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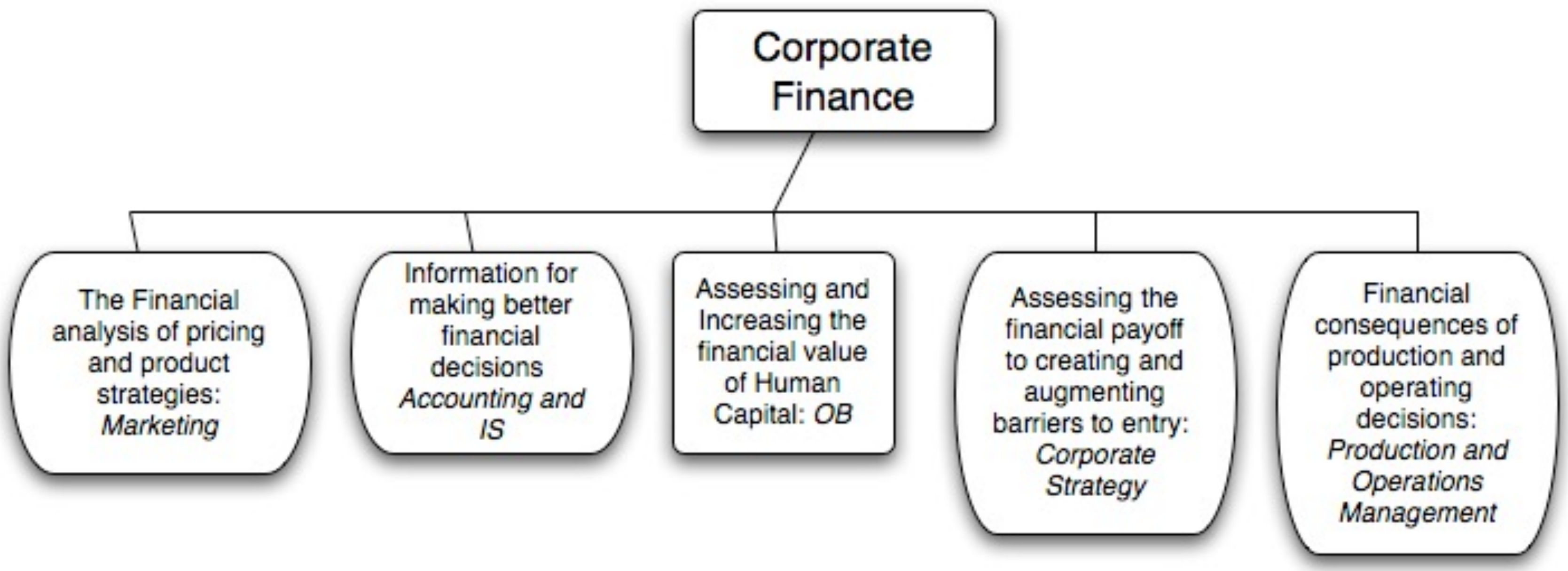
Valuation app for iPad/iPhone: uValue on iTunes U

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…

- <u>If you don't have an objective</u>, 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.
- <u>If you have multiple objectives</u>, 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.
- <u>If you have a fuzzy objective</u>, 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?

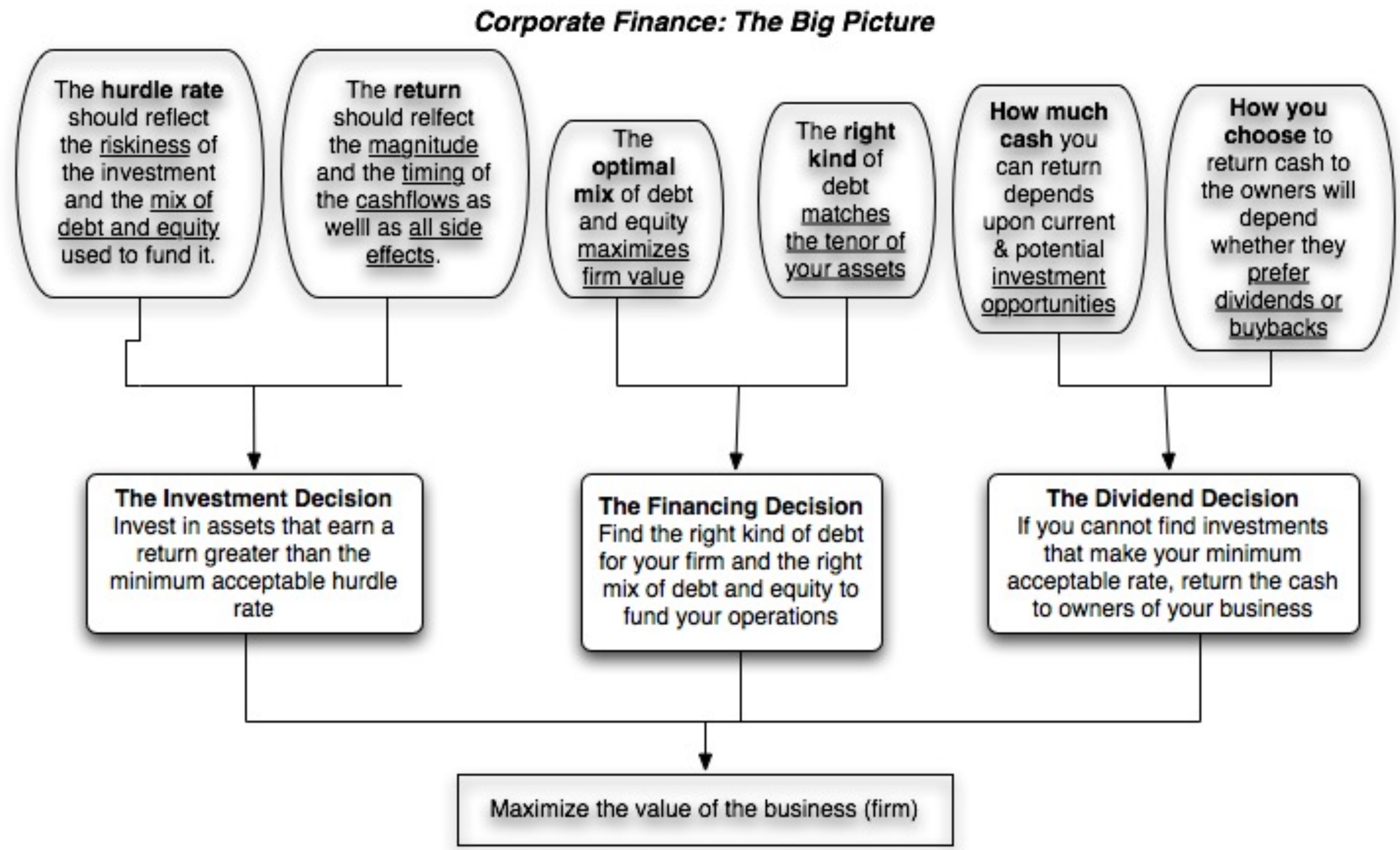
1. The Beauty Mission? *Giving everyone access to beauty by offering products in harmony with their needs, culture and expectations in their infinite diversity.*
2. The Innovation Mission? *The exploration of new scientific and technological territories…*
3. The Global Mission? *Based on its international positions and its power of innovation, the Group's ambition is to conquer a billion new consumers by 2020...*
4. 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.*

And Falabella's mission statement

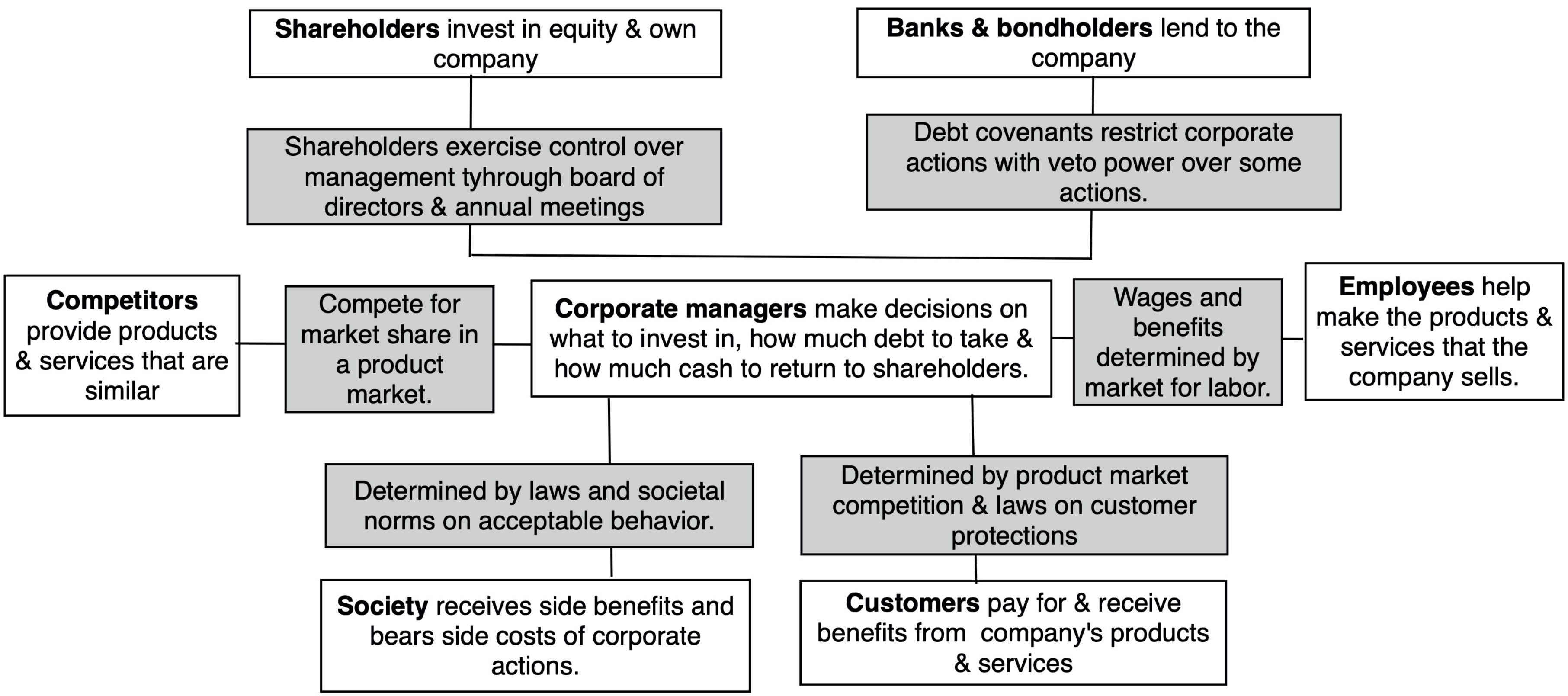
Falabella

Our purpose, is to simplify the lives of people in Latin America by transforming their shopping experiences. Technological disruption, climate change, and a more empowered and informed consumer have all led us to rethink the way we do things and how we approach future challenges. It is for this purpose that we have developed a Physical and Digital Ecosystem that will enable us to strengthen our value proposal towards our customers. We are promoting a profound cultural transformation and a new way of working to face these challenges in the coming years, adding capabilities that are already a part of our value proposition and including new ones. In this context, we understand the need to become an agile and flexible organization, maintaining our tradition of always having the customer and our collaborators at the center of our entire management efforts. The permanent cultural transformation we are driving is based on living and promoting our corporate values, which are the key to the development of our strategy, and stand as a guide for our day to day operations. We work towards this goal daily, driven by our values, the engine of our actions.

