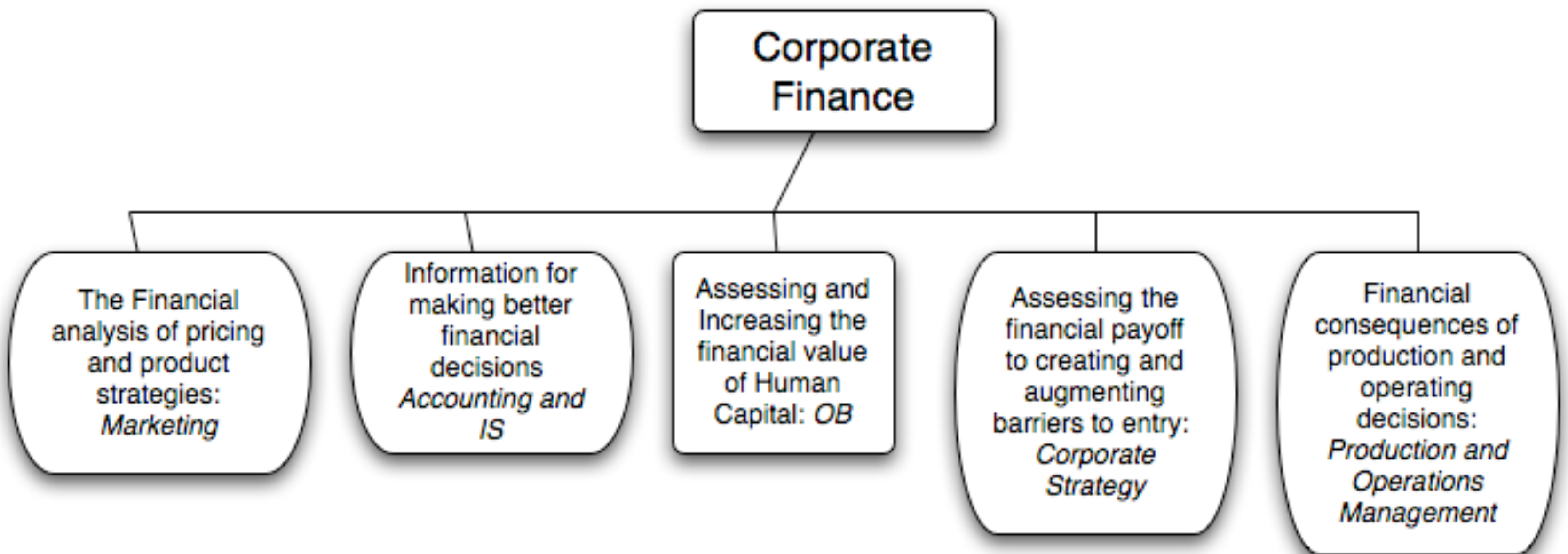
Email: adamodar@stern.nyu.edu
Website: http://www.damodaran.com
Blog: http://aswathdamodaran.blogspot.com
Twitter: @AswathDamodaran
Valuation app for iPad/iPhone: uValue on iTunes U

Don’t sweat the small stuff: A big picture perspective on corporate finance

Aswath Damodaran

Lesson 1: Every business decision is ultimately a financial one

- Every decision that a business makes has financial implications, and any decision which affects the finances of a business is a corporate finance decision.
- Defined broadly, everything that a business does fits under the rubric of corporate finance.



So, watch out for these justifications

- The "Expert" Cop out: For many firms, the easiest way to explain the unexplainable is to pass the buck and get a consultant/expert to sign off on an action.
- Weapons of distraction: Managers/investors/analysts seem to find ways of over riding the numbers with buzz words. Here are some to watch out for:
  - "Gut feeling" or "Intuition": Older, more experienced managers often claim to have a gut feeling about decisions. Psychological studies of gut feeling find that they are almost never based upon good data, are often completely wrong and get worse as managers get smarter/ more experienced.
  - "Strategic": The word "strategic" almost always goes to describe actions that cannot be justified based upon the numbers…

The scariest page in L'Oreal's annual report

/ STRATEGIC ACQUISITIONS (1)

Thanks to its recent acquisitions with a global or regional vocation, L'Oréal is nourishing its brand portfolio, stepping up its presence in the main distribution channels and covering the whole range of beauty territories.

UNITED STATES

URBAN DECAY

MODERN AND IRREVERENT

An American brand that specialises in accessible make-up in the selective segment, Urban Decay is strengthening the positions of L'Oréal Luxe in the dynamic distribution channels of "assisted self-service"(2) and e-commerce. A brand that fulfils the expectations of young women searching for inspiring ideas and creative colours.

COLOMBIA

VOGUE

A LOCAL MAKE-UP LEADER IN THE MASS-MARKET (3)

Vogue is an important acquisition for L'Oréal Colombia, consolidating its presence in this highly competitive market. The brand also offers development opportunities outside its country of origin, particularly in Central America, Ecuador and Peru.

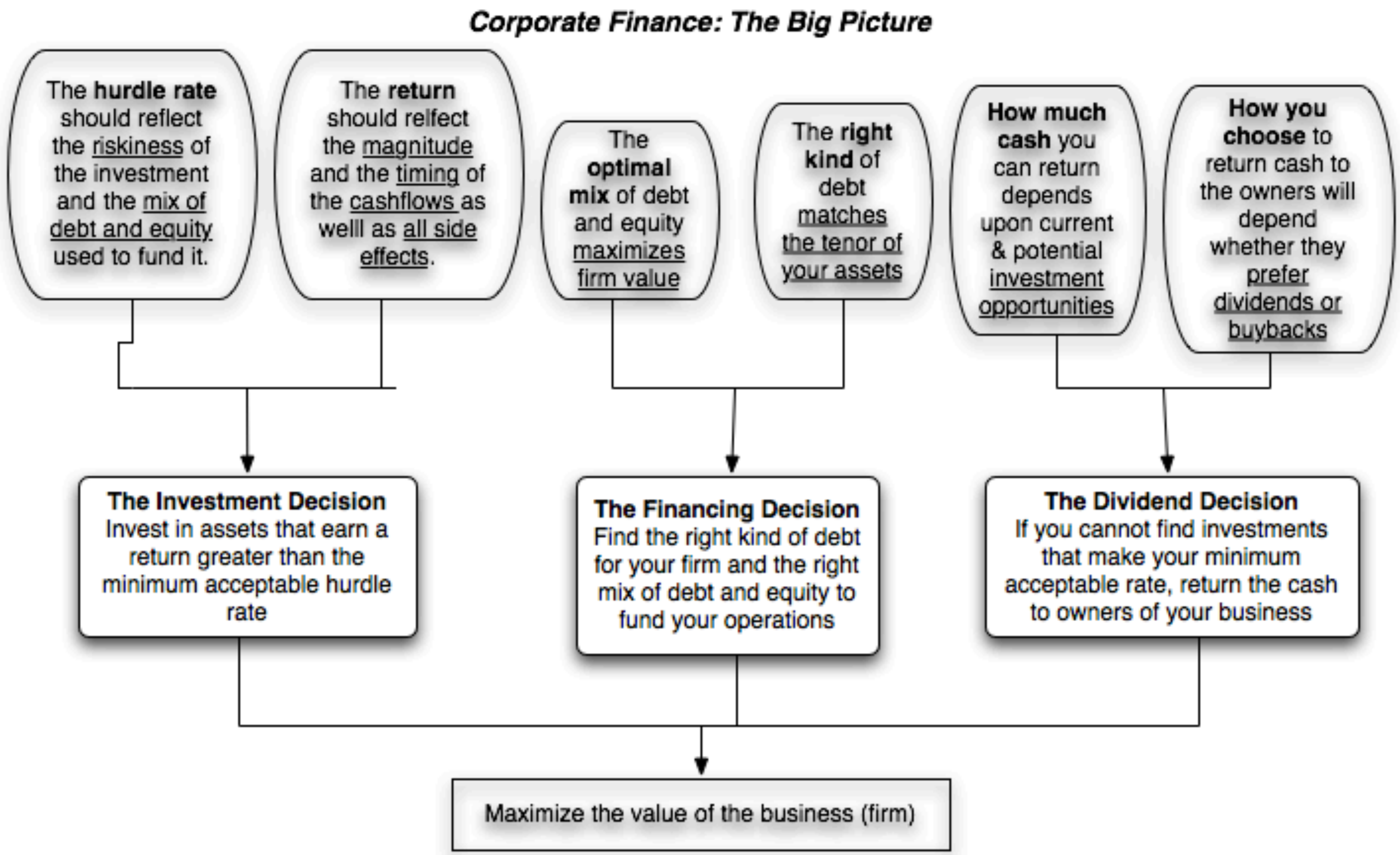
Lesson 2: Have a destination before you leave: Have a dominant objective that is measurable…

- If you don't have an objective, your decision making process has no rudder. Each manager will then create his or her own vision of where the business is going, and make decisions based on that vision.
- If you have multiple objectives, you will still have to make choices. If you are not clear about which objective should dominate, managers again will pick their own dominant objectives, leading to them working at cross purposes.
- If you have a fuzzy objective, you are giving no guidance on both how decisions should be made and no accountability for decisions, once made.

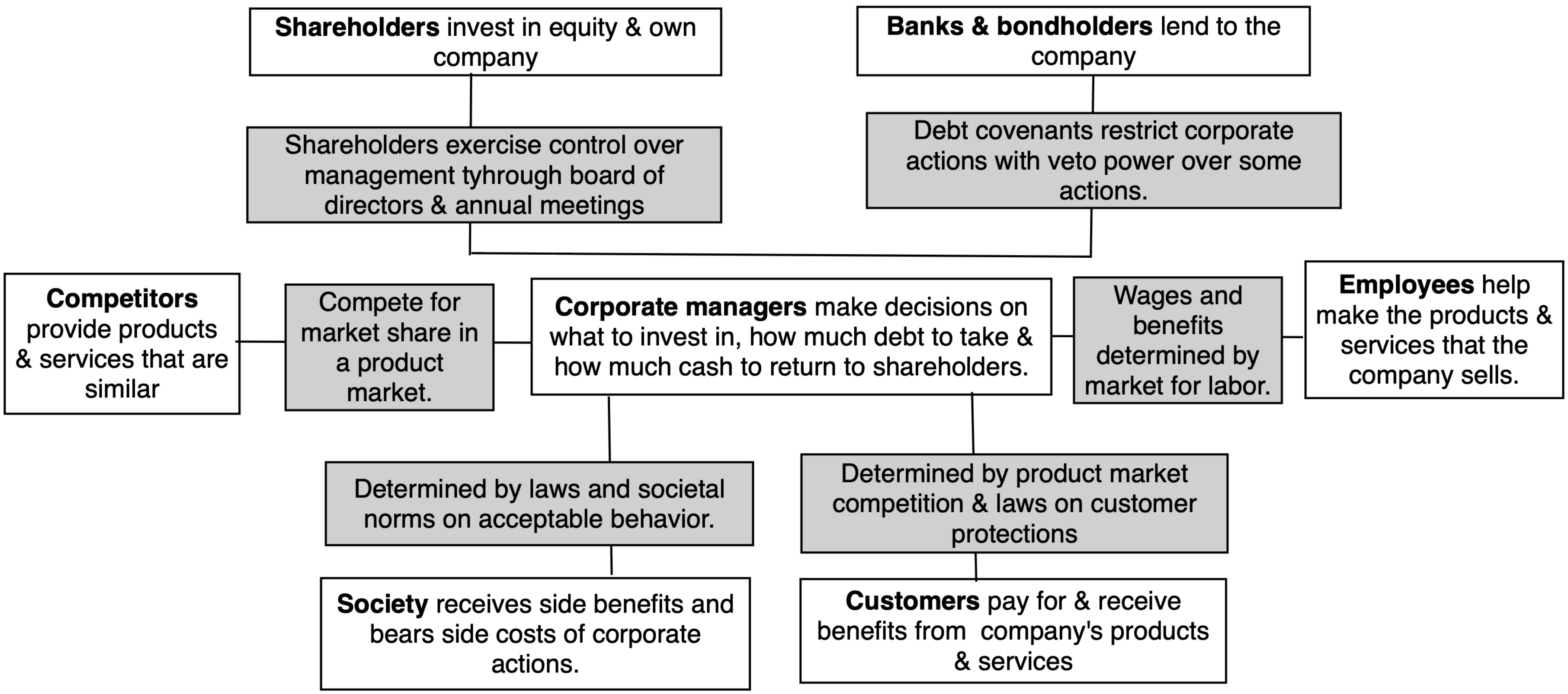
What is L'Oreal's objective in business?

