

SLOAN SCHOOL OF MANAGEMENT
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



CORPORATE FINANCE (15.402), SECTIONS A & B
SYLLABUS

15.402 Corporate Finance
Fall 2023

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This introductory course in Corporate Finance takes as its viewpoint the **CFO of a firm**, though lessons from the course will be valuable and **relevant to many strategic roles** in modern organizations. A CFO's job is to maximize firm value through three types of decisions: which projects to invest in, how to finance that investment, and how to manage the cash flows of the firm. This is an **applied course** that will primarily use **case studies** to introduce financial tools needed to make value-enhancing business decisions. A beneficial side effect is that we will **dive into a broad array of industries**, including tech, entertainment, retail, heavy manufacturing, hospitality, telecommunications, media, and finance. We ultimately are aiming to **build financial intuition** beyond the nitty gritty of accounting statements so we will also analogize liberally to other domains, including **personal finance**.

A. Course Structure

The course consists of three main modules:

- 1) **Cash Flow Management:** The course starts with the tools of cash flow management. Cash flow management is necessary to forecast financing needs and to value assets. The tools we will discuss include ratio analysis, the sources and uses of funds statement, and pro forma statements.
- 2) **Capital Structure and Financing Needs:** The course continues with analyzing the factors that determine a company's need for external financing. We then consider the optimal mix of debt and equity financing. We also discuss payout policy and convertible bonds.
- 3) **Project and Company Valuation:** In the third module, we develop the tools needed for valuing investment projects. We use several different valuation methods including the determination of the relevant cash flows and the appropriate discount rate. We will then use these tools to select investment projects and value companies.

B. Administrative Structure

Prerequisites:

- Managerial Finance (15.401) or equivalent and some accounting (e.g., 15.515 or 15.501/516).
- In particular, it is expected that students will be comfortable with accounting tools like income statements and balance sheets and finance tools like present value and the Capital Asset Pricing Model (CAPM). Students should also be familiar with accounting terms used in financial statements like EBIT, depreciation, PP&E, COGS, SGA, etc.

Contact Information and Office Hours:

- Professor: Christopher Palmer
 - Email: cjpalmer@mit.edu
 - Phone: (617) 324-3901
 - Office: E62-639
 - Office hours: Tuesdays 2:00-3:00 pm. Email me for a link if you'd prefer to meet by Zoom.
- Teaching Assistants:
 - Section A: Sarah Harmon (sharmon@mit.edu; office hours by appointment)
 - Section B: Yaphet Tedla (yaphet7@mit.edu; office hours by appointment)
- Course Assistant:
 - Larissa Walker (lwalker3@mit.edu)
 - The course assistant will help with administrative matters such as waiting lists, section swaps, etc.

Schedule and Classroom:

- Section A: Mondays & Wednesdays 10:00-11:30 am (E51-345)
- Section B: Mondays & Wednesdays 1:00-2:30 pm (E62-262)

Course Material:

- Course packet:
 - Contains the required case studies and some optional supplementary readings for the course.
 - Access the course packet through the Study.net link on Canvas, where you can also optionally order a printed copy from CopyTech.
- Course website:
 - Canvas: <https://canvas.mit.edu/>
 - Make sure you have access to Canvas (contact the course assistant if you are unable to access Canvas).
 - Check Canvas at least once a week. All course announcements will be posted on Canvas.
- Textbooks (optional):
 - P. Asquith, L.A. Weiss, *Lessons in Corporate Finance*, any edition, Wiley. (helps the most with 402)
 - R. Brealey, S.C. Myers, and F. Allen, *Principles of Corporate Finance*, any edition, McGraw-Hill.
 - R.C. Higgins, *Analysis for Financial Management*, any edition, McGraw-Hill.
- Additional material:
 - Handouts (slides) will be provided at the beginning of each class. Some of these slides contain gaps that we will fill out together in class.

C. Each-Class Procedure

For each case, I will assign case questions posted on Canvas and you will have to submit a two-page memorandum with your proposed answers to these questions. You are encouraged, but not required, to meet in groups of up to four students outside of class to discuss and analyze the cases. I will accept one memorandum from the group and count it for all students in the group. Each group member must make a substantial contribution to each part of the assignment. It is not acceptable to divide the cases amongst the team members. Since the class is very cumulative, this would be self-defeating anyway, and you'd suffer on the exam.

