

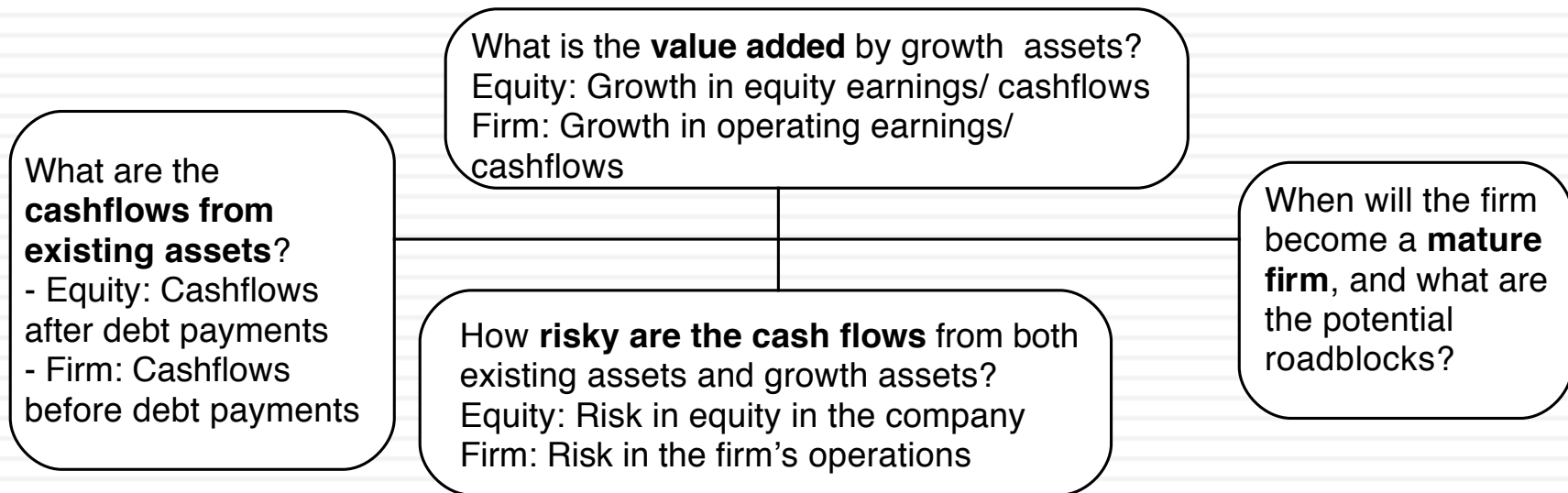
Slouching towards Financial Honesty: Ten Truths I learned along the way

October 2016

Aswath Damodaran

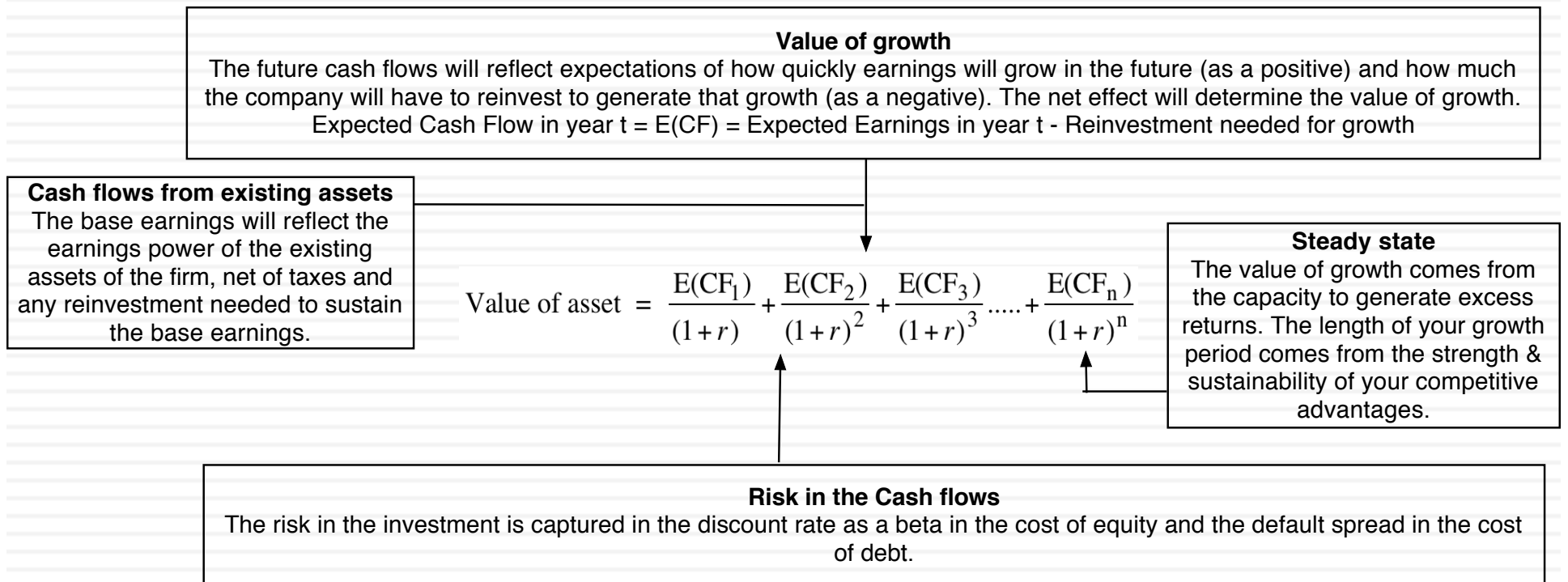
1. Valuation is simple

2



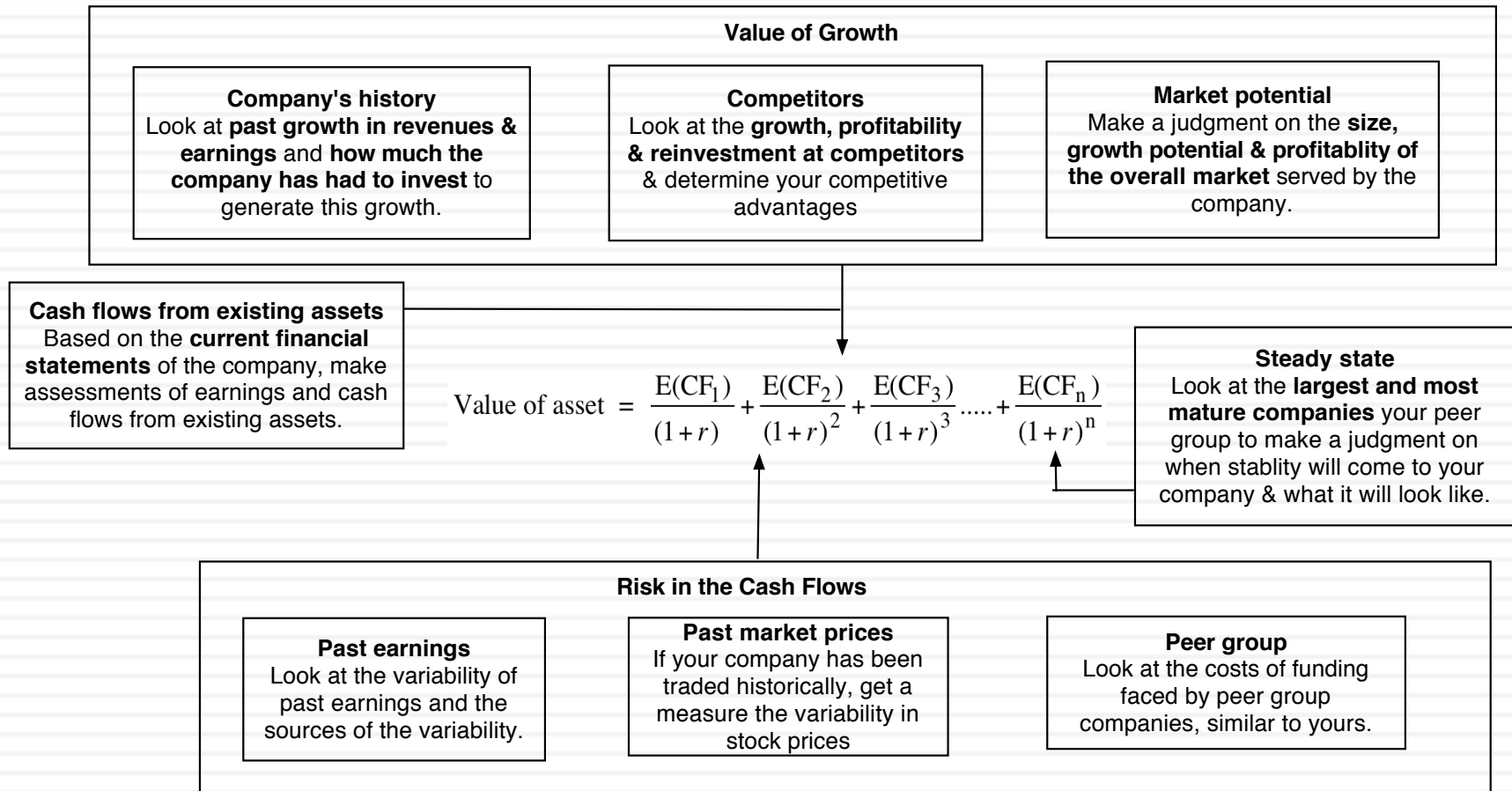
DCF as a tool for intrinsic valuation

3



And when looking for information, look everywhere..

