well-prepared to discuss issues and push for their resolution.

### **METHOD OF EVALUATION**

Course Project	50%
Final Exam	50%

The final exam will be for 90 minutes, open book, in the final class for the semester.

### *Course Project*

There are two alternatives for the course project:

1. Take one (or more) of the cases we worked in the course and flush it out more fully, applying it to a larger number of firms or expanding on the issues to get more insights.
2. Evaluate investment in a particular company or sets of companies under a title something like, "Challenging the Market Price of Company X Using Accounting Information" (you choose the X).

The project can be done individually or in groups up to four people. It should be no more than 10 pages in length (exclusive of an appendix with detail on calculations involved). The submission will be graded on its creativity, depth of understanding, rigor, and clarity in communication. Write it as if to a client whom you are advising, not to a professor. It must be original work.

The project is due on May 11. Deliver to [shp38@columbia.edu](mailto:shp38@columbia.edu) in one pdf file, or to Professor Penman's office, to the Assistants' station in Uris 6W, or by mail. Mailing address: Professor Stephen Penman, 612 Uris Hall, Columbia Business School, 3022 Broadway, New York, NY 10027.

Under Business School standards, the project is Type A (with the group self-selected) in the table below:

<b>Type</b>	<b>Designation</b>	<b>Discussion of concepts</b>	<b>Preparation of submission</b>	<b>Grade</b>
A	group / group	Permitted with designated group	By the group	Same grade for each member of the group
B	group / individual	Permitted	Individually (No sharing of any portion of the submission)	Individual

C	individual / individual	None of any kind	Individually	Individual
D	(An optional category to be defined in detail by the individual faculty member)			

## CLASSROOM NORMS AND EXPECTATIONS

Classroom activities are to be conducted in an atmosphere of mutual respect, engagement, and participation, with the common goal of enhancing each other’s learning and mastery of the material. The 3Ps of the Core Culture apply:

### Present:

- On time and present for every session
- Attendance is required, although not tracked

### Prepared:

- Complete pre-work required, expect cold calling
- Bring name plates to class

### Participating:

- Constructive participation expected
- No electronic devices unless for class-room purposes. Laptops permitted, but only if open to the course material

For each class, **preparation** involves:

- (i) Preparing the case(s) assigned for the class session
- (ii) Reading prescribed material
- (iii) Reading over the class notes for the session, to gain some familiarity in advance and to prompt questions you might raise in class.

Cases and class notes will be posted on Canvass at least a week prior to each class. Hard copies of the class notes will be handed out in class.

**COURSE SCHEDULE AND TOPICS**

Note: Cases must be worked prior to the class period

WEEK	TOPICS	READINGS AND CASES
<b><i>Challenging the Market Price: Principles and Techniques</i></b>		
<b>1</b>	<b>Value Investing Principles</b>	Acc4Val, Ch. 1-2
(Sec 1: Jan 23)	Cash Accounting for Value	Case 1: Starbucks A
(Sec 2: Jan 24)		
<b>2</b>	<b>The Value Trap and How to Avoid It</b>	Acc4Val, Ch. 2 and 7
(Sec 1: Jan 30)	The Value Trap	Case 2: Banking Your Money
(Sec 2: Jan 31)	Anchoring Value to the Balance Sheet	
<b>3</b>	<b>Accounting for the Market Price</b>	Acc4Val, Ch. 3
(Sec 1: Feb 6)	Negotiating with Mr. Market	Case 3: Tyco Spin-offs
(Sec 2: Feb 7)		Case 4: Starbucks B
<b><i>The Use and Misuse of Accounting Numbers</i></b>		
<b>4</b>	<b>Accounting for Leverage and Financing Risk</b>	Acc4Val, Ch. 4
(Sec1: Feb 13)	Leverage and Return in Equity	Case 5: Microsoft
(Sec 2: Feb 14)	Leverage and Growth	

Leverage and the P/E and P/B ratio

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<b>5</b>	<b>Accounting for the Profitability of the Business</b>	Acc4Val Ch.4-5
(Sec 1: Feb 20)	Accounting for value in operating activities	Case 6: Microsoft
(Sec 2: Feb 21)	Accounting for Investment	Unlevered
	Accounting for return on investment	

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<b>6</b>	<b>Accounting for Growth</b>	Acc4Val Ch. 5
(Sec 1: Feb 27)	The drivers of growth	Case 7: Apple
(Sec 2: Feb 28)	Challenging risky growth expectations	Case 8: Amazon

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***Accounting for Value in the Business***

<b>7</b>	<b>Accounting for Growth and Risk</b>	Acc4Val Ch. 6-7
(Sec 1: Mar 20)	Reduced Dimensions of Growth	Case 9: Markel
(Sec 2: Mar 21)	Risk and the Expected Return from Investing	

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<b>8</b>	<b>Accounting for Value in Balance Sheet</b>	Acc4Val Ch.8, 9
(Sec 1: Mar 27)	Accounting for Operations	Case 10: Microsoft:
(Sec 2: Mar 28)	Accounting for Off-Balance Sheet Items	Expected Return
	Accounting for the Accounting in the BS	Case 11: Challenge
	Accounting for Risk in the Balance Sheet	the S&P 500

**9            Accounting for Value in the Income Statement    Acc4Val Ch. 9**

(Sec 1: Apr 3)            Anchoring on Quality Earnings

(Sec 2: Apr 4)            Identifying Sustainable Earnings and            Case 12: Microsoft  
Earnings Power

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**10            Accounting for Value in the Income Statement    Acc4Val Ch. 9  
(cont.)**

(Sec 1: Apr 10)            Accounting for the Accounting            Case 13: IBM

(Sec 2: Apr 11)            Analysis of Cash Flows

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**11            Accounting for Value in Special Situations            Acc4Val Ch. 10**

(Sec 1: Apr 17)            Mergers and Acquisitions            Case 14: BNSF

(Sec 2: Apr 18)                       Case 15: P&G

Restructuring            Case 16: Coke Lite

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**12            Final Exam (90 minutes), Course Project Preparation**

(Sec 1: Apr 24)

(Sec 2: Apr 25)

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**REVIEW SESSIONS**

Friday, February 23	TBA
Friday, April 6	TBA
Friday, April 20	TBA

**DUE DATE FOR PROJECTS**

Friday, May 11. Deliver to [shp38@columbia.edu](mailto:shp38@columbia.edu) in one pdf file, or in hard copy to Professor Penman's office, to the Assistants' station in Uris 6W, or by mail. Mailing address: Professor Stephen Penman, 612 Uris Hall, Columbia Business School, 3022 Broadway, New York, NY 10027.