

Digital Investing

Fall 2020

B8429

Tuesdays 5:40 pm – 8:55 pm

WJW 208

Professor Jonathan Knee

Hours: 3-4pm on Tues

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The course is designed to introduce business students to the application of investing concepts and disciplines to digital businesses. We will cover a wide range of digital business models in companies at a variety of stages of development.

The course is organized around major digital business models and industry verticals. After the introductory sessions, each week will closely examine a leading digital company (or companies) within the model/vertical at issue, as well as an emerging digital competitor. The analytical framework will be reflected in an Investment Committee Memorandum template that will serve as a basis for class discussion. The template incorporates the key decision-making variables.

The first half of each class will focus on the overall sector identified and leading company example. Discussion during this portion will revolve around a business school case and focus on a list of identified “key questions”. The second half will include Investment Committee Memo presentations by two student groups on the alternative digital business examined. Some sessions will include participation of relevant leading digital investors or executives who will provide perspective and feedback on student presentations.

In addition to weekly readings, the two textbooks for the class are: Value Investing: From Graham to Buffett and Beyond (VI) by Bruce Greenwald et al. and The Curse of the Mogul: What’s Wrong with the World’s Leading Media Companies (COM) by Jonathan Knee et al. In addition to the cases, the reading assignments for class combine chapters of the book with relevant background materials on the general sector and specific companies studied. Grading is based on

- Final examination (40%)
- Class participation and attendance (25%)
- Group presentations (20%)
- Homework (15%)

Final Exam. The purpose of the final exam is to test your ability to apply the concepts taught in the class to a real investment. The exam will ask students to complete an Investment Committee Presentation on a specific investment proposal based on information provided. The exam will be a 5 day take home distributed following the final class session and due at midnight on Sunday. Exam may make use of any outside materials, but must be based on individual work.

Class participation and attendance. Participation encompasses responsiveness to “cold call” questions, overall engagement including any in-class polls or quizzes, and attendance. The Key Questions identified for each class are likely sources of cold call questions.

Group Presentations. The class will be divided into 14 (fourteen) groups. The groups’ composition will be confirmed by the TA on the day following the second class (September 16th). Groups will be randomly assigned with an effort made to evenly distribute students with investing/banking backgrounds.

During the course of the semester each group will make one ten minute Investment Committee Memo presentation in which they defend their investment thesis (through a seven slide PowerPoint presentation) to the class. All group members will receive the same grade. The substance and delivery of the presentation together will represent the presentation portion of the overall class grade.

Homework. For the seven classes in which investment presentations are made, all students must submit a 1 page answer to a question contrasting the incumbent and insurgent covered that week. The specific question for each week is included on the syllabus.

Syllabus

September 8, 2020 Introduction to Strategy and Industry Structure

Topics:

1. What the course is about and how it works
2. Competitive Advantage
3. Strategy and Industry Structure
4. Impact of Digital on Industry Structure and Competitive Advantage

Reading:

- COM: Introduction, Chapters 2-4
- Jonathan A. Knee, [“All Platforms Are Not Equal,”](#) MIT Sloan Management Review, Sept. 15, 2017.

Key Questions:

1. What is the logical connection between strategy and investing?
2. What are the key categories of potential sustainable competitive advantage?
3. What is the impact of the digital ecosystem on the availability of competitive advantage?
4. When do network effects lead to "winner take all" markets?

September 15, 2020 Intro to Valuation

Topics:

1. Investment Committee Presentation Template review
2. External/relative valuation methodologies
3. Internal/absolute valuation methodologies

Reading:

- VI: Chapter 1-5, 7
- Michael Mauboussin and Dan Callahan, "Total Addressable Market," Credit Suisse, Sept. 1, 2015
- Alex Immerman and David George, "When Entry Multiples Don't Matter", Andreessen Horowitz, Aug. 18, 2020

Speaker:

- Michael Mauboussin, Director of Research, BlueMountain Capital Management

Key Questions:

1. What are the sources of advantage exhibited in the most resilient digital franchises?
2. What makes discounted cash flow valuation particularly challenging for early stage digital growth investing?
3. What are the biggest pitfalls of relying on market multiples?
4. What valuation metrics used in assessing digital businesses are most relevant and why?

September 22, 2020

Intro to Investing**Topics:**

1. Intro to Types of Investing
 - Stage
 - Style
2. Investment Committee Presentation Template deep dive

Reading:

- Michael Maboussin and Dan Callahan, Public to Private Equity in the United States: A Long-Term Look, Morgan Stanley Investment Management, August 4, 2020.

Speaker:

- Deven Parekh, Managing Director, Insight Partners

Key Questions:

1. Why is greater "persistence" of returns exhibited by venture firms than by later stage private equity firms?
2. What are the differences in investment criteria applied by venture and private equity firms and how do these relate to differences in their overarching investing objectives?
3. How should the concept of Total Addressable Market be used in assessing investing opportunities?