- The Beauty Mission? *Giving everyone access to beauty by offering products in harmony with their needs, culture and expectations in their infinite diversity.*
- The Innovation Mission? *The exploration of new scientific and technological territories…*
- The Global Mission? *Based on its international positions and its power of innovation, the Group's ambition is to conquer a billion new consumers by 2020...*
- The Social Mission? *As a company which seeks to be exemplary, and sets itself demanding standards in order to limit its footprint on the planet.*

Here is my choice…



Lesson 3: In any business, you are juggling conflicting interests..



With the board of directors as a good example of the conflict of interest…

- In theory, the board of directors should work to protect the best interests of stockholders, monitoring top management to ensure that they do their fiduciary duty.
- In practice, boards are not effective because:
  - They are rubber stamps for CEOs: In many companies, the directors who sit on the board are picked by the CEO and inside stockholders. While outside stockholders get to nominally vote on these directors, they are not given any real say in the process.
  - Directors are ill equipped to play the role of monitors: Directors often lack the expertise to question top managers, lack the information to raise questions and the time to follow through.
  - Directors are generally not large stockholders nor do they represent them: In most companies, directors own only token stakes in the company.

The L’Oreal Board: Be the judge!

A balanced and committed Board of Directors, *fully playing its role as a source of reflection and strategic impetus*

The composition of the Board reflects L’Oréal’s shareholding structure, while guaranteeing the interests of all its shareholders. Extremely committed and vigilant, and convinced that stringent governance creates value for the company, the directors always keep the company’s long-term interests first in mind as they voice their opinions. The diversity and complementarity of the directors’ industrial, financial and entrepreneurial expertise mean they are equipped to quickly and thoroughly comprehend development challenges facing L’Oréal.

1. Jean-Paul Agon
Chairman and CEO
since March 18, 2011
(term of office renewed in 2014).

2. Françoise Bettencourt Meyers
(term of office renewed in 2013).

3. Peter Brabeck-Letmathe
Vice-Chairman of the Board
(term of office renewed in 2013).

4. Jean-Pierre Meyers
Vice-Chairman of the Board
(term of office renewed in 2016).

5. Ana Sofia Amaral
(since July 15, 2014).

6. Sophie Bellon
(since April 22, 2015).

7. Charles-Henri Filippi
(term of office renewed in 2015).

8. Xavier Fontanet
(term of office renewed in 2014).

9. Belén Garijo
(since April 17, 2014).

10. Béatrice Guillaume-Grabisch
(since April 20, 2016).

11. Bernard Kasriel
(term of office renewed in 2016).

12. Georges Liarokapis
(since July 15, 2014).

13. Jean-Victor Meyers
(term of office renewed in 2016).

14. Virginie Morgon
(since April 26, 2013).

15. Eileen Naughton
(since April 20, 2016).

One End game: Managerial Corporatism

Managerial Corporatism

Shareholders are small and dispersed and/or have little power to create change.

Board of Directors operates as managerial rubberstamps and annual meetings are scripted ineffective events.

Banks & bondholders lend to the company

Lenders collect interest and principal payments but leave corporate decision making to managers.

Sector is composted of larger manager-dominated companies

Be competitive enough to be profitable but not too aggressive.

Focus on managerial interests, while delivering enough to other stakeholders to neutralize or neuter them..

Buy peace with labor with wage contracts and benefits.

Employees *are coopted with wage/ benefit packages that are just good enough.*

Take actions that advance societal interests, but only if they also improve managerial standing.

Society *may or many not be well served by companies, depending on whether it serves managers.*

Customer interests will be served, if they converge with managerial interests.

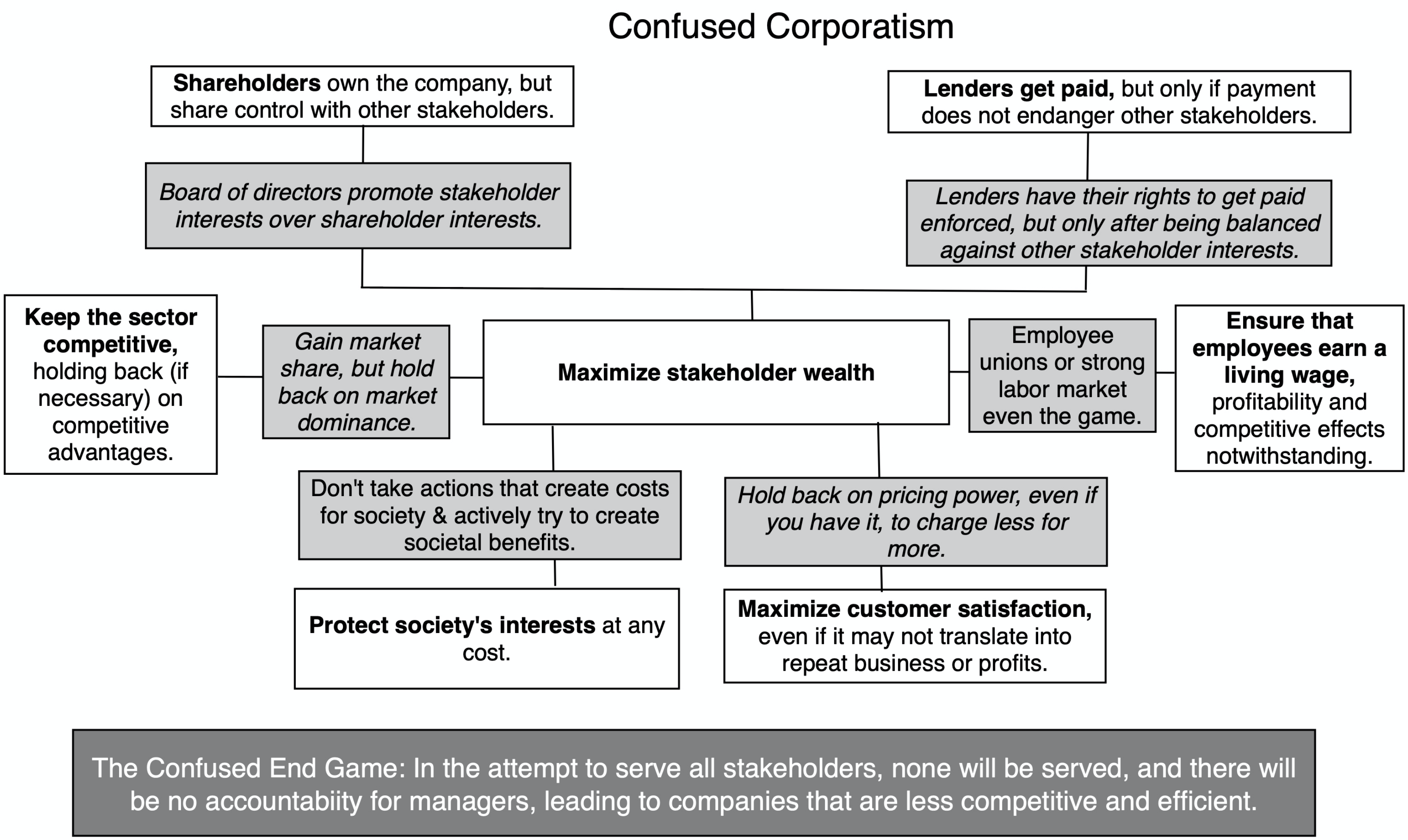
Customers *may or may not get a good deal for their money, depending on whether it serves managers.*

The Managerial End Game: The surviving companies are the ones that find a way to keep managers happy (either economically or with side benefits) with other stakeholders' interests being served well or badly depending on whether they converge with managerial interests.

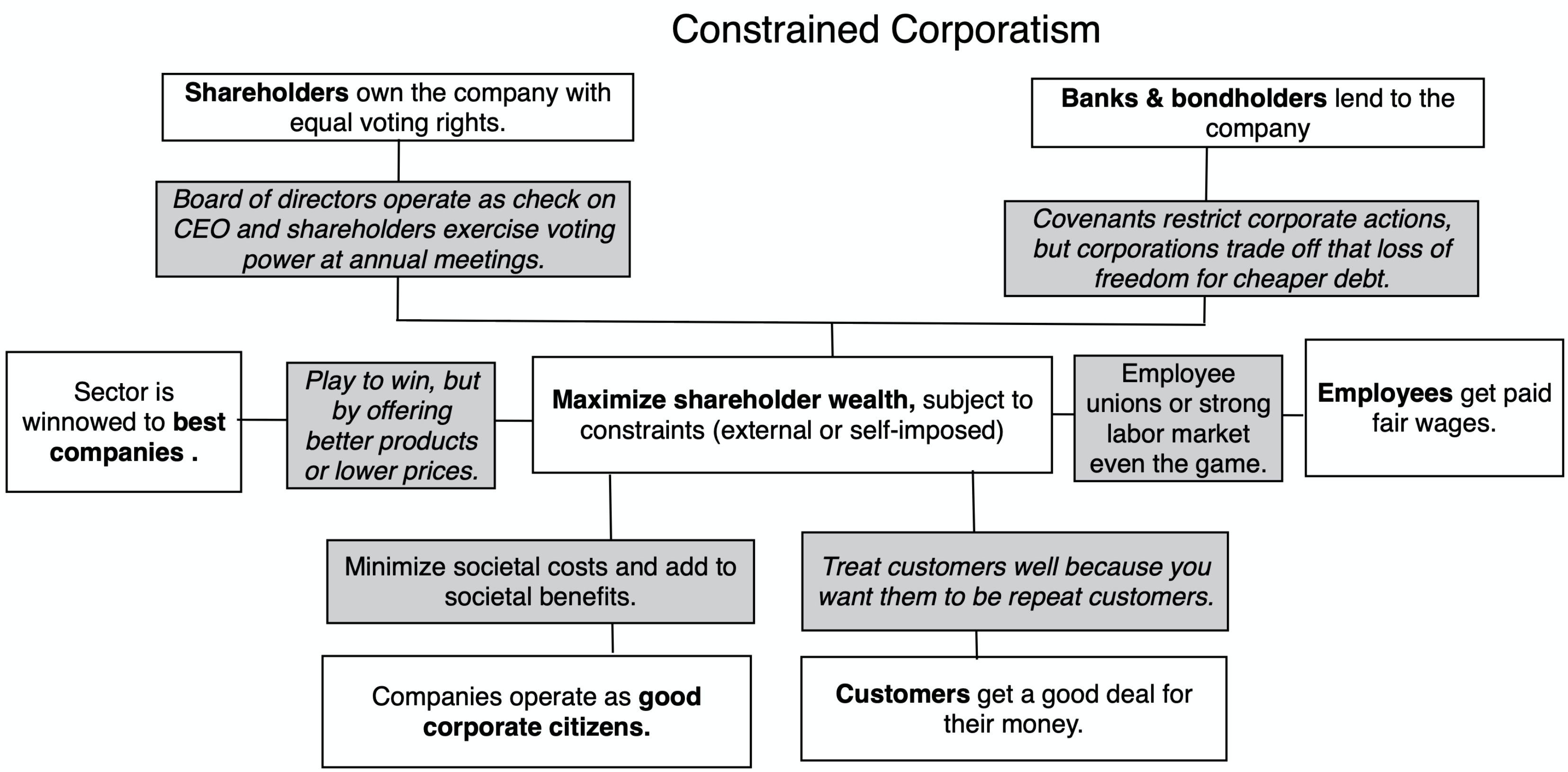
The Business Roundtable's Message..

