

VALUATION: SPRING 2023

Aswath Damodaran

General Information

- Office: In cyberspace.
- E-mail: adamodar@stern.nyu.edu
- Home Page: http://www.damodaran.com
- Office Hours
  - Monday: 12 pm – 1.15 pm, EST
  - Wednesday: 12 pm – 1.15 pm, EST
  - The "fair game" principle applies
- The teaching assistants/fellows for this class are:
  1. Kathleen Flores, kmf504@stern.nyu.edu
  2. Allison Soh, as12617@stern.nyu.edu

Theme 1: Characterizing Valuation as a discipline

- In a science, if you get the inputs right, you should get the output right. The laws of physics and mathematics are universal and there are no exceptions. **Valuation is not a science**.
- In an art, there are elements that can be taught but there is also a magic that you either have or you do not. The essence of an art is that you are either born a great artist or you are not. **Valuation is not an art.**
- A craft is a skill that you learn by doing. The more you do it, the better you get at it. **Valuation is a craft.**

Theme 2: Valuing an asset is not the same as pricing that asset

Drivers of intrinsic value
- Cashflows from existing assets
- Growth in cash flows
- Quality of Growth

Drivers of price
- Market moods & momentum
- Surface stories about fundamentals

Accounting Estimates

Valuation Estimates

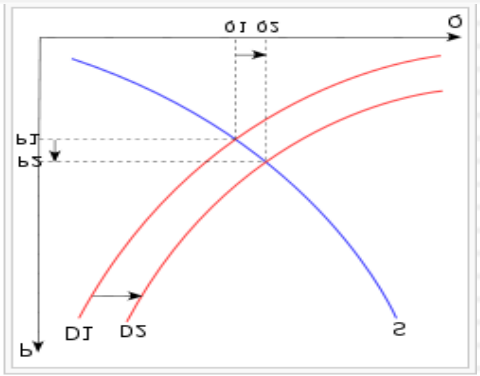
INTRINSIC VALUE

Value

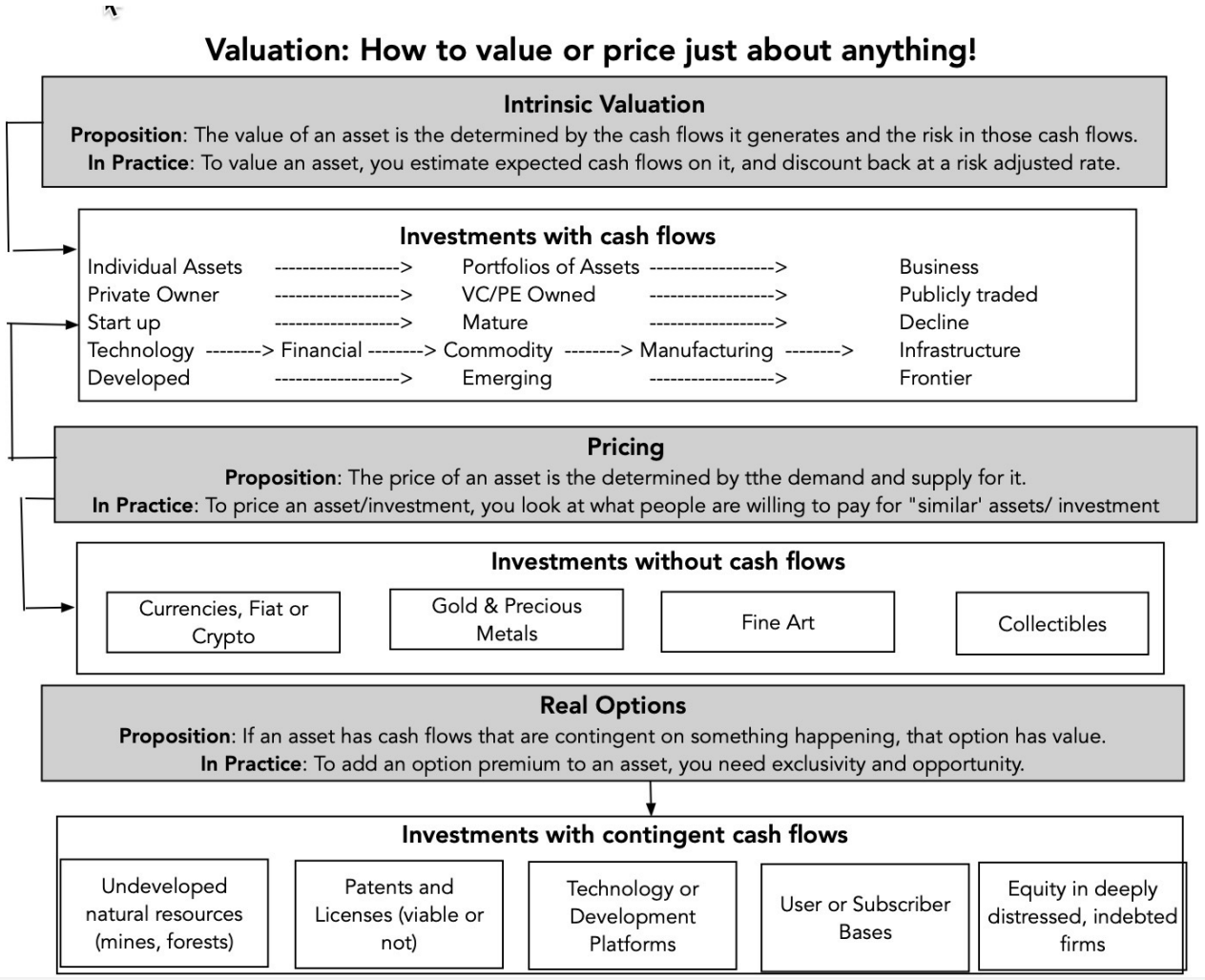
THE GAP
Is there one?
If so, will it close?
If it will close, what will cause it to close?

