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: Valuation is simple & universal

**Valuation: How to value or price just about anything!**

- **Intrinsic Valuation**
  - **Proposition:** The value of an asset is determined by the cash flows it generates and the risk in those cash flows.
  - **In Practice:** To value an asset, you estimate expected cash flows on it, and discount back at a risk adjusted rate.

- **Investments with cash flows**
  - Individual Assets → Portfolios of Assets → Business
  - Private Owner → VC/PE Owned → Publicly traded
  - Start up → Mature → Decline
  - Technology → Financial → Commodity → Manufacturing → Infrastructure
  - Developed → Emerging → Frontier

- **Pricing**
  - **Proposition:** The price of an asset is determined by the demand and supply for it.
  - **In Practice:** To price an asset/investment, you look at what people are willing to pay for similar assets/investment.

- **Investments without/cash flows**
  - Currencies, Fiat or Crypto
  - Gold & Precious Metals
  - Fine Art
  - Collectibles

- **Real Options**
  - **Proposition:** If an asset has cash flows that are contingent on something happening, that option has value.
  - **In Practice:** To add an option premium to an asset, you need exclusivity and opportunity.

- **Investments with contingent cash flows**
  - Undeveloped natural resources (mines, forests)
  - Patents and Licenses (viable or not)
  - Technology or Development Platforms
  - User or Subscriber Bases
  - Equity in deeply distressed, indebted firms
Theme 3: 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

THE GAP
Is there one?
If so, will it close?
If it will close, what will cause it to close?
Theme 4: Good valuation = Story + Numbers

**Appeal**
Numbers provide a sense of control, a sense of precision and the appearance of objectivity.

**The Number crunchers**

**Dangers**
Without narratives to back them up, numbers can be easily manipulated, used to hide bias or to intimidate those not in the loop.

**A Good Valuation Story+Numbers**

**Appeal**
Stories are more easily remembered than numbers and connect with human emotions.

**The Storytellers**

**Dangers**
Stories that are not anchored to or connected with numbers can veer into fairy tales, leading to unreal valuations.
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.
<table>
<thead>
<tr>
<th>Session</th>
<th>Topics covered</th>
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| 1       | The Key Themes in Valuation  
          Valuation Approaches  
          Intrinsic (DCF) Valuation Big Picture |
| 2       | The Key Inputs to Intrinsic Value  
          - Discount Rates  
          - Cash Flows  
          - Growth and Terminal Value |
| 3       | Loose Ends in Valuation  
          - Cash, Crossholdings & Other Assets  
          - Brand name and other Adornments  
          - Value of Control |
| 4       | The Dark Side of Valuation (Valuing difficult to value companies) |
| 5       | Narrative and Numbers (Connecting Stories to Value) |
| 6       | Pricing (Relative Valuation) |
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](http://people.stern.nyu.edu/adamodar/New_Home_Page/AccPrimer/accstate.htm)
  - My YouTube Accounting class: [https://www.youtube.com/playlist?list=PLUkh9m2BorqmKaLrNBjKtFDhpDFdi8f7C](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.

- **Finance:** There are tools that we draw on in valuation extensively.
  - Present value: [http://people.stern.nyu.edu/adamodar/New_Home_Page/PVPrimer/pvprimer.htm](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](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-VCAxJUrzJQU](https://www.youtube.com/playlist?list=PLUkh9m2BorqndWimijiJ-VCAxJUrzJQU)
Classes Online

- **Platform**: We will use Zoom (meeting) as the platform for all classes. The classes will be live at the scheduled time. I will also record the classes to be accessible for those who miss the class or portions of it. I will also make the class available on
  - YouTube, as a playlist
  - as a downloadable video file (for a computer, a tablet or a smart phone)
  - as a downloadable audio file.

- **Class Material**: The only material you will need access to during the class is the lecture note packet (which will be available right about 2-3 weeks before class to download).

- **Zoom rules**: Please try to be at the class, and unless you have really good reasons you do not want to, please have your video and audio ready to go. I will mute audios to start the class, but you will have the power to unmute yourself.

- **Class discussions**: Please use the hand raise feature in Zoom to ask questions or raise discussion points, and be ready to be called upon during class.
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 also have a valuation app (co-developed with Anant Sundaram at Dartmouth) for the iPad and iPhones called uValue. Check it out!
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/valseminar.html](http://www.stern.nyu.edu/~adamodar/New_Home_Page/valseminar.html)
  I will try to also keep the material on NYU Classes, but I don’t like closed systems. Enough said!

- **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/](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).

- **YouTube Channel**: I have a YouTube Channel, where I have posted videos from all of my regular MBA classes (which last 15 weeks and 26 sessions) and my blog posts.
  [https://www.youtube.com/channel/UCLvnJL8htRR1T9cbSccaoVw](https://www.youtube.com/channel/UCLvnJL8htRR1T9cbSccaoVw)
  When you get a chance, check it out.
Grading Basis

- **Valuation Project (50%)**: Each person will pick a company to value (any company, public or private, small or large...) and value and price the company. The project will be due four weeks after the class ends and also include a recommendation on whether you will buy or sell the stock (if it is a public company). See separate presentation on project for details.

- **Final Exam (50%)**: This will be open book, open notes, open laptop, online exam that you will be taking a week after the class ends (and you get home). It will cover all of the material in the class.
VALUATION: PROJECT

Aswath Damodaran
Project Description

- This project is designed to apply the valuation techniques we learn in class on companies in the real world.
- It is not about mechanics (I will supply you with the spreadsheet) but about learning how to tell a story about a company and then take that story and make it into a valuation of the company.
Step 1: Pick a company

- You can pick any company to value, including the company you own, work for or have worked at.
- You do not need to be in the business that the company operates in, though understanding how that business works is a plus.
- Your end game is to tell me whether, as an investor, you would buy or sell the company at the prevailing market price.
Step 2: Intrinsic Valuation

- Develop your narrative for this company. Give me your story of how you see your company evolving over time, given what you know about it, its market and the competition,

- Tie your narrative to key numbers that you will be using in your valuation.

- Value the stock in each company using a discounted cash flow model.
Step 3: Value relative to comparables

- Prepare a list of “comparable” companies, using criteria that you think are appropriate.
- Choose a multiple that you will use in comparing firms across the group. (You might have to try a number of multiples out before making this choice.)
- Evaluate your company against the comparable firms using the multiple that you have chosen for your valuation.
Step 4: Final Value Estimate and Recommendation

- Before you make your recommendation, check whether anything that has happened during the period of your analysis has changed your narrative and your valuation.

- Consider the values you have obtained from the discounted cash flow and relative valuation models.
  - How would you reconcile the different estimates of value?
  - Make a final recommendation on whether you would buy, sell or hold the stock.
Spreadsheets to use

- If you have a non-financial service company (does not matter whether it is growth, mature or declining), try this:
  http://www.stern.nyu.edu/~adamodar/pc/fcfsimpleginzu.xlsx

- If you have a financial service company (bank, insurance company or investment bank), try this:
  http://www.stern.nyu.edu/~adamodar/pc/divginzu.xlsx

- For this assignment, I would prefer (for my sake, more than yours) that you not build a spreadsheet from scratch. There is a time to become an Excel Ninja, and that time has passed (for most of us).