4

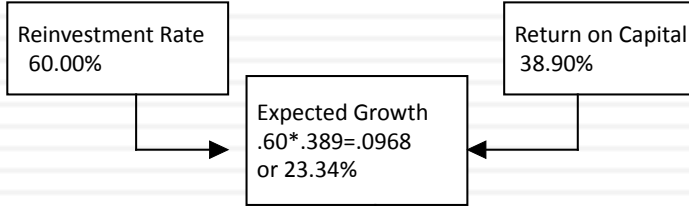


San Miguel: November 2015 (in ARS)

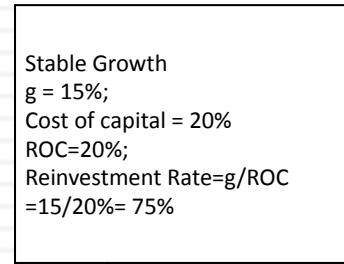
Cash flows from existing assets

	2015	Last 5 years
Revenues (millions)	\$2,316.41	CAGR of 23.2%
Operating income (millions)	\$845.79	Operating margin = 36.51%
Effective tax rate	33.70%	Average = 36%
Book value of equity (millions)	\$1,057	
Invested Capital (millions)	\$1,442	
Return on invested capital =	38.90%	

The Payoff from growth



Maturity and Closure



ARS Cashflows

Terminal Value = $1,046 / (.20 - .15) = 20,916$

	1	2	3	4	5	6	7	8	9	10	Term Year
Revenue growth rate	23.34%	23.34%	23.34%	23.34%	23.34%	21.67%	20.00%	18.34%	16.67%	15.00%	15.00%
Revenues	\$ 2,857	\$ 3,524	\$ 4,346	\$ 5,361	\$ 6,612	\$ 8,044	\$ 9,653	\$ 11,423	\$ 13,327	\$ 15,327	\$ 17,625
EBIT (Operating income)	\$ 1,043	\$ 1,287	\$ 1,587	\$ 1,957	\$ 2,414	\$ 2,937	\$ 3,525	\$ 4,171	\$ 4,866	\$ 5,596	\$ 6,436
EBIT(1-t)	\$ 692	\$ 853	\$ 1,052	\$ 1,298	\$ 1,601	\$ 1,940	\$ 2,319	\$ 2,733	\$ 3,176	\$ 3,638	\$ 4,183
- Reinvestment	\$ 336	\$ 415	\$ 512	\$ 631	\$ 779	\$ 892	\$ 1,001	\$ 1,102	\$ 1,185	\$ 1,244	\$ 3,137
FCFF	\$ 355	\$ 438	\$ 540	\$ 666	\$ 822	\$ 1,048	\$ 1,317	\$ 1,631	\$ 1,991	\$ 2,393	\$ 1,046

PV(Terminal value)	\$ 3,212
PV (CF over next 10 years)	\$ 3,314
Value of operating assets =	\$ 6,526
- Debt	\$ 1,540
+ Cash	\$ 466
Value of equity	\$ 5,452
Number of shares	644.20
Estimated value /share	\$ 8.46

Discount at $\$$ Cost of Capital (WACC) = $22.62\% (.837) + 12.07\% (0.163) = 20.87\%$

The Risk in the Cash flows

Cost of Equity 22.62%

Cost of Debt $(15.57\% + .3\%)(1 - .25) = 12.07\%$

Weights
E = 83.7% D = 16.3%

On August 18, 2016, San Miguel was trading at \$10.30 per shares

Riskfree Rate:
ARS Risk free rate = 15.57%

Beta 0.83

Firm's D/E Ratio: 20.6%

ERP = 8.53%

Country	Revenues	Weight	ERP
Argentina	255	11.08%	17.17%
Rest of the World	2047	88.92%	7.45%
San Miguel	2302	100.00%	8.53%

Business	Revenues	EV/Sales	Estimated Value	Unlevered Beta
Farming/Agriculture	\$ 476	1.3100	\$ 624	0.7600
Food Processing	\$ 1,163	1.6400	\$ 1,907	0.7200
Company	\$ 1,639		\$ 2,531	0.7299

2. Uncertainty is a feature, not a bug.. And we deal with it badly..

6

- Paralysis & Denial: When faced with uncertainty, some of us get paralyzed. Accompanying the paralysis is the hope that if you close your eyes to it, the uncertainty will go away
- Mental short cuts (rules of thumb): Behavioral economists note that investors faced with uncertainty adopt mental short cuts that have no basis in reality. And here is the clincher. More intelligent people are more likely to be prone to this.
- Herding: When in doubt, it is safest to go with the crowd.. The herding instinct is deeply engrained and very difficult to fight.
- Outsourcing: Assuming that there are experts out there who have the answers does take a weight off your shoulders, even if those experts have no idea of what they are talking about.
- Divine Intervention: Praying for intervention from a higher power is the oldest and most practiced risk management system of all.

Twitter: Priming the Pump for Valuation

1. Make small revenues into big revenues

	2011		2012		2013	
	%	\$	%	\$	%	\$
Google	32.09%	\$27.74	31.46%	\$32.73	33.24%	\$38.83
Facebook	3.65%	\$3.15	4.11%	\$4.28	5.04%	\$5.89
Yahoo!	3.95%	\$3.41	3.37%	\$3.51	3.10%	\$3.62
Microsoft	1.27%	\$1.10	1.63%	\$1.70	1.78%	\$2.08
IAC	1.15%	\$0.99	1.39%	\$1.45	1.47%	\$1.72
AOL	1.17%	\$1.01	1.02%	\$1.06	0.95%	\$1.11
Amazon	0.48%	\$0.41	0.59%	\$0.61	0.71%	\$0.83
Pandora	0.28%	\$0.24	0.36%	\$0.37	0.50%	\$0.58
Twitter	0.16%	\$0.14	0.28%	\$0.29	0.50%	\$0.58
Linkedin	0.18%	\$0.16	0.25%	\$0.26	0.32%	\$0.37
Millennial Media	0.05%	\$0.04	0.07%	\$0.07	0.10%	\$0.12
Other	55.59%	\$48.05	55.47%	\$57.71	52.29%	\$61.09
Total Market	100%	\$86.43	100.00%	\$104.04	100.00%	\$116.82

2. Make losses into profits

Company	Operating Margin
Google Inc. (NasdaqGS:GOOG)	22.82%
Facebook, Inc. (NasdaqGS:FB)	29.99%
Yahoo! Inc. (NasdaqGS:YHOO)	13.79%
Netfix	3.16%
Groupon	2.53%
LinkedIn Corporation (NYSE:LNKD)	5.18%
Pandora Media, Inc. (NYSE:P)	-9.13%
Yelp, Inc. (NYSE:YELP)	-6.19%
OpenTable, Inc. (NasdaqGS:OPEN)	24.90%
RetailMeNot	45.40%
Travelzoo Inc. (NasdaqGS:TZOO)	15.66%
Zillow, Inc. (NasdaqGS:Z)	-66.60%
Trulia, Inc. (NYSE:TRLA)	-6.79%
Aggregate	20.40%

		Annual growth rate in Global Advertising Spending				
		2.00%	2.50%	3.00%	3.50%	4.00%
Online advertising share of market	20%	\$124.78	\$131.03	\$137.56	\$144.39	\$151.52
	25%	\$155.97	\$163.79	\$171.95	\$180.49	\$189.40
	30%	\$187.16	\$196.54	\$206.34	\$216.58	\$227.28
	35%	\$218.36	\$229.30	\$240.74	\$252.68	\$265.16
	40%	\$249.55	\$262.06	\$275.13	\$288.78	\$303.04

My estimate for 2023: Overall online advertising market will be close to \$200 billion and Twitter will have about 5.7% (\$11.5 billion)

Aswath Damodaran

My estimate for Twitter: Operating margin of 25% in year 10

3. Reinvest for growth

	Sales/ Invested Capital
Twitter (2013)	1.10
Advertising Companies	1.40
Social Media Companies	1.05

My estimate for Twitter: Sales/Capital will be 1.50 for next 10 years

Starting numbers

	Last 10K	Trailing 12 month
Revenues	\$316.93	\$534.46
Operating income	-\$77.06	-\$134.91
Adjusted Operating Income		\$7.67
Invested Capital		\$955.00
Adjusted Operatng Margin		1.44%
Sales/ Invested Capital		0.56
Interest expenses	\$2.49	\$5.30

Twitter Pre-IPO Valuation: October 27, 2013

Revenue growth of 51.5% a year for 5 years, tapering down to 2.5% in year 10

Pre-tax operating margin increases to 25% over the next 10 years

Sales to capital ratio of 1.50 for incremental sales

Stable Growth
 g = 2.5%; Beta = 1.00;
 Cost of capital = 8%
 ROC = 12%;
 Reinvestment Rate = 2.5%/12% = 20.83%

Terminal Value₁₀ = 1466 / (.08 - .025) = \$26,657

	1	2	3	4	5	6	7	8	9	10
Revenues	\$ 810	\$1,227	\$1,858	\$2,816	\$4,266	\$6,044	\$7,973	\$9,734	\$10,932	\$11,205
Operating Income	\$ 31	\$ 75	\$ 158	\$ 306	\$ 564	\$ 941	\$1,430	\$1,975	\$ 2,475	\$ 2,801
Operating Income after tax	\$ 31	\$ 75	\$ 158	\$ 294	\$ 395	\$ 649	\$ 969	\$1,317	\$ 1,624	\$ 1,807
- Reinvestment	\$ 183	\$ 278	\$ 421	\$ 638	\$ 967	\$1,186	\$1,285	\$1,175	\$ 798	\$ 182
FCFF	\$(153)	\$(203)	\$(263)	\$(344)	\$(572)	\$(537)	\$(316)	\$ 143	\$ 826	\$ 1,625

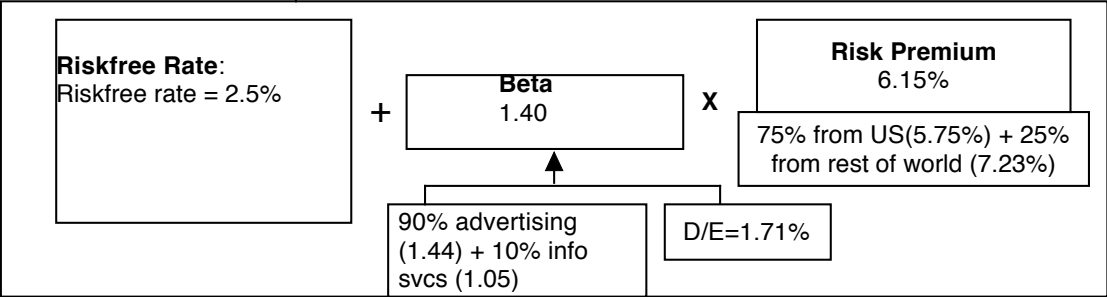
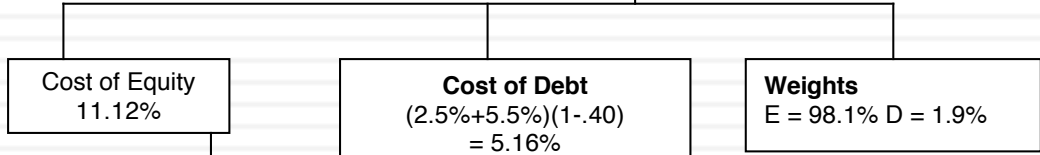
Terminal year (11)

