



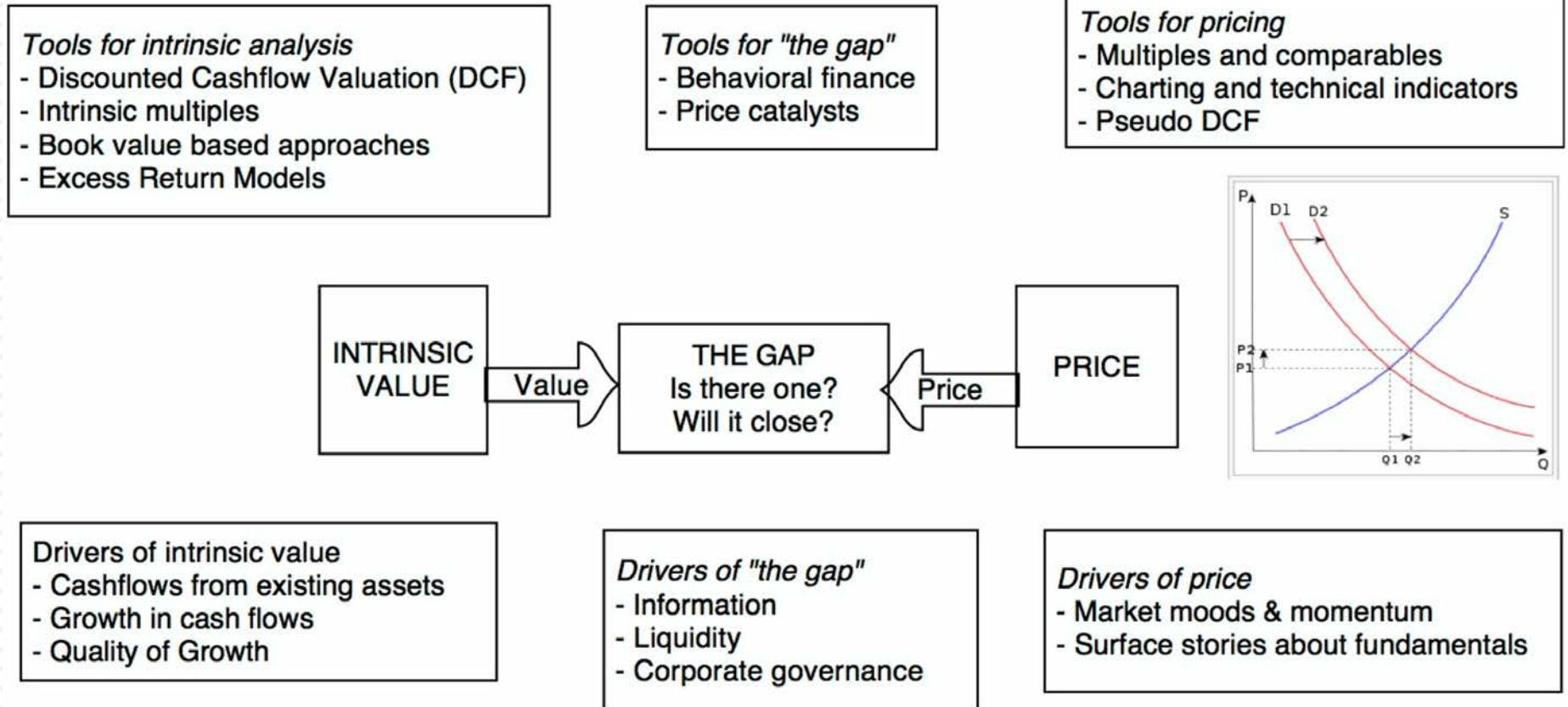
CRISIS AS A CRUCIBLE: A JEDI GUIDE TO
INVESTMENT SERENITY!

Look forward, you must!