Price

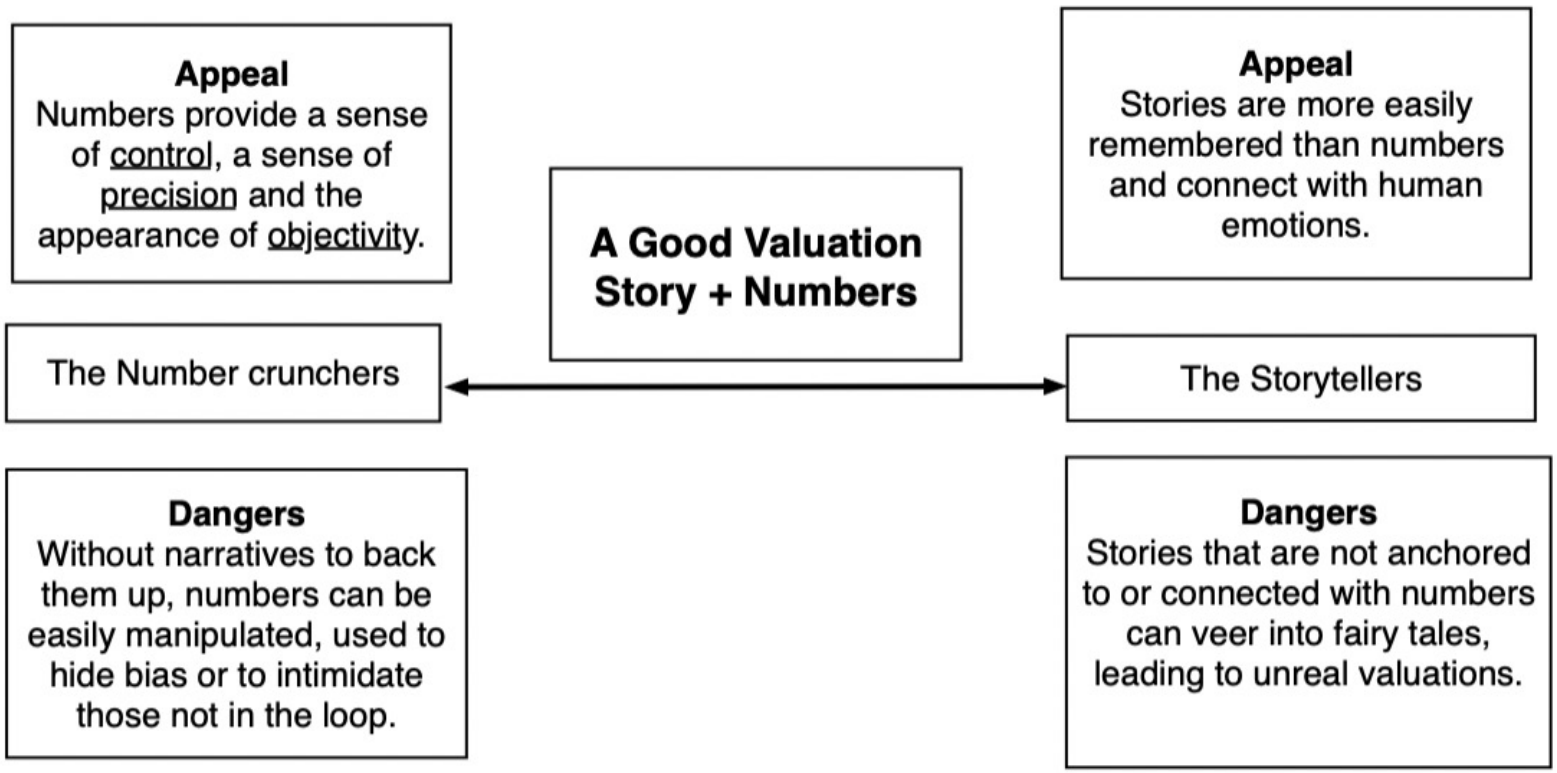
PRICE



Theme 3: Valuation is simple & universal



Theme 4: Good valuation = Story + Numbers



Theme 5: If you value something, you should be willing to act on it..

- What valuation theory? There is very little theory in valuation and I am not sure what an academic valuation would look like and am not sure that I want to find out.
- Pragmatism, not purity: The end game is to estimate a value for an asset. I plan to get there, even if it means taking short cuts and making assumptions that would make purists blanch.
- Do you believe? To act on your valuations, you have to have faith in
  - In your own valuation judgments.
  - In markets: that prices will move towards your value estimates.

  That faith will have to be earned.

Course Outline

Sessions 1 -2	**The Big Picture**
Sessions 3-12	**Intrinsic Value: Inputs and Process** - Risk Free Rates, Risk Premiums and Discount Rates - Earnings and Cash Flows - Growth and its value - Terminal Value
Sessions 13-16	**Intrinsic Value: Add ons and Loose Ends** - Narrative and Numbers - Valuation Examples - The Dark Side of Valuation - Value and Price
Sessions 17-20	**Relative Valuation (Pricing)** - The Pricing Process - Standardized Prices (Multiples) - "Comparables" - Doing Pricing Right
Session 20	**Asset-Based Valuation** - Liquidation Valuation - Sum-of-the-parts Valuation
Session 21	**Private Company Valuation** - Liquidation Valuation