EBIT (1-t)	\$ 1,852
- Reinvestment	\$ 386
FCFF	\$ 1,466

Operating assets	\$9,705
+ Cash	321
+ IPO Proceeds	1295
- Debt	214
Value of equity	11,106
- Options	713
Value in stock	10,394
/ # of shares	582.46
Value/share	\$17.84

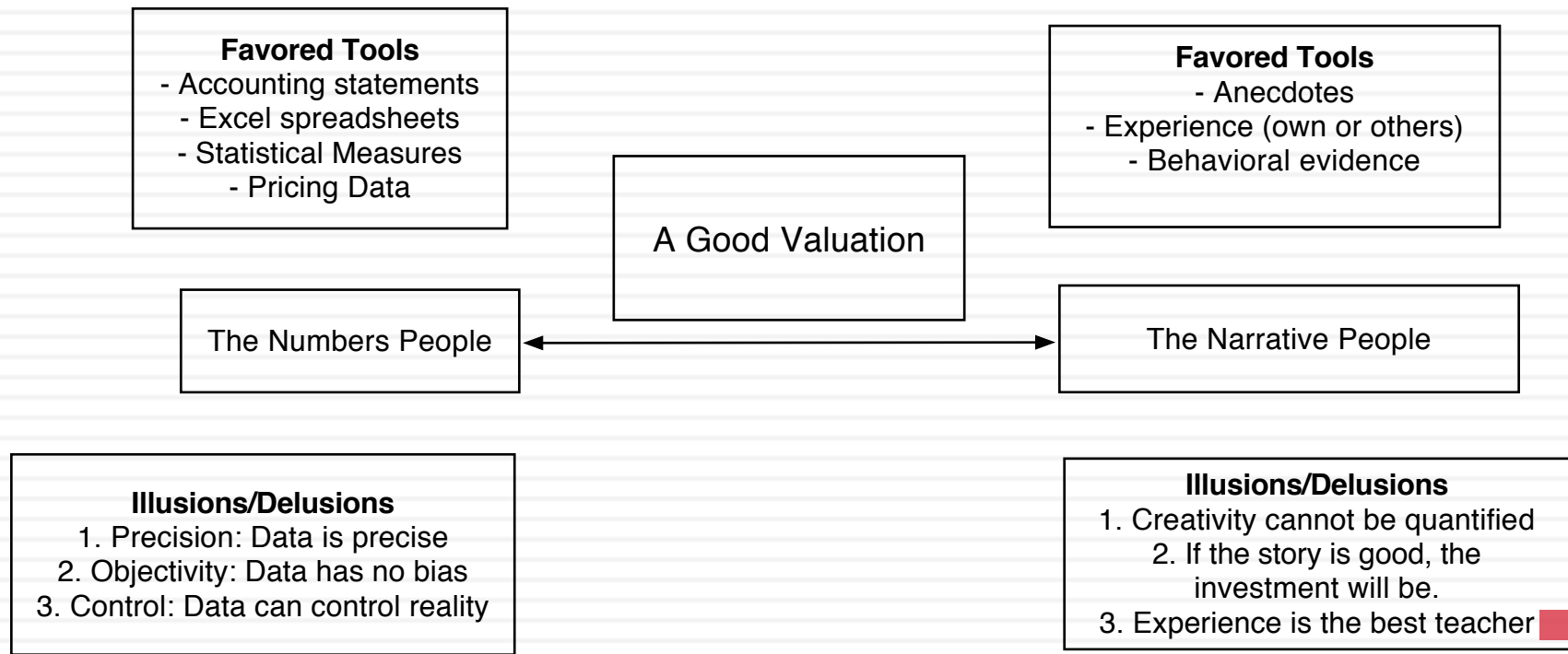
Cost of capital = 11.12% (.981) + 5.16% (.019) = 11.01%

Cost of capital decreases to 8% from years 6-10



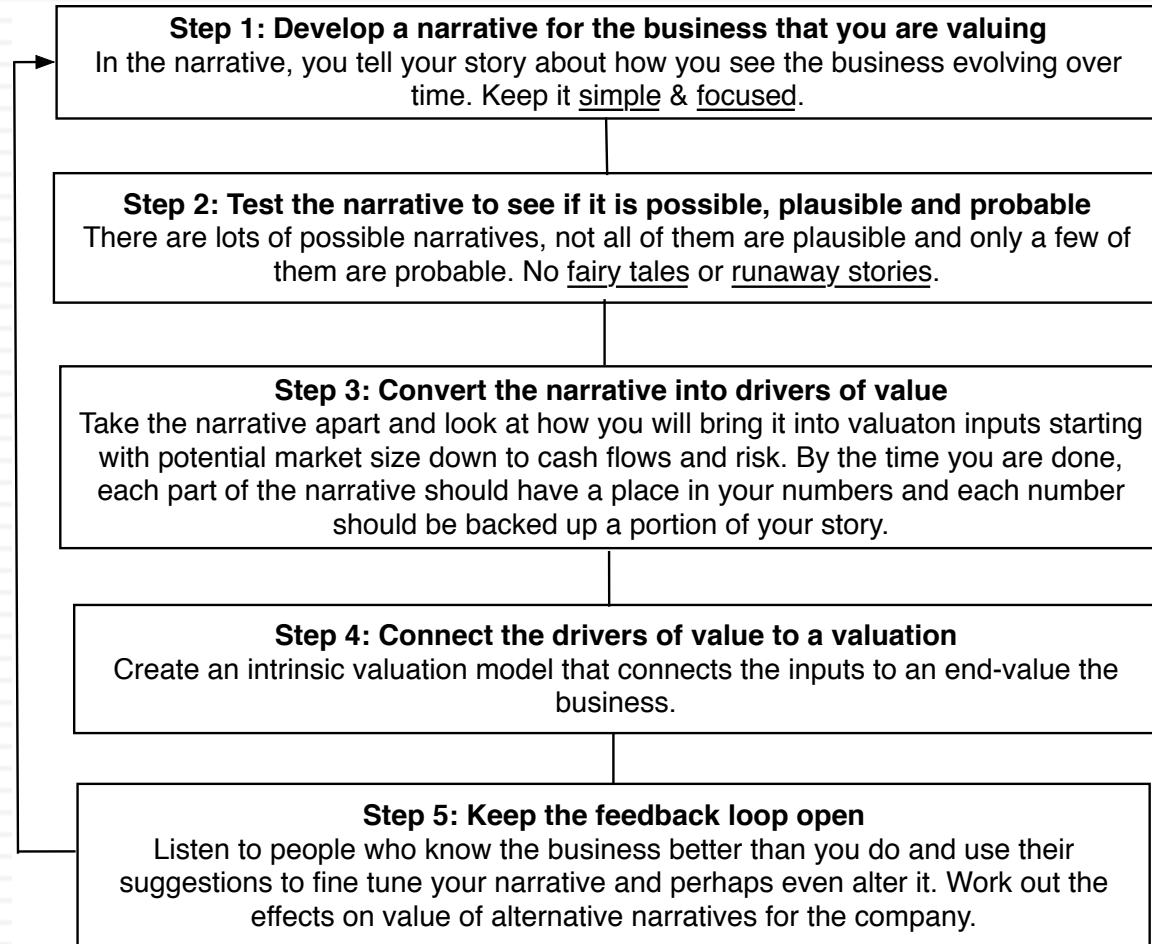
3. Valuation is never just about the numbers..

9

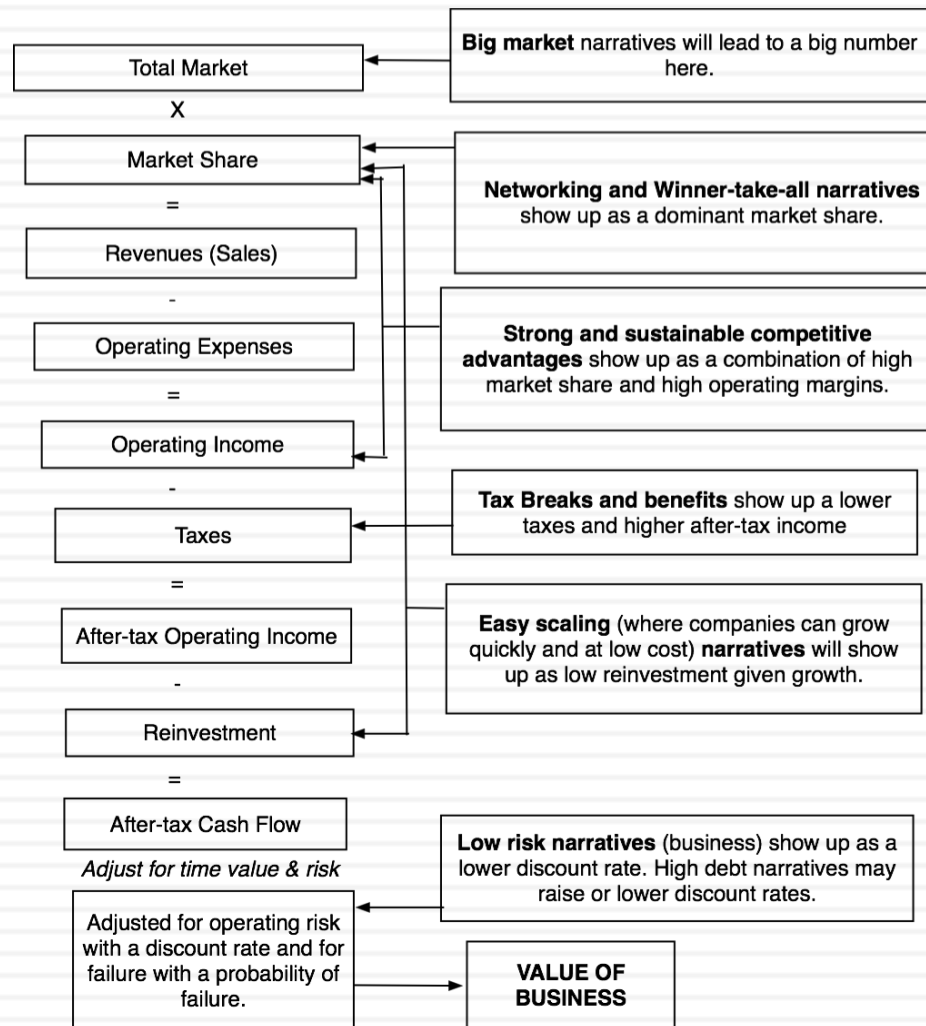


From story to numbers and beyond..