- *While each of our individual companies serves its own corporate purpose, we share a **fundamental commitment to all of our stakeholders**. We commit to:*
  - ***Delivering value to our customers**. We will further the tradition of American companies leading the way in meeting or exceeding customer expectations.*
  - ***Investing in our employees**. This starts with compensating them fairly and providing important benefits. It also includes supporting them through training and education that help develop new skills for a rapidly changing world. We foster diversity and inclusion, dignity and respect.*
  - ***Dealing fairly and ethically with our suppliers.** We are dedicated to serving as good partners to the other companies, large and small, that help us meet our missions.*
  - ***Supporting the communities in which we work**. We respect the people in our communities and protect the environment by embracing sustainable practices across our businesses.*
  - ***Generating long-term value for shareholders**, who provide the capital that allows companies to invest, grow and innovate. We are committed to transparency and effective engagement with shareholders*

Confused Corporatism



Constrained Corporatism



The Constrained End Game: The winner companies are the ones that find a way to maximize shareholder wealth, while being good corporate citizens, protecting employee interests and delivering good value to customers.

Lesson 4: Understand the essence of risk

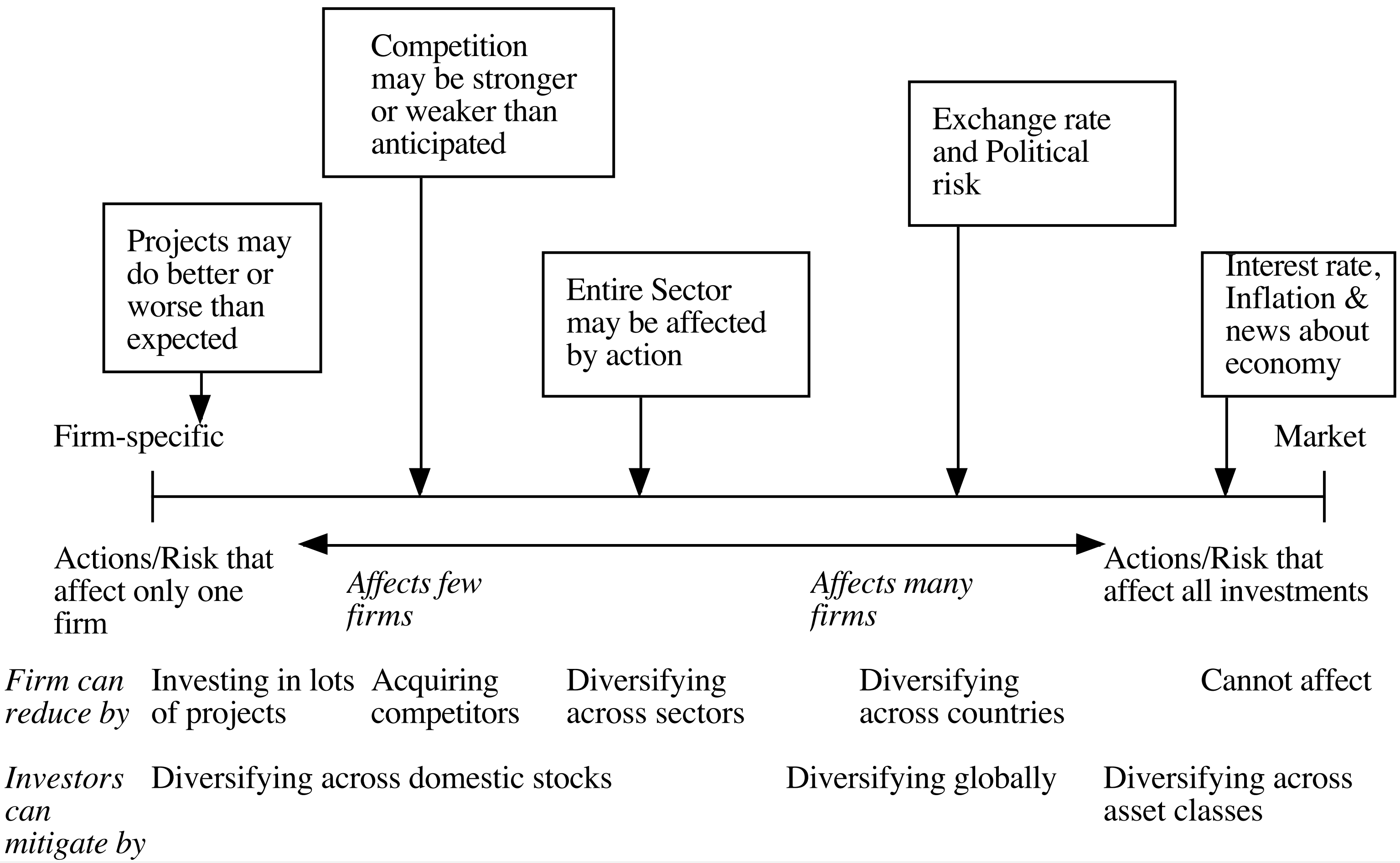
- Risk, in traditional terms, is viewed as a 'negative'. Webster's dictionary, for instance, defines risk as "exposing to danger or hazard". The Chinese symbols for risk, reproduced below, give a much better description of risk:

危機

- The first symbol is the symbol for "danger", while the second is the symbol for "opportunity", making risk a mix of danger and opportunity. You cannot have one, without the other.

Risk can come from many places…

Figure 3.5: A Break Down of Risk



And not all risk is made equal…

- If you are a sole owner of a business, you are exposed to all of the risks in a business. Thus, your hurdle rate should reflect those risks.
- If you are a publicly traded company, the game changes. As a manager, you have look at risk through the eyes of the marginal investor in your company. There are two criteria that go into being a marginal investor:
  - You need to own enough stock to make a difference. In other words, you have to be a large stockholder.
  - You have to trade that stock. Thus, a founder who owns a lot of stock but does not trade is not the marginal investor.
- If that marginal investor is a mutual fund or institutional investor, the only risk they see in an investment is the risk that it adds to a diversified portfolio. Consequently, the only risk you as a manager should build into your hurdle rate is the risk that cannot be diversified away.

Know your marginal investor..

OR FP Equity | 25) Export | 26) Settings

L'OREAL

1) Current | 2) Historical | 3) Matrix | 4) Ownership Summary | 5) Insider Transactions

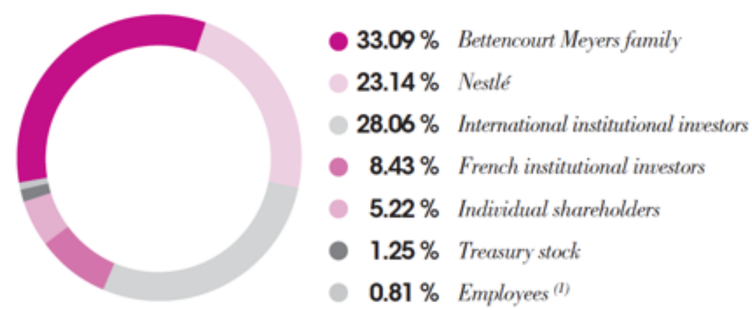
Search Name: All Holders, Sorted by Size | 21) Save Search | 22) Delete Search

Text Search | Holder Group: All Holders

14) Color Legend | Shrs Out 561.4M | % Out 10

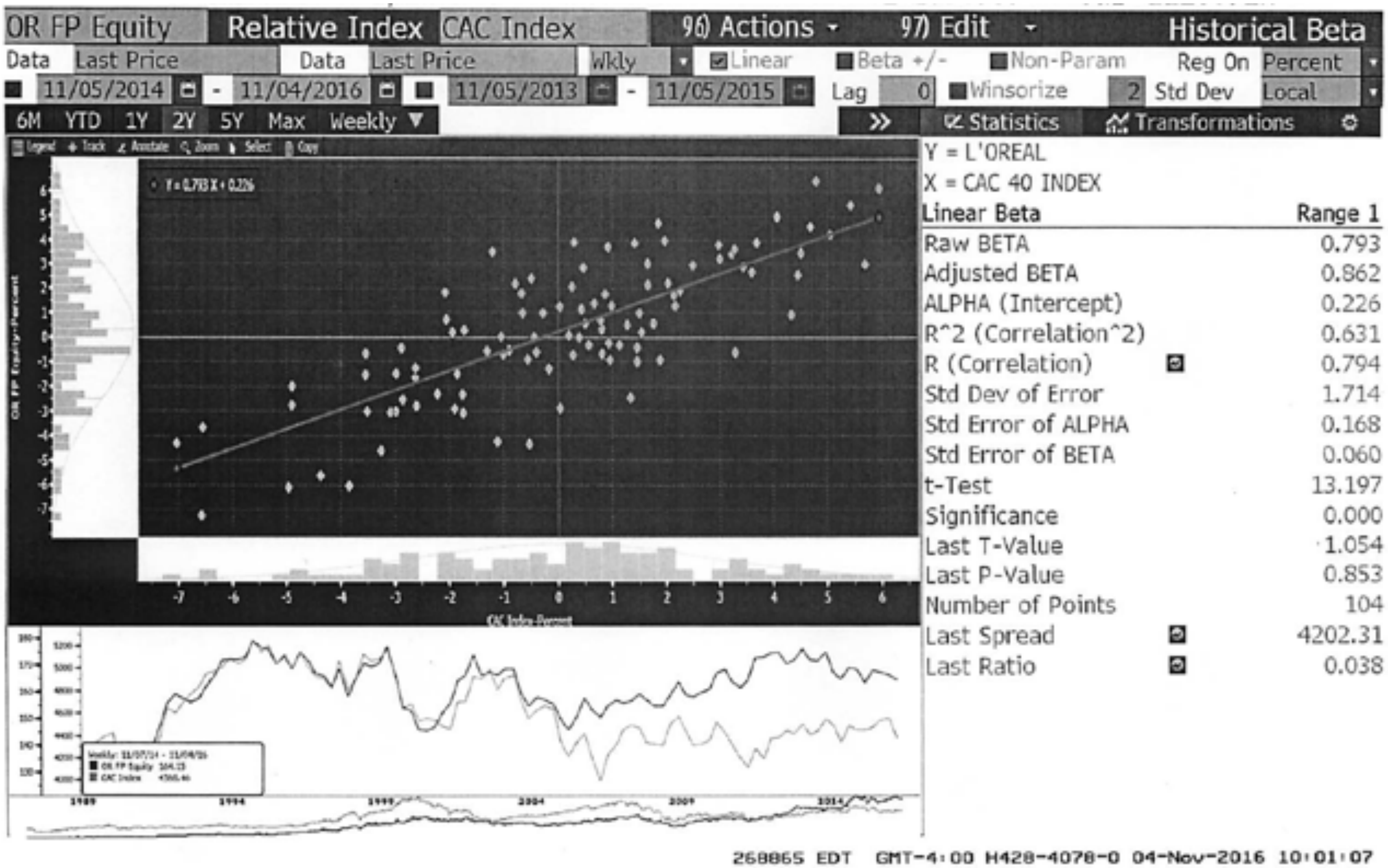
Holder Name	Portfolio Name	Source	Opt	Position	% Out
		All	All		
1. BETTENCOURT LILIANE		EXCH		185,711,273	33.08
2. TETHYS SAS		EXCH		147,214,292	26.22
3. NESTLE SA		EXCH		130,065,545	23.17
4. MEYERS FRANCOISE B		EXCH		38,467,332	6.85
5. NORGES BANK	Multiple Portfolios	MF-AGG		6,993,016	1.25
6. VANGUARD GROUP		ULT-AGG		6,906,307	1.23
7. BLACKROCK		ULT-AGG		5,546,569	0.99
8. HARBOR CAPITAL ADVISORS I	Multiple Portfolios	MF-AGG		4,208,053	0.75
9. FIL LIMITED		ULT-AGG		3,967,232	0.71
10. CREDIT AGRICOLE GROUPE		ULT-AGG		3,072,745	0.55
11. L'OREAL SA		EXCH		2,988,068	0.53
12. SUN LIFE FINANCIAL INC		ULT-AGG		2,521,078	0.45
13. CAPITAL GROUP COMPANIES I		ULT-AGG		2,505,367	0.45
14. ALLIANZ SE		ULT-AGG		2,025,534	0.36
15. ARTISAN PARTNERS LTD PART	Multiple Portfolios	MF-AGG		1,944,139	0.35
16. GOVMT PENSION INVST FUND	Multiple Portfolios	MF-AGG		1,885,014	0.34
17. NATIXIS SA		ULT-AGG		1,787,713	0.32
18. LYXOR		ULT-AGG		1,745,568	0.31
19. MORGAN STANLEY		ULT-AGG		1,555,443	0.28
20. DEUTSCHE BANK AG		ULT-AGG		1,402,911	0.25