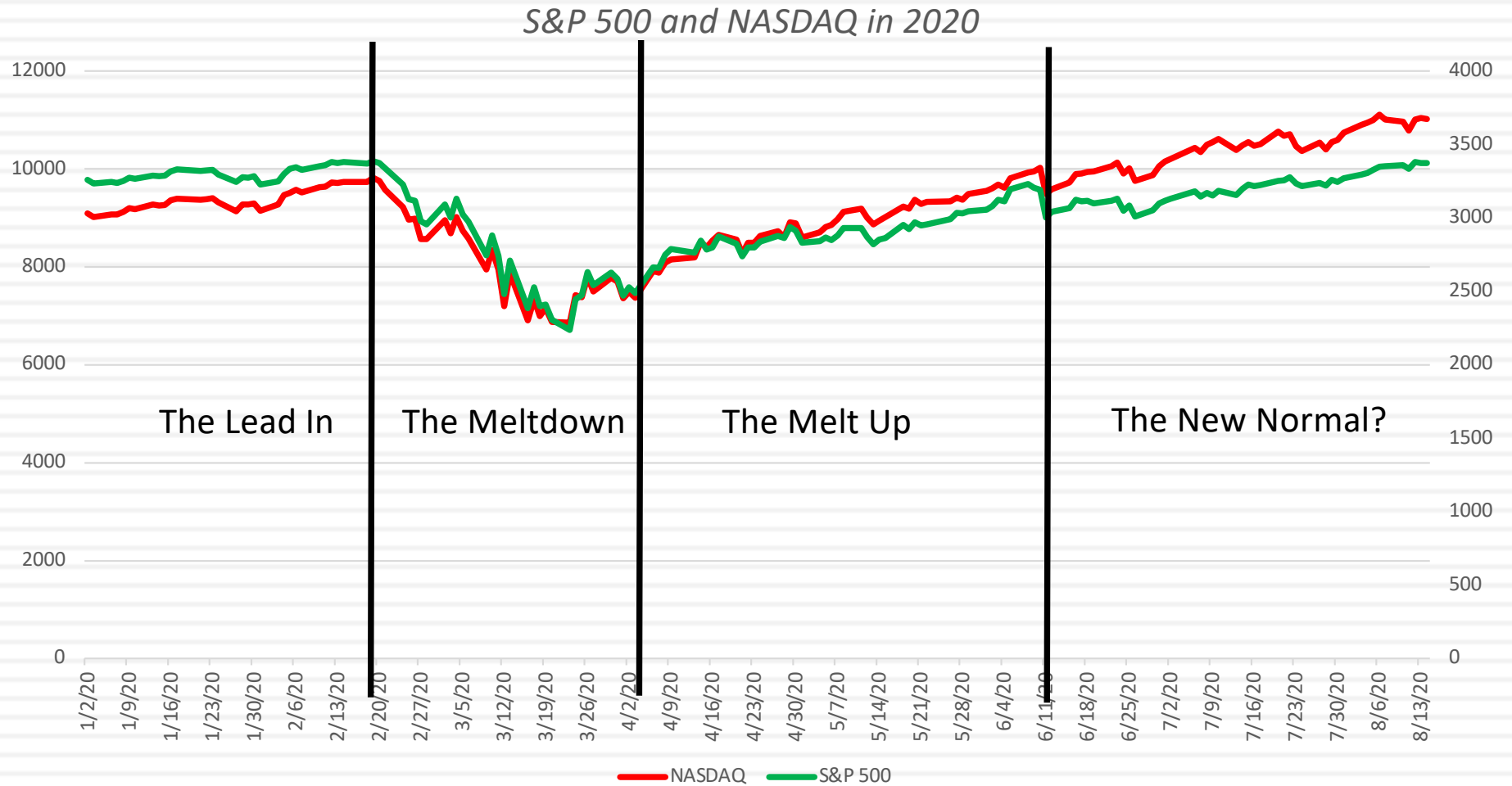


Order in Chaos? The Macro Story

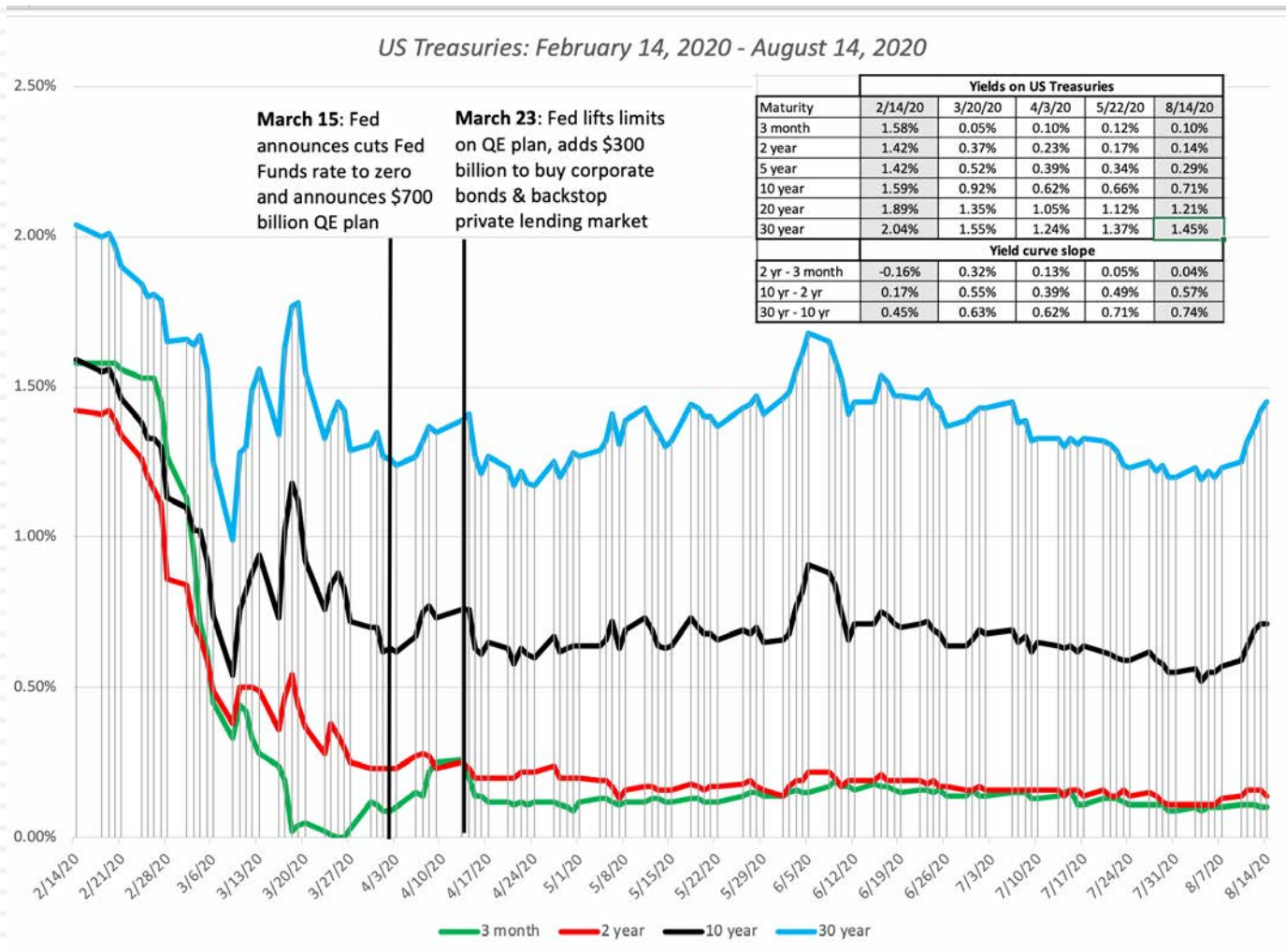
Markets play a pricing game, but are not crazy