10



Every story has a number!



Uber, the Urban Car Service Company

The Story

Uber is an urban car service company, drawing in new users into car service. It will enjoy local networking benefits while preserving its current revenue sharing (80/20) and capital intensity (don't own cars or hire drivers) model.

The Assumptions

	Base year	Years 1-5	Years 6-10	After year 10	Story link
Total Market	100 billion	Grow 6% a year		Grow 2.5%	Urban Car Service + New users
Gross Market Share	1.50%	1.50% > 10%		10%	Local Networking benefits
Revenue Share	20.00%	Stays at 20%		20.00%	Preserve revenue share
Operating Margin	3.33%	3.33% - 40%		40.00%	Strong competitive position
Reinvestment	NA	Sales to capital ratio of 5.00		Reinvestment rate = 10%	Low capital intensity model
Cost of capital	NA	12.00%	12% > 8%	8%	90th percentile of US firms
Risk of failure	10% chance of failure (with equity worth zero)				Young company

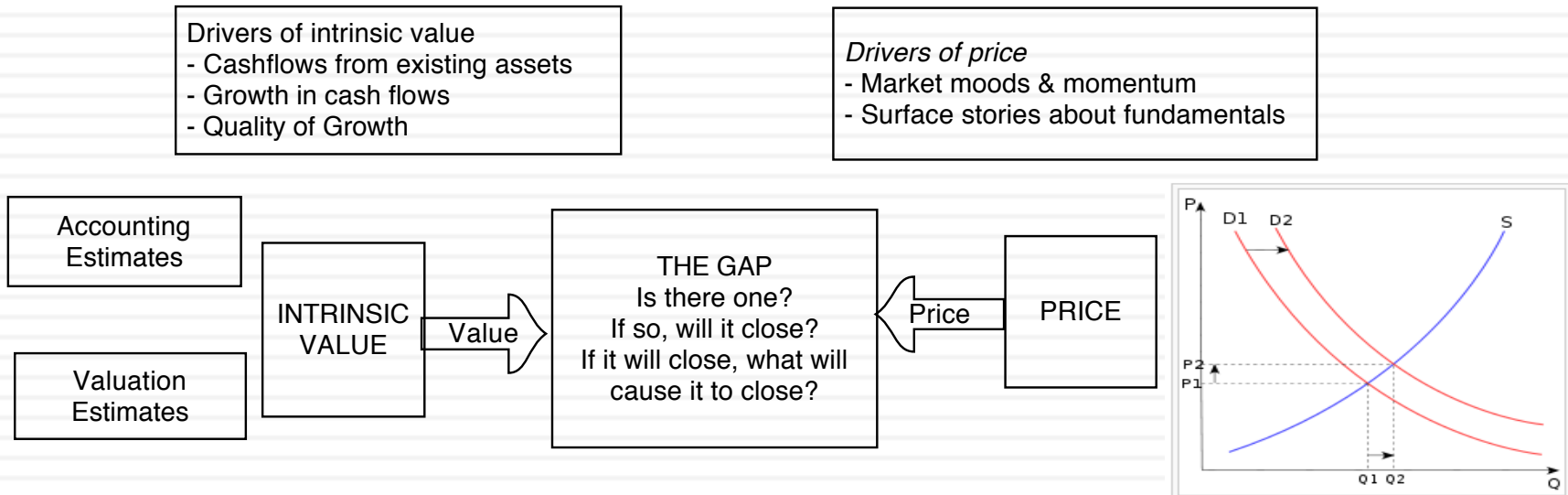
The Cash Flows

	Total Market	Market Share	Revenues	EBIT (1-t)	Reinvestment	FCFF
1	\$106,000	3.63%	\$769	\$37	\$94	\$(57)
2	\$112,360	5.22%	\$1,173	\$85	\$81	\$4
3	\$119,102	6.41%	\$1,528	\$147	\$71	\$76
4	\$126,248	7.31%	\$1,846	\$219	\$64	\$156
5	\$133,823	7.98%	\$2,137	\$301	\$58	\$243
6	\$141,852	8.49%	\$2,408	\$390	\$54	\$336
7	\$150,363	8.87%	\$2,666	\$487	\$52	\$435
8	\$159,385	9.15%	\$2,916	\$591	\$50	\$541
9	\$168,948	9.36%	\$3,163	\$701	\$49	\$652
10	\$179,085	10.00%	\$3,582	\$860	\$84	\$776
Terminal year	\$183,562	10.00%	\$3,671	\$881	\$88	\$793

The Value


Terminal value	\$14,418		
PV(Terminal value)	\$5,175		
PV (CF over next 10 years)	\$1,375		
Value of operating assets =	\$6,550		
Probability of failure	10%		
Value in case of failure	\$-		
Adjusted Value for operating assets	\$5,895	VCs priced Uber at \$17 billion at the time.	

4. Value is not price



Test 1: Are you pricing or valuing?

14

 **5369 La Jolla Mesa Dr**
La Jolla, CA 92037
Status: Active

\$995,000
Price

3
Beds


2.5
Baths

1,440 Sq. Ft.
\$691 / Sq. Ft.

Built: 1955 Lot Size: 3,000 Sq. Ft. On Redfin: 12 days

[Favorite](#) [X-Out](#) [Share...](#) [Tour Home](#)

[Overview](#) [Property Details](#) [Tour Insights](#) [Property History](#) [Public Records](#) [Activity](#) [Schools](#) [Neighborhood & Offer Insights](#) [Similar Homes](#)



Lisa Padilla
REDFIN Real Estate Agent

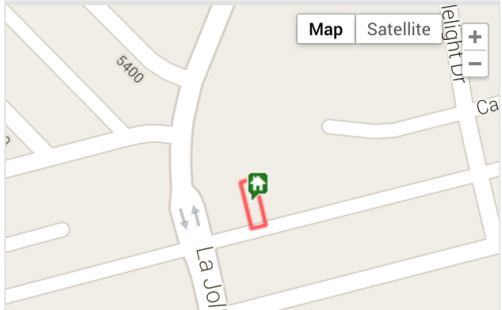
★★★★★
47 client reviews

\$8,726 commission refund

[Go Tour This Home](#)

[Ask Lisa a Question](#) or [Start an Offer](#)

1 of 4 Redfin Agents in this area



Test 2: Are you pricing or valuing?

Rating
Buy

Europe
Switzerland

Biotechnology
Biotechnology

Company
BB BIOTECH

Reuters: BION.S Bloomberg: BION SW Exchange: SWX Ticker: BION

Date
13 August 2013

Forecast Change

Price at 12 Aug 2013 (CHF)	124.00
Price Target (CHF)	164.50
52-week range (CHF)	128.40 - 84.90

Strong sector and stock-picking continue

Impressive performance

Over the past two years, BB Biotech shares have roughly tripled, which could tempt investors to take profits. However, this performance has been well backed by a deserved revival of the biotech industry, encouraging fundamental news, M&A, and increased money flow into health care stocks. In addition, BBB returned to index outperformance by modifying its stock-picking approach. Hence, despite excellent performance, the shares still trade at a 23% discount to the net asset value of the portfolio. Hence, the shares are an attractive value vehicle to capture growth opportunities in an attractive sector.

Biotech industry remains attractive

With the re-rating of the pharma sector, investors have also showed increased interest in biotech stocks. Established biotech stocks have delivered encouraging financial results and approvals, while there has also been substantial industry consolidation, which is not surprising in times of "cheap" money and high liquidity. BB Biotech remains an attractive vehicle to capture the future potential of the biotech sector. In addition, investors benefit from a 23% discount to NAV and attractive cash distribution policy of 5% yield p.a. Hence, we reiterate our Buy on BB Biotech shares.

BB Biotech shares remain attractive

In the first 6M of 2013, BB Biotech increased its NAV by 36%, which marks good outperformance against the Nasdaq Biotech Index (NBI)'s 27%. This is a remarkable performance after 2012 when BRR's NAV increase of 45% also

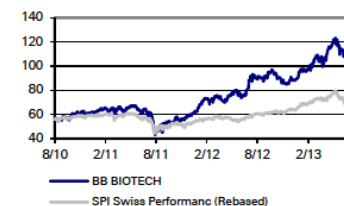


Key changes

Target Price 106.50 to 164.50 ↑ 54.5%

Source: Deutsche Bank

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-1.4	5.4	37.4
SPI Swiss Performance IX	0.5	-1.4	26.4

Source: Deutsche Bank

The determinants of price

16

Mood and Momentum

Price is determined in large part by mood and momentum, which, in turn, are driven by behavioral factors (panic, fear, greed).

Liquidity & Trading Ease

While the value of an asset may not change much from period to period, liquidity and ease of trading can, and as it does, so will the price.

The Market Price

Incremental information

Since you make money on price changes, not price levels, the focus is on incremental information (news stories, rumors, gossip) and how it measures up, relative to expectations

Group Think

To the extent that pricing is about gauging what other investors will do, the price can be determined by the "herd".