/ SHAREHOLDER STRUCTURE AT DECEMBER 31ST, 2014

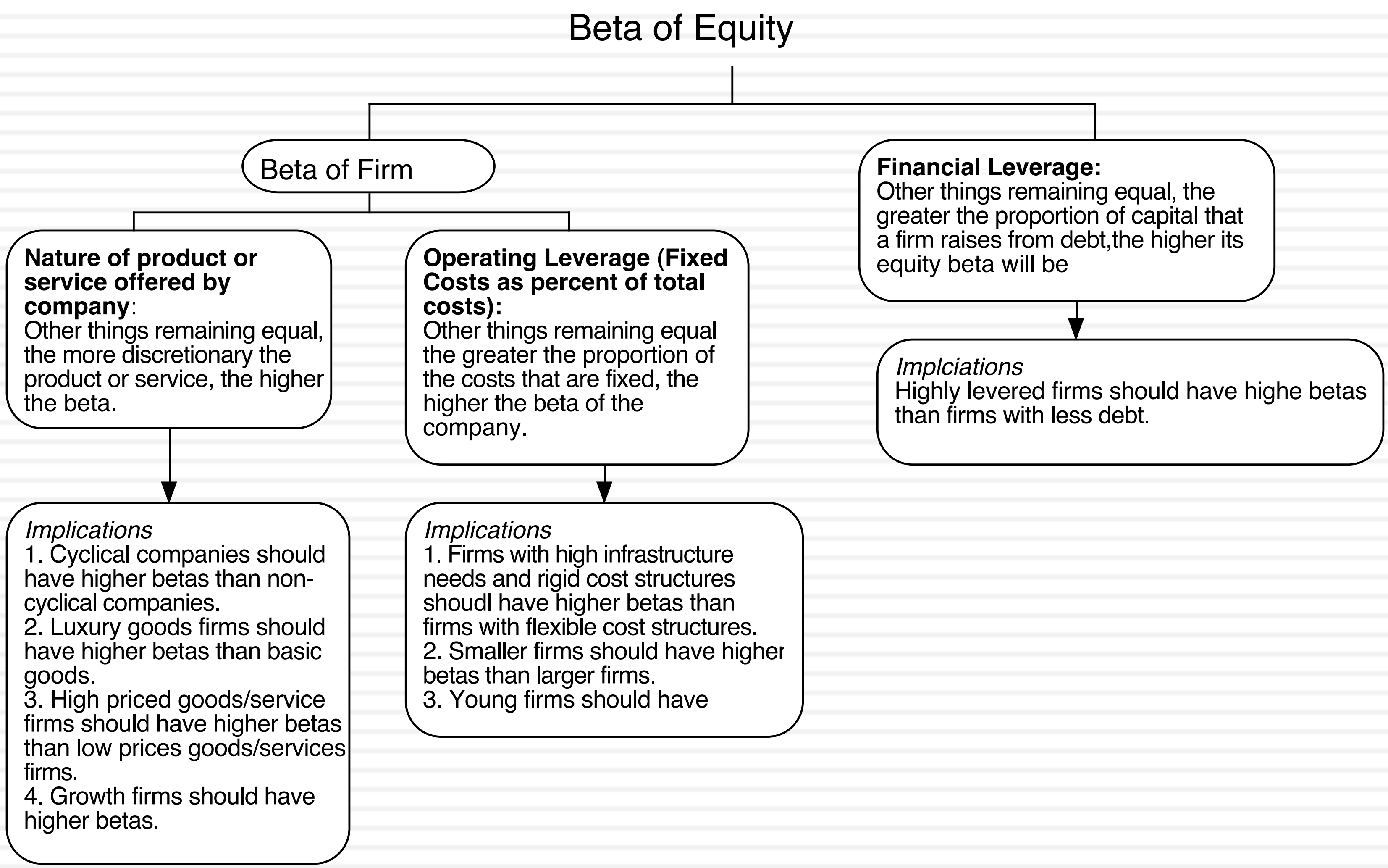


(1) In the L'Oréal Company savings plan (PEE).

Your risk is not a statistical number or a Greek alphabet..



But comes from your choices as a business..



Let's do an intuitive check on L'Oreal

- In your annual report, you break yourself down into six businesses:
    a. Consumer Products (growth = 2.5%)
    b. L'Oreal Luxe (growth = 6.1%)
    c. Professional Products (growth = 3.4%)
    d. Active Cosmetics (growth = 7.8%)
    e. The Body Shop (growth = -0.9%)
- Do you see them all as equally risky businesses? If not, how would you rank them (from most to least risky)?
- What happened to Travel Retail? It seems to no longer be listed as a business.

Here is my try

Business	Exposure to market risk	Beta
Cosmetics, Professional Products & Active Cosmetics	Risk of the cosmetics business. Customers tend to continue to buy preferred products.	0.90 (Average for cosmetics business)
L’Oreal Luxe	Luxury products. More susceptible to economics ups and downs.	1.10 (Average for luxury products)
The Body Shop and Travel Retail	High end retailers, exposed to economic cycles	1.20 (Average for high-end retailers)

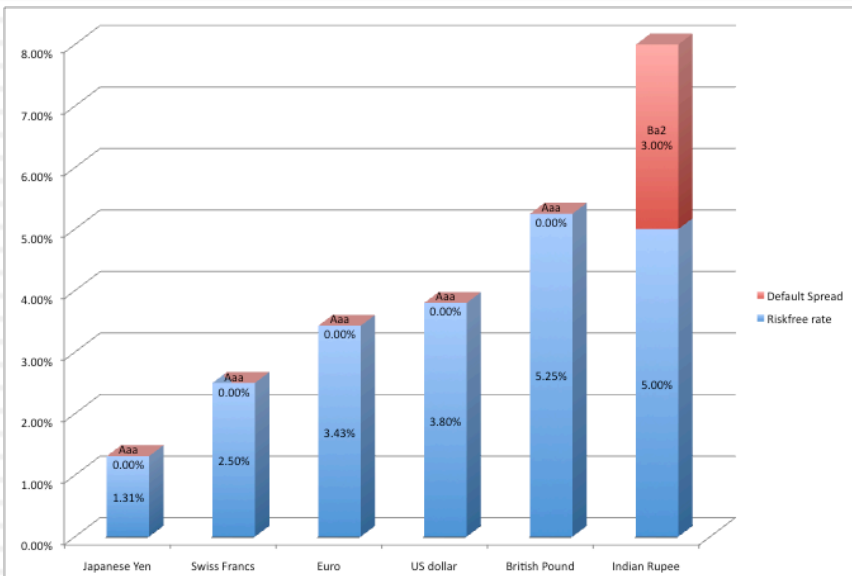
Business	*Revenues*	%	*Unlevered Beta*	*D/E Ratio*	*Levered Beta*	*Cost of equity*	Growth Rate
Cosmetics, Professional Products & Active Cosmetics	€ 17,052	67.51%	0.95	0.89%	0.96	7.54%	2.50%
L'Oreal Luxe	€ 7,238	28.66%	1.15	0.89%	1.16	9.11%	6.10%
Body Shop & Travel Retail	€ 967	3.83%	1.20	0.89%	1.21	9.50%	-0.90%
L'Oreal	€ 25,257	100.00%	1.02	0.89%	1.02	8.06%	

Lesson 5: Know your “hurdle” rate

- Since financial resources are finite, there is a “hurdle rate” that projects have to cross before being deemed acceptable. A simple representation of the hurdle rate is as follows:

Hurdle rate = Riskless Rate + Risk Premium

In what currency are you estimating your hurdle rate?

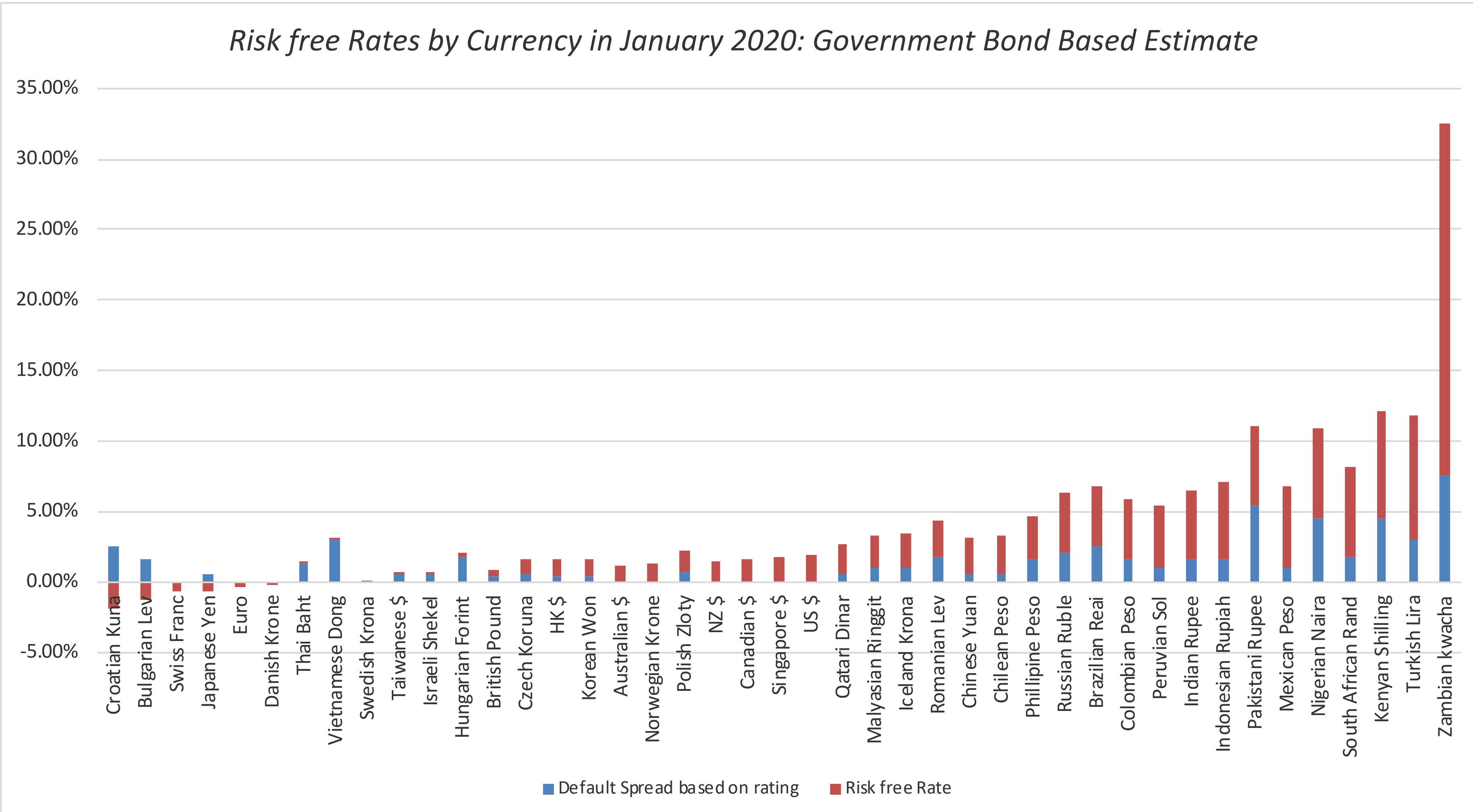


How risky is the business that you are investing in?
Higher risk investments should have higher risk premiums than lower risk investments

How risky are the countries that you are investing in?
You should demand a higher risk premium for operating in riskier countries that safer countries

How are you financing this investment?
The hurdle rate is a function of your mix of debt & equity and how much it costs you to raise debt

Currencies matter, but not for the reasons you think that they do..