September 29, 2020

Digital Investing in Practice**Topics:**

1. Digital Metrics and Methodologies

2. Slack Investment Committee Memo
3. Sources of Digital Success and Failure

Reading:

- COM: Chapter 5
- Michael Porter, Strategy and the Internet, Harvard Business Review, March 2001
- W. Bryan Arthur, Increasing Returns and the New World of Business, Harvard Business Review, July 1996

Speakers:

- Eric Hippeau, Managing Director, Lerer Hippeau Ventures
- Ben Spero, Managing Director, Spectrum Equity
- Mark Colodny, Managing Director and Head of TMT, Warburg Pincus

Key Questions:

1. What are some key cost and revenue drivers of any credible business model?
2. Why are understanding breakeven economics so critical for understanding both the financial and strategic prospects of a business?
3. What is the best way to estimate potential "steady state" profit margin of an early stage business?
4. Why is understanding unit economics a critical component to the investing process? Is there a difference between direct costs and variable costs? Does it ever make sense to invest in a business with negative unit economics?

October 6, 2020

Content Companies (Professor Knee)

Incumbent:

- New York Times

Insurgent:

- Dotdash

Key Questions:

1. What are the sources of competitive advantage for the online NYT product and are these different from the historic print product?
2. At the time of the case, the New York Times had just sold its local "regional media group" but still owned The Boston Globe. What do you think were the competitive advantages of these properties relative to the core NYT product and their respective online potential?
3. How big do you think the NYTimes digital business can be and what do you think its profit margin will be at scale?
4. What does this mean for how big and profitable the Huffington Post and Business Insider can be?
5. Are there other companies about which financial information is available that you would use as benchmarks to help answer questions 3 and 4?

Reading:

- Vineet Kumar et al., "The New York Times Paywall", Harvard Business School Case, Jan. 31, 2013 (9-512-077)
- Justin Fox, "A New Golden Age of Media", The Atlantic, April 16, 2014
- Edmund Lee, "Digital Media: What Went Wrong," New York times, Feb. 1, 2019
- Dotdash background info

Homework Question:

- What is the primary difference between NYTimes and Dotdash business models and which is more resilient?

Speaker:

- William Bardeen, Senior Vice President, New York Times
- Neil Vogel, CEO, Dotdash

October 13, 2020

Travel (Professor Philips)**Incumbent:**

- Trip Advisor

Insurgent:

- TripActions

Key Questions:

1. What's appealing about TripAdvisor for consumers and hotel owners? How does the company balance competing interest?
2. What's TripAdvisor's business model? How does its monetization model compare to other sites with user generate content, such as Yelp?
3. Why is TripAdvisor so much better known for its hotel reviews than its restaurant reviews? Does the restaurant category represent a big opportunity for the company?
4. Can TripAdvisor replicate its success in its core business in other categories—such as China, vacation rentals, and in flights? What does the competitive landscape look like in these areas?
5. How should the CEO prioritize the company's growth options?

Reading:

- Jeffrey Rayport, Spencer Rascoff, Susie Ma, "TripAdvisor: An Itinerary for Growth" Harvard Business School Case, November 20, 2019. (Case 820-039)

Homework Question:

- What is the difference between the primary competitive threats to Trip Advisor and TripActions?

Speaker:

- Ariel Cohen, CEO, TripActions

October 27, 2020

Marketplace Exchange / Businesses (Professor Philips)

Incumbent:

- eBay
- Amazon.com

Insurgent:

- 1stdibs

Key Questions:

1. What are the key drivers of profitability in eBay's business model?
2. What are the key drivers of profitability in Amazon's retail business model? How does its retail business model interact with that of eBay?
3. In shifting to a retail and platform business model, how successful was Amazon in overcoming barriers to entry in the third-party seller market? What business choices were critical in altering the competitive dynamic?
4. What would you recommend to eBay going forward, and why?

Reading:

- Ramon Casadesus-Masanell, "eBay, Inc. and Amazon.com (A)(B)", [Harvard Business School Case](#), April 2012 (9-712-405, 9-712-406)
- Hanna Halaburda and Felix Oberholzer-Gee, "The Limits of Scale", [Harvard Business Review](#), April 2014
- Benedict Evans, "Why Amazon Has No Profits (And Why it Works)", [ben-evans.com](#), September 5, 2014

Homework Question:

- How significant is the actual or potential competitive threat to 1stdibs from eBay or Amazon?