Pricing Twitter- October 2013

Just Facebook and LinkedIn							
Company	EV	Market Cap	EV/Sales	EV/EBITDA	PE	Market Cap/User	Market Cap/Employee
Facebook, Inc. (NasdaqGS:FB)	\$100,017.00	\$107,909.00	16.35	36.20	193.73	\$97.22	\$20.36
LinkedIn Corporation (NYSE:LNKD)	\$28,448.50	\$29,321.90	22.87	179.26	729.40	\$130.32	\$6.91
Facebook + LinkedIn	\$128,465.50	\$137,230.90	17.45	43.97	229.79	\$102.79	\$14.38
Social Media/Internet Medley							
Facebook, Inc. (NasdaqGS:FB)	\$100,017.00	\$107,909.00	16.35	36.20	193.73	\$97.22	\$20.36
Google Inc. (NasdaqGS:GOOG)	\$248,856.30	\$296,078.30	4.46	14.64	25.45	\$270.89	\$6.61
LinkedIn Corporation (NYSE:LNKD)	\$28,448.50	\$29,321.90	22.87	179.26	729.40	\$130.32	\$6.91
Netflix	\$13,959.00	\$14,539.00	3.54	81.20	304.80	\$403.86	\$7.11
OpenTable, Inc. (NasdaqGS:OPEN)	\$1,641.70	\$1,733.70	9.45	30.35	59.99	\$15.34	\$3.02
Pandora Media, Inc. (NYSE:P)	\$4,163.40	\$4,232.30	7.89	NA	NA	\$21.16	\$5.72
RetailMeNot	\$1,723.60	\$1,715.00	10.20	34.20	64.96	\$147.84	\$4.60
Trulia, Inc. (NYSE:TRLA)	\$1,647.39	\$1,853.10	17.75	NA	NA	\$59.02	\$3.57
Yelp, Inc. (NYSE:YELP)	\$4,006.10	\$4,102.90	22.42	NA	NA	\$41.03	\$2.67
Zillow, Inc. (NasdaqGS:Z)	\$3,419.80	\$3,589.50	22.48	NA	NA	\$78.20	\$5.22
Yahoo! Inc. (NasdaqGS:YHOO)	\$27,262.80	\$29,854.60	5.65	21.24	7.19	\$106.24	\$2.55
Groupon	\$5,857.00	\$7,039.00	2.42	44.04	NA	\$168.80	\$0.62
Travelzoo Inc. (NasdaqGS:TZOO)	\$347.20	\$421.10	2.23	12.81	23.39	\$16.20	\$0.95
Aggregate	\$441,349.79	\$502,389.40	5.82	20.43	30.76	\$151.57	\$5.96
Median			8.67	32.27	59.99	101.73	4.91
Average			10.97	47.44	159.96	121.98	5.42

*Twitter's value based on revenues = \$543 million * ?*

*Twitter's value based on # users = 237 million * ?*

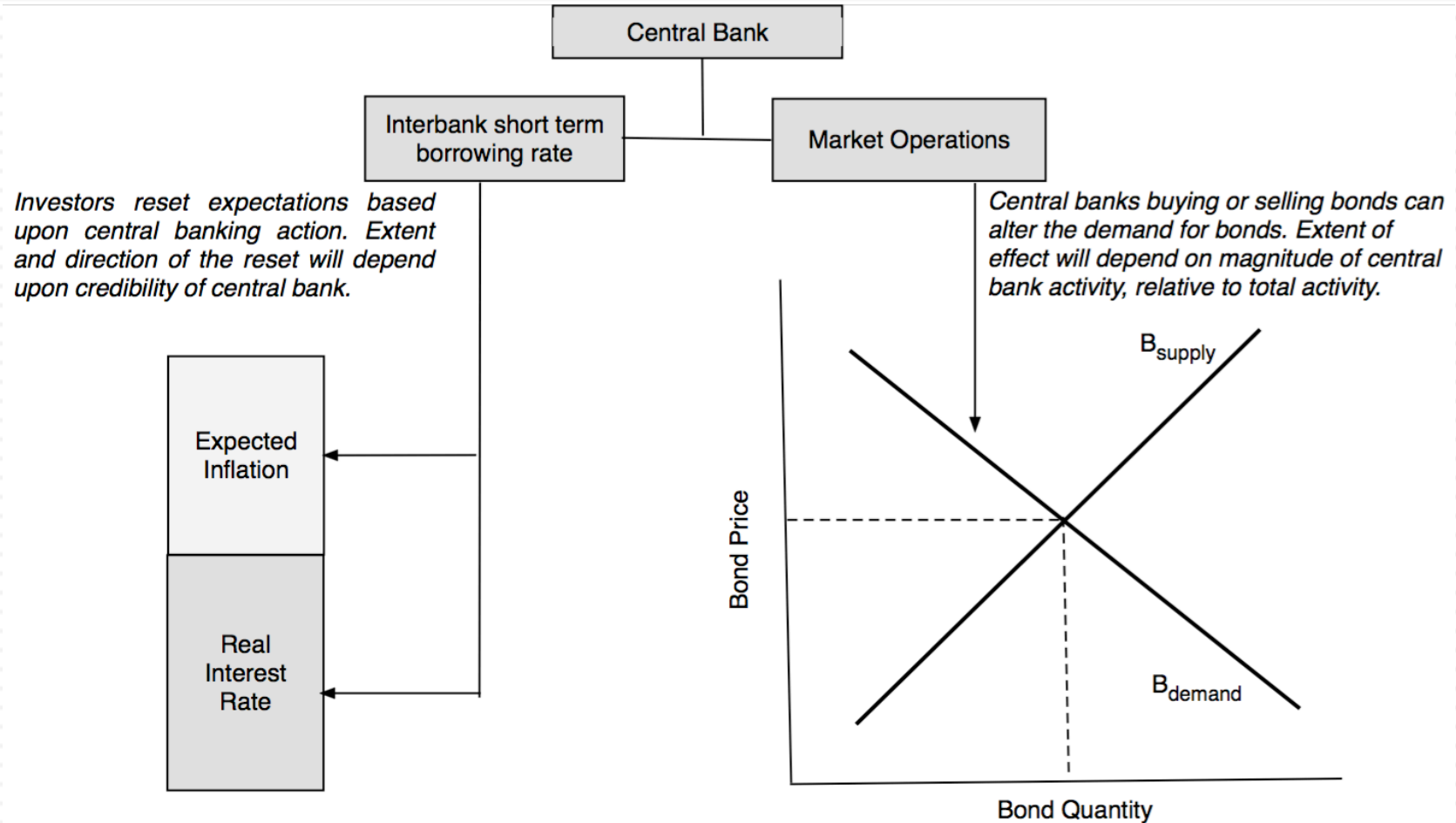
So, what's your game?

18

- The transactors
 - ▣ Traders: Oscar Wilde's definition of a cynic: "knows the price of everything, the value of nothing".
 - ▣ Salespeople: Caveat emptor!
 - ▣ Deal intermediaries: Get the deal done (even if it is not a good deal)!
- The muddled middle
 - ▣ Academic value: The cognitive dissonance of the "efficient market"
 - ▣ Accounting value: Rule maker, rule maker, make up your mind!
 - ▣ Legal value: The bane of the expert witness!
- The investors
 - ▣ Owners of businesses: Except if you want to run it for the long term.
 - ▣ Investors in companies: With faith and patience, you can take advantage of Mr. Market.
 - ▣ Long term consultants: You have to live with the consequences of the advice that you mete out to your clients.