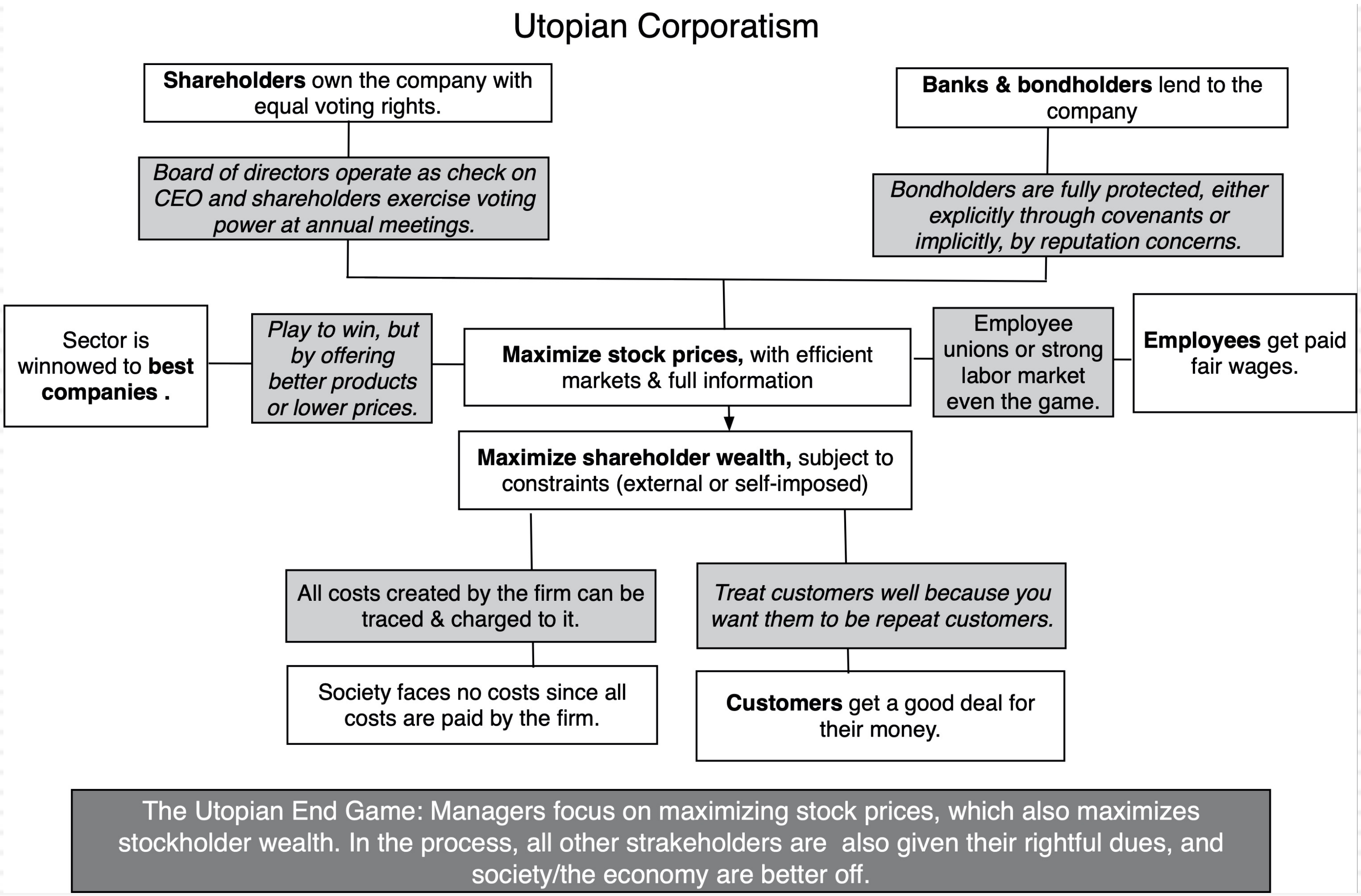
Here is my choice…



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



Utopian Corporatism



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:
  - <u>They are rubber stamps for CEOs</u>: 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.
  - <u>Directors are ill equipped to play the role of monitors</u>: Directors often lack the expertise to question top managers, lack the information to raise questions and the time to follow through.
  - <u>Directors are generally not large stockholders nor do they represent them</u>: 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).

Who is on Board? Falabella

	Chilean I.D. Number	Name	Title	Occupation	Member since	2016 Attendance
1.	9.585.749-3	Carlo Solari Donaggio	Chairman	Civil Engineer	2011	17
2.	7.017.522-3	Juan Carlos Cortés Solari	Vice Chairman	Business Administrator	2002	16
3.	5.718.666-6	Hernán Büchi Buc	Director (Independent)	Civil Engineer	1996	15
4.	5.082.229-K	Sergio Cardone Solari	Director	Business Administrator	1986	17
5.	6.888.500-0	Carolina del Río Goudie	Director	Business Administrator	2011	15
6.	4.773.832-6	José Luis del Río Goudie	Director	Civil Engineer	2003	15
7.	8.717.000-4	Carlos Heller Solari	Director	Agricultural Engineer	2002	14
8.	7.005.097-8	María Cecilia Karlezi Solari	Director	Entrepreneur	2003	13
9.	8.506.868-7	Paola Cúneo Queirolo	Director	Business Administrator	2014	17

Does Falabella have an independent board?

a. Yes

b. No

Does Falabella have an effective board?

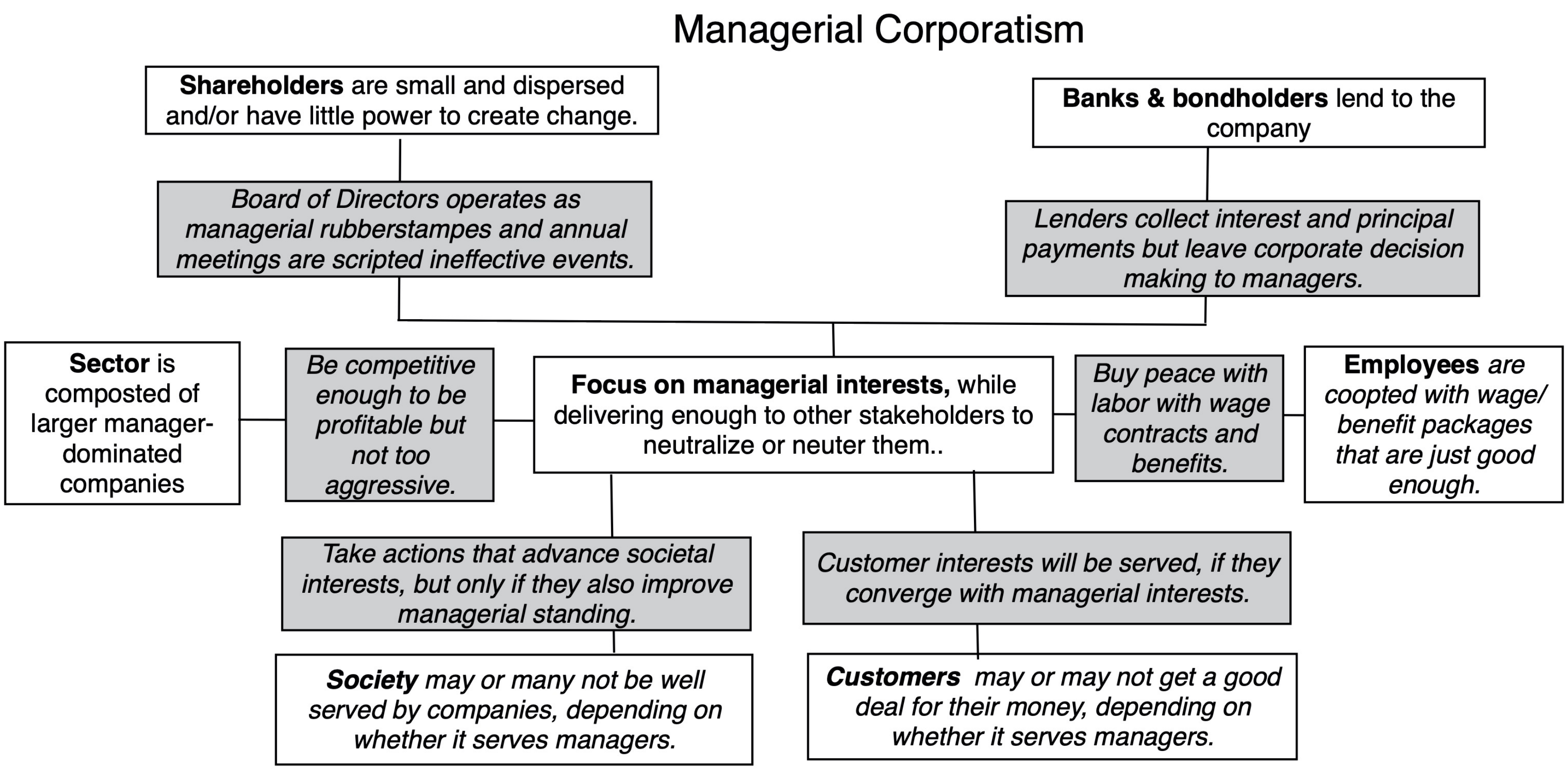
a. Yes

b. No

Number of Directors by years of service

Service	Directors
Under 3 years	-
Between 3 and 6 years	3
Between 6 and 9 years	-
Between 9 and 12 years	-
Over 12 Years	6

One End game: Managerial Corporatism



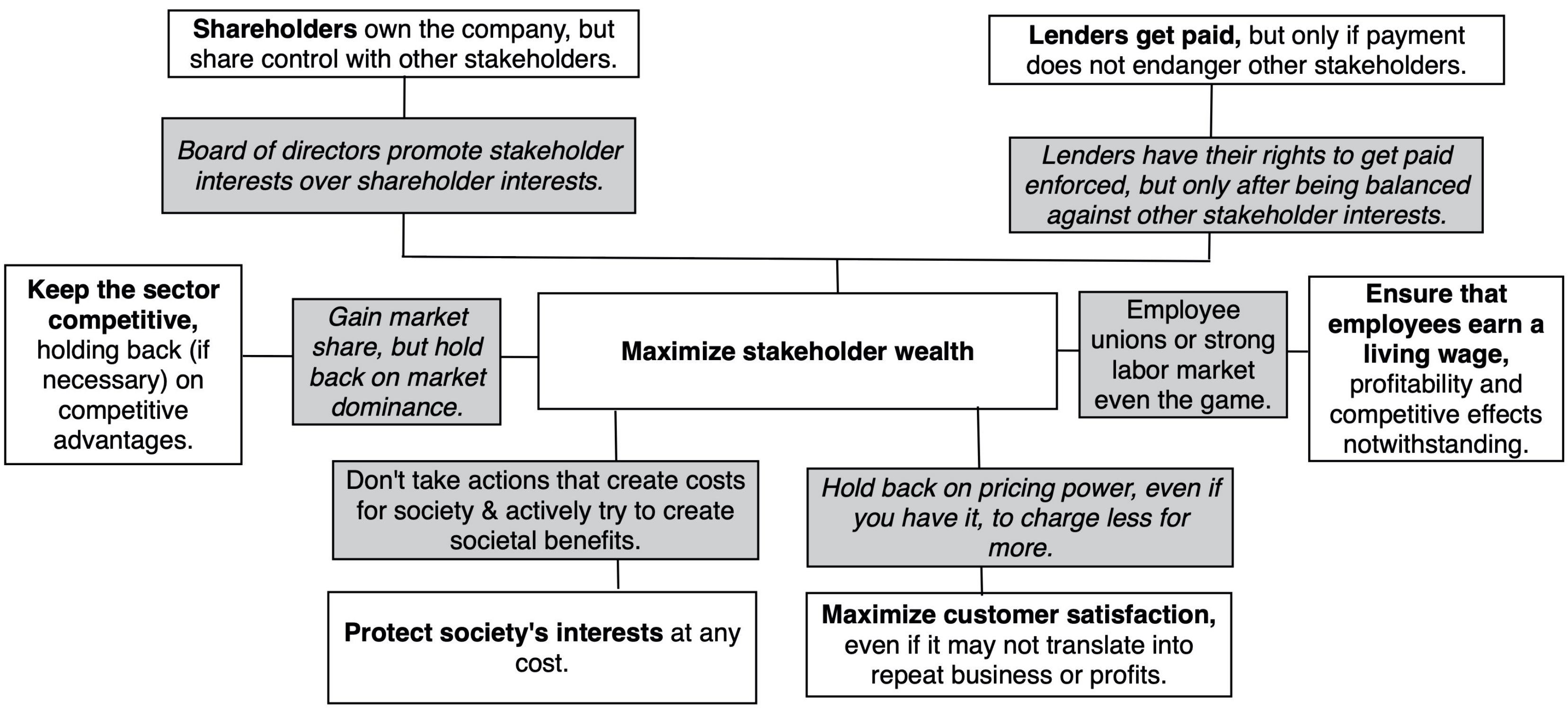
The Managerial End Game: The surviving companies are the ones that find a way to keep managers happy (either economically or with side benefits) with other stakeholders' interests being served well or badly depending on whether they converge with managerial interests.

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

Confused Corporatism

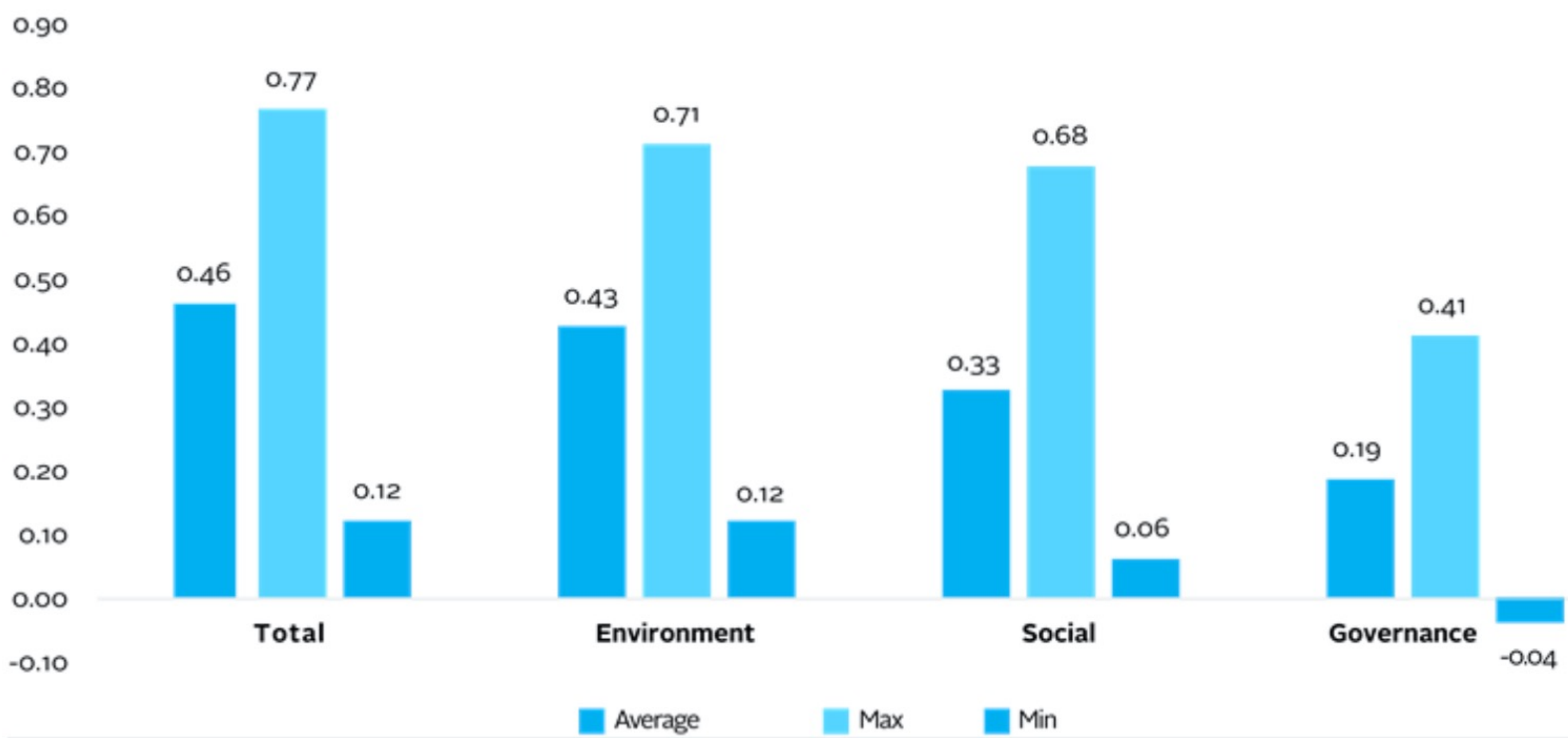


The Confused End Game: In the attempt to serve all stakeholders, none will be served, and there will be no accountabiity for managers, leading to companies that are less competitive and efficient.