ERP : April 1, 2020

Andorra	9.49%	7.08%
Austria	6.74%	5.59%
Belgium	7.12%	5.80%
Cyprus	11.51%	8.16%
Denmark	6.01%	5.20%
Finland	6.74%	5.59%
France	6.92%	5.69%
Germany	6.01%	5.20%
Greece	14.25%	9.64%
Guernsey (States of)	8.93%	6.77%
Iceland	7.56%	6.04%
Ireland	7.56%	6.04%
Isle of Man	6.92%	5.69%
Italy	10.04%	7.37%
Jersey (States of)	7.30%	5.89%
Liechtenstein	6.01%	5.20%
Luxembourg	6.01%	5.20%
Malta	7.56%	6.04%
Netherlands	6.01%	5.20%
Norway	6.01%	5.20%
Portugal	10.04%	7.37%
Spain	8.93%	6.77%
Sweden	6.01%	5.20%
Switzerland	6.01%	5.20%
Turkey	14.25%	9.64%
United Kingdom	6.92%	5.69%
Western Europe	**7.51%**	**6.01%**

Albania	14.25%	9.64%
Armenia	12.60%	8.75%
Azerbaijan	11.51%	8.16%
Belarus	17.91%	11.62%
Bosnia and Herzegovina	17.91%	11.62%
Bulgaria	9.49%	7.08%
Croatia	11.51%	8.16%
Czech Republic	7.12%	5.80%
Estonia	7.30%	5.89%
Georgia	11.51%	8.16%
Hungary	10.04%	7.37%
Kazakhstan	10.04%	7.37%
Kyrgyzstan	16.08%	10.63%
Latvia	8.21%	6.38%
Lithuania	8.21%	6.38%
Macedonia	12.60%	8.75%
Moldova	17.91%	11.62%
Montenegro	14.25%	9.64%
Poland	7.56%	6.04%
Romania	10.04%	7.37%
Russia	10.04%	7.37%
Serbia	12.60%	8.75%
Slovakia	7.56%	6.04%
Slovenia	8.93%	6.77%
Tajikistan	17.91%	11.62%
Ukraine	19.73%	12.59%
Uzbekistan	14.25%	9.64%
Eastern Europe & Russia	**9.98%**	**7.34%**

Country	PRS Risk Score	ERP (4/1/20)	ERP (1/1/20)
Algeria	63	17.91%	11.62%
Brunei	82.75	6.74%	5.59%
Gambia	63.75	17.91%	11.62%
Guinea	57	24.30%	15.06%
Guinea-Bissau	63.25	17.91%	11.62%
Guyana	63.75	17.91%	11.62%
Haiti	57.5	22.49%	14.08%
Iran	62.5	17.91%	11.62%
Korea, D.P.R.	50.5	27.03%	17.03%
Liberia	49.5	31.93%	21.71%
Libya	69.5	11.51%	8.16%
Madagascar	65.5	16.08%	10.63%
Malawi	63.5	17.91%	11.62%
Myanmar	64	17.91%	11.62%
Sierra Leone	57	24.30%	15.06%
Somalia	53	27.03%	17.03%
Sudan	39.75	31.93%	21.71%
Syria	53	27.03%	17.03%
Yemen, Republic	54.5	27.03%	17.03%
Zimbabwe	50.5	27.03%	17.03%

Canada	6.01%	5.20%
United States	6.01%	5.20%
North America	**6.01%**	**5.20%**

Argentina	22.49%	14.08%
Belize	17.91%	11.62%
Bolivia	12.60%	8.75%
Brazil	11.51%	8.16%
Chile	7.30%	5.89%
Colombia	9.49%	7.08%
Costa Rica	14.25%	9.64%
Ecuador	17.91%	11.62%
El Salvador	17.91%	14.08%
Guatemala	10.58%	7.66%
Honduras	14.25%	9.64%
Mexico	8.21%	6.38%
Nicaragua	16.08%	10.63%
Panama	8.93%	6.77%
Paraguay	10.58%	7.66%
Peru	8.21%	6.38%
Suriname	16.08%	10.63%
Uruguay	9.49%	7.08%
Venezuela	24.52%	22.89%
Central and South America	**11.79%**	**8.48%**

Angola	17.91%	11.62%
Benin	16.08%	10.63%
Botswana	7.56%	6.04%
Burkina Faso	16.08%	10.63%
Cameroon	16.08%	10.63%
Cape Verde	16.08%	10.63%
Congo (DR)	19.73%	12.59%
Congo (Republic of)	22.49%	14.08%
Côte d'Ivoire	12.60%	8.75%
Egypt	16.08%	10.63%
Ethiopia	14.25%	9.64%
Gabon	19.73%	12.59%
Ghana	17.91%	11.62%
Kenya	16.08%	10.63%
Mali	17.91%	11.62%
Morocco	10.58%	7.66%
Mozambique	22.49%	14.08%
Namibia	11.51%	8.16%
Niger	17.91%	11.62%
Nigeria	16.08%	10.63%
Rwanda	16.08%	10.63%
Senegal	12.60%	8.75%
South Africa	10.58%	7.37%
Swaziland	16.08%	10.63%
Tanzania	14.25%	9.64%
Togo	17.91%	11.62%
Tunisia	16.08%	10.63%
Uganda	16.08%	10.63%
Zambia	24.52%	14.08%
Africa	**14.71%**	**9.89%**

Abu Dhabi	6.92%	5.69%
Bahrain	16.08%	10.63%
Iraq	19.73%	12.59%
Israel	7.30%	5.89%
Jordan	14.25%	9.64%
Kuwait	6.92%	5.69%
Lebanon	24.52%	14.08%
Oman	11.51%	7.66%
Qatar	7.12%	5.80%
Ras Al Khaimah (Er	19.73%	12.59%
Saudi Arabia	7.30%	5.89%
Sharjah	9.49%	6.38%
United Arab Emirate	6.92%	5.69%
Middle East	**8.93%**	**6.77%**

Bangladesh	12.60%	8.75%
Cambodia	16.08%	10.63%
China	7.30%	5.89%
Fiji	12.60%	8.75%
Hong Kong	7.12%	5.69%
India	9.49%	7.08%
Indonesia	9.49%	7.08%
Japan	7.30%	5.89%
Korea	6.92%	5.69%
Laos	8.21%	NA
Macao	7.12%	5.80%
Malaysia	8.21%	6.38%
Maldives	16.08%	10.63%
Mauritius	8.93%	6.77%
Mongolia	17.91%	11.62%
Pakistan	17.91%	11.62%
Papua New Guinea	16.08%	10.63%
Philippines	9.49%	7.08%
Singapore	6.01%	5.20%
Solomon Islands	17.91%	11.62%
Sri Lanka	16.08%	10.63%
Taiwan	7.12%	5.80%
Thailand	8.93%	6.77%
Vietnam	12.60%	8.75%
Asia	**7.89%**	**6.21%**

Australia	6.01%	5.20%
Cook Islands	14.25%	9.64%
New Zealand	6.01%	5.20%
Australia & NZ	**6.02%**	**5.20%**

Red: ERP on 4/1/20
Green: ERP on 1/1/20

One hurdle rate will generally not work across the company

- If you are a single business company, but you are a multinational, your hurdle rate will vary, depending on where you are investing. If you use the beta of 1.02 that we estimated for L'Oreal earlier, the cost of equity (even in Euro terms) will vary depending on where the investment is going to be made:

Region	*% of Loreal Revenues*	*Risk free Rate*	*Regional ERP*	*Beta for L'Oreal*	*Cost of equity*
Africa	1.80%	0.10%	12.99%	1.02	13.39%
Asia-Pacific	22.50%	0.10%	7.82%	1.02	8.10%
Central and South America	7.70%	0.10%	11.27%	1.02	11.63%
Eastern Europe	6.30%	0.10%	10.17%	1.02	10.50%
Middle East	1.20%	0.10%	7.56%	1.02	7.83%
North America	27.40%	0.10%	6.25%	1.02	6.49%
Western Europe	33.10%	0.10%	7.49%	1.02	7.76%
L"Oreal	**100.00%**	**0.10%**	**7.78%**	**1.02**	**8.06%**

A Test: Acquiring Niely

- During 2014, you acquired Niely, a Brazilian hair products company (that would fall under the cosmetics business). If you wanted to estimate a hurdle rate for Niely in Euros, what would you use as:

a. The Risk free Rate
b. The Beta
c. The Equity Risk Premium

- How would your answer change if you were estimating the number in Brazilian Reais?

Lesson 6: Your investments need to earn returns that beat the hurdle rate…

- Your hurdle rate is both a cost of financing your business and an opportunity cost, i.e,, a return you can make elsewhere if you invest in a project of equivalent risk. If that is the case, you should only take investments that generate returns that earn more than the hurdle rate.
- To measure returns, though, here are three simple propositions to follow:
  1. Look at the cash flows that you will make on the investment, rather than earnings. You cannot spend earnings.
  2. Look at incremental cash flows that come out because of the investment. Be wary of allocated costs (that will be there whether you take the investment or not) and ignore sunk costs (costs that you have already incurred).
  3. Time weight the cash flows, with cash flows occurring earlier being valued more than cash flows later.

Here is a short cut that you can use to assess the quality of your existing investments…

Adjust EBIT for
a. Extraordinary or one-time expenses or income
b. Operating leases and R&D
c. Cyclicality in earnings (Normalize)
d. Acquisition Debris (Goodwill amortization etc.)