Speaker:

- David Rosenblatt, CEO, 1stdibs

November 10, 2020

B2B/Saas (Professor Knee)

Incumbent:

- Salesforce.com

Insurgent:

- Blackline

Key Questions:

1. What is the right way to think of the relative cost to an smb customer of a SaaS and an enterprise solution? On a per user basis, what is the difference between the cost of an SMB SaaS customer and a large enterprise customer?
2. What are the respective sources of competitive advantage for SaaS and enterprise software businesses?
3. What are the respective margins for SaaS and enterprise software businesses? Which do you think is a better business?
4. Which do you think is more likely -- that Salesforce.com successfully moves into larger enterprises or that Oracle successfully moves into the SMB market?
5. What is the right product and sales strategy for Oracle in the SMB market?

Reading:

- David Yoffie et al., "Oracle vs. Salesforce.com", Harvard Business School Case, Sept. 2006 (9-705-440)

Homework Question:

- How successful do you think competition from Salesforce against Blackline would be?

Speaker:

- Therese Tucker, CEO, Blackline

November 17, 2020

On-Demand Economy (Professor Knee)**Incumbent:**

- Uber

Insurgent:

- Lyft

Key Questions:

1. What benefits to consumers did Uber originally offer versus taxis and limousine services?
2. What forms of competitive advantage does Uber have? How strong are they? Are they local, national, or global?
3. Is regulation a competitive advantage in the taxi / ride-sharing business? Who does it help?
4. How big is Uber's addressable market? Can they continue to expand into new businesses? What advantages do they bring in delivering meals, etc?

Reading:

- Youngme Moon, "Uber: Changing the Way the World Moves," Harvard Business School Case, Jan. 4, 2017 (9-316-101)
- Bill Gurley, "How to Miss by a Mile: An Alternative Look at Uber's Potential Market Size", Above the Crowd, July 2014
- Aswath Damodaran, "Uber Isn't Worth \$17 Billion", FiveThirtyEightEconomics, June 18, 2014
- Clayton Christensen et al., What is Disruptive Innovation? Harvard Business Review, December 2015

Homework Question:

- Which is a better business, Uber or Lyft, and why?

Speaker:

- Brian Roberts, CFO, Lyft

November 24, 2020

Wearables (Professor Knee)**Incumbent:**

- Fitbit

Insurgent:

- Mirror

Key Questions:

1. Is Fitbit primarily a hardware or a software company? Does it have a competitive advantage and, if so, does it relate to the hardware or software aspect of its business?
2. How do you think about Fitbit's TAM? Which market segments do you view as most attractive from a potential growth and potential profitability perspective?
3. What are the three biggest risks associated with an investment in Fitbit?

Reading:

- Regina E. Herzlinger, Christine Snively and Sarah Mehta, Fitbit, Harvard Business School case, January 17, 2017 (9-317-007)

Homework Question:

- Which deal – Google-Fitbit or Lululemon-Mirror –makes more sense?

Speaker:

- Brynn Putnam, CEO, Mirror

December 1, 2020

P2P Finance (Professor Knee)**Incumbent:**

- Lending Club

Insurgent:

- ADF

Key Questions:

1. What are the key dimensions of competition in p2p lending? How are these reflected in the differences in approach taken by Lending Club and Prosper?
2. Does this lend themselves competitive advantages at scale and, if so, what would those advantages be?
3. What is the most critical link in the industry value chain and who has or can get leverage over this economic pressure point?
4. Does Prosper have a first mover advantage? If so, how can it best press that advantage and what if anything can Lending Club do to overcome its apparent disadvantage?
5. What do your thoughts on industry structure suggest about long run profitability of the sector? What comparable might you look to for a view of steady state margin?

Reading:

- Peter Tufano et al., "Lending Club", Harvard Business School Case, December 2010 (9-210-052)
- William D. Cohan, "Bypassing the Banker", The Atlantic, August 13, 2014

Homework Question:

- Why did both Lending Club and ADF's business suffer in the pandemic given greater need for liquidity by borrowers?

Speaker:

- Eric Schwartz, Chairman, ADF

December 8, 2020

Wrap-up and Conclusions**ATTENDANCE POLICY**

Students are required to attend each class and first class attendance is mandatory. Students participating remotely must have their video function enabled to be considered present. Students should reach out to the instructor or TA to seek an excused absence (for religious observances; personal, medical, and family emergencies; military service; court appearances such as jury duty). Note that if a category of absence provides a legitimate basis for excuse, if the student has adequate notice it is his/her responsibility to arrange for the class to be taped. Only after the student confirms that the tape has been viewed is an excuse granted. Unexcused absences will affect your course grade. It is the student's responsibility to confirm the accuracy of attendance records with the TA on an ongoing basis. Attendance is incorporated into participation overall.

In addition, however:

- Students that miss **25%** of their classes (3 unexcused absences) will at most receive a **P for the course grade**

- Students that miss **50%** of their classes (6 unexcused absences) will receive a **F for the course grade**

INCLUSION, ACCOMMODATIONS, AND SUPPORT FOR STUDENTS

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias.

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