The ESG Promises: Cake for all, with no calories!

- Good for companies: For companies, the promise is that being "good" will generate higher profits for the company, at least in the long term, with lower risk, and thus make them more valuable.
- Good for investors: For investors in these companies, the promise is that investing in "good" companies will generate higher returns than investing in "bad" or middling companies.
- Good for society: For society, the promise is that not only would good companies help fight problems directly related to ESG, like climate change and low wages, but also counter more general problems like income inequality and healthcare crises.

But what comprises goodness? The services disagree..



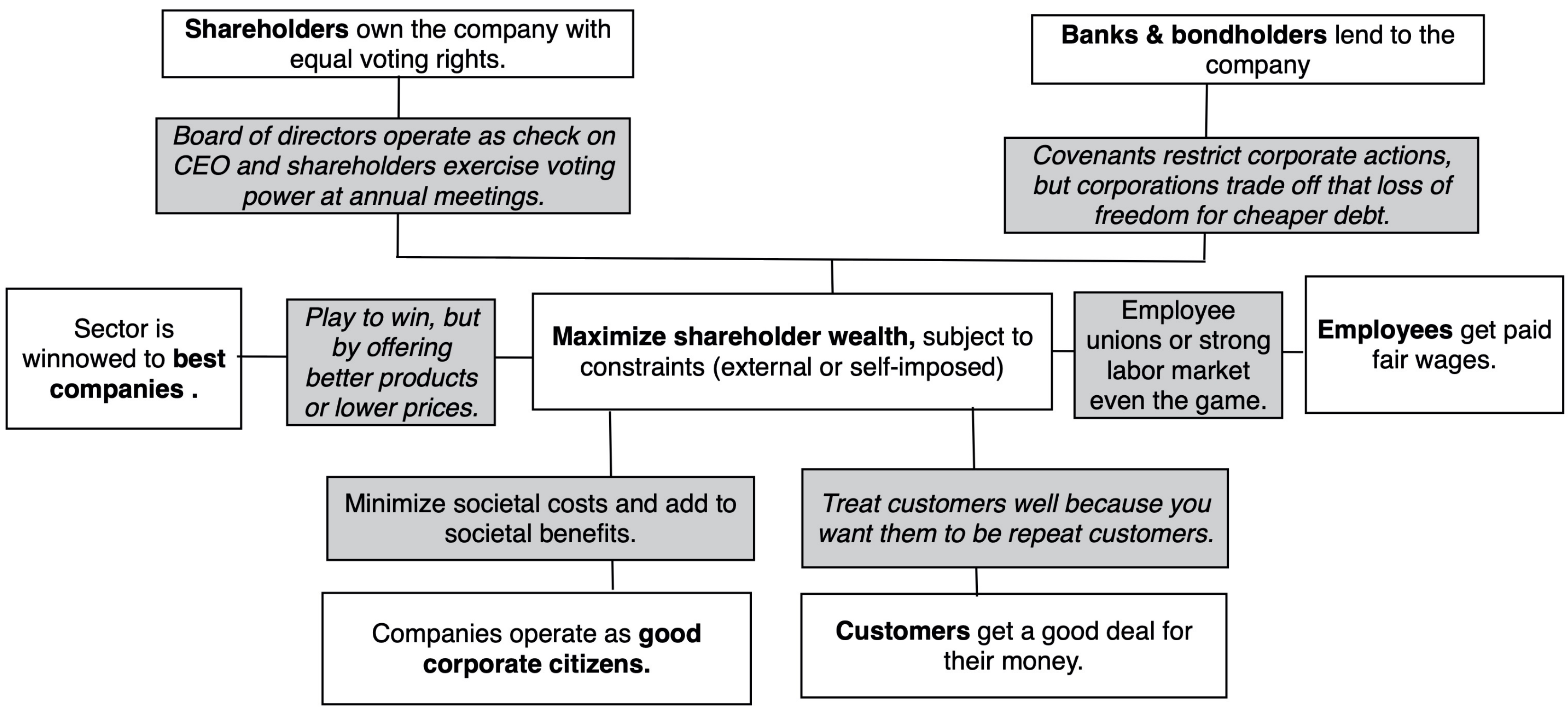
Average, minimum, and maximum correlations across providers

ESG and Value: Where's the beef?

- A Weak Link to Profitability: There is *a small positive link between ESG and profitability*, but one that is very sensitive to how profits are measured and over what period. Breaking down ESG into its component parts, environment (E) offered the strongest positive link to performance and social (S) the weakest, with governance (G) falling in the middle.
- A Stronger Link to Funding Costs: Studies of "sin" stocks, i.e., companies involved in businesses such as producing alcohol, tobacco, and gaming, find that these stocks are less commonly held by institutions and that they face higher costs for funding, from equity and debt). While these companies face higher costs, and have lower value, investors in these companies generate higher returns.
- And to Failure/Disaster Risk: "Bad" companies are exposed to disaster risks, where a combination of missteps by the company, luck, and a failure to build in enough protective controls (because they cost too much) can cause a disaster, either in human or financial terms.

Constrained 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

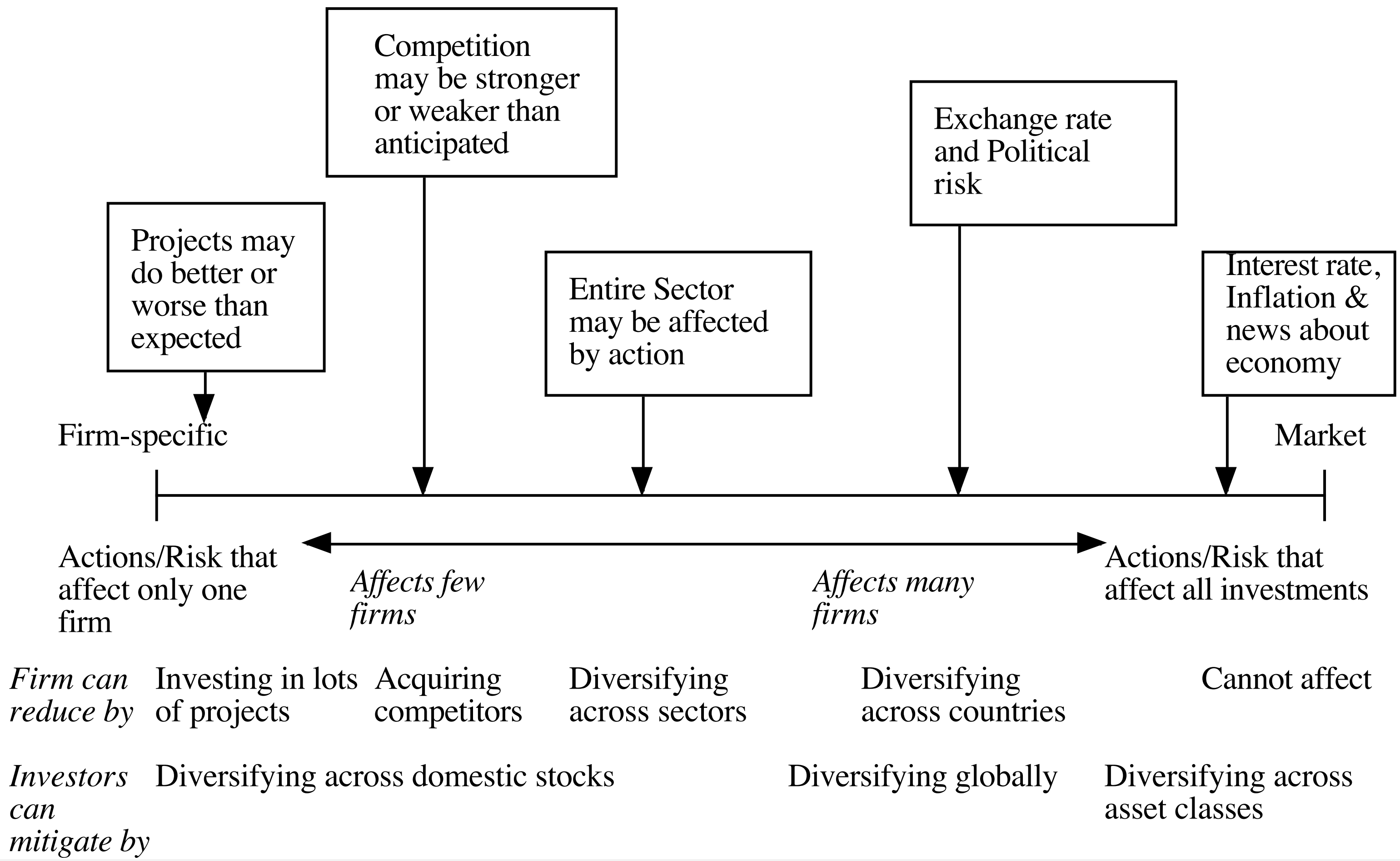
- Risk, in traditional terms, is viewed as a 'negative'. Webster's dictionary, for instance, defines risk as "exposing to danger or hazard". The Chinese symbols for risk, reproduced below, give a much better description of risk:

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

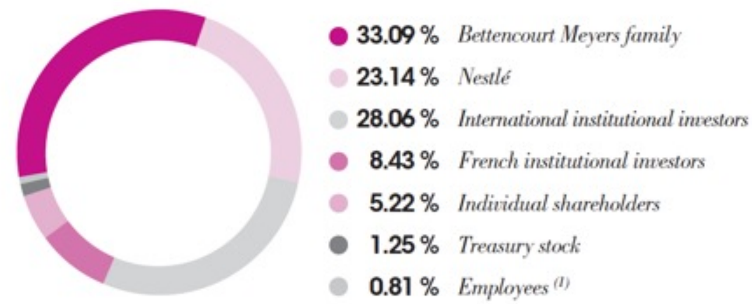
Search Name: All Holders, Sorted by Size | 21) Save Search | 22) Delete Search

Text Search | Holder Group: All Holders

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

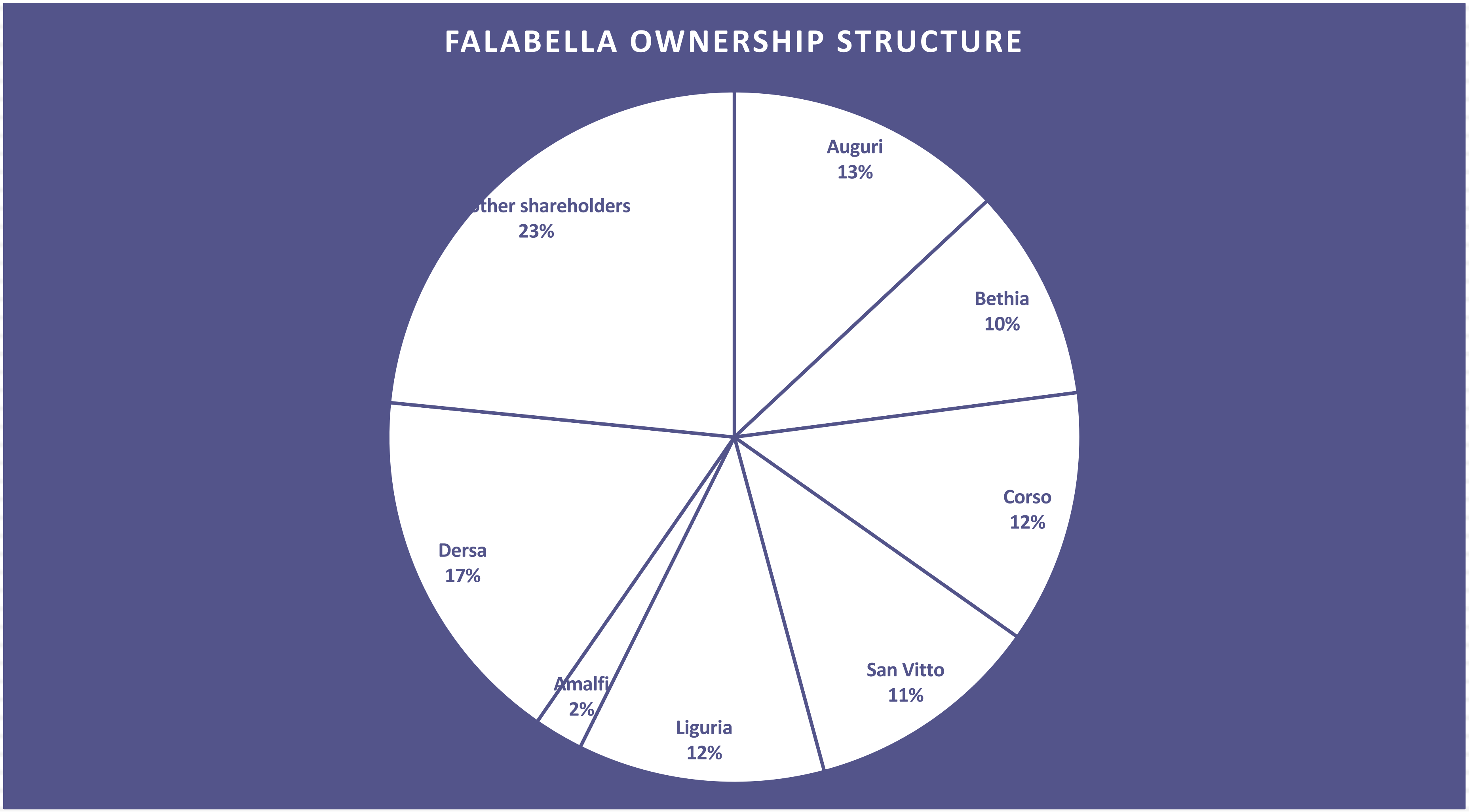
#	Holder Name	Portfolio Name	Source	Opt	Position	% Out
			All	All		
1.	BETTENCOURT LILIANE		EXCH		185,711,273	33.08
2.	TETHYS SAS		EXCH		147,214,292	26.22
3.	NESTLE SA		EXCH		130,065,545	23.17
4.	MEYERS FRANCOISE B		EXCH		38,467,332	6.85
5.	NORGES BANK	Multiple Portfolios	MF-AGG		6,993,016	1.25
6.	VANGUARD 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