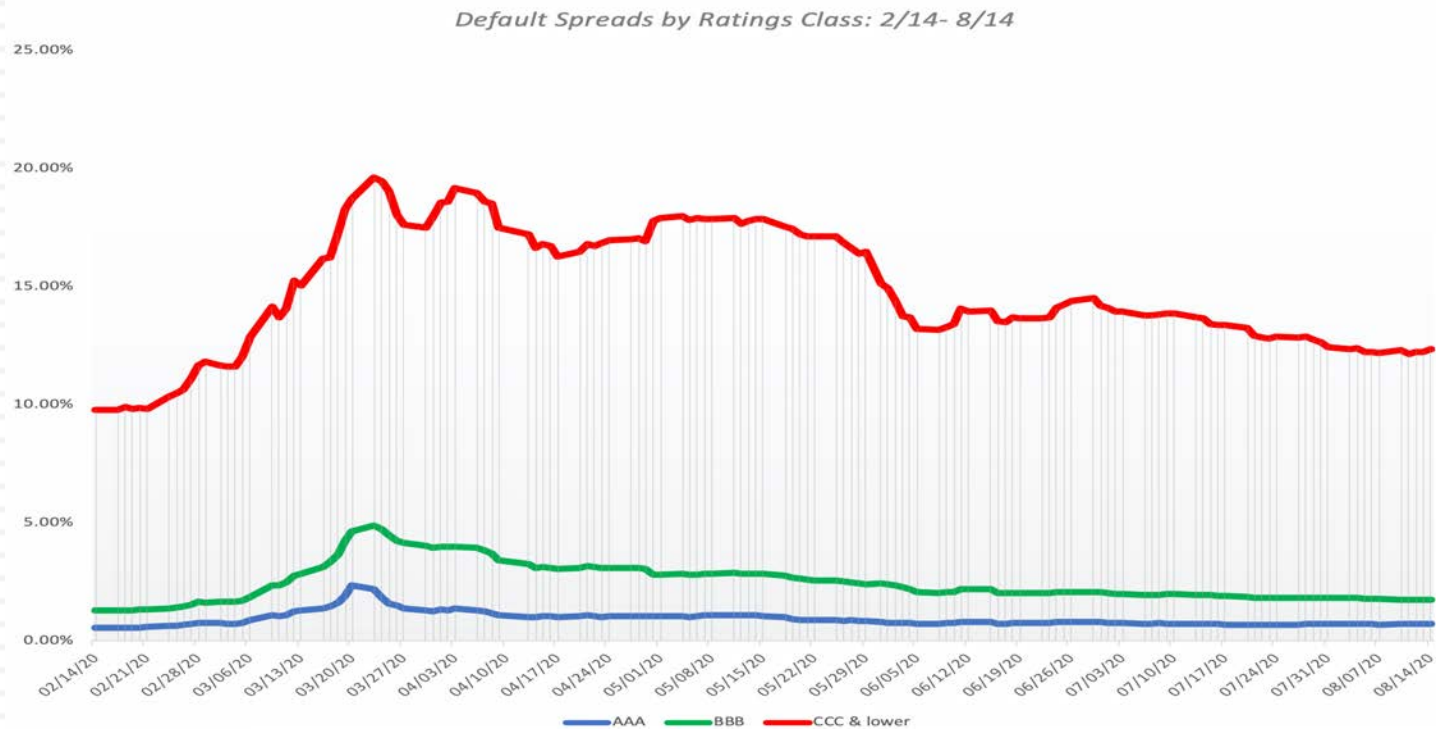
US Equities, during the crisis...