Because of the nature of this course (and the grading criteria, see below), it is essential that you attend every class, arrive on time, and be prepared to participate. You should bring your name tag to each class (and make one if you're not a Sloan student) to facilitate discussion and receive credit for your remarks.

D. First Class

- No preparation is required for the first class.
- Bring your name tag and make sure you have access to Canvas and the cases through the Study.net link.
- If you don't have a nametag, please make yourself one.

E. Requirements and Grading

- **Case Memoranda: 30%.**
 - Students should form teams of 1 to 4 and hand in a single write-up per team.
 - Talk to the TAs for help forming groups. Also, look up 15.402 on <http://psetpartners.mit.edu>.
 - Each memorandum should be typed and not exceed two pages.
 - The two-page limit is for text only; you may attach as many numerical calculations as you wish.
 - Write these formally as if you were writing a recommendation to a CEO or other major decisionmaker.
 - Write-ups due on Canvas before the morning class (may bring copies to refer to during class).
 - Write-ups will not be accepted after the class has met.
 - All write-ups are mandatory.
 - Each write-up is graded on a three-grade basis ($\sqrt{+}/\sqrt{-}$) corresponding to 5, 4, or 3 points out of 5.
 - Grading of homework will be based on *effort and internal consistency*, **not correctness**. The purpose of the homework is to ensure preparation before class and that you understand why one would care about that day's material.
 - Use of prior semesters' materials is expressly prohibited. Use of AI is prohibited.
- **Midterm and Final Exam: 50%.**
 - In-classroom midterm (20%) and final exams (30%) during regularly scheduled class time.
 - The exams are open book: you can bring the course handouts, textbooks, cases, or personal notes.
 - Use of a computer or any electronic device is prohibited except the calculator that will be provided.
 - The best way to prepare for the exams is to thoughtfully complete every case, attend class, and actively participate. The entire course is cumulative.
- **Class Attendance and Participation: 20%.**
 - Because so much of the learning in this course occurs in the classroom, it is very important that you attend class and be prepared to discuss the cases.
 - The quality of your comments is more important than quantity. In the classroom and in life, people can generally tell when someone is talking just to be heard.
 - Arrive on time and stay for the entire class. Deviations will be noted.
 - Silence and put away electronic devices. Checking your phone not only interrupts your synthesis of our material but is also a negative externality on your classmates. Practice digital discipline.
 - Cross-reference each other in our discussions: "to build on what ___ has just said..."
 - Refrain from sidebar conversations

F. Course Policies

The course policies are designed to ensure fairness. By remaining enrolled in the course, you agree to abide by the policies detailed below:

- **Sloan Values in the Classroom.**
 - Students are expected to arrive promptly on time and to stay for the entire class.
 - Faculty are expected to begin and end class on time (5 minutes after/before posted start/end times)
 - Laptops and e-readers remain closed/off except with explicit permission of the faculty
 - Cellphones and PDAs not be used or permitted to ring in the classroom.
 - Students attend all classes.
- **The exams cannot be rescheduled or made up.** Treat the in-class exam dates as you would an important meeting in the business world. Travel or interviewing is not an acceptable reason for exam re-scheduling. Documented evidence that you were seriously ill or had a serious emergency at the scheduled time of the final exam are the only valid excuses for missing an exam. In order to be excused from the exam, you must contact me *prior to the exam* and be ready to provide documentation after the exam.
- **Listeners.** As a general rule, listeners are not allowed in 402. In rare cases, exceptions will be made when a listener commits to attending class and doing the assignments so that they can be cold called like the for-credit students. These exceptions will also only be offered after all students wishing to take the course for credit have been admitted. One-time visitors are more than welcome—see me for permission.
- **Re-grades.** The TAs and I will work hard to ensure that the same partial credit is allocated to the same partially correct answer on each exam. Occasionally, we will make mistakes in our grading, and we are eager to correct mistakes subject to the following limits. If you believe that there was a mistake in the grading of your exam, *within one week* following its grading, submit a *written explanation* of the points of contention to me. If the re-grade request is made after one week or without an accompanying written explanation, no re-grade will be given. All re-grade decisions are final. We reserve the right to correct all mistakes made grading an exam submitted for a re-grade.
- **Special Arrangements.** If you have a documented disability or religious holidays to observe and anticipate the need for accommodations in this course, please make arrangements soon. Please contact the MIT Coordinator of Disabilities Services to request assistance in arranging appropriate accommodations with me for disabilities. I'm happy to help.
- **Recruiting.** MIT Sloan requires that students schedule campus interviews outside of scheduled class times and to make every attempt to schedule second round interviews and site visits outside of class times. It may well be worth it to miss class for a second-round interview, but these are not excused absences and may count against your participation grade.
- **Mental health.** At a minimum, we will all feel burned out at various times in our lives. Many will face mental health challenges themselves or with people close to them. Please attend to your mental health hygiene by making sleep a priority, finding a pursuit that helps you decompress in a healthy way, and finding confidantes to confide in. MIT has terrific resources for mental health, start here <https://medical.mit.edu/services/mental-health-counseling>.
- **Sexual harassment.** Both the Institute and Sloan in particular are committed to preventing and addressing sexual harassment. Inappropriate conduct appears pervasive in a wide variety of environments. Commit now to draw bright lines for yourself about acceptable behavior. MIT's website on the subject (including definitions, policies, and reporting options) is https://titleix.mit.edu/policies/sexual_misconduct.