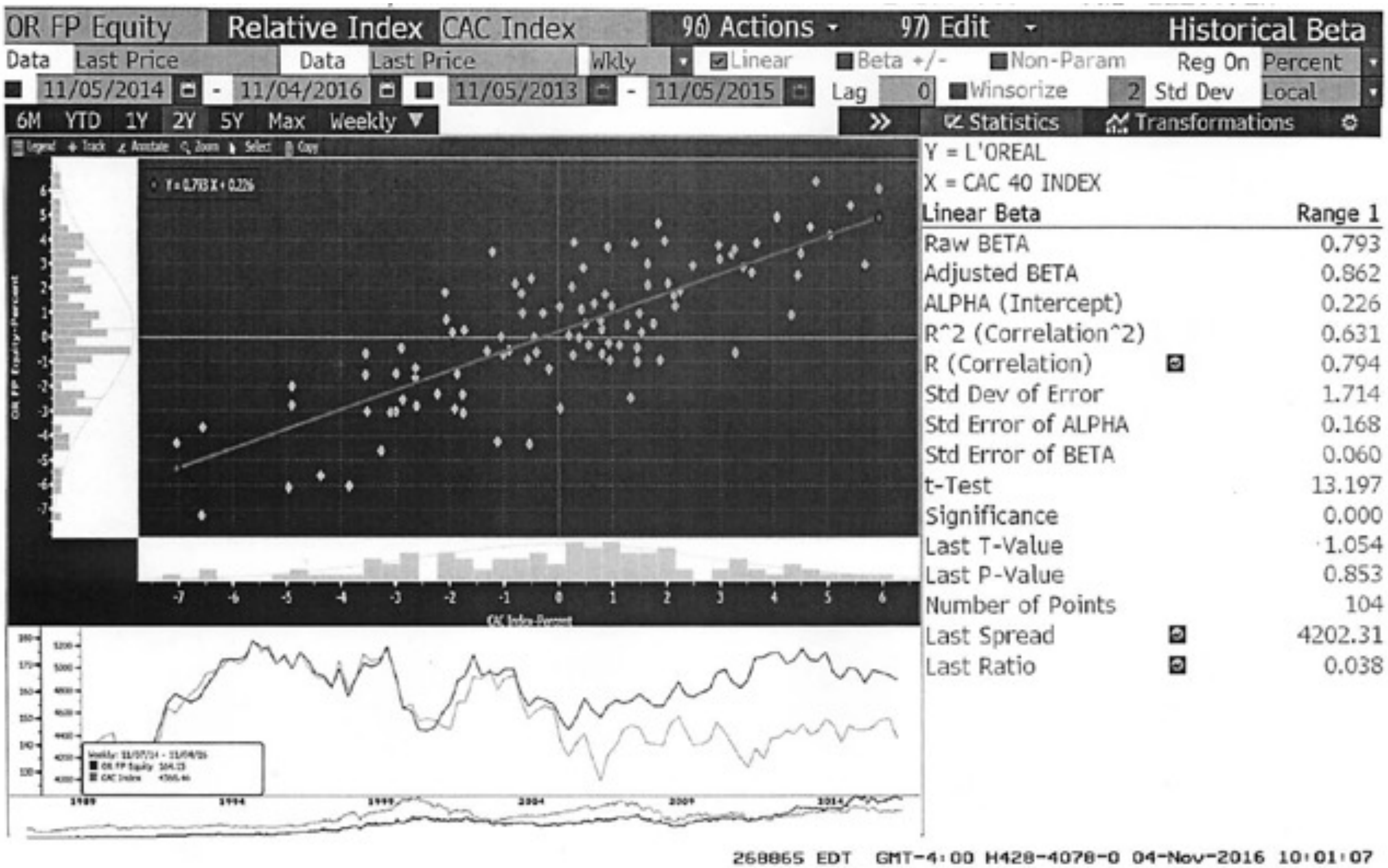


(1) In the L'Oréal Company savings plan (PEE).

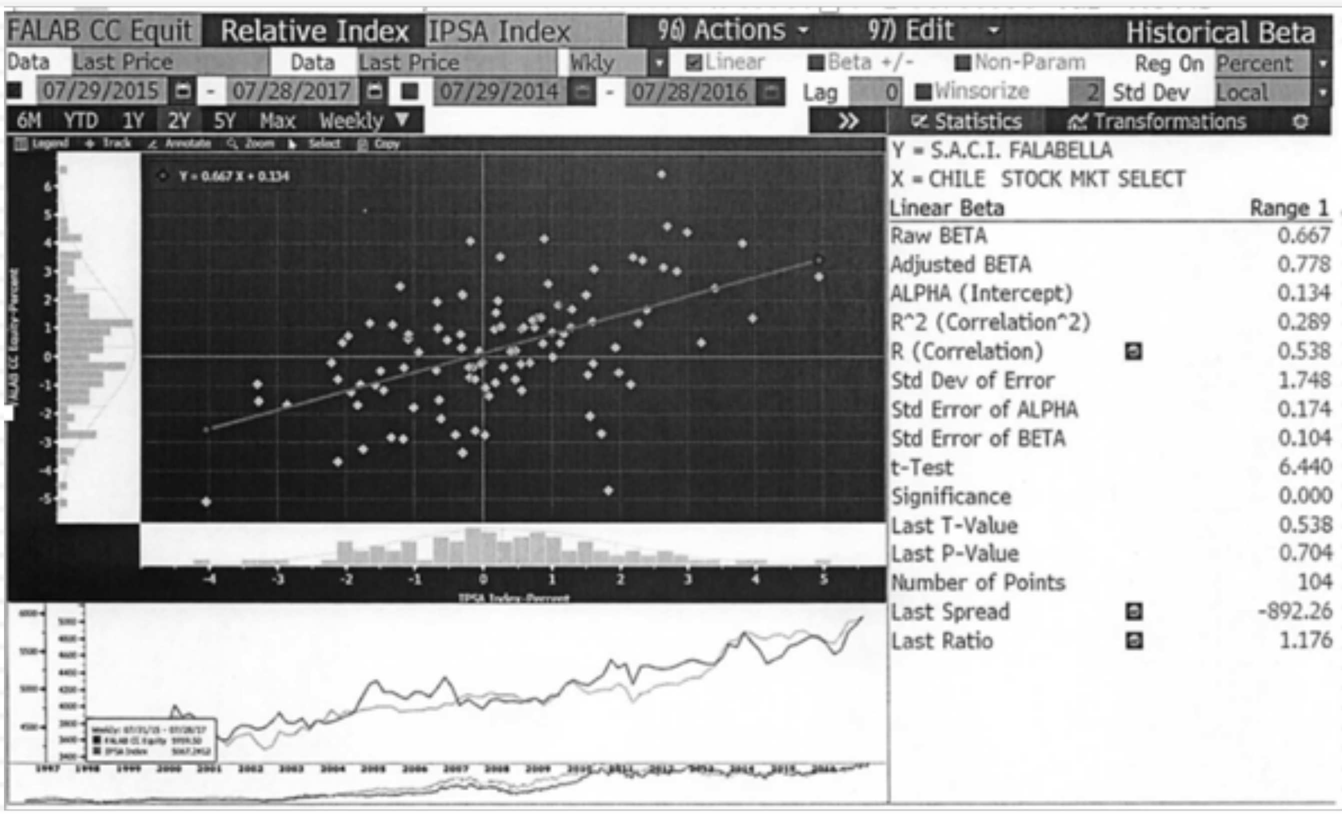
Falabella’s Investor Base



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



Falabella: Beta Regression

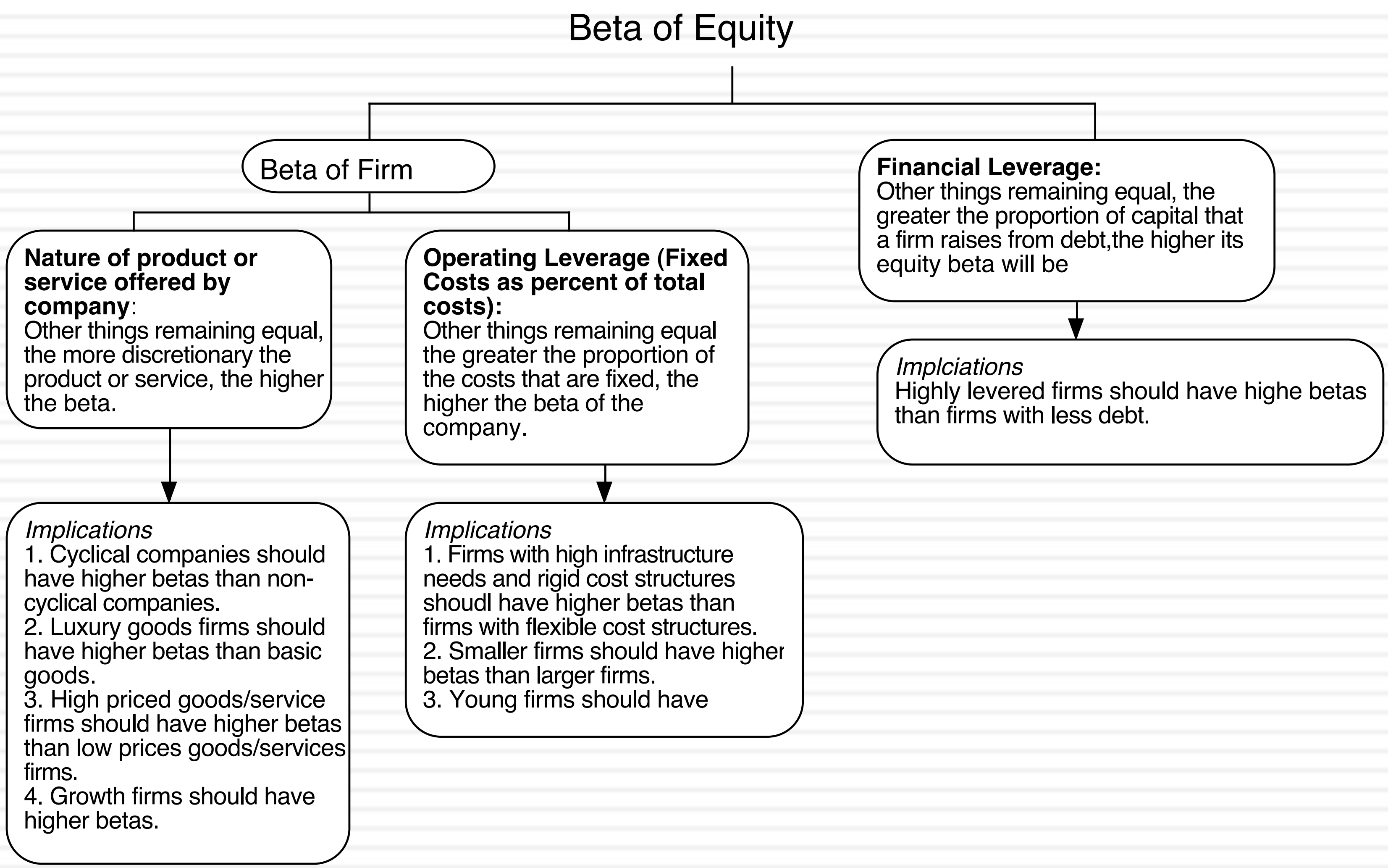


Beta
Raw Beta = 0.67
67% range: 0.57-0.77
95% range: 0.47-0.87

Jensen's alpha
Intercept = 0.13%
Rf (ST Past) = 0.10% (month)
Jensen's alpha = 0.13%–.10%(1–.67)= 0.10%
Annualized = 1.17%

Risk Source
From market: 29%
From firm: 71%

But comes from your choices as a business..



Let's do an intuitive check on L'Oreal

- In your annual report, L"Oreal breaks itself 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 for L"Oreal..