Use a marginal tax rate to be safe. A high ROC created by paying low effective taxes is not sustainable

$$\text{ROC} = \frac{\text{EBIT (1- tax rate)}}{\text{Book Value of Equity + Book value of debt - Cash}}$$

Adjust book equity for
1. Capitalized R&D
2. Acquisition Debris (Goodwill)

Adjust book value of debt for
a. Capitalized operating leases

Use end of prior year numbers or average over the year but be consistent in your application

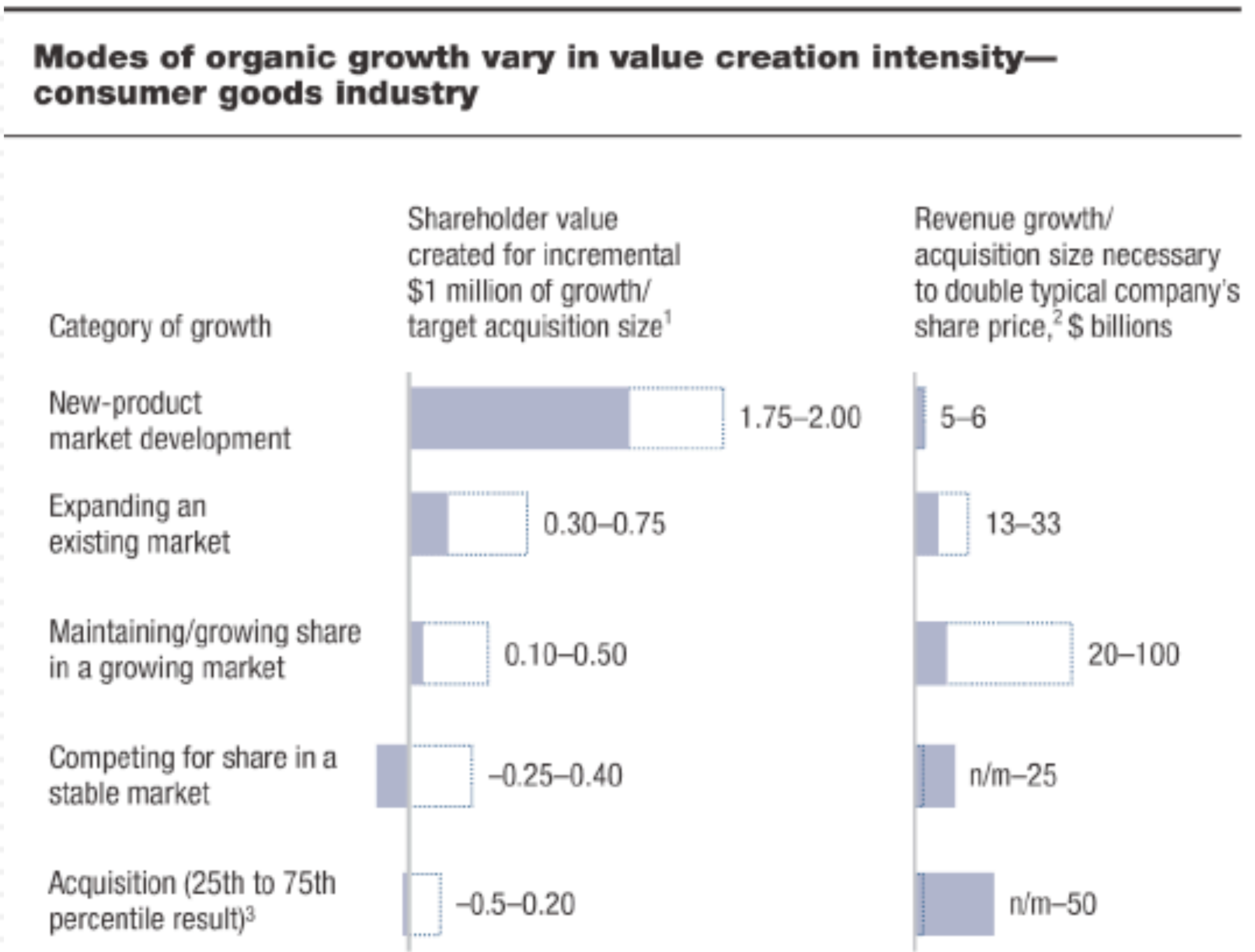
Your best businesses, your worst ones and where you stand as a company..

Business	Revenue	Operating Profit (2015)	Invested Capital (2014)	Pre-tax ROIC	After-tax ROIC	Cost of Capital	ROIC - Cost of Capital
Professional Products	€ 3,400	€ 678	€ 3,090	21.94%	16.02%	7.48%	8.54%
Consumer Products	€ 11,844	€ 2,386	€ 8,217	29.04%	21.20%	7.48%	13.72%
L'Oreal Luxe	€ 7,230	€ 1,497	€ 4,870	30.74%	22.44%	9.03%	13.41%
Active Cosmetics	€ 1,816	€ 415	€ 915	45.36%	33.11%	7.48%	25.63%
The Body Shop	€ 967	€ 55	€ 1,269	4.33%	3.16%	9.42%	-6.26%
Headquarters		-€ 643	€ 2,499	-25.73%	- 18.78%	8.00%	- 26.78%
L'Oreal	**€ 25,257**	**€ 3,891**	**€ 20,860**	**18.65%**	**13.62%**	**8.00%**	**5.62%**

Lesson 7: Acquisitions are just big investments and have to meet the same standards..

- An acquisition is just a large-scale project. All of the rules that apply to individual investments apply to acquisitions, as well. For an acquisition to create value, it has to
  - Generate a higher return on capital, after allowing for synergy and control factors, than the cost of capital.
  - Put another way, an acquisition will create value only if the present value of the cash flows on the acquired firm, inclusive of synergy and control benefits, exceeds the cost of the acquisitons
- A divestiture is the reverse of an acquisition, with a cash inflow now (from divesting the assets) followed by cash outflows (i.e., cash flows foregone on the divested asset) in the future. If the present value of the future cash outflows is less than the cash inflow today, the divestiture will increase value.
- A fair-price acquisition or divestiture is value neutral.

And of all the ways to create growth, acquisitions rank worst…



Lesson 8: You have only two ways of raising funding for a business…

Figure 7.1: Debt versus Equity

Fixed Claim
Tax Deductible
High Priority in Financial Trouble
Fixed Maturity
No Management Control

Residual Claim
Not Tax Deductible
Lowest Priority in Financial Trouble
Infinite
Management Control

Debt
Bank Debt
Commercial Paper
Corporate Bonds

Hybrid Securities
Convertible Debt
Preferred Stock
Option-linked Bonds

Equity
Owner's Equity
Venture Capital
Common Stock
Warrants

And here is the trade off….

Advantages of Debt	*Disadvantages of debt*
1. Tax Benefit: Interest expenses on debt are tax deductible but cash flows to equity are generally not. *Implication: The higher the marginal tax rate, the greater the benefits of debt.*	**1. Expected Bankruptcy Cost**: The expected cost of going bankrupt is a product of the probability of going bankrupt and the cost of going bankrupt. The latter includes both direct and indirect costs. The probability of going bankrupt will be higher in businesses with more volatile earnings and the cost of bankruptcy will also vary across businesses. *Implication:* *1. Firms with more stable earnings should borrow more, for any given level of earnings.* *2. Firms with lower bankruptcy costs should borrow more, for any given level of earnings.*
2. Added Discipline: Borrowing money may force managers to think about the consequences of the investment decisions a little more carefully and reduce bad investments. *Implication: As the separation between managers and stockholders increases, the benefits to using debt will go up.*	**2. Agency Costs**: Actions that benefit equity investors may hurt lenders. The greater the potential for this conflict of interest, the greater the cost borne by the borrower (as higher interest rates or more covenants). *Implication: Firms where lenders can monitor/ control how their money is being used should be able to borrow more than firms where this is difficult to do.*
	3. Loss of flexibility: Using up available debt capacity today will mean that you cannot draw on it in the future. This loss of flexibility can be disastrous if funds are needed and access to capital is shut off. *Implication:* 1. *Firms that can forecast future funding needs better should be able to borrow more.* 2. *Firms with better access to capital markets should be more willing to borrow more today.*

Lesson 9: There is a "right" mix of debt and equity for your business…

Bankruptcy costs are built into both the cost of equity the pre-tax cost of debt

Tax benefit is here

Cost of capital = Cost of Equity (Equity/ (Debt + Equity)) + Pre-tax cost of debt (1- tax rate) (Debt/ (Debt + Equity)

As you borrow more, he equity in the firm will become more risky as financial leverage magnifies business risk. The cost of equity will increase

As you borrow more, your default risk as a firm will increase pushing up your cost of debt.

At some level of borrowing, your tax benefits may be put at risk, leading to a lower tax rate.

Be wary of companies that are too aggressive… and too conservative… in their use of debt…

- If you use too little debt (you are too conservative), you are missing the tax benefits from using debt that would have lowered your cost of capital and increased your value as a business.
  - *Prime candidates: Mature companies that have large, stable cash flows, face high tax rates and use little or no debt to capitalize themselves.*
  - *Fixes: At the minimum, borrow more when funding new projects and pay more dividends. More radically, borrow money and recapitalize.*
- If you use too much debt, your tax benefits may be overwhelmed by the cost of distress and default. Consequently, you have a higher cost of capital and lower value as a business, because you have chosen to borrow too much.
  - *Prime candidates: Companies in risky businesses that have other fixed commitments to meet and low or volatile income, while borrowing large amounts.*
  - *Fixes: At the minimum, cut back or stop paying dividends and utilize retained earnings to fund investments. More radically, raise new equity and retire debt.*

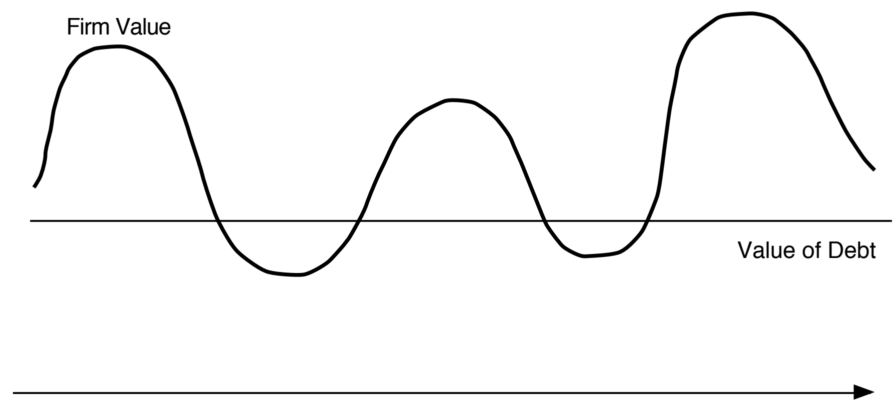
L'Oreal: Current versus Optimal

Debt Ratio	Beta	Cost of Equity	Bond Rating	Interest rate on debt	Tax Rate	Cost of Debt (after-tax)	WACC	Enterprise Value
0%	0.9814	7.74%	Aaa/AAA	0.85%	27.00%	0.62%	7.74%	$71,182
10%	1.0610	8.35%	Aaa/AAA	0.85%	27.00%	0.62%	7.58%	$72,648
20%	1.1605	9.13%	Aaa/AAA	0.85%	27.00%	0.62%	7.43%	$74,176
30%	1.2884	10.12%	Aaa/AAA	0.85%	27.00%	0.62%	7.27%	$75,770
40%	1.4590	11.45%	Aaa/AAA	0.85%	27.00%	0.62%	7.12%	$77,433
50%	1.6978	13.31%	Aaa/AAA	0.85%	27.00%	0.62%	6.96%	$79,171
60%	2.2148	17.33%	C2/C	16.10%	16.21%	13.49%	15.03%	$36,410
70%	2.9530	23.07%	C2/C	16.10%	13.90%	13.86%	16.63%	$32,885
80%	4.4295	34.56%	C2/C	16.10%	12.16%	14.14%	18.23%	$29,983
90%	8.8591	69.02%	C2/C	16.10%	10.81%	14.36%	19.83%	$27,551

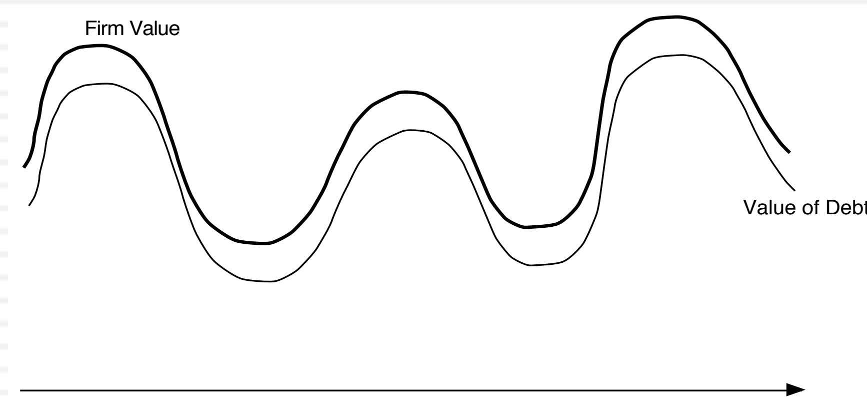
Lesson 10: The “right” debt for your firm depends on your firm

- The objective in designing debt is to make the cash flows on debt match up as closely as possible with the cash flows that the firm makes on its assets.
- By doing so, we reduce our risk of default, increase debt capacity and increase firm value.