Course Outline (Summary)

The course outline is subject to changes. Please follow the announcements in class and on Canvas.

Class #	Day	Date	Topic
1	Wednesday	6-Sept	Introduction and Accounting Review
2	Monday	11-Sept	Case Study: Gilbert Lumber Company (Part I)
3	Wednesday	13-Sept	Case Study: Gilbert Lumber Company (Part II)
4	Monday	18-Sept	Case Study: Play Time Toys
5	Wednesday	20-Sept	Case Study: SureCut Shears
6	Monday	25-Sept	Lecture: Capital Structure (Part I)
7	Wednesday	27-Sept	Case Study: Massey Ferguson
8	Monday	2-Oct	Lecture: Capital Structure (Part II)
9	Wednesday	4-Oct	Case Study: Marriott
	Monday	9-Oct	<i>Indigenous People's Day – No Class</i>
10	Wednesday	11-Oct	Lecture: Asymmetric Information and Agency Costs
11	Monday	16-Oct	Case Study: Apple
12	Wednesday	18-Oct	Midterm Exam
	Monday	23-Oct	<i>Sloan LEAD Week – No Class</i>
	Wednesday	25-Oct	<i>Sloan LEAD Week – No Class</i>
13	Monday	30-Oct	Lecture: Valuation of Free Cash Flows
14	Wednesday	1-Nov	Case Study: Diamond Chemicals
15	Monday	6-Nov	Lecture: WACC
16	Wednesday	8-Nov	Case Study: Harris Seafoods (Part I)
17	Monday	13-Nov	Case Study: Harris Seafoods (Part II)
18	Wednesday	15-Nov	Case Study: Eaton Corporation
19	Monday	20-Nov	Lecture: Valuing a Company, APV, and Multiples
	Wednesday	22-Nov	<i>Thanksgiving Break – No Class</i>
20	Monday	27-Nov	Case Study: Monmouth
21	Wednesday	29-Nov	Case Study: Snap, Inc.
22	Monday	4-Dec	Review for Final
23	Wednesday	6-Dec	Final Exam in class
24	Monday	11-Dec	Case Study: Arundel
25	Wednesday	13-Dec	Lecture: Corporate Governance and Corporate Diversity

G. Course Outline (Detailed)

Part I: Cash Flow Management

1 – Introduction and Accounting Review

- Reading:
 - Asquith, Weiss, ch. 1: “Introduction”
 - Higgins, ch. 1: “Interpreting Financial Statements”
 - Brealey, Myers, Allen, ch. 14: “An Overview of Corporate Financing”

2 – Case Study: Gilbert Lumber Company (Part I)

- Reading:
 - Asquith, Weiss, ch. 2: “Determining a Firm’s Financial Health”
 - Brealey, Myers, Allen, ch. 28: “Financial Analysis”
 - Higgins, ch. 2: “Evaluating Financial Performance”

3 – Case Study: Gilbert Lumber Company (Part II)