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%	

Falabella: Cost of Equity by Business

Business	*Unlevered Beta*	*D/E ratio*	*Levered Beta*	*Risk free*	*ERP*	*Cost of Equity*
Retail (General)	0.8148	32.47%	1.0159	3.42%	8.31%	11.86%
Retail (Grocery and Food)	0.5678	32.47%	0.7079	3.42%	6.96%	8.35%
Retail (Building Supply)	0.7273	32.47%	0.9068	3.42%	6.94%	9.71%
Real Estate (General/Diversified)	0.6751	32.47%	0.8417	3.42%	6.55%	8.93%
Banking	0.4490	NA	0.8800	3.42%	8.49%	10.89%
Falabela	**0.6396**	**32.47%**	**0.7974**	**3.42%**	**7.76%**	**9.61%**

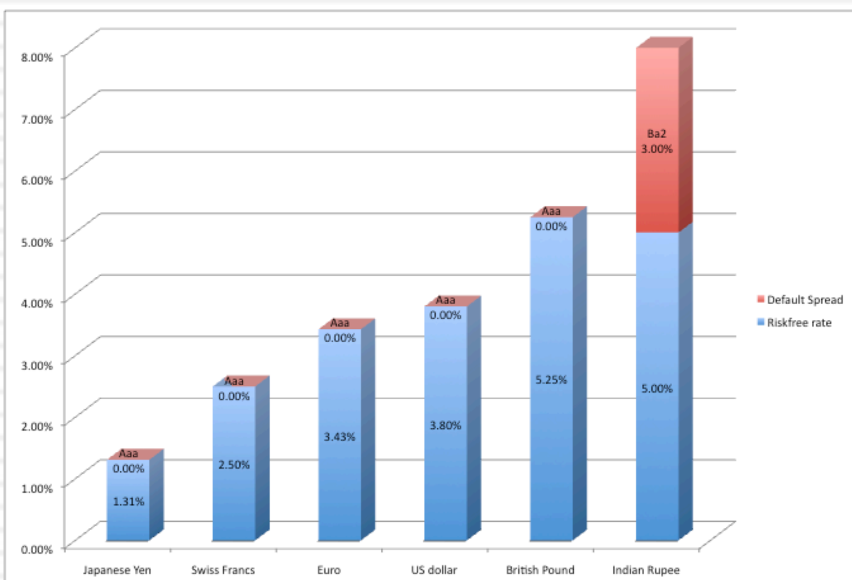
Different country mixes for different businesses

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?

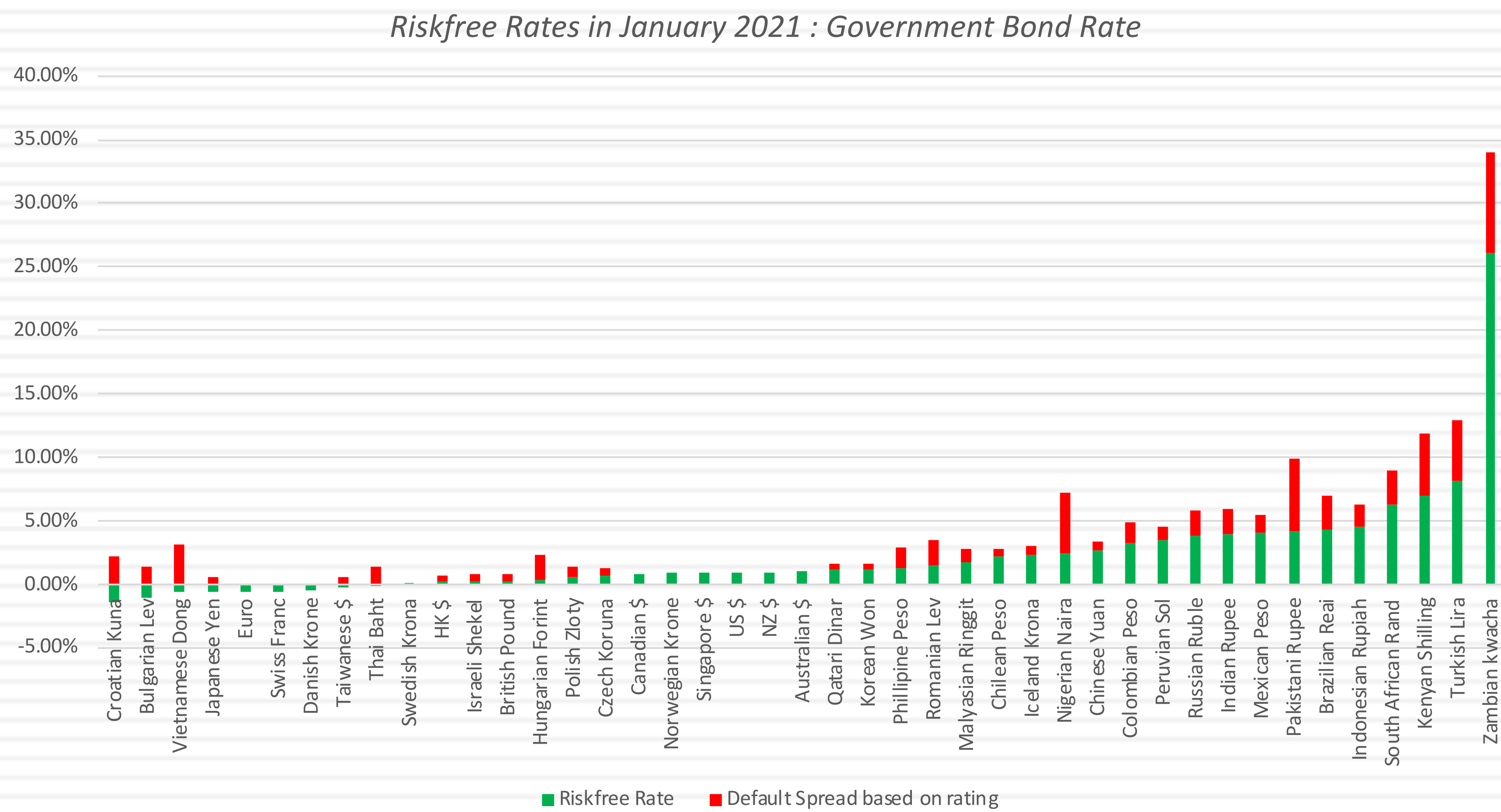


How risky is the business that you are investing in?
Higher risk investments should have higher risk premiums than lower risk investments

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 : Jan 2021

Andorra	Caa1	7.26%	11.98%	Italy	Baa3	2.13%	6.85%
Austria	Aa1	0.38%	5.10%	Jersey	Aaa	0.00%	4.72%
Belgium	Aa3	0.59%	5.31%	Liechtenstein	Aaa	0.00%	4.72%
Cyprus	Ba2	2.91%	7.63%	Luxembourg	Aaa	0.00%	4.72%
Denmark	Aaa	0.00%	4.72%	Malta	A2	0.82%	5.54%
Finland	Aa1	0.38%	5.10%	Netherlands	Aaa	0.00%	4.72%
France	Aa2	0.48%	5.20%	Norway	Aaa	0.00%	4.72%
Germany	Aaa	0.00%	4.72%	Portugal	Baa3	2.13%	6.85%
Greece	Ba3	3.49%	8.21%	Spain	Baa1	1.55%	6.27%
Guernsey	Aaa	0.00%	4.72%	Sweden	Aaa	0.00%	4.72%
Iceland	A2	0.82%	5.54%	Switzerland	Aaa	0.00%	4.72%
Ireland	A2	0.82%	5.54%	Turkey	B2	5.33%	10.05%
Isle of Man	Aa3	0.59%	5.31%	UK	Aa3	0.59%	5.31%
				Western Europe		**0.84%**	**5.56%**

Canada	Aaa	0.00%	4.72%
United States	Aaa	0.00%	4.72%
North America		**0.00%**	**4.72%**

Caribbean		**5.31%**	**10.03%**

Argentina	Ca	11.62%	16.34%
Belize	Caa3	9.68%	14.40%
Bolivia	B2	5.33%	10.05%
Brazil	Ba2	2.91%	7.63%
Chile	A1	0.68%	5.40%
Colombia	Baa2	1.84%	6.56%
Costa Rica	B2	5.33%	10.05%
Ecuador	Caa3	9.68%	14.40%
El Salvador	B3	6.30%	11.02%
Guatemala	Ba1	2.42%	7.14%
Honduras	B1	4.36%	9.08%
Mexico	Baa1	1.55%	6.27%
Nicaragua	B3	6.30%	11.02%
Panama	Baa1	1.55%	6.27%
Paraguay	Ba1	2.42%	7.14%
Peru	A3	1.16%	5.88%
Suriname	Caa3	9.68%	14.40%
Uruguay	B1	4.36%	9.08%
Venezuela	C	19.18%	23.90%
Latin America		**3.99%**	**8.71%**

Country	Rating	*CRP*	*ERP*
Angola	Caa1	7.26%	11.98%
Benin	B2	5.33%	10.05%
Botswana	A2	0.82%	5.54%
Burkina Faso	B2	5.33%	10.05%
Cameroon	B2	5.33%	10.05%
Cape Verde	B2	5.33%	10.05%
Congo (DR)	Caa1	7.26%	11.98%
Congo (Rep of)	Caa2	8.72%	13.44%
Côte d'Ivoire	Ba3	3.49%	8.21%
Egypt	B2	5.33%	10.05%
Ethiopia	B2	5.33%	10.05%
Gabon	Caa1	7.26%	11.98%
Ghana	B3	6.30%	11.02%
Kenya	B2	5.33%	10.05%
Mali	Caa1	7.26%	11.98%
Morocco	Ba1	2.42%	7.14%
Mozambique	Caa2	8.72%	13.44%
Namibia	Ba3	3.49%	8.21%
Niger	B3	6.30%	11.02%
Nigeria	B2	5.33%	10.05%
Rwanda	B2	5.33%	10.05%
Senegal	Ba3	3.49%	8.21%
South Africa	Ba2	2.91%	7.63%
Swaziland	B3	6.30%	11.02%
Tanzania	B2	5.33%	10.05%
Togo	B3	6.30%	11.02%
Tunisia	B2	5.33%	10.05%
Uganda	B2	5.33%	10.05%
Zambia	Ca	11.62%	16.34%
Africa		**4.94%**	**9.66%**

Albania	B1	4.36%	9.08%
Armenia	Ba3	3.49%	8.21%
Azerbaijan	Ba2	2.91%	7.63%
Belarus	B3	6.30%	11.02%
Bosnia & Herzegovina	B3	6.30%	11.02%
Bulgaria	Baa1	1.55%	6.27%
Croatia	Ba1	2.42%	7.14%
Czech Republic	Aa3	0.59%	5.31%
Estonia	A1	0.68%	5.40%
Georgia	Ba2	2.91%	7.63%
Hungary	Baa3	2.13%	6.85%
Kazakhstan	Baa3	2.13%	6.85%
Kyrgyzstan	B2	5.33%	10.05%
Latvia	A3	1.16%	5.88%
Lithuania	A3	1.16%	5.88%
Macedonia	Ba3	3.49%	8.21%
Moldova	B3	6.30%	11.02%
Montenegro	B1	4.36%	9.08%
Poland	A2	0.82%	5.54%
Romania	Baa3	2.13%	6.85%
Russia	Baa3	2.13%	6.85%
Serbia	Ba3	3.49%	8.21%
Slovakia	A2	0.82%	5.54%
Slovenia	A3	1.16%	5.88%
Tajikistan	B3	6.30%	11.02%
Ukraine	B3	6.30%	11.02%
Uzbekistan	Baa2	1.84%	6.56%
E. Europe & Russia		**2.08%**	**6.80%**

Abu Dhabi	Aa2	0.48%	5.20%
Bahrain	B2	5.33%	10.05%
Iraq	Caa1	7.26%	11.98%
Israel	A1	0.68%	5.40%
Jordan	B1	4.36%	9.08%
Kuwait	A1	0.68%	5.40%
Lebanon	C	19.18%	23.90%
Oman	Ba3	3.49%	8.21%
Qatar	Aa3	0.59%	5.31%
Ras Al Khaima	Aaa	0.00%	4.72%
Saudi Arabia	A1	0.68%	5.40%
Sharjah	Baa2	1.84%	6.56%
United Arab Emirates	Aa2	0.48%	5.20%
Middle East		**1.53%**	**6.25%**

Country	*PRS*	*CRP*	*ERP*
Algeria	57.25	8.72%	13.44%
Brunei	80	0.82%	5.54%
Gambia	63.75	6.30%	11.02%
Guinea	53.5	11.62%	16.34%
Guinea-Bissau	62	7.26%	11.98%
Guyana	65.75	5.33%	10.05%
Haiti	52.75	11.62%	16.34%
Iran	59.25	8.72%	13.44%
Korea, D.P.R.	50.75	11.62%	16.34%
Liberia	53.5	11.62%	16.34%
Libya	58.25	8.72%	13.44%
Madagascar	63.25	6.30%	11.02%
Malawi	58.75	8.72%	13.44%
Myanmar	63.75	6.30%	11.02%
Sierra Leone	58.75	8.72%	13.44%
Somalia	50.5	11.62%	16.34%
Sudan	38.25	19.18%	23.90%
Syria	47	19.18%	23.90%
Yemen, Republic	50	19.18%	23.90%
Zimbabwe	52.25	11.62%	16.34%