Session 22-25	**Real Option Valuation** - The Basis - The Option to Delay (Patents, Reserves) - The Option to Expand ("Strategic") - The Option to Abandon (Flexibility)
Session 26	**Acquisition Valuation**
Session 27	**Value Enhancement**
Session 28	**The Grand Finale**

Pre-season prep!
Getting ready for the class

- Accounting: The raw material you need to value a company comes primarily from accounting statements. Understanding how to read a financial statement and where to find the information need is critical.
  - My primer: http://people.stern.nyu.edu/adamodar/New_Home_Page/AccPrimer/accstate.htm
  - My YouTube Accounting class: https://www.youtube.com/playlist?list=PLUkh9m2BorqmKaLrNBjKtFDhpdFdi8f7C
- Statistics: Statistics is designed to help us make sense of data that is large and contradictory. That is exactly the problem we face in valuation.
  - My primer: http://people.stern.nyu.edu/adamodar/New_Home_Page/StatFile/statistics.htm
  - My YouTube Statistics class: https://www.youtube.com/playlist?list=PLUkh9m2BorqmXcRzWFbzcjMd7fYErVexF
- Finance: There are tools that we draw on in valuation extensively.
  - Risk and return models: http://www.stern.nyu.edu/~adamodar/pdfiles/acf3E/ch3.pdf
  - Present value: http://people.stern.nyu.edu/adamodar/New_Home_Page/PVPrimer/pvprimer.htm
  - Corporate finance: http://people.stern.nyu.edu/adamodar/New_Home_Page/corpfin.html (just to wander down memory lane)
  - My YouTube Foundations of Finance class: https://www.youtube.com/playlist?list=PLUkh9m2BorqndWimijiJ-VCAXjJUrzJQU