- Reading:
 - Asquith, Weiss, ch. 3: “Pro Forma Forecasts”
 - Higgins, ch. 3: “Financial Forecasting”
 - Higgins, ch. 4: “Managing Growth”

4 – Case Study: Play Time Toys

- Reading:
 - Asquith, Weiss, ch. 4: “The Impact of Seasonality on a Firm’s Funding”

5 – Case Study: SureCut Shears

Part II: Financing

6 – Lecture: Capital Structure (Part I)

- Reading:
 - Asquith, Weiss, ch. 6: “An Introduction to Capital Structure Theory”
 - Brealey, Myers, Allen, ch. 17: “Does Debt Policy Matter?”
 - Brealey, Myers, Allen, ch. 18: “How Much Should a Corporation Borrow?”
 - Higgins, ch. 5: “Financial Instruments and Markets”
 - Higgins, ch. 6: “The Financing Decision”

7 – Case Study: Massey-Ferguson

- Reading:
 - Asquith, Weiss, ch. 5: “Why Financing Matters”
 - Myers: “Capital Structure” *Journal of Economic Perspectives* ([link](#))

8 – Lecture: Capital Structure (Part II)

9 – Case Study: Marriott

- Reading:
 - Asquith, Weiss, ch. 7: “Capital Structure Decisions”
 - Asquith, Weiss, ch.8: “Investment Decisions”

- Brealey, Myers, Allen, ch. 24: “The Many Different Kinds of Debt”
- Barclay, Smith, Watts: “The Determinants of Corporate Leverage and Dividend Policies”

10 – Lecture: Capital Structure: Asymmetric Information and Agency Costs

- Reading:
 - Asquith, Weiss, ch. 12: “A Continuation of Capital Structure Theory”
 - Asquith, Mullins, “Signaling with Dividends, Stock Repurchases, and Equity Issues”

11 – Case Study: Apple

- Reading:
 - Asquith, Weiss, ch. 11: “Dividend Policy”
 - Brealey, Myers, Allen, ch. 16: “Payout Policy”
 - Opler, Pinkowitz, Stulz, Williamson, “Corporate Cash Holdings”

12 – In-class Midterm Exam

Part III: Valuation

13 – Lecture: Valuation of Free Cash Flows

- Reading:
 - Asquith, Weiss, ch. 13: “The Time Value of Money: Discounting and Net Present Values”
 - Higgins, ch. 7: “Discounted Cash Flow Techniques”

14 – Case Study: Diamond Chemicals (A)

15 – Lecture: WACC

- Reading:
 - Asquith, Weiss, ch. 14: “Valuation and Cash Flows”
 - Brealey, Myers, Allen, ch. 19: “Financing and Valuation”
 - Higgins, ch. 8: “Risk Analysis in Investment Decisions”

16, 17 – Case Study: Harris Seafoods

- Reading:
 - Asquith, Weiss, ch. 15: “Valuation”
 - Asquith, Weiss, ch. 16: “Valuation Nuances”
 - Brealey, Myers, Allen, ch. 10: “Project Analysis”

18 – Case Study: Eaton Corporation

19 – Lecture: Valuing a Company, APV, and Multiples

- Reading:
 - Higgins, ch. 9: “Business Valuation and Corporate Restructuring”
 - Brealey, Myers, Allen, ch. 31: “Mergers”

20 – Case Study: Monmouth

- Reading:
 - Asquith, Weiss, ch. 18: “Mergers and Acquisitions: Strategic Issues”
 - Asquith, Weiss, ch. 19: “Valuing an Acquisition: Free Cash Flows to the Firm”

21 – Case Study: Valuing Snap After the IPO Quiet Period (A and B)

22 – Review for Final

23 – In-class Final Exam

24 – Case Study: Arundel Partners (Real Options)

- Reading:
 - Brealey, Myers, Allen, ch. 22, “Real Options”
 - Luehrman, “Investment Opportunities as Real Options”

25 – Corporate Governance and Managerial Diversity

- Reading:
 - Brealey, Myers, Allen, ch. 32: “Governance and Corporate Control around the World”
 - Gorbenko, Malenko, “Strategic and Financial Bidders in Takeover Auctions”
 - Rock, Grant, and Grey, “Diverse Teams Feel Less Comfortable — and That’s Why They Perform Better,” *Harvard Business Review*