Bangladesh	Ba3	3.49%	8.21%
Cambodia	B2	5.33%	10.05%
China	A1	0.68%	5.40%
Fiji	Ba3	3.49%	8.21%
Hong Kong	Aa3	0.59%	5.31%
India	Baa3	2.13%	6.85%
Indonesia	Baa2	1.84%	6.56%
Japan	A1	0.68%	5.40%
Korea	Aa2	0.48%	5.20%
Laos	Caa2	8.72%	13.44%
Macao	Aa3	0.59%	5.31%
Malaysia	A3	1.16%	5.88%
Maldives	B3	6.30%	11.02%
Mauritius	Baa1	1.55%	6.27%
Mongolia	B3	6.30%	11.02%
Pakistan	B3	6.30%	11.02%
Papua New Guinea	B2	5.33%	10.05%
Philippines	Baa2	1.84%	6.56%
Singapore	Aaa	0.00%	4.72%
Solomon Islands	B3	6.30%	11.02%
Sri Lanka	Caa1	7.26%	11.98%
Taiwan	Aa3	0.59%	5.31%
Thailand	Baa1	1.55%	6.27%
Vietnam	Ba3	3.49%	8.21%

Australia	Aaa	0.00%	4.72%
Cook Islands	B1	4.36%	9.08%
New Zealand	Aaa	0.00%	4.72%
Australia & NZ		**0.00%**	**4.72%**

Blue: Moody's Rating
Red: Added Country Risk
Green #: Total ERP

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, L'Oreal 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

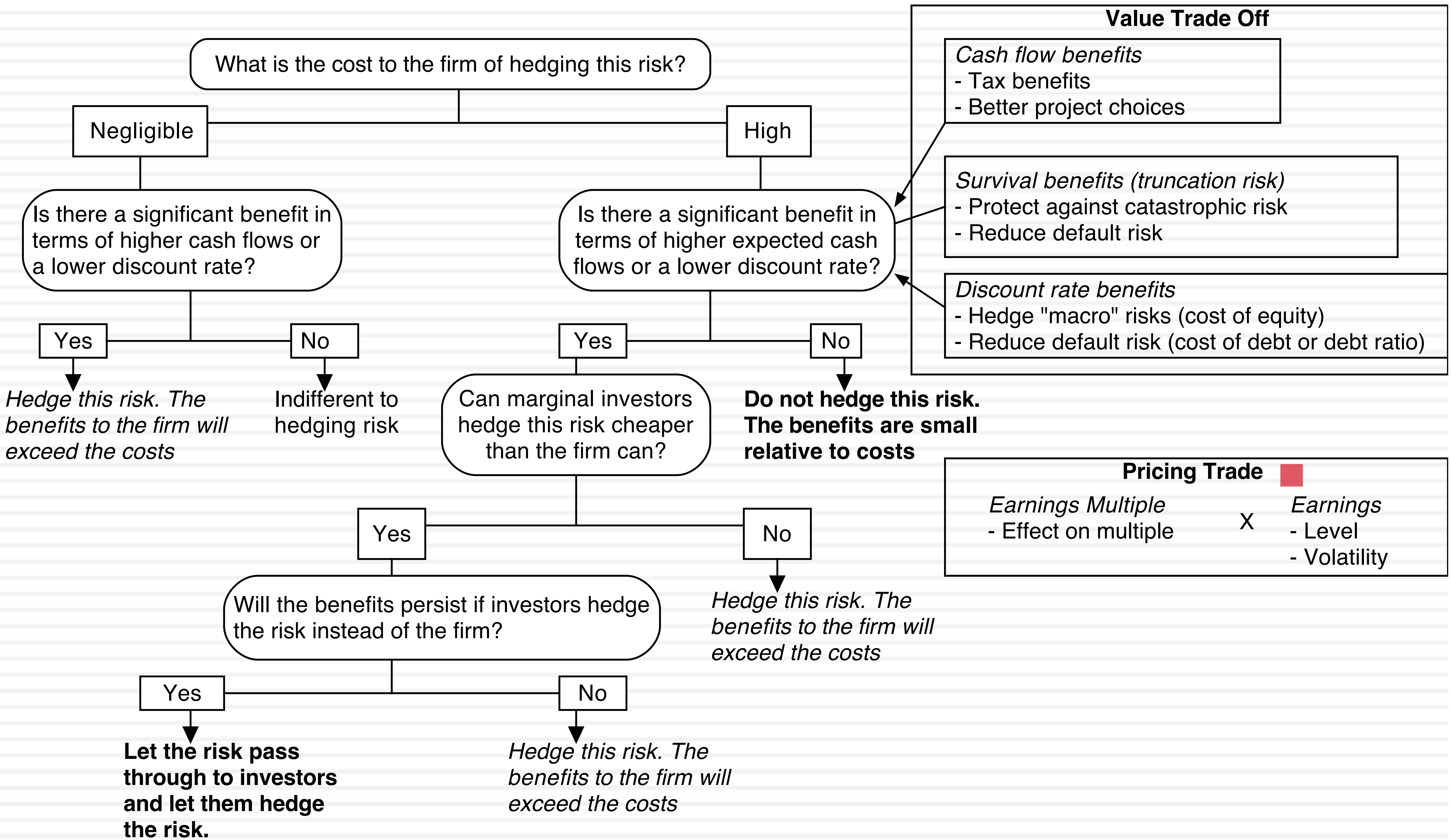
L’Oreal’s best businesses, its worst ones and where you stand as a company..

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%**

ROIC: Truth in Advertising

- <u>It is from the past</u>: The return on invested capital is based upon operating income and invested capital from a time period (last year, average of the last five years etc.)
- <u>And an accounting number</u>: You can dress up ROIC as much as you want, but it is still, at its core, an accounting number. It is the only place in finance that we use book values.
- <u>Subject to accounting actions and game playing</u>: Any actions taken by accountants, legitimate or game playing, and any accounting inconsistencies (leases, R&D etc), will show up in ROIC.

Bottom line: The ROIC is a metric, perhaps even a useful one for mature companies, but not a very good one for young companies or companies in transition.


Value Trade Off
Cash flow benefits
- Tax benefits
- Better project choices
Survival benefits (truncation risk)
- Protect against catastrophic risk
- Reduce default risk
Discount rate benefits
- Hedge "macro" risks (cost of equity)
- Reduce default risk (cost of debt or debt ratio)
What is the cost to the firm of hedging this risk?
Negligible
High
Is there a significant benefit in terms of higher cash flows or a lower discount rate?
Is there a significant benefit in terms of higher expected cash flows or a lower discount rate?
Yes
No
Yes
No
Hedge this risk. The benefits to the firm will exceed the costs
Indifferent to hedging risk
Can marginal investors hedge this risk cheaper than the firm can?
Do not hedge this risk. The benefits are small relative to costs
Pricing Trade
Earnings Multiple
- Effect on multiple
X
Earnings
- Level
- Volatility
Yes
No
Hedge this risk. The benefits to the firm will exceed the costs
Will the benefits persist if investors hedge the risk instead of the firm?
Yes
No
Let the risk pass through to investors and let them hedge the risk.
Hedge this risk. The benefits to the firm will exceed the costs

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.

Acquisition Sins

- Risk Transference
  - The Sin: Using the acquiring company's risk characteristics (hurdle rate) to value a target company's cash flows.
  - The Fix: Use the target company's risk to determine its hurdle rate.
- Debt Subsidies
  - The Sin: Using acquired company's debt capacity and/or low cost of debt to lower discount rate for target valuation
  - The Fix: Use target company's cost of debt/ debt capacity.
- Magical Synergy
  - The Sin: Synergy is a plug variable, unplanned and unaccounted for
  - The Fix: Plan for synergy, buy it for less and hold someone accountable
- Auto-pilot Control
  - The Sin: Control is worth an extra 20%
  - The Fix: Value the company, with the status quo and with you in control, & pay less
- Decision first, analysis to follow
  - The Sin: Top management, egged on by bankers & consultants, decides to do deal before analysis.
  - The Fix: Don't let bankers/consultants decide on whether deal makes sense.

A New Supermarket Acquisition in Brazil: Cash Flows to Equity and NPV

- Assume that Falabella is considering an acquisition of Sonda, the Brazilian supermarket chain for R$ 1 billion.
- In 2016, Sonda generated net income of R$70 million on revenues of R$ 3.4 billion. After reinvestments and net debt issuances, the free cash flow to equity for the year was R$ 50 million.

Net Income	=	R$ 70 million
(minus) Reinvestment	=	R$ 30 million
(plus) Net Debt raised	=	R$ 10 million
FCFE	=	R$ 50 million

- The net income and FCFE is expected to grow 8% a year in perpetuity, in $R terms.
- The cost of equity, for a Brazilian supermarket investment, in $R and using the debt ratio that Falabella uses is 14.16%.

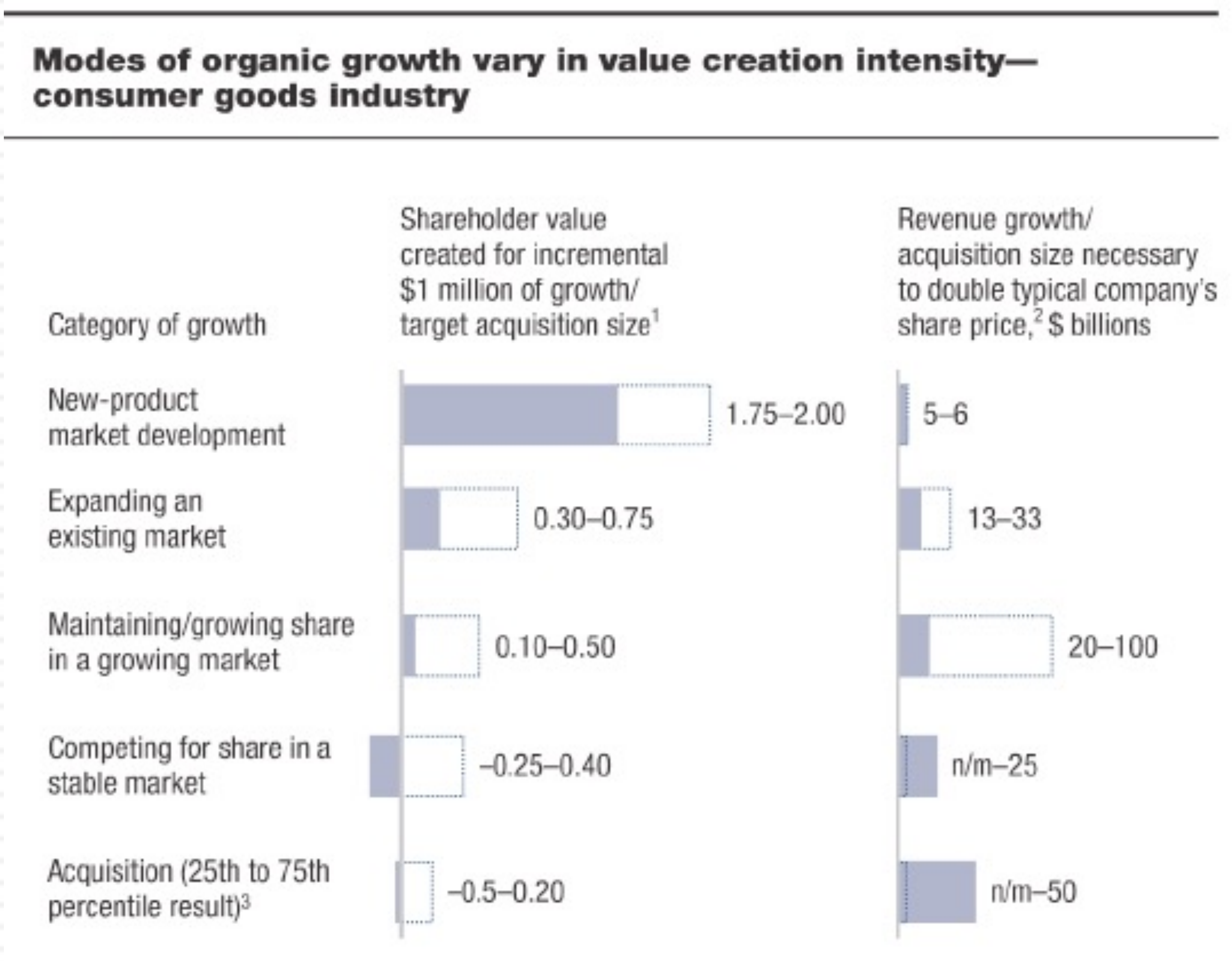
Valuing Sonda's equity

- Value of Sonda's equity

  = FCFE next year/ (Cost of equity – Expected growth rate)

  = R$50 (1.08)/ (.1416 - .08) = R$ 876.62 million
- Since the acquisition cost is R$ 1 billion, as a stand alone investment, this acquisition does not make sense.
- It is possible that Falabella could gain synergies that account for the difference, but if that is the rationale, you need specifics about what these synergies are and their effect on cash flows.