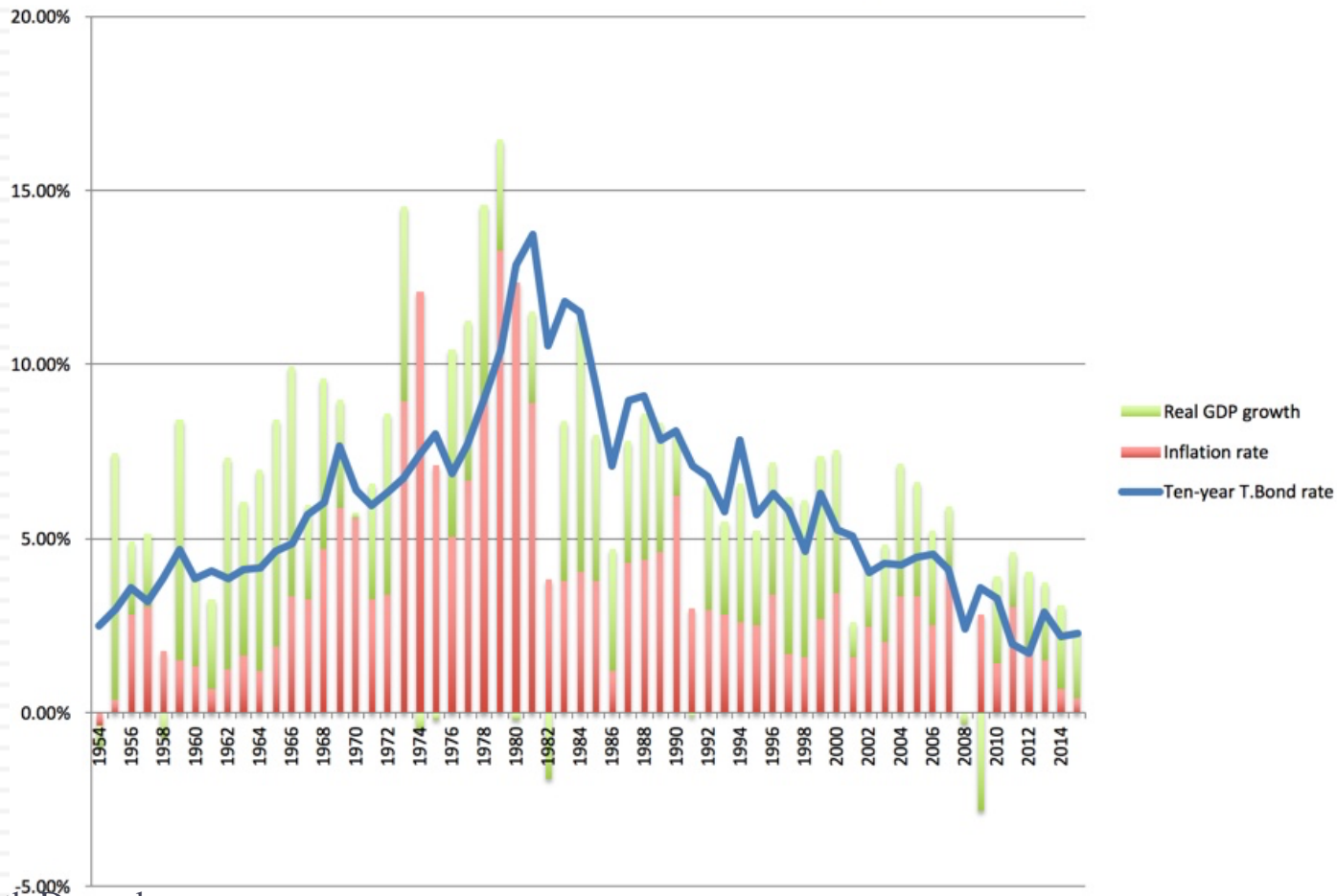
5. The Fed does not set interest rates

19



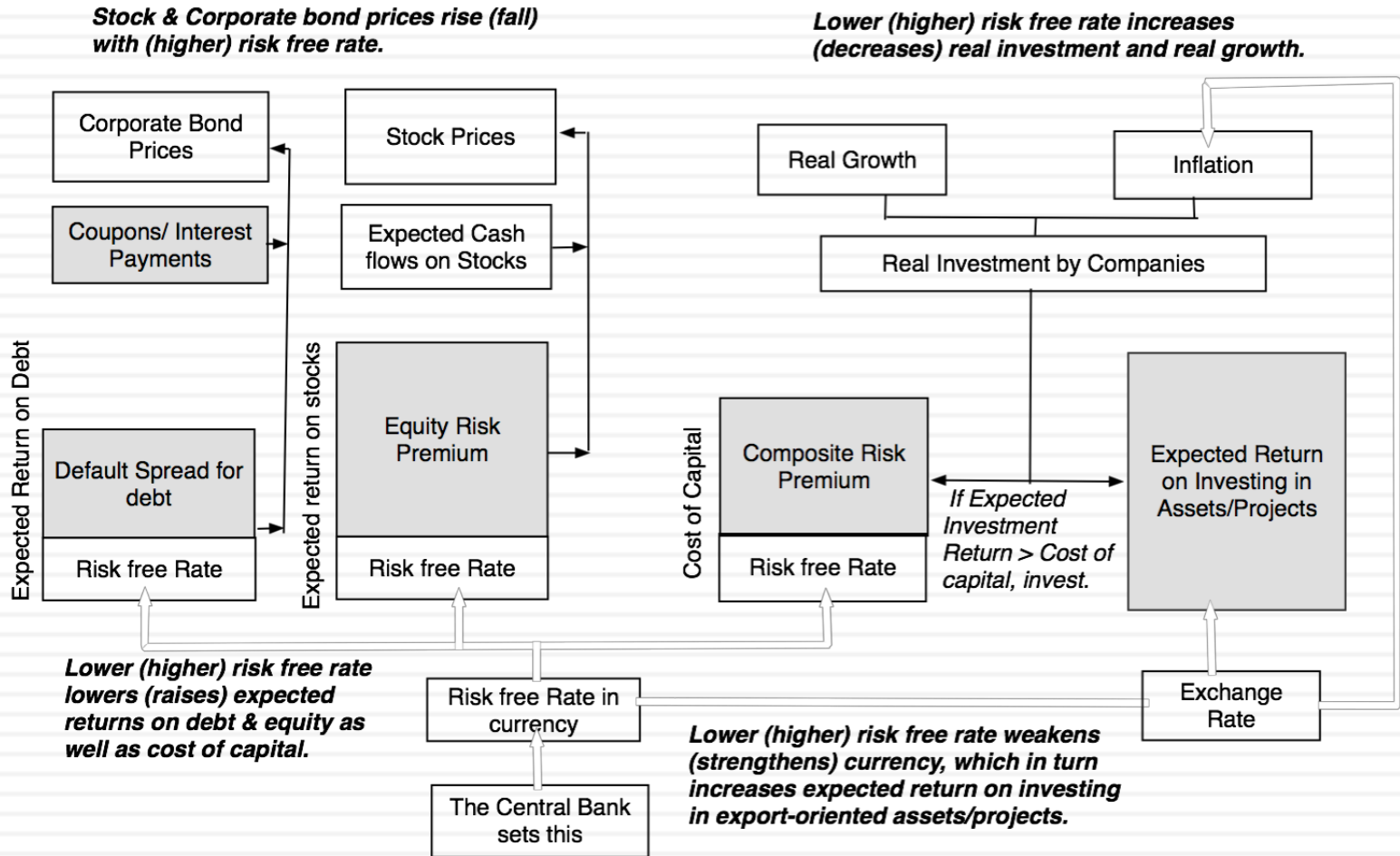
Here is some proof..