Unmatched Debt

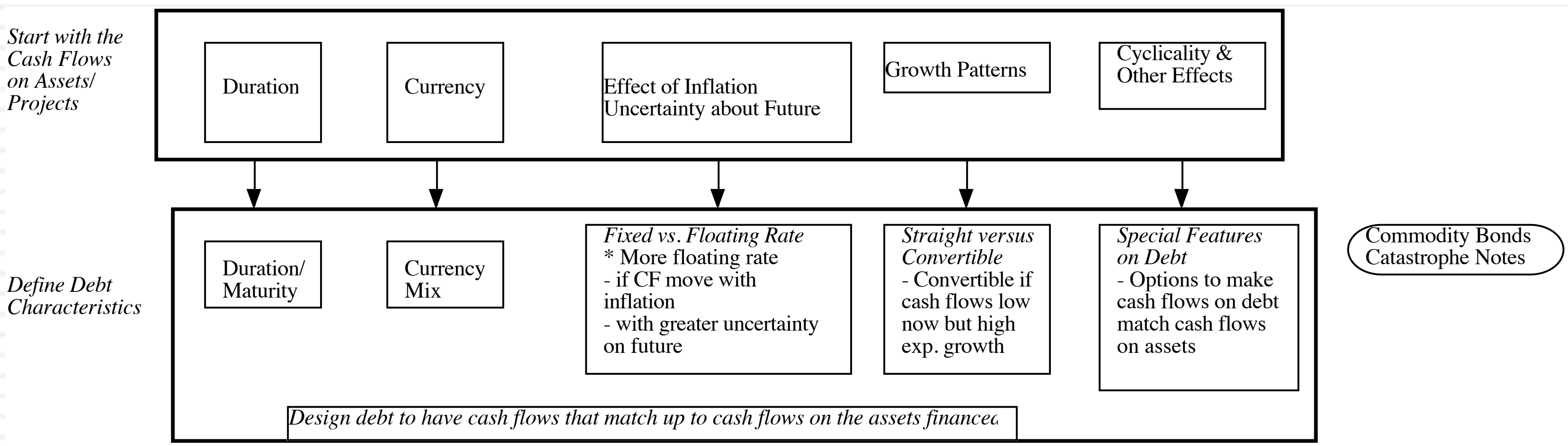


Matched Debt

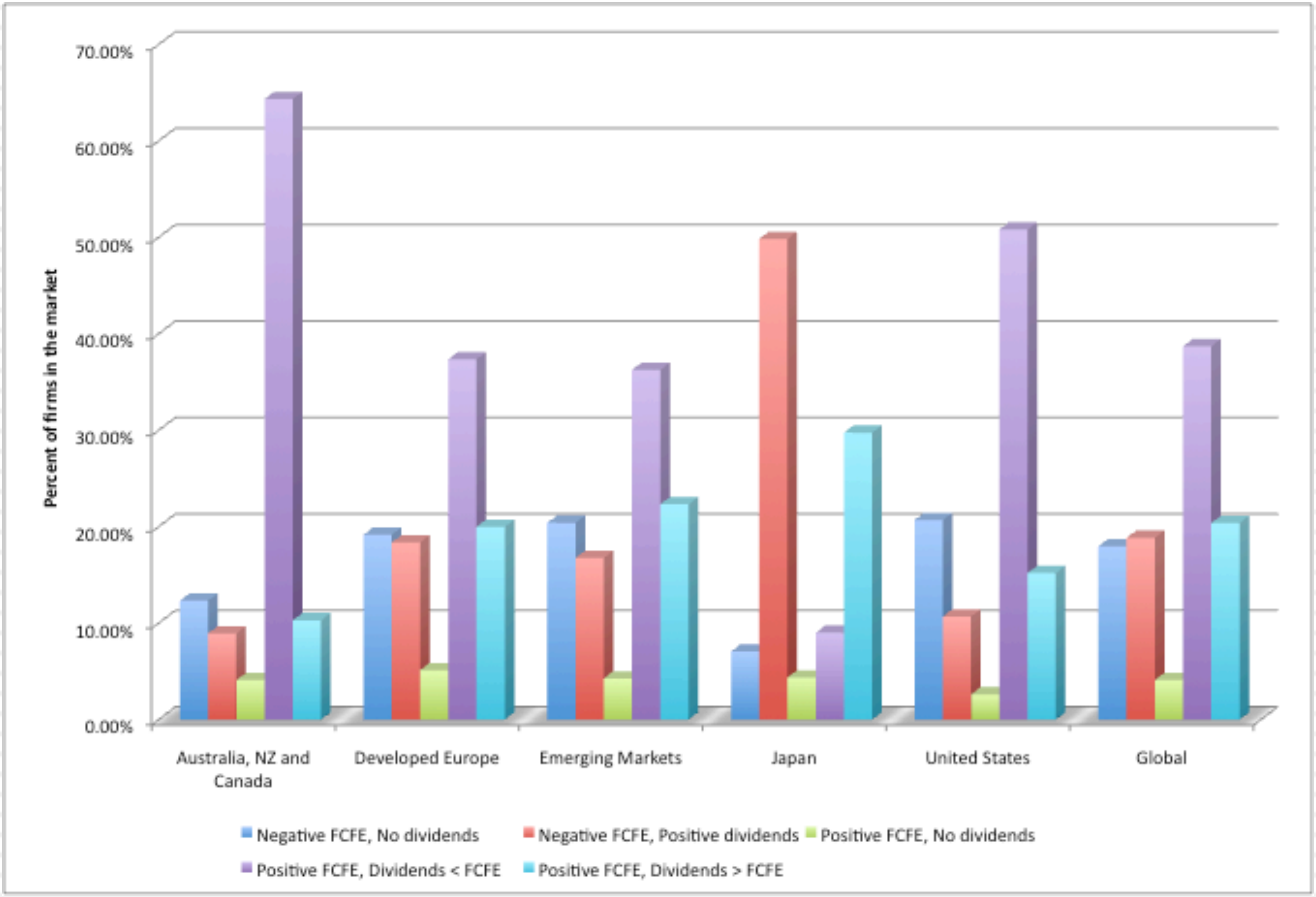


The perfect debt for you is….

- The perfect financing instrument will
  - Have all of the tax advantages of debt
  - While preserving the flexibility offered by equity

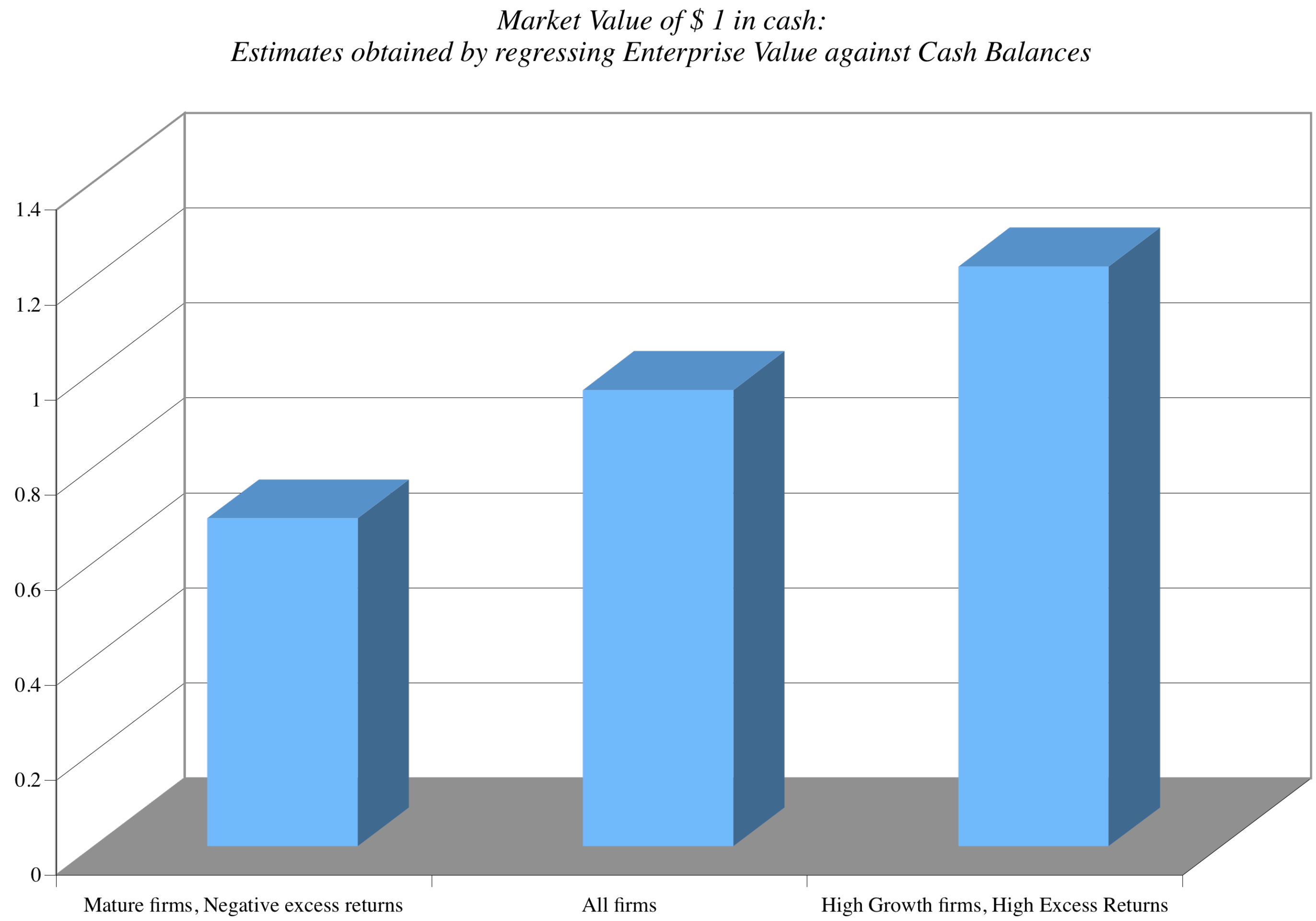


Lesson 11: Cash is not accumulated by accident, & cash does not belong to the company