Macro Review: US Treasuries

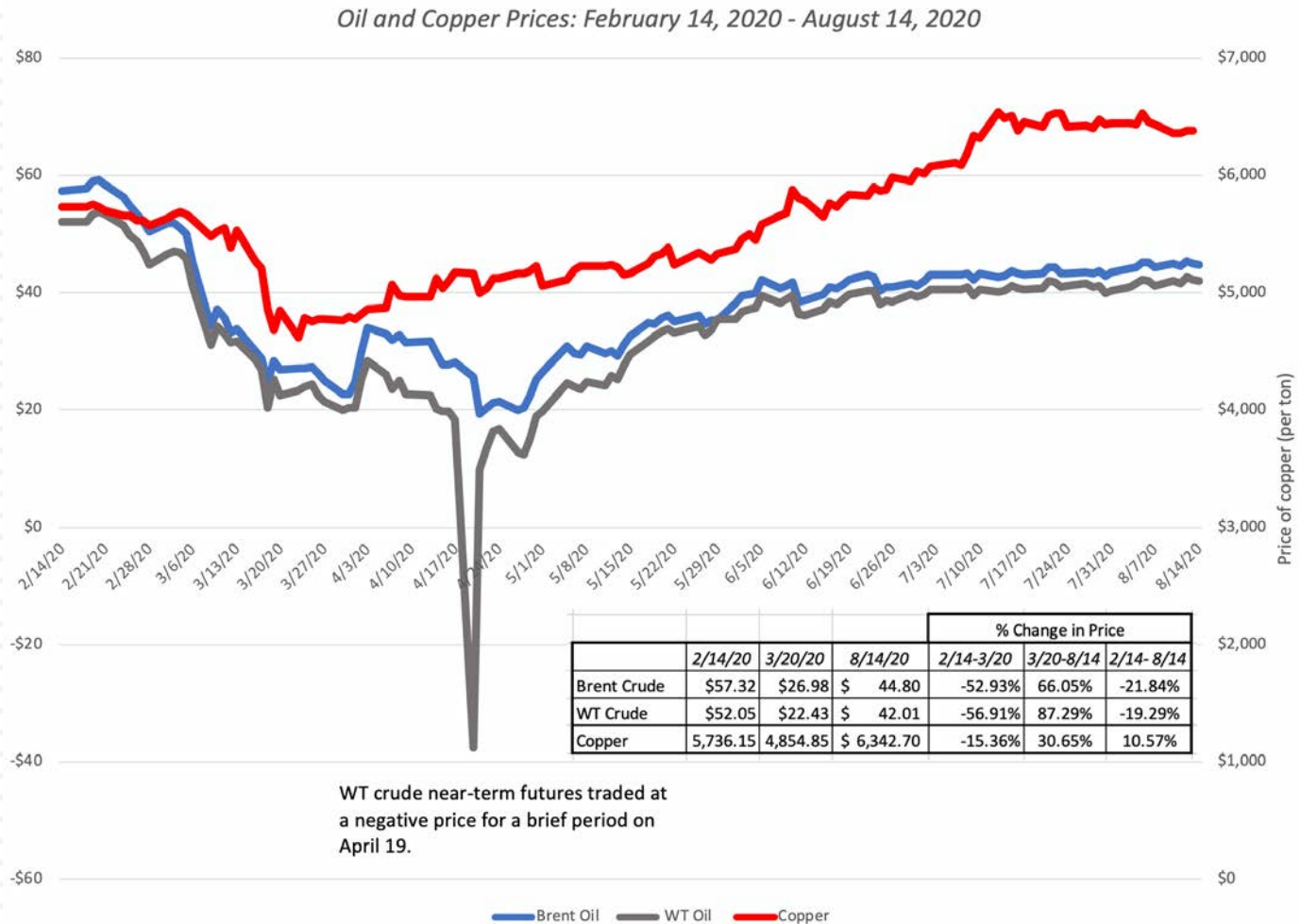


The Price of Bond Market Risk: The COVID effect



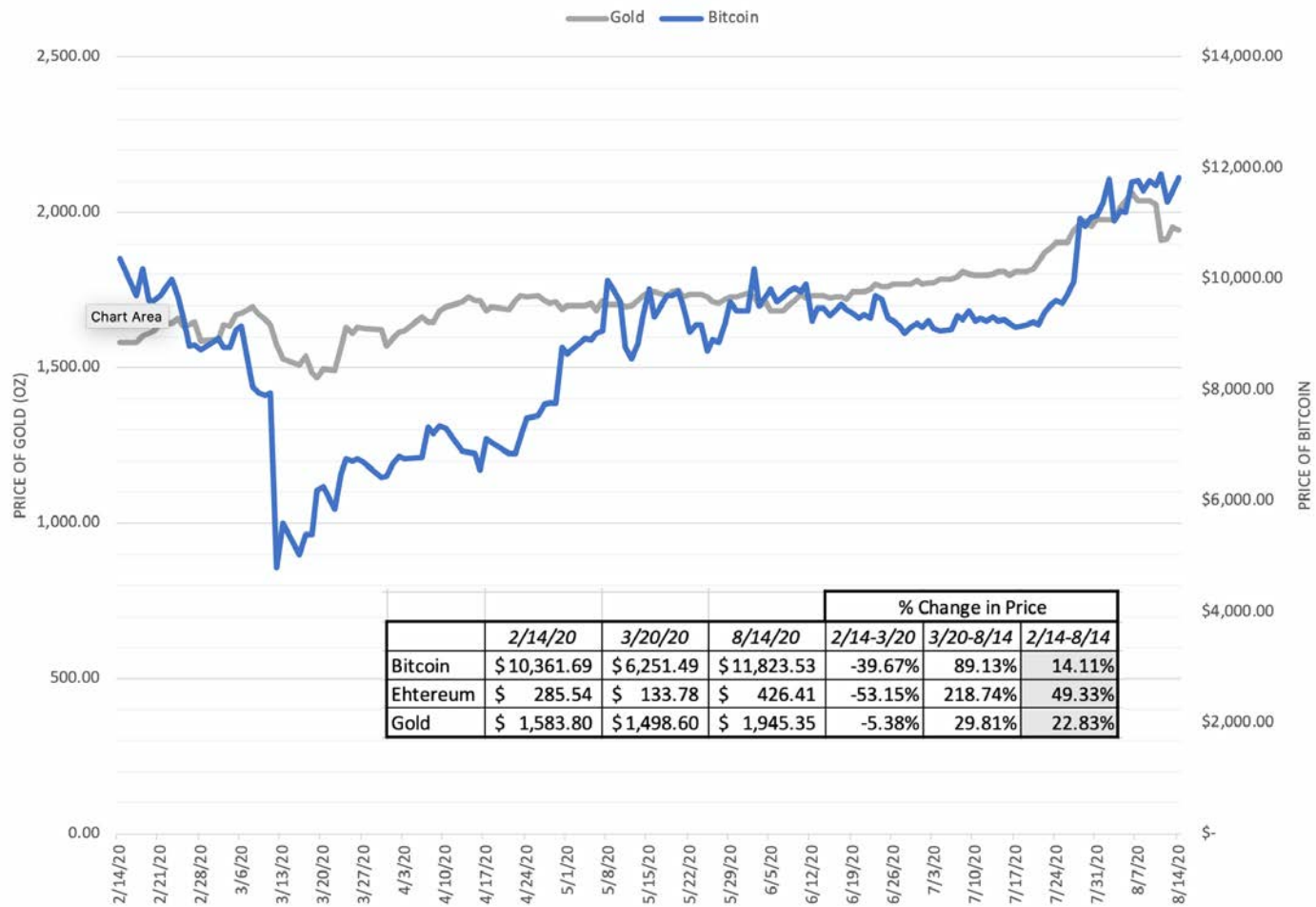
S&P Bond Rating	Yields and Spreads on Corporates						Change in default spread		
	Spread over 10-yr Treasury			Yield on Corporate			2/14-3/20	3/20-8/14	2/14 -8/14
	2/14/20	3/20/20	8/14/20	2/14/20	3/20/20	8/14/20			
AAA	0.69%	1.43%	0.74%	2.28%	2.35%	1.45%	0.74%	-0.69%	0.05%
AA	0.72%	2.64%	0.76%	2.31%	3.56%	1.47%	1.92%	-1.88%	0.04%
A	0.80%	3.15%	0.91%	2.39%	4.07%	1.62%	2.35%	-2.24%	0.11%
BBB	1.33%	3.73%	1.68%	2.92%	4.65%	2.39%	2.40%	-2.05%	0.35%
BB	1.93%	7.45%	3.42%	3.52%	8.37%	4.13%	5.52%	-4.03%	1.49%
B	3.40%	10.74%	5.11%	4.99%	11.66%	5.82%	7.34%	-5.63%	1.71%
CCC or lower	9.65%	17.81%	11.89%	11.24%	18.73%	12.60%	8.16%	-5.92%	2.24%

