

Earnings Quality and Fundamental Analysis, B7008, Spring 2019**Course Syllabus***This Draft: October 16, 2018***I. CONTACT DETAILS**

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II. COURSE DESCRIPTION

Financial reporting provides a window into the operational and financial workings of a company. However, translating this information into actionable insights is anything but straightforward. It requires an understanding of Generally Accepted Accounting Principles (GAAP), the quality of financial information, and the adjustments and analyses required to accurately measure and evaluate profitability, exposures, growth prospects, and value.

The course starts with a review of financial reporting and then focuses on various modules of fundamental analysis, including performance evaluation, earnings quality, risk assessment, forecasting, and valuation. The final part of the course is devoted to a deeper dive into the reporting and analysis of selected line items from the financial statements (e.g., income taxes, leases, pension, business combinations).

To allow for dynamic progress, the class schedule is flexible:

<u>Topic</u>	<u># of class meetings</u>
Financial reporting	2-3
Ratio analysis	2-3
Relative valuation	.5
Forecasting and DCF	2
Line-item analysis	4-5
Total	12

While the course covers the theoretical underpinning of the various analyses, it focuses on implementation and practical uses. Many real-world examples will be analyzed, including using Excel tools that will be provided to the students.

The primary objective of the course is to acquire a deep understanding of accounting information and how to intelligently use it in making investment, credit, and similar resource allocation

decisions. Such knowledge is required of executives, consultants, bankers, analysts, investment managers, and other users of financial information.

In a review conducted in 2011, the committee for evaluating elective courses concluded that *“this is an excellent, carefully constructed course which provides students with valuable insights and lasting concepts.”* In the same year, Professor Nissim won the “Dean’s Award for Teaching Excellence” for developing and teaching this course.

A recent email from a student (with permission, of course): *“I just wanted to thank you again for the great semester ... I loved my internship and I’ve already accepted my offer to return to Your class was the best preparation I had for investment banking. All of the normalizing adjustments and deep dives into line items really helped me succeed because several times during the internship I was called on to make considerable accounting adjustments to make companies more comparable for comparison and had I not taken Earnings Quality I would not have been as prepared to handle the assignments. I was better at my job because of your course so I really wanted to express my gratitude for all the time you took creating your presentations and answering questions.”*

III. COURSE ADMINISTRATION

Class Material

The course material consists of detailed presentations, text book, excel workbooks, practice exercises, problem sets, and optional readings. Skimming through the presentations prior to class, and reviewing them carefully after class, as well as solving the practice exercises and problem sets, would help reinforce the material. This is important especially because for some topics we will not have sufficient class time to discuss all the points and examples contained in the presentations. The textbook and optional readings elaborate on the discussion and analyses.

All items (except the textbook) will be made available electronically before class. You may use a laptop or tablet during class to help you follow the discussion, to take notes, or to add comments to the electronic documents as needed (**please use the laptop/tablet for those purposes only – otherwise, it may negatively impact your learning experience and that of your peers**). One objective of the class is that you will each obtain a detailed, familiar, and customized (through your additions) set of notes that you will be able to use in your careers.

There will be four assigned problem sets to be handed in:

<u>Problem Set</u>	<u>Due date</u>
1. Financial reporting	February 9
2. Ratio analysis	March 2
3. Valuation	March 30
4. Earnings quality	April 27

Grade

The course grade will be based on **attendance** (10 points), **problem sets** (40 points; 4 problem sets, 10% each), and a course **project** (50%). Problem sets should be submitted to Canvas before the beginning of class on the respective due dates (one late submission is allowed). Grading of the problem sets is based on effort.

Project

The project can be either individual or group (up to four participants). Individual projects should be between 8 and 12 pages (including exhibits; single-line space). Group projects should be proportionally longer, depending on the number of members. The project can focus on one company or a small group of comparable companies. The analysis should emphasize earnings quality and fundamentals-related aspects, and should demonstrate a deep understanding of how accounting fundamentals inform on economic performance and value. The structure of the project is flexible. Examples of projects from previous classes are available on Canvas. Potential analyses include:

Estimating the value of a company using fundamentals-based relative valuation – The project should include a discussion of (1) the comparability of the peers (selection, evaluations, tiering); (2) the measurement of—and adjustments to—the fundamentals, value measures, and multiples; and (3) how the different value estimates were combined to obtain a final value estimate.

Estimating the value of a company using fundamentals-based DCF – The project should include a short discussion of reformulation adjustments to the financial statements, primary inputs (e.g., WACC, steady-state assumptions), forecasting assumptions, the steps from DCF value to value per share, and sensitivity and scenario analyses.

Evaluating the quality of specific accounts and the likelihood and implications of earnings management – for example, “channel stuffing;” “gains trading;” “management” of provisions (e.g., for bad debt or warranty); LIFO liquidation; over-production; capitalization of operating expenditures; effects of impairment losses; distortions related to accounting for postretirement benefits; business combination gains, losses, and other adjustments; manipulation of income tax reserves and allowances; and the impact of treasury stock transactions on EPS growth.