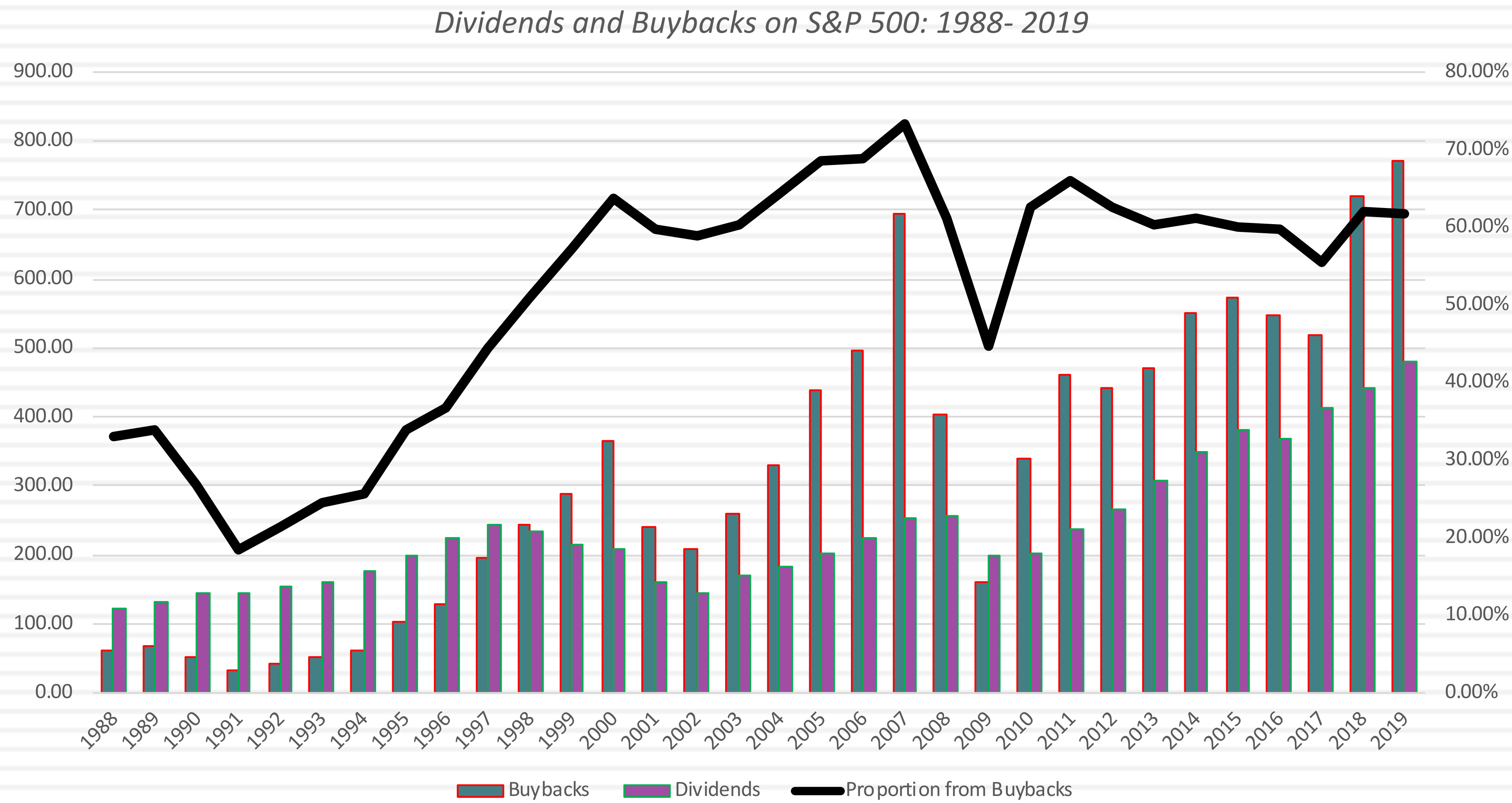


FCFE = Potential Dividends = Cash left over after all operating expenses, taxes, reinvestment and debt payments have been made.

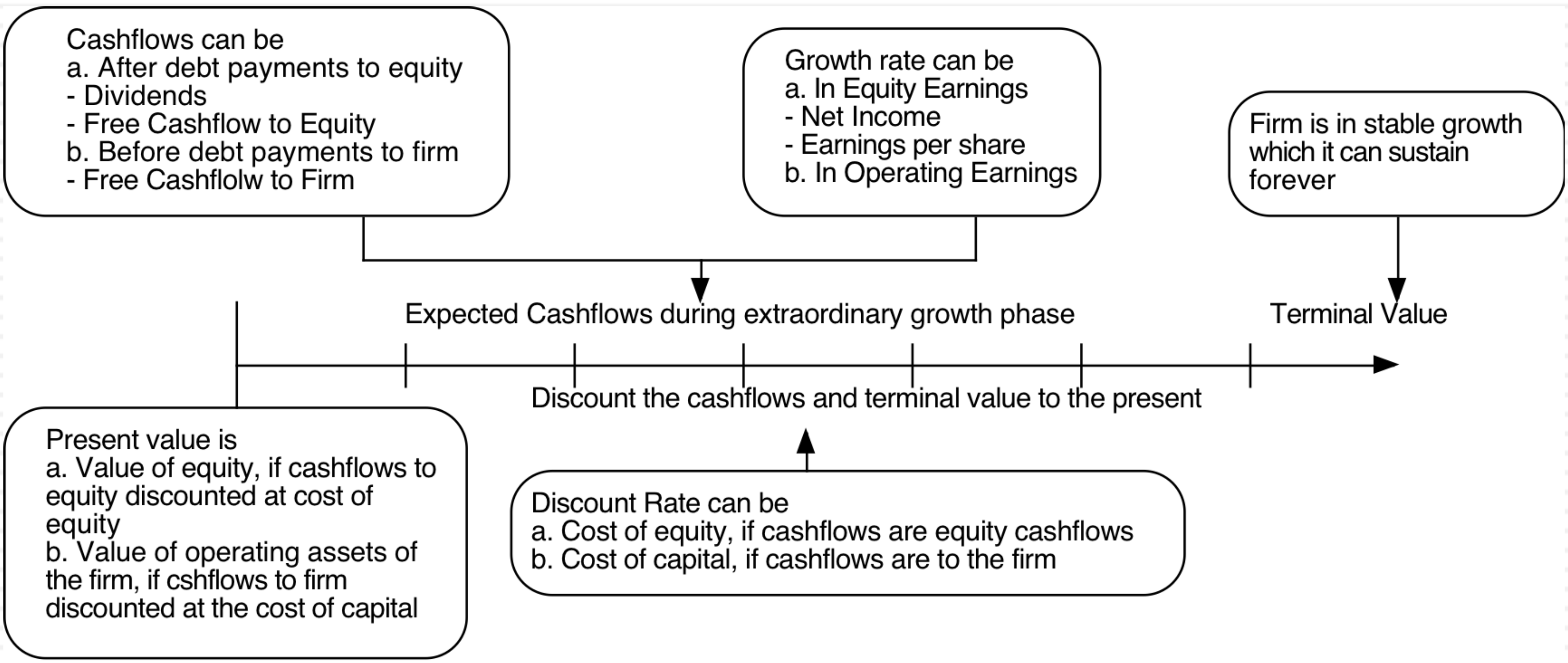
Not all cash balances are created equal…



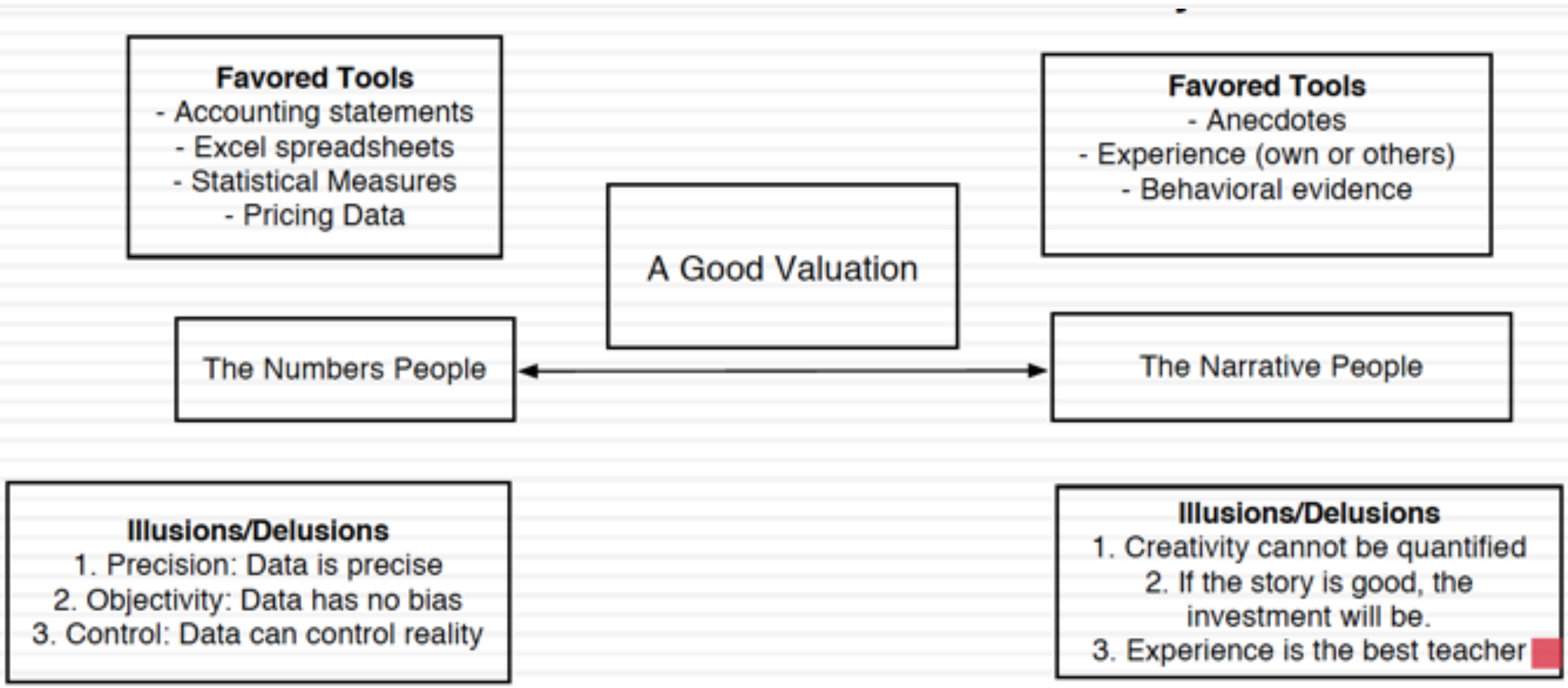
And buybacks are flexible dividends…



Lesson 12: The value of your business is a function of these variables…



And behind those numbers, there is a story..



L'Oreal

The Story

L'Oreal is a global, brand name cosmetics company, growing fastest in emerging markets. It will be able to use its brand name to protect its margins while maintaining sol
spectacular) growth for the next five years, scaling down to a growth rate of 0.50% (in Euro terms) after year 10. Its reinvestment will take the form of small acquisitions
extensions in emerging markets.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*		*After year 10*	*Link to story*
Revenues (a)	€ 25,549.00	6.00%	0.50%		0.50%	Solid growth but size puts a check.
Operating margin (b)	17.34%	17.34%	17.34%		17.34%	Brand power protects margins
Tax rate	27.00%	27.00%	27.00%		27.00%	Global average tax rate
Reinvestment (c)		Sales to capital ratio =	1.92	RIR =	4.17%	Acquisitons & Brand extensions
Return on capital	24.31%	Marginal ROIC =	33.30%		12.00%	Synergies keep ROC on reinvestment high
Cost of capital (d)		8.00%	7.50%		7.50%	Marginal decline in cost of capital

The Cash Flows

	Revenues	*Operating Margin*	*EBIT*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	€ 27,081.94	17.34%	€ 4,694.74	€ 3,427.16	€ 798.12	€ 2,629.04
2	€ 28,706.86	17.34%	€ 4,976.42	€ 3,632.79	€ 846.01	€ 2,786.78
3	€ 30,429.27	17.34%	€ 5,275.01	€ 3,850.76	€ 896.77	€ 2,953.99
4	€ 32,255.02	17.34%	€ 5,591.51	€ 4,081.80	€ 950.57	€ 3,131.23
5	€ 34,190.33	17.34%	€ 5,927.00	€ 4,326.71	€ 1,007.61	€ 3,319.10
6	€ 35,865.65	17.34%	€ 6,217.42	€ 4,538.72	€ 872.25	€ 3,666.47
7	€ 37,228.55	17.34%	€ 6,453.69	€ 4,711.19	€ 709.59	€ 4,001.60
8	€ 38,233.72	17.34%	€ 6,627.94	€ 4,838.39	€ 523.34	€ 4,315.05
9	€ 38,845.46	17.34%	€ 6,733.98	€ 4,915.81	€ 318.50	€ 4,597.31
10	€ 39,039.68	17.34%	€ 6,767.65	€ 4,940.39	€ 101.12	€ 4,839.26
Terminal year	€ 39,234.88	17.34%	€ 6,801.49	€ 4,965.09	€ 206.88	€ 4,758.21

The Value

Terminal value	€ 67,974.42			
PV(Terminal value)	€ 31,926.41			
PV (CF over next 10 years)	€ 23,321.42			
Value of operating assets =	€ 55,247.84			
Adjustment for distress	€ -		Probability of failure =	0.00%
- Debt & Mnority Interests	€ 1,686.80			
+ Cash & Other Non-operating assets	€ 10,366.00			
Value of equity	€ 63,927.04			
- Value of equity options	€ 494.44			
Number of shares	€ 562.77			
Value per share	€ 112.71		Stock was trading at	€ 161.60

And here is how you can change your value