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

Extension to a firm with volatile earnings: Falabella's Optimal Debt Ratio

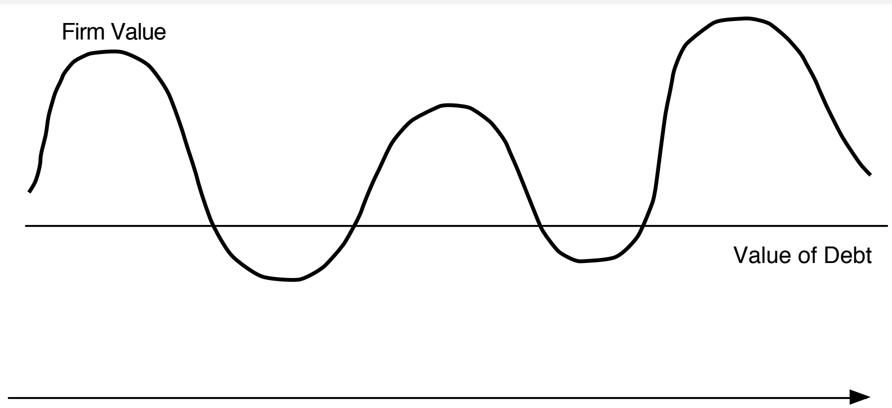
Debt Ratio	Beta	Cost of Equity	Bond Rating	Interest rate on debt	Tax Rate	Cost of Debt (after-tax)	WACC	Enterprise Value
0%	0.6396	8.38%	Aaa/AAA	4.72%	24.00%	3.59%	8.38%	$17,503,548
10%	0.6936	8.80%	Aa2/AA	4.92%	24.00%	3.74%	8.30%	$17,822,098
20%	0.7611	9.33%	A3/A-	5.37%	24.00%	4.08%	8.28%	$17,892,292
30%	0.8479	10.00%	B3/B-	9.62%	24.00%	7.31%	9.19%	$12,032,681
40%	0.9986	11.17%	C2/C	14.62%	15.80%	12.31%	11.63%	$7,037,576
50%	1.1983	12.72%	C2/C	14.62%	12.64%	12.77%	12.75%	$6,184,629
60%	1.5254	15.26%	D2/D	18.12%	7.67%	16.73%	16.14%	$4,076,088
70%	2.0338	19.20%	D2/D	18.12%	6.58%	16.93%	17.61%	$3,651,308
80%	3.0507	27.09%	D2/D	18.12%	5.75%	17.08%	19.08%	$3,306,708
90%	6.1014	50.77%	D2/D	18.12%	5.12%	17.19%	20.55%	$3,021,543

Falabella's actual debt ratio is 24.51% and its current cost of capital is 8.25%.

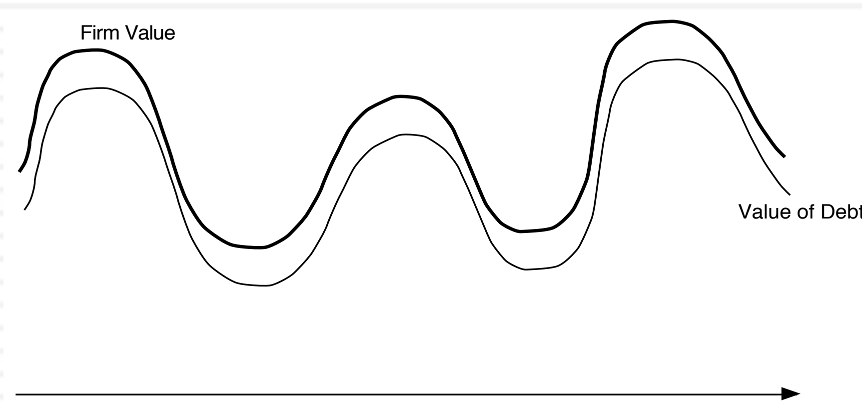
Lesson 10: The "right" debt for your firm depends on your firm

- 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

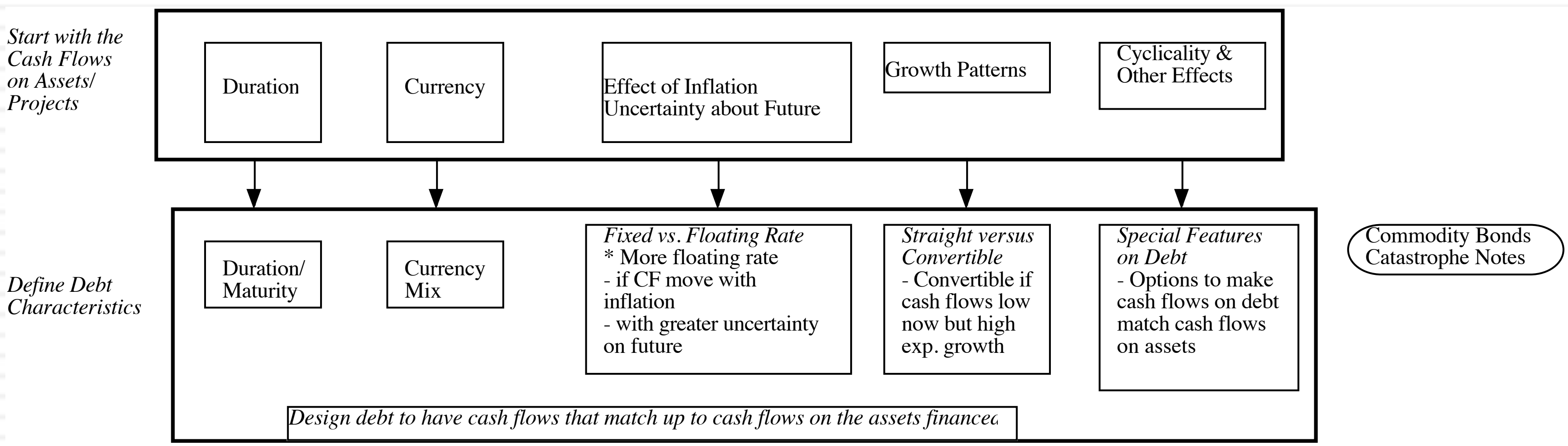


Matched Debt



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



Falabella's perfect debt

- Typical investment: Falabella's typical investment is a new retail outlet, a department store, a supermarket or a home improvement outlet.
- Recommendation: If the property is acquired, the debt should be long term, fixed rate and in the currency of whichever country the property is in. If it is leased, the lease should be a long term lease, with flexibility built into the lease to allow for Falabella to abandon the lease if the retail outlet does not do as well as expected.
- Actual: The existing debt at Falabella is primarily long term, local currency debt.

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

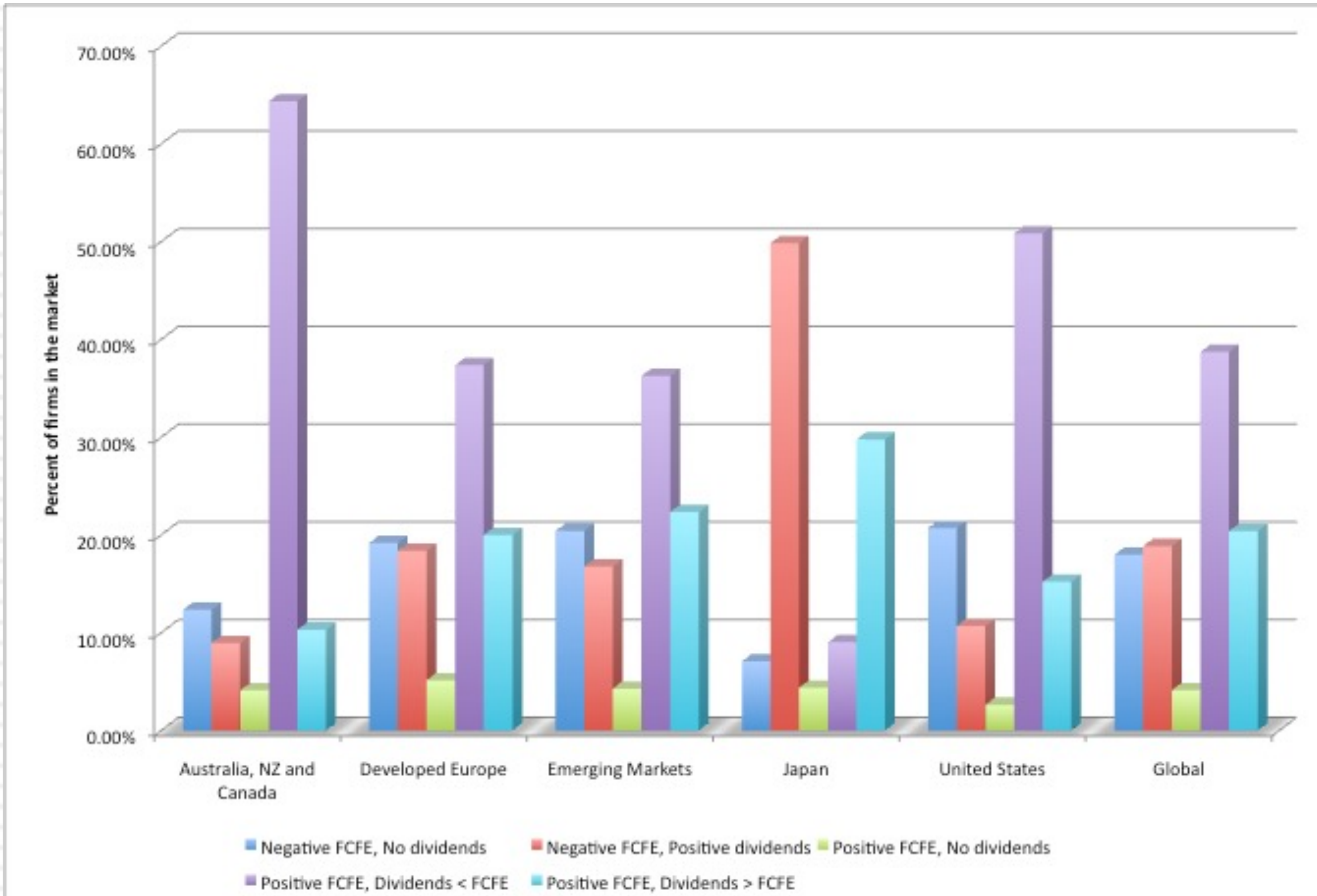
- The Free Cashflow to Equity (FCFE) is a measure of how much cash is left in the business after non-equity claimholders (debt and preferred stock) have been paid, and after any reinvestment needed to sustain the firm's assets and future growth.

Standard Definition	**Modified Version**	**Simplified (if debt ratio = constant)**
Net Income	Net Income	Net Income
+ Depreciation	**Reinvestment** - (Cap Ex - Depreciation + Change in Working Capital)	**Reinvestment from Equity** - (Cap Ex - Depreciation + Change in Working Capital) (1 - Debt Ratio)
- Cap Ex		
- Change in WC		
FCFE before debt cash flow	***FCFE before debt cash flow***	
+ New Debt Issued	**Net CF from Debt** + (New Debt Issued - Debt Repaid)	
- Debt Repaid		
FCFE	***FCFE***	***FCFE***

Falabella – Dividends versus FCFE

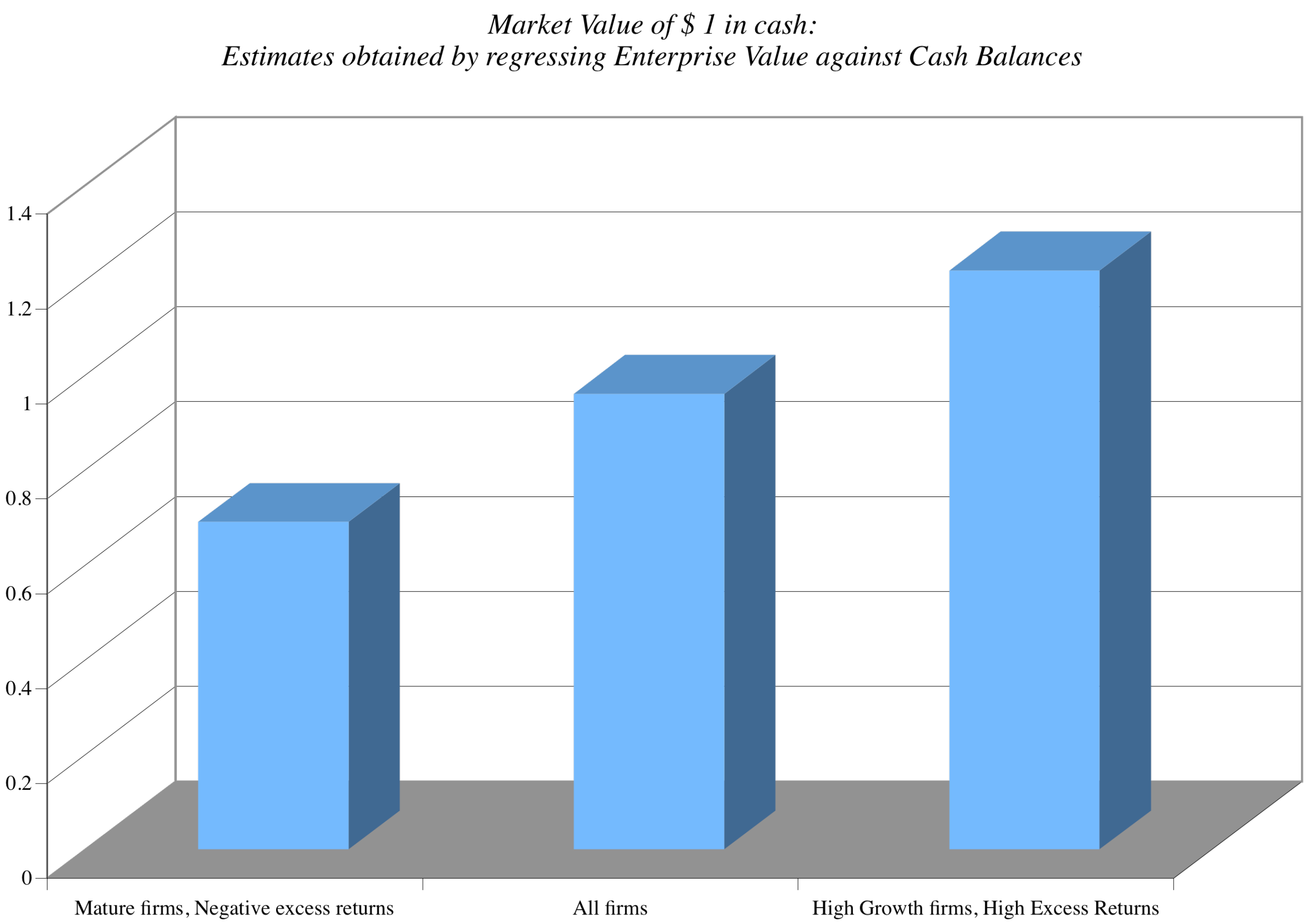
	Aggregate
Net Income (billions)	57,404 CLP
Dividends (billions)	36,766 CLP
Dividend Payout Ratio	64.05%
Stock Buybacks (billions)	6,032 CLP
Dividends + Buybacks (billions)	42,798 CLP
Cash Payout Ratio	74.56%
Free CF to Equity (pre-debt) (billions)	-1,903 CLP
Free CF to Equity (actual debt) (billions)	1,036 CLP
Free CF to Equity (target debt ratio) (billions)	19,138 CLP
Cash payout as % of pre-debt FCFE	FCFE negative
Cash payout as % of actual FCFE	4131.08%
Cash payout as % of target FCFE	223.63%

And companies don't pay out what they can afford to….