Class structure



Class Notes

- Be here and please be on time: Each class will start with a pre-class test (which will lay the basis for the class but will not be graded) in the first 5 minutes.
- Bring your lecture note packet with you: These are available in three parts. They can be bought at the book store or downloaded from my web site by going to:

  http://www.stern.nyu.edu/~adamodar/New_Home_Page/eqlect.htm
- If you do miss a class, catch up: The web casts will be online (usually) within a couple of hours of the class. The webcasts are available in four formats (stream, YouTube, downloadable video and downloadable audio) at:

  https://www.stern.nyu.edu/~adamodar/New_Home_Page/webcasteqUGspr23.htm

Nice to have, but you can live without them…

- **Books**: I have a few books on valuation and they tend to say much the same things, albeit in different formats. You don't need any of them but if you can get one, it won't hurt.
  - Investment Valuation (3rd edition): is the book that is most suited for a classroom text book. It follows the standard script of valuation, looking at different valuation models with twists. It also follows text book format (with problems at the end of each chapter)
  - Damodaran on Valuation (2nd edition): provides a quicker review of the basic valuation but the second half of the book is built around dealing with what I call the loose ends of valuation and is really meant for practitioners who deal with the loose ends on a constant basis.
  - The Dark Side of Valuation (2nd edition): covers companies that are difficult to value – young companies, money losing companies, financial service companies, emerging market companies.
  - The Little Book of Valuation (1st Edition): If you truly, truly hate to read and are budget constrained, think of this as the Cliff notes version of my longer books.
  - Narrative and Numbers (1st Edition): This is for story tellers who want to develop some discipline and number crunchers who want to be imaginative.
- **Apps**: I have a valuation app (co-developed with Anant Sundaram at Dartmouth) for the iPad and iPhones called uValue. Check it out!

  iPad version: https://apps.apple.com/us/app/uvalue/id440046276

  iPhone version: https://apps.apple.com/us/app/uvalue-mobile/id492586911

Stay connected!
Information Central

- Website for the class: Everything associated with this class (and I mean everything) will be available on the website for the class:
  - http://www.stern.nyu.edu/~adamodar/New_Home_Page/equityUG.html

  I will try to also keep the material on NYU Classes, but I don't like closed systems. Enough said!
- YouTube Channel: There is a final option, if your broadband connection is not that great and you are watching on a Tablet/smartphone. There is a YouTube playlist for this class, where all class sessions will be loaded.

  https://www.youtube.com/playlist?list=PLUkh9m2BorqkHJz49csCvaCXf3diCLRLl
- Email Chronicles: As we go through the semester, there will be times that you feel lost or at least unsure. All of the emails sent in this class will be collected in an email chronicle, listing the emails by date, allowing you to keep up.

  http://www.stern.nyu.edu/~adamodar/New_Home_Page/eqUGemail.html

More… Yes, there is more…

- Google calendar: There is a Google calendar for the site that you can access by going to:

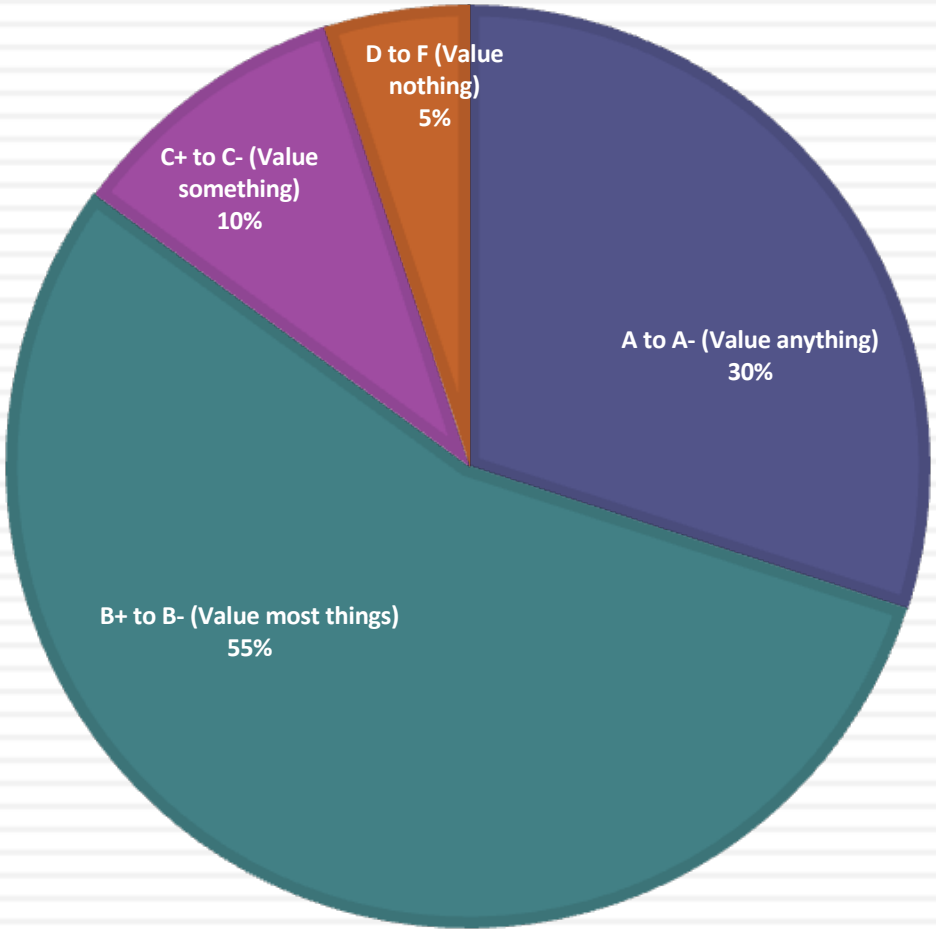
  https://calendar.google.com/calendar/embed?src=c_6bb1049fe6627d72ffe94cb861ba489de0dae28e800d295236f89c17daeee648%40group.calendar.google.com&ctz=America%2FNew_York