Interest rate fundamentals: T. Bond rates, Real growth and inflation

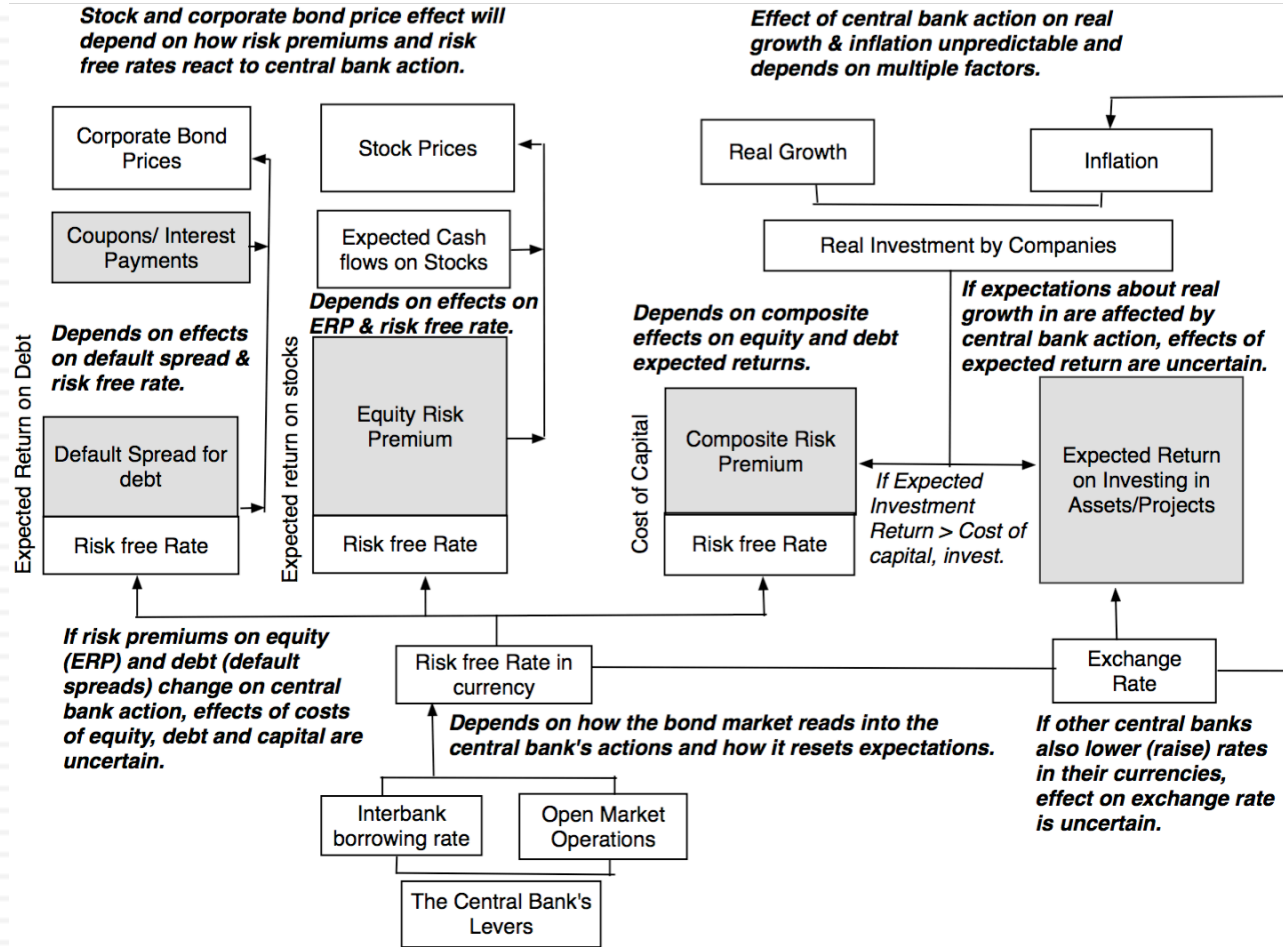


6. And when interest rates move, the world does not stay still..

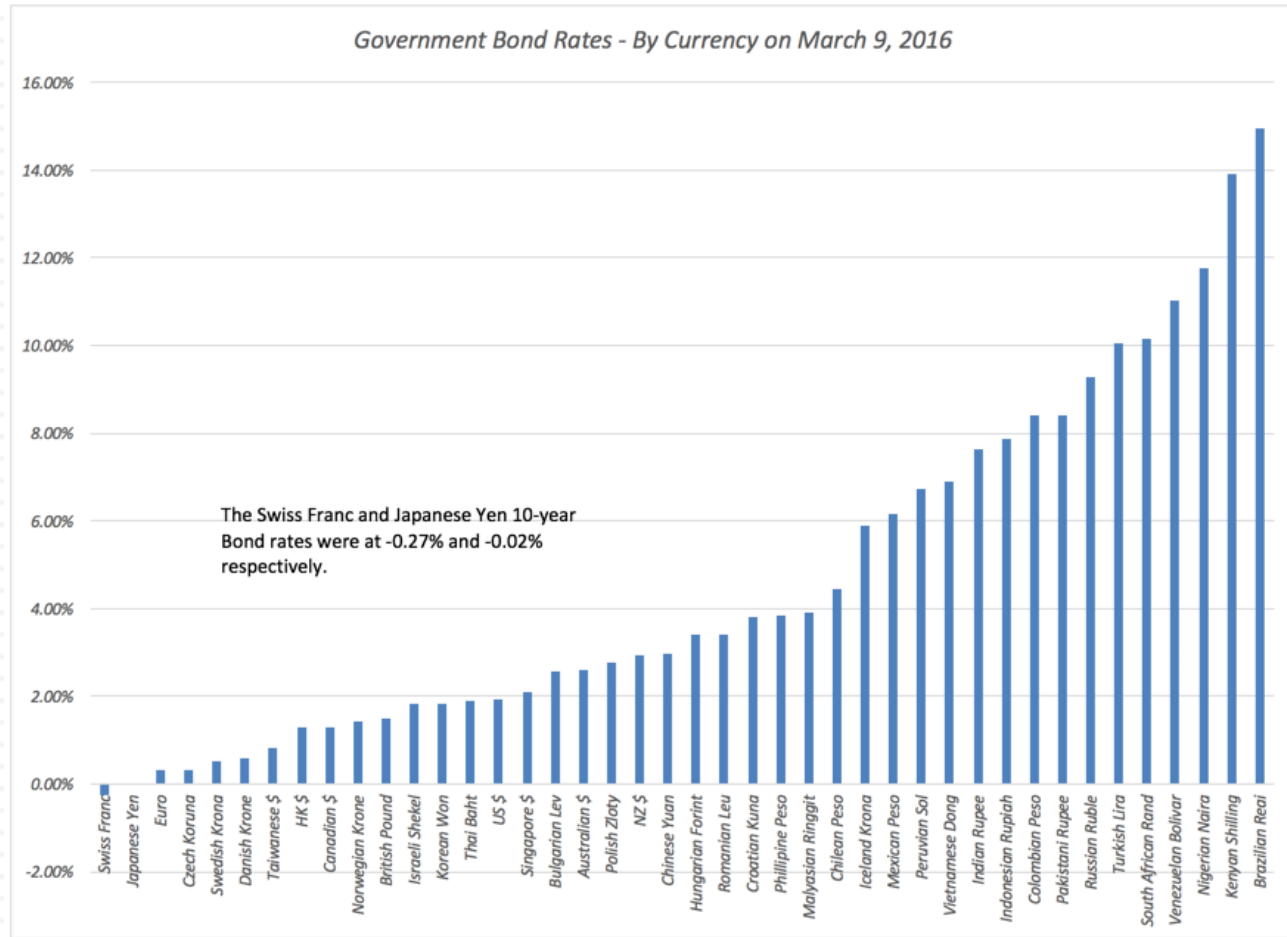
21



Here is what actually happens..



7. Risk free rates vary across currencies..



But valuations should not

24

	In Indian Rupees	In US \$
Risk free Rate	5.00%	2.00%
Expected inflation rate	4.00%	1.00%
Cost of capital		
- High Growth	12.50%	9.25%
- Stable Growth	10.39%	7.21%
Expected growth rate		
- High Growth	12.01%	8.78%
- Stable Growth	5.00%	2.00%
Return on Capital		
- High Growth	17.16%	13.78%
- Stable Growth	10.39%	7.21%
Value per share	Rs 614	\$12.79/share (roughly Rs 614 at current exchange rate)

8. Globalization is not just a buzzword..

25

- Across the world, both investors and companies have become globalized, with predictable and sometimes dangerous consequences.
- For both companies and investors, this has required them to become comfortable working in different currencies and across different countries.
- It has also become a recipe for disaster for those who
 - Mix up different currencies in the same analysis
 - Think that the risk of a company comes from where it is incorporated, not where it trades.

ERP : July 2016

Andorra (Principality of)	9.71%	3.46%	Jersey (States of)	6.88%	0.63%
Austria	6.88%	0.63%	Liechtenstein	6.25%	0.00%
Belgium	7.20%	0.95%	Luxembourg	6.25%	0.00%
Cyprus	13.32%	7.07%	Malta	8.14%	1.89%
Denmark	6.25%	0.00%	Netherlands	6.25%	0.00%
Finland	6.88%	0.63%	Norway	6.25%	0.00%
France	7.03%	0.78%	Portugal	10.17%	3.92%
Germany	6.25%	0.00%	Spain	9.23%	2.98%
Greece	21.94%	15.69%	Sweden	6.25%	0.00%
Guernsey (States of)	6.88%	0.63%	Switzerland	6.25%	0.00%
Iceland	9.23%	2.98%	Turkey	9.71%	3.46%
Ireland	8.14%	1.89%	United Kingdom	6.88%	0.63%
Isle of Man	6.88%	0.63%	Western Europe	7.49%	1.24%
Italy	9.23%	2.98%			

Canada	6.25%	0.00%
US	6.25%	0.00%
North America	6.25%	0.00%
Caribbean	15.31%	9.06%

Argentina	16.46%	10.21%
Belize	20.39%	14.14%
Bolivia	11.91%	5.66%
Brazil	10.97%	4.72%
Chile	7.20%	0.95%
Colombia	9.23%	2.98%
Costa Rica	10.17%	3.92%
Ecuador	16.46%	10.21%
El Salvador	11.91%	5.66%
Guatemala	10.17%	3.92%
Honduras	14.89%	8.64%
Mexico	8.14%	1.89%
Nicaragua	14.89%	8.64%
Panama	9.23%	2.98%
Paraguay	10.17%	3.92%
Peru	8.14%	1.89%
Suriname	13.32%	7.07%
Uruguay	9.23%	2.98%
Venezuela	21.94%	15.69%
Latin America	11.27%	5.02%

Country	ERP	CRP
Angola	13.32%	7.07%
Botswana	7.58%	1.33%
Burkina Faso	16.46%	10.21%
Cameroon	14.89%	8.64%
Cape Verde	14.89%	8.64%
Congo (DR)	16.46%	10.21%
Congo (Rep)	14.89%	8.64%
Côte d'Ivoire	11.91%	5.66%
Egypt	16.46%	10.21%
Ethiopia	13.32%	7.07%
Gabon	13.32%	7.07%
Ghana	16.46%	10.21%
Kenya	13.32%	7.07%
Morocco	10.17%	3.92%
Mozambique	18.02%	11.77%
Namibia	9.71%	3.46%
Nigeria	13.32%	7.07%
Rwanda	13.32%	7.07%
Senegal	13.32%	7.07%
South Africa	9.23%	2.98%
Tunisia	11.91%	5.66%
Uganda	13.32%	7.07%
Zambia	16.46%	10.21%
Africa	12.99%	6.74%

Albania	13.32%	7.07%
Armenia	13.32%	7.07%
Azerbaijan	10.17%	3.92%
Belarus	18.02%	11.77%
Bosnia	16.46%	10.21%
Bulgaria	9.23%	2.98%
Croatia	10.97%	4.72%
Czech Republic	7.36%	1.11%
Estonia	7.36%	1.11%
Georgia	11.91%	5.66%
Hungary	10.17%	3.92%
Kazakhstan	9.71%	3.46%
Kyrgyzstan	14.89%	8.64%
Latvia	8.14%	1.89%
Lithuania	8.14%	1.89%
Macedonia	11.91%	5.66%
Moldova	16.46%	10.21%
Montenegro	11.91%	5.66%
Poland	7.58%	1.33%
Romania	9.71%	3.46%
Russia	10.17%	3.92%
Serbia	13.32%	7.07%
Slovakia	7.58%	1.33%
Slovenia	9.71%	3.46%
Ukraine	21.94%	15.69%
E. Europe	10.17%	3.92%

Abu Dhabi	7.03%	0.78%
Bahrain	10.97%	4.72%
Iraq	9.71%	3.46%
Israel	7.36%	1.11%
Jordan	13.32%	7.07%
Kuwait	7.03%	0.78%
Lebanon	14.89%	8.64%
Oman	8.76%	2.51%
Qatar	7.03%	0.78%
Ras Al Khaimah	7.58%	1.33%
Saudi Arabia	7.36%	1.11%
Sharjah	8.14%	1.89%
United Arab Emirates	7.03%	0.78%
Middle East	7.56%	1.31%

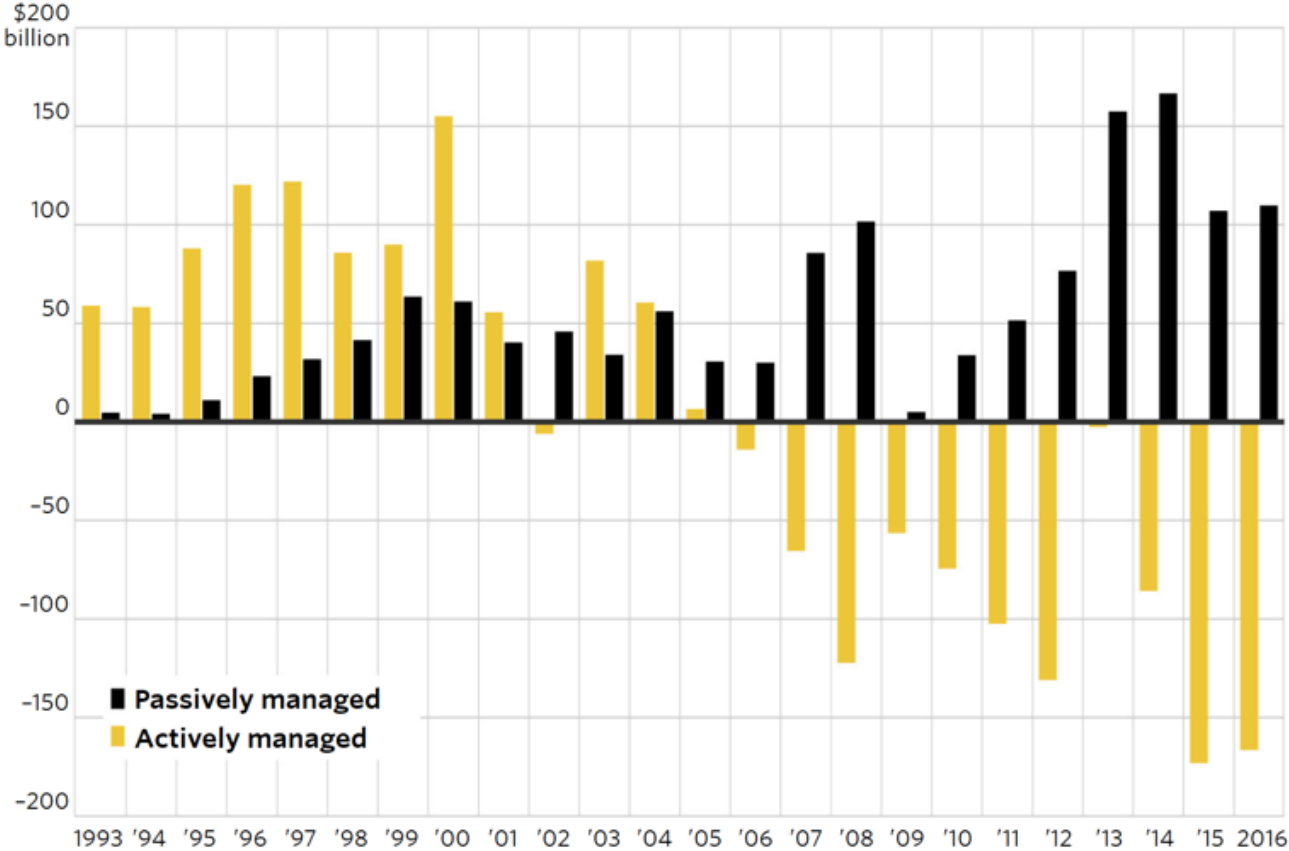
Country	PRS	ERP	CRP	Country	PRS	ERP	CRP
Algeria	60.3	13.72%	7.47%	Malawi	54.8	17.24%	10.99%
Brunei	72.8	9.75%	3.50%	Mali	63.5	13.90%	7.65%
Gambia	61.5	13.72%	7.47%	Myanmar	61.8	13.72%	7.47%
Guinea	48.5	20.00%	13.75%	Niger	53.8	17.24%	10.99%
Guinea-Bissau	64.5	12.48%	6.23%	Sierra Leone	57.3	16.61%	10.36%
Guyana	64.5	12.48%	6.23%	Somalia	41.0	20.00%	13.75%
Haiti	58.0	16.61%	10.36%	Sudan	48.3	20.00%	13.75%
Iran	72.0	11.22%	4.97%	Syria	45.8	20.00%	13.75%
Korea, D.P.R.	56.0	17.24%	10.99%	Tanzania	64.0	13.90%	7.65%
Liberia	52.8	17.24%	10.99%	Togo	61.0	13.72%	7.47%
Libya	50.0	20.00%	13.75%	Yemen, Republic	50.5	17.24%	10.99%
Madagascar	64.5	12.48%	6.23%	Zimbabwe	56.0	17.24%	10.99%