Macro Review: Oil & Copper



Macro Review: Gold & Bitcoin

Price of Gold & Bitcoin: Feb 14, 2020 - August 14, 2020



Global Equities: By Region

Sub Region	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14
Africa	844	\$ 580,467	\$ 363,856	\$ 416,477	\$ 455,329	\$ (216,611)	\$ 52,621	\$ 38,851	\$ (125,139)	-37.32%	14.46%	9.33%	-21.56%
Australia & NZ	1,665	\$ 1,613,977	\$ 948,950	\$ 1,258,699	\$ 1,540,230	\$ (665,027)	\$ 309,749	\$ 281,531	\$ (73,747)	-41.20%	32.64%	22.37%	-4.57%
Canada	2,496	\$ 2,229,440	\$ 1,353,166	\$ 1,763,631	\$ 2,097,775	\$ (876,274)	\$ 410,465	\$ 334,144	\$ (131,664)	-39.30%	30.33%	18.95%	-5.91%
China	6,348	\$13,996,094	\$12,396,026	\$13,033,689	\$16,162,756	\$ (1,600,069)	\$ 637,663	\$ 3,129,067	\$2,166,661	-11.43%	5.14%	24.01%	15.48%
EU & Environs	5,563	\$13,611,699	\$ 9,226,315	\$10,992,480	\$13,077,435	\$ (4,385,384)	\$ 1,766,165	\$ 2,084,956	\$ (534,264)	-32.22%	19.14%	18.97%	-3.93%
Eastern Europe & Russia	517	\$ 824,836	\$ 498,861	\$ 639,042	\$ 686,946	\$ (325,975)	\$ 140,181	\$ 47,904	\$ (137,890)	-39.52%	28.10%	7.50%	-16.72%
India	3,333	\$ 2,205,941	\$ 1,520,879	\$ 1,584,046	\$ 2,007,518	\$ (685,062)	\$ 63,167	\$ 423,472	\$ (198,423)	-31.06%	4.15%	26.73%	-8.99%
Japan	3,807	\$ 6,031,796	\$ 4,458,917	\$ 5,369,361	\$ 5,945,226	\$ (1,572,879)	\$ 910,445	\$ 575,865	\$ (86,570)	-26.08%	20.42%	10.73%	-1.44%
Latin America & Caribbean	1,215	\$ 2,424,762	\$ 1,414,848	\$ 1,577,197	\$ 1,877,563	\$ (1,009,915)	\$ 162,349	\$ 300,366	\$ (547,200)	-41.65%	11.47%	19.04%	-22.57%
Middle East	1,504	\$ 3,102,408	\$ 2,578,565	\$ 2,906,678	\$ 3,041,760	\$ (523,843)	\$ 328,112	\$ 135,082	\$ (60,648)	-16.89%	12.72%	4.65%	-1.95%
Small Asia	8,793	\$ 5,146,057	\$ 3,607,804	\$ 4,329,250	\$ 5,173,937	\$ (1,538,254)	\$ 721,446	\$ 844,687	\$ 27,879	-29.89%	20.00%	19.51%	0.54%
UK	1,261	\$ 3,067,659	\$ 1,922,892	\$ 2,332,401	\$ 2,631,288	\$ (1,144,767)	\$ 409,509	\$ 298,887	\$ (436,371)	-37.32%	21.30%	12.81%	-14.22%
United States	6,623	\$35,563,273	\$23,829,663	\$31,007,415	\$35,651,806	\$(11,733,611)	\$ 7,177,752	\$ 4,644,391	\$ 88,533	-32.99%	30.12%	14.98%	0.25%
Global	43,970	\$90,398,411	\$64,120,740	\$77,210,365	\$90,349,568	\$(26,277,671)	\$13,089,625	\$13,139,203	\$ (48,843)	-29.07%	20.41%	17.02%	-0.05%