- My blog: My not-so-brilliant and not-very-insightful thoughts on valuation, corporate finance and portfolio management will be posted on my blog, Musings on Markets.

  http://aswathdamodaran.blogspot.com/

- Twitter feed: Just in case you don't get enough of me in class, online and from my blog, please help me approach Lady Gaga status by joining my Twitter follower list (@AswathDamodaran).
- Other readings: The other readings for each topic are available on my web site, and can be downloaded at
  - http://www.stern.nyu.edu/~adamodar/New_Home_Page/eqread.htm

Grading Distribution…



Grading Basis

- Group Work: Students should work in groups of four (minimum) to seven (maximum). Each group will be required to work on a group project
  - Valuation Project Due in two parts 40%
    - Part 1: DCF Valuation due by March 31 at 5 pm (Just for feedback)
    - Part 2: Entire project due
      - Numbers in Google Shared Spreadsheet on May 7, 5 pm: 5%
      - Final Project report on May 8, 5 pm: 35%
- Individual Work:
  - Quizzes: There will be three online quizzes worth 10% apiece.

    Quiz 1: DCF Estimation Issues: Session 11 (March 1)

    Quiz 2: More DCF: Session 18 (April 3)

    Quiz 3: Relative & Private Company valuation: Session 25 (April 26)
  - Final Exam: This will also be an open-book and open-notes cumulative exam worth 30% in the finals week, TBA.

Exam Ground Rules

1. Quizzes will be on the designated days in the first 30 minutes of the class.
2. Exams will be open book, open notes. You can bring in as much supporting material as you can carry.
3. Each quiz is worth 10%.
4. If you have to miss a quiz for good reason, you will have to let me know (by email) at least 15 minutes before the quiz that you will be missing the quiz.
5. If you miss a quiz for good reason, the 10% weight on that quiz will be reallocated across your remaining exams (quizzes and final). You cannot weight prior quizzes more.
6. If you take all three quizzes, the score on your worst quiz will be pushed up to the average score across all of your other exams (the other two quizzes and the final exam) (Note: It will not be thrown out). If you miss a quiz, you will not have this option, even if you miss the quiz for good reason.
7. You can never be worse off from taking all three quizzes. At worst, your total score will be unaffected, but at best, it will improve.
8. I grade all of your quizzes and I give partial credit. So, please show all work. If you have a beef with the grading (and I do make mistakes), please come to me
9. You cannot use your laptops on the quiz.
10. You can use your iPads for reviewing lecture notes but not as connected devices.

Rules of Engagement

- Pick your own groups. (If you have trouble getting picked, I will help)
  - All group work will be self policed, except in extreme circumstances.
  - There will be one grade per group, no matter how the workload is distributed among the group members
- Rules on individual work
  - All exams and quizzes are strictly individual work.
  - There will be no make-up quizzes. If you miss a quiz for a good reason, the grade will be redistributed over the remaining part of the course. If you take all three quizzes, the score on your worst quiz will be raised to the average score across all of your other exams (two quizzes and the final).
  - I will be the grader, and unlike the pope, I am fallible.
- Rules on Participation
  - All participation is welcome.