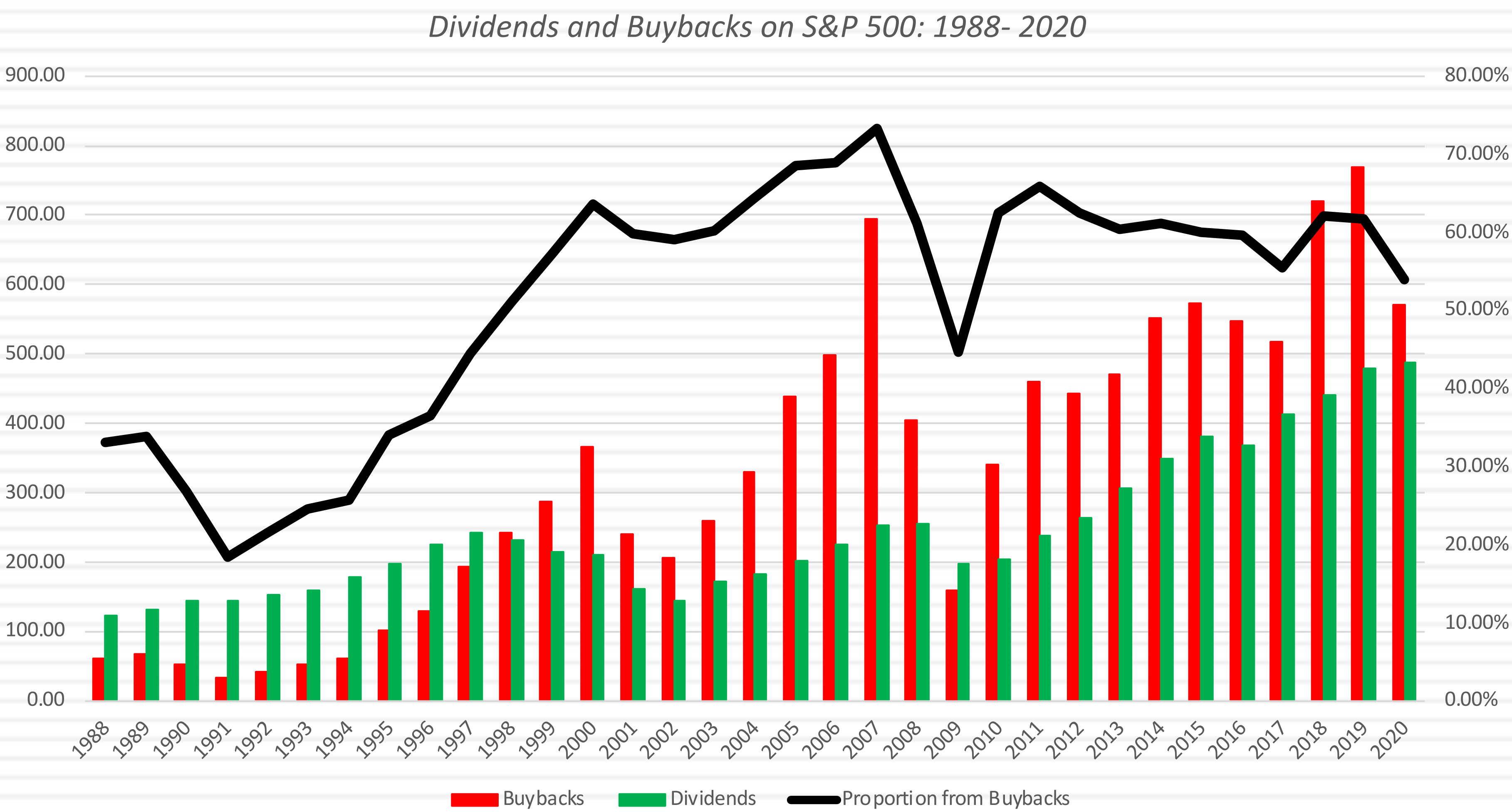


FCFE = Potential Dividends = Cash left over after all operating expenses, taxes, reinvestment and debt payments have been made.

Not all cash balances are created equal…



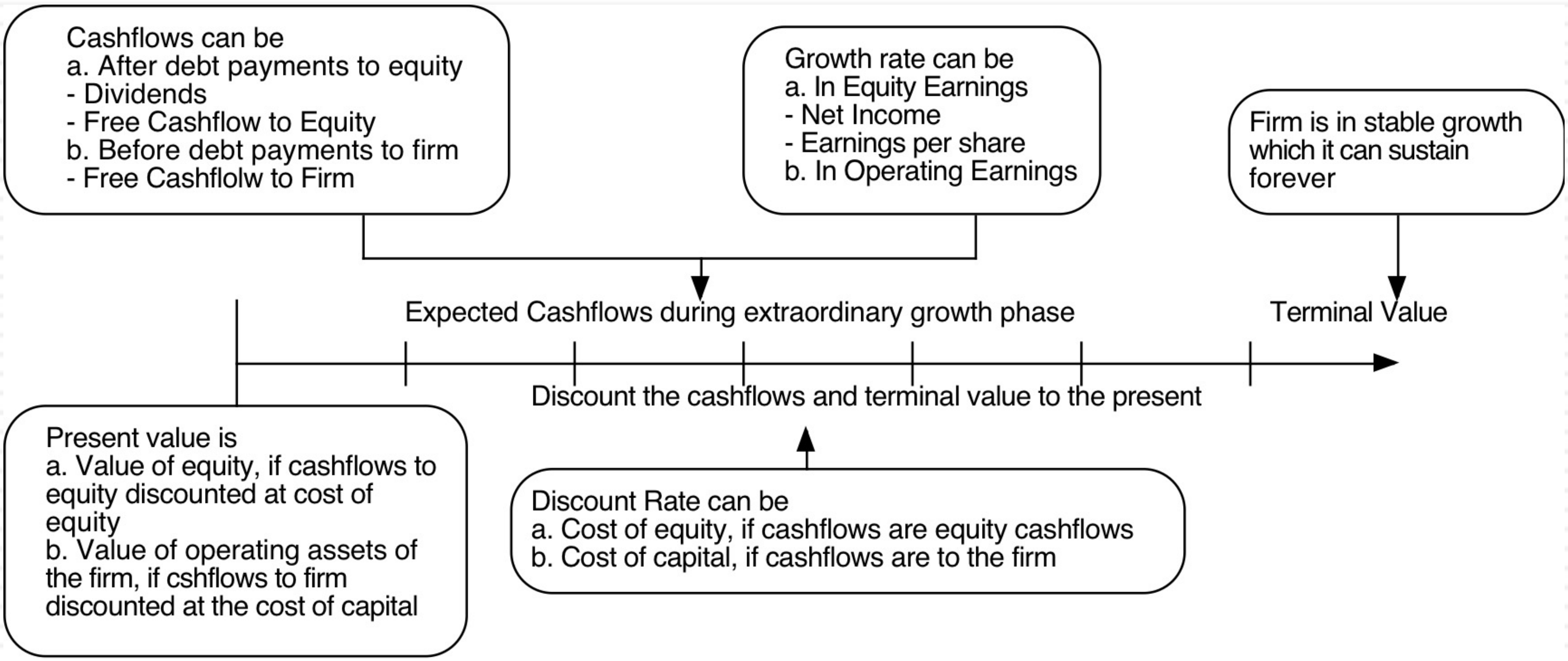
And buybacks are flexible dividends…



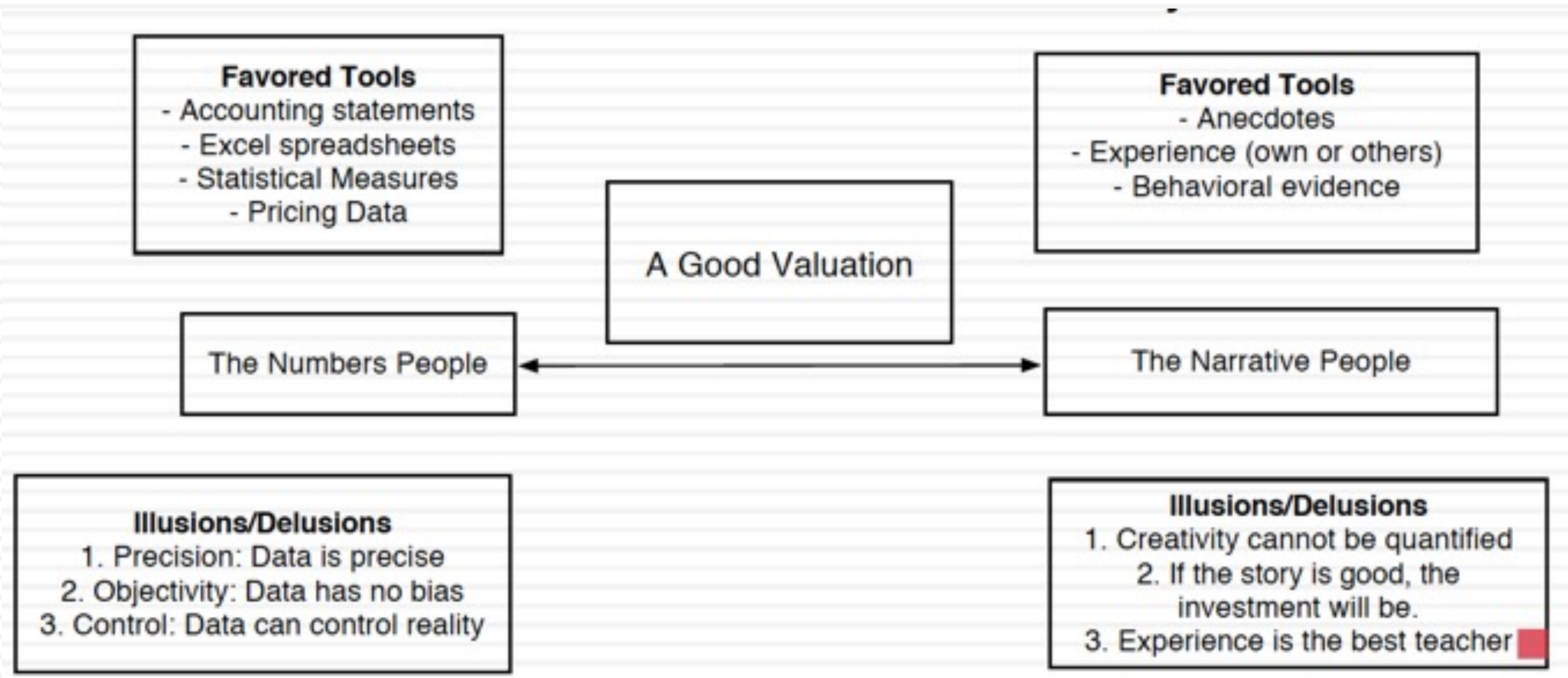
Mythology on buybacks..

- Buybacks increase stock prices: The notion that buybacks are automatically good for stock prices is built on the fact that they reduce share count. That is not just lazy, but it is wrong, since the equity drops by the cash returned.
  - The net effect on value is determined almost entirely by whether the buybacks moves the company towards or away from its optimal financial mix.
  - The net effect on price is more messy, since buybacks can affect mood and momentum.
- Buybacks are bad for investment: A company that is using cash to fund buybacks is clearly not investing, but the cash used for the buybacks goes to investors who invest in other companies. In short, buybacks move cash from companies that do the buybacks to companies raising capital in markets.
- Buybacks are funded primarily with debt: It is true that some companies doing buybacks fund them with debt, but the bulk of buybacks in the last decade have come from companies that have not seen dramatic increases in debt.

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

Are you investing optimally for future growth?

How well do you manage your existing investments/assets?

Growth from new investments
Growth created by making new investments; function of amount and quality of investments

Efficiency Growth
Growth generated by using existing assets better

Is there scope for more efficient utilization of exsting assets?

Cashflows from existing assets
Cashflows before debt payments, but after taxes and reinvestment to maintain exising assets

Expected Growth during high growth period

Stable growth firm, with no or very limited excess returns

Are you building on your competitive advantages?

Length of the high growth period
Since value creating growth requires excess returns, this is a function of
- Magnitude of competitive advantages
- Sustainability of competitive advantages

Are you using the right amount and kind of debt for your firm?

Cost of capital to apply to discounting cashflows
Determined by
- Operating risk of the company
- Default risk of the company
- Mix of debt and equity used in financing