Global Equities: By Sector

Primary Sector	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14
Communication Services	2,094	\$ 7,318,018	\$ 5,480,236	\$ 6,692,664	\$ 7,600,357	\$ (1,837,783)	\$ 1,212,428	\$ 907,693	\$ 282,338	-25.11%	22.12%	13.56%	3.86%
Consumer Discretionary	5,961	\$ 10,161,829	\$ 7,074,627	\$ 8,957,811	\$ 11,227,438	\$ (3,087,202)	\$ 1,883,184	\$ 2,269,627	\$ 1,065,609	-30.38%	26.62%	25.34%	10.49%
Consumer Staples	2,853	\$ 7,165,378	\$ 5,727,389	\$ 6,488,812	\$ 7,453,394	\$ (1,437,989)	\$ 761,424	\$ 964,582	\$ 288,016	-20.07%	13.29%	14.87%	4.02%
Energy	1,673	\$ 5,935,002	\$ 3,851,638	\$ 4,740,250	\$ 5,008,071	\$ (2,083,364)	\$ 888,612	\$ 267,821	\$ (926,931)	-35.10%	23.07%	5.65%	-15.62%
Financials	4,887	\$ 14,952,738	\$ 9,946,720	\$ 10,750,668	\$ 12,561,583	\$ (5,006,018)	\$ 803,948	\$ 1,810,915	\$ (2,391,154)	-33.48%	8.08%	16.84%	-15.99%
Health Care	3,978	\$ 8,914,843	\$ 6,859,450	\$ 8,831,226	\$ 9,861,810	\$ (2,055,394)	\$ 1,971,777	\$ 1,030,584	\$ 946,967	-23.06%	28.75%	11.67%	10.62%
Industrials	7,589	\$ 10,111,374	\$ 6,886,933	\$ 8,106,858	\$ 9,780,741	\$ (3,224,441)	\$ 1,219,924	\$ 1,673,884	\$ (330,632)	-31.89%	17.71%	20.65%	-3.27%
Information Technology	5,589	\$ 13,593,741	\$ 9,731,172	\$ 12,616,961	\$ 15,171,759	\$ (3,862,569)	\$ 2,885,790	\$ 2,554,798	\$ 1,578,019	-28.41%	29.66%	20.25%	11.61%
Materials	5,738	\$ 4,987,456	\$ 3,522,367	\$ 4,327,783	\$ 5,297,134	\$ (1,465,089)	\$ 805,416	\$ 969,351	\$ 309,679	-29.38%	22.87%	22.40%	6.21%
Real Estate	2,674	\$ 4,051,571	\$ 2,707,513	\$ 3,069,197	\$ 3,472,740	\$ (1,344,058)	\$ 361,684	\$ 403,543	\$ (578,831)	-33.17%	13.36%	13.15%	-14.29%
Utilities	922	\$ 3,205,899	\$ 2,332,261	\$ 2,627,550	\$ 2,913,938	\$ (873,638)	\$ 295,289	\$ 286,388	\$ (291,961)	-27.25%	12.66%	10.90%	-9.11%
All	43,970	\$ 90,398,411	\$ 64,120,740	\$ 77,210,365	\$ 90,349,568	\$ (26,277,671)	\$ 13,089,625	\$ 13,139,203	\$ (48,843)	-29.07%	20.41%	17.02%	-0.05%



A Reallocation of Value: The Micro Stories

Value versus Growth: A pre-crisis lead in..

Value vs Growth: US Stocks, by decade

	<i>Lowest PBV</i>	<i>Highest PBV</i>	<i>Difference</i>	<i>Lowest PE</i>	<i>Highest PE</i>	<i>Difference</i>
1930-39	6.04%	4.27%	1.77%	NA	NA	NA
1940-49	22.96%	7.43%	15.53%	NA	NA	NA
1950-59	25.06%	20.92%	4.14%	34.33%	19.16%	15.17%
1960-69	13.23%	9.57%	3.66%	15.27%	9.79%	5.48%
1970-79	17.05%	3.89%	13.16%	14.83%	2.28%	12.54%
1980-89	24.48%	12.94%	11.54%	18.38%	14.46%	3.92%
1990-99	20.17%	21.88%	-1.71%	21.61%	22.03%	-0.41%
2000-09	8.59%	-0.49%	9.08%	13.84%	0.61%	13.23%
2010-19	11.27%	16.67%	-5.39%	11.35%	17.09%	-5.75%

The under performance of value has played out not only in the mutual fund business, but it has also brought many legendary value investors down to earth. We were told that this was temporary, and that a crisis would put value back on top again...

PE and Market Returns – During Crisis

decile(Trailing PE)	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14
Bottom decile	2,519	\$ 2,339,988	\$ 1,920,120	\$ 2,053,995	\$ 2,261,128	\$ (419,868)	\$ 133,876	\$ 207,132	\$ (78,861)	-17.94%	6.97%	10.08%	-3.37%
2nd decile	2,519	\$ 2,764,493	\$ 1,978,590	\$ 2,213,875	\$ 2,528,795	\$ (785,903)	\$ 235,285	\$ 314,920	\$ (235,698)	-28.43%	11.89%	14.22%	-8.53%
3rd decile	2,519	\$ 4,210,236	\$ 2,977,746	\$ 3,384,512	\$ 3,889,018	\$ (1,232,490)	\$ 406,766	\$ 504,506	\$ (321,219)	-29.27%	13.66%	14.91%	-7.63%
4th decile	2,519	\$ 6,648,488	\$ 4,609,691	\$ 5,350,296	\$ 6,095,863	\$ (2,038,797)	\$ 740,605	\$ 745,567	\$ (552,625)	-30.67%	16.07%	13.94%	-8.31%
5th decile	2,519	\$ 7,225,991	\$ 5,049,156	\$ 5,850,496	\$ 6,826,111	\$ (2,176,835)	\$ 801,340	\$ 975,615	\$ (399,880)	-30.13%	15.87%	16.68%	-5.53%
6th decile	2,519	\$ 9,744,830	\$ 7,060,096	\$ 8,273,265	\$ 9,747,756	\$ (2,684,734)	\$ 1,213,169	\$ 1,474,491	\$ 2,926	-27.55%	17.18%	17.82%	0.03%
7th decile	2,519	\$ 15,360,691	\$ 11,303,437	\$ 13,702,515	\$ 16,039,798	\$ (4,057,254)	\$ 2,399,078	\$ 2,337,283	\$ 679,107	-26.41%	21.22%	17.06%	4.42%
8th decile	2,519	\$ 13,937,234	\$ 10,042,152	\$ 12,303,311	\$ 14,253,933	\$ (3,895,082)	\$ 2,261,159	\$ 1,950,622	\$ 316,699	-27.95%	22.52%	15.85%	2.27%
9th decile	2,519	\$ 10,059,418	\$ 7,328,993	\$ 9,062,315	\$ 10,665,146	\$ (2,730,425)	\$ 1,733,322	\$ 1,602,831	\$ 605,729	-27.14%	23.65%	17.69%	6.02%
Top decile	2,519	\$ 6,696,475	\$ 4,842,007	\$ 6,026,711	\$ 7,506,881	\$ (1,854,468)	\$ 1,184,704	\$ 1,480,170	\$ 810,406	-27.69%	24.47%	24.56%	12.10%
Negative Earnings	18,780	\$ 11,410,565	\$ 7,008,752	\$ 8,989,074	\$ 10,535,139	\$ (4,401,814)	\$ 1,980,323	\$ 1,546,065	\$ (875,426)	-38.58%	28.25%	17.20%	-7.67%