Adjusting the financial statements to correct or mitigate accounting distortions – for example, capitalizing operating leases; capitalizing expensed economic investments such as start-up costs, advertising, or research and development; converting the inventory cost flow assumption from LIFO to FIFO; excluding transitory effects from the gross margin (holding gains/losses on inventory, abnormal production); adjusting PP&E-related items for inflation; undoing securitization transactions; undoing the effects of interest capitalization; undoing excess capitalization of expenditures; consolidating significant associates or unconsolidated VIEs/SPEs; distinguishing between operating and financing items (e.g., excess liquid funds, provisions); distinguishing between recurring and transitory income and expense components; adjusting EBITDA for changes in capitalized depreciation; and reclassifying some cash flows in the cash flow statement.

Conducting comprehensive ratio analysis – for example, analyzing profitability, examining measures of overall earnings quality, distinguishing the effects of organic versus acquired growth, forecasting revenue or earnings using fundamental analysis, conducting fundamentals-based risk analysis, and relating value ratios to fundamentals. In addition to calculating relevant ratios, there should be a discussion of inferences from the analysis and their implications for valuation analyses.

IV. CONNECTION WITH THE CORE AND OTHER ELECTIVES

This course builds on knowledge from the core courses Financial Accounting (B5000) and Corporate Finance (B5300), which introduce students to basic concepts of financial reporting and analysis. In particular, B7008 requires a basic understanding of the following:

- Financial statements, including the balance sheet, income statement, and cash flow statement
- How accrual accounting differs from cash accounting, including revenue recognition, expense recognition (matching principle), and the basic principles of asset and liability recognition and measurement.
- Time value of money and present value calculations

In B7008, students acquire a deep understanding of accounting information and how to intelligently use it in making investment, credit, and similar resource allocation decisions.

V. TEXT

Valuation: Measuring and Managing the Value of Companies, Wiley Finance, 6th Edition.

VI. OPTIONAL READINGS

The studies (listed below) are generally available either in the “Files” directory on Canvas or through a link to SSRN. Some of the papers are also available on my webpage (<http://www.columbia.edu/~dn75/>).

Profitability

1. Nissim, D. 2018. Profitability Analysis.
2. Nissim, D. and S. Penman. 2001. Ratio analysis and equity valuation: From research to practice. *Review of Accounting Studies* 6: 109-154. Available at Canvas.
3. Nissim, D. and S. Penman. 2003. Financial statement analysis of leverage and how it informs about profitability and price-to-book ratios. *Review of Accounting Studies* 8: 531-560. Available at Canvas.

Earnings Quality

1. Nissim, D. 2018. Evaluating Earnings Quality.
2. Melumad, N. and D. Nissim. 2009. Line-Item Analysis of Earnings Quality. *Foundations and Trends in Accounting* 3(2-3) 87-221 (2009). Available at Canvas.
3. Chan, K., L. Chan, N. Jegadeesh and J. Lakonishok. 2006. Earnings Quality and Stock Returns. *Journal of Business* 79(3): 1041-1082. Available at Canvas.

4. Lev, B. and D. Nissim. 2006. The persistence of the accruals anomaly. *Contemporary Accounting Research* 23(1): 193-226. Available at Canvas.
5. Nissim, D. 2018. Overproduction and EBITDA. Available at SSRN: <https://ssrn.com/abstract=3054282>.
6. Lev, B. and D. Nissim. 2004. Taxable income, future earnings, and equity values. *The Accounting Review* 79(4): 1039-1074. Available at Canvas.

Risk

1. Nissim, D. 2018. Synthetic Credit Ratings and the Inefficiency of Agency Ratings. Available at SSRN: <https://ssrn.com/abstract=3012723>.

Relative valuation

1. Liu, J., D. Nissim, and J. Thomas. 2007. Is Cash Flow King in Valuations? *Financial Analysts Journal* 63(2): 56-68. Available at Canvas.
2. Nissim, D. 2018. EBITDA, EBITA, or EBIT? Available at SSRN: <https://ssrn.com/abstract=2999675>.
3. What Does an EV-EBITDA Multiple Mean? BlueMountain Investment Research, September 13, 2018. Available at Canvas.

Forecasting and DCF

1. Nissim D. and A. Ziv. 2001. Dividend Changes and Future Profitability. *Journal of Finance* 56(6): 2111-2133. Available at Canvas.
2. Chan, L., J. Karceski and J. Lakonishok. 2003. The Level and Persistence of Growth Rates. *Journal of Finance* 58(2): 644-684. Available at Canvas.
3. Nissim, D. 2018. Contingent Claims in Equity Valuation.
4. Nissim, D. 2018. Equity Risk Premium.
5. Nissim, D. 2018. Forecasting Free Cash Flow.
6. Nissim, D. 2018. Long-term Risk-free Interest Rates and Equity Valuation.
7. Nissim, D. 2018. Tax Cut and Jobs Act and Valuation-related Tax Rates.
8. Nissim, D. 2018. Terminal Value. Available at SSRN: <https://ssrn.com/abstract=3095564>
9. Nissim, D. 2018. Valuing Minority Interests.