Bangladesh	11.91%	5.66%
Cambodia	14.89%	8.64%
China	7.20%	0.95%
Fiji	13.32%	7.07%
Hong Kong	6.88%	0.63%
India	9.71%	3.46%
Indonesia	9.71%	3.46%
Japan	7.36%	1.11%
Korea	7.03%	0.78%
Macao	7.20%	0.95%
Malaysia	8.14%	1.89%
Mauritius	8.76%	2.51%
Mongolia	14.89%	8.64%
Pakistan	16.46%	10.21%
Papua NG	14.89%	8.64%
Philippines	9.23%	2.98%
Singapore	6.25%	0.00%
Sri Lanka	13.32%	7.07%
Taiwan	7.20%	0.95%
Thailand	8.76%	2.51%
Vietnam	13.32%	7.07%
Asia	7.82%	1.57%

Australia	6.25%	0.00%
Cook Islands	13.32%	7.07%
New Zealand	6.25%	0.00%
Australia & NZ	6.26%	0.01%

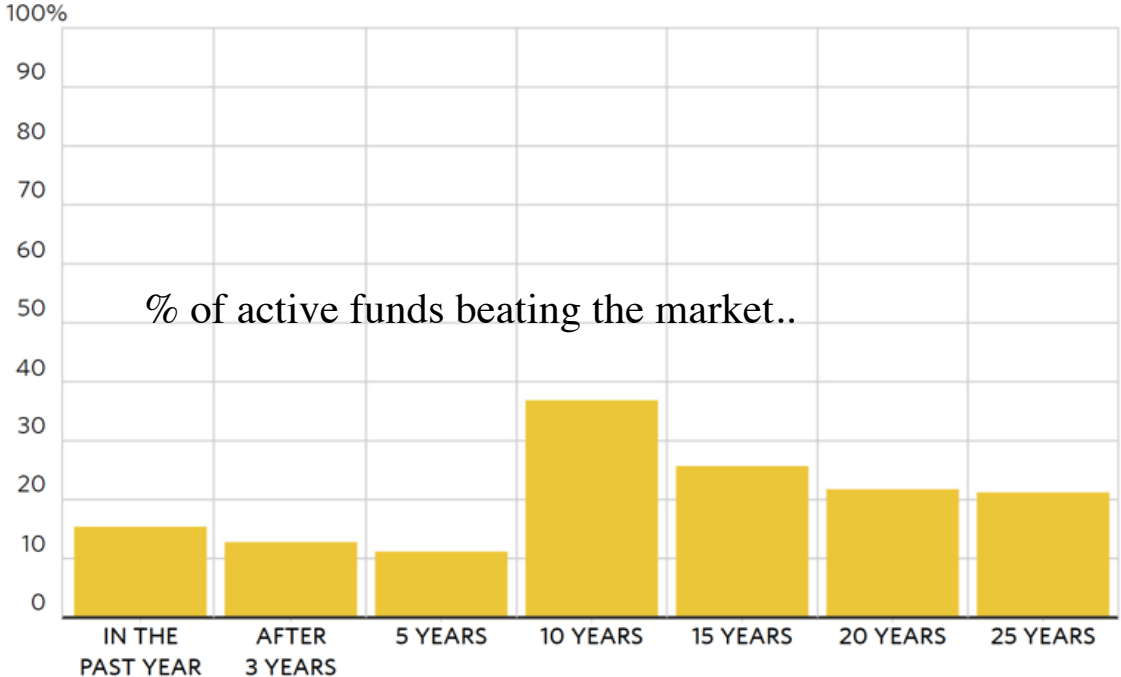
Black #: Total ERP
 Red #: Country risk premium
 AVG: GDP weighted average

9. The Greatest Disruption in history..



Source: Morningstar

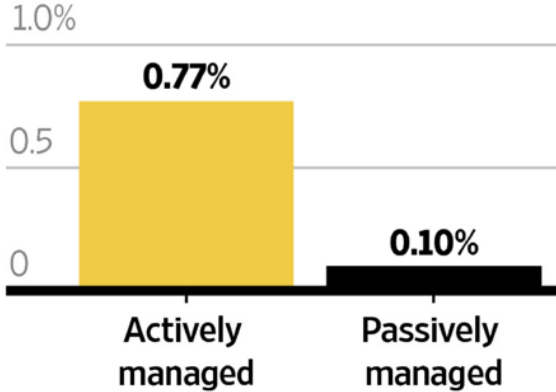
And here is the reason..



Note: Data through June 30, 2016
Sources: Wharton Research Data Services; CRSP Survivor-Bias-Free US Mutual Fund Database

Fee Factor

Average annual fees for U.S. stock mutual funds

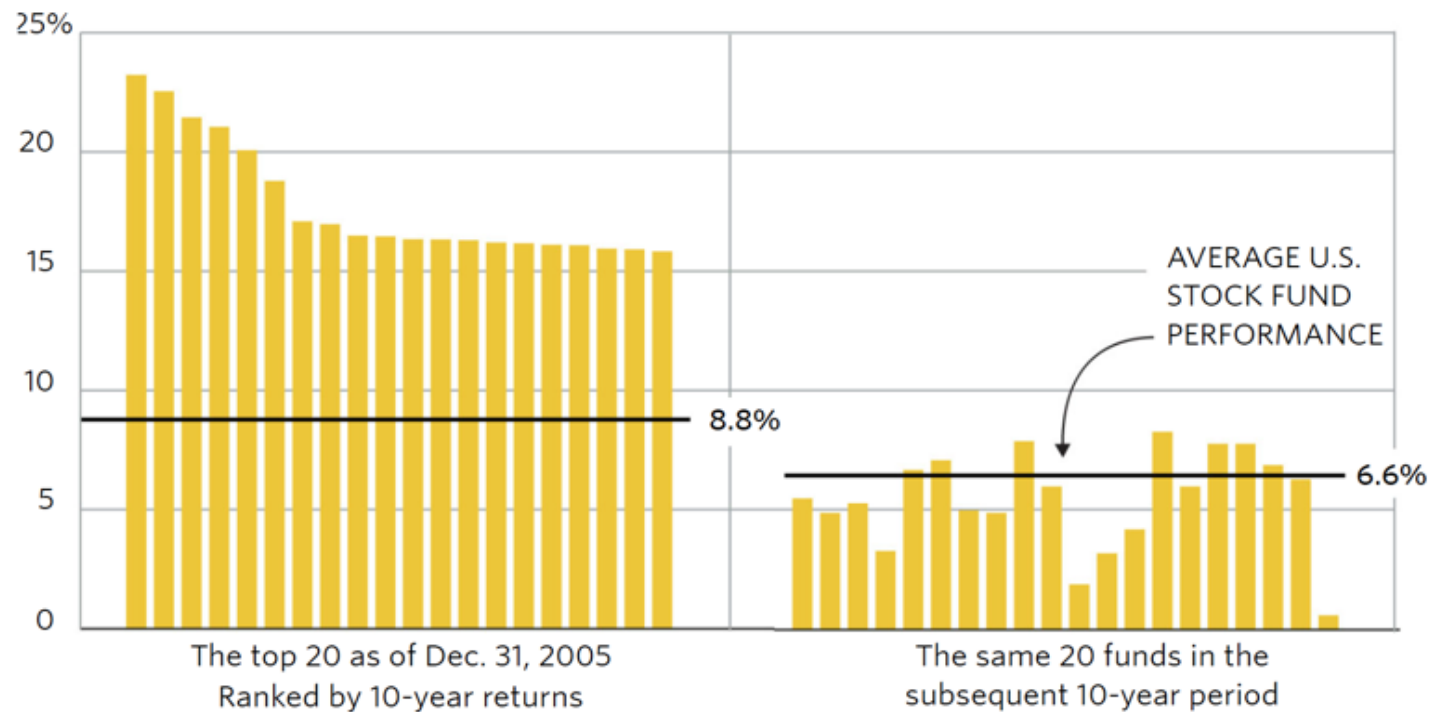


Note: Latest available data as of Oct. 11, 2016, weighted by size of funds
Source: Morningstar

THE WALL STREET JOURNAL.

10. Luck versus Skill

29



Averages are across all U.S. stock funds during each period.

Source: Morningstar

And if your response is “Warren Buffett”, you’ve already lost the argument..

Berkshire Hathaway: The Fading Buffett Premium