Dividends and Market Returns

quintile(Dividend Yield)	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14
Non-dividend paying	26,088	\$ 24,416,274	\$ 17,683,438	\$ 22,096,476	\$ 26,078,982	\$(6,732,837)	\$ 4,413,038	\$ 3,982,506	\$ 1,662,708	-27.58%	24.96%	18.02%	6.81%
Bottom quintile	3,576	\$ 12,298,324	\$ 8,992,480	\$ 10,976,052	\$ 13,261,223	\$(3,305,844)	\$ 1,983,572	\$ 2,285,171	\$ 962,899	-26.88%	22.06%	20.82%	7.83%
2nd quintile	3,576	\$ 17,146,283	\$ 12,023,053	\$ 14,984,816	\$ 17,827,271	\$(5,123,230)	\$ 2,961,763	\$ 2,842,455	\$ 680,988	-29.88%	24.63%	18.97%	3.97%
3rd quintile	3,577	\$ 16,104,332	\$ 11,183,049	\$ 13,128,188	\$ 14,992,988	\$(4,921,283)	\$ 1,945,139	\$ 1,864,800	\$(1,111,344)	-30.56%	17.39%	14.20%	-6.90%
4th quintile	3,576	\$ 13,396,923	\$ 9,275,069	\$ 10,471,358	\$ 11,969,783	\$(4,121,854)	\$ 1,196,289	\$ 1,498,425	\$(1,427,140)	-30.77%	12.90%	14.31%	-10.65%
Top quintile	3,577	\$ 7,036,275	\$ 4,963,652	\$ 5,553,475	\$ 6,219,322	\$(2,072,623)	\$ 589,823	\$ 665,847	\$ (816,954)	-29.46%	11.88%	11.99%	-11.61%

Momentum and Damage

% Price Change (2/14/19-2/14/20)	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14
Bottom decile	4,011	\$ 497,094	\$ 314,732	\$ 409,947	\$ 526,855	\$ (182,362)	\$ 95,215	\$ 116,908	\$ 29,762	-36.69%	30.25%	28.52%	5.99%
2nd decile	4,011	\$ 1,864,686	\$ 1,298,176	\$ 1,478,171	\$ 1,738,519	\$ (566,510)	\$ 179,996	\$ 260,348	\$ (126,167)	-30.38%	13.87%	17.61%	-6.77%
3rd decile	4,011	\$ 4,510,236	\$ 3,022,633	\$ 3,433,086	\$ 3,913,461	\$ (1,487,603)	\$ 410,453	\$ 480,375	\$ (596,775)	-32.98%	13.58%	13.99%	-13.23%
4th decile	4,011	\$ 5,271,090	\$ 3,569,938	\$ 4,100,573	\$ 4,738,696	\$ (1,701,151)	\$ 530,634	\$ 638,124	\$ (532,394)	-32.27%	14.86%	15.56%	-10.10%
5th decile	4,011	\$ 7,499,436	\$ 5,427,905	\$ 6,076,979	\$ 6,770,817	\$ (2,071,531)	\$ 649,074	\$ 693,838	\$ (728,618)	-27.62%	11.96%	11.42%	-9.72%
6th decile	4,011	\$ 7,894,593	\$ 5,500,007	\$ 6,318,254	\$ 7,390,057	\$ (2,394,586)	\$ 818,247	\$ 1,071,803	\$ (504,536)	-30.33%	14.88%	16.96%	-6.39%
7th decile	4,011	\$ 13,136,266	\$ 9,294,768	\$ 10,853,879	\$ 12,459,699	\$ (3,841,498)	\$ 1,559,112	\$ 1,605,820	\$ (676,567)	-29.24%	16.77%	14.79%	-5.15%
8th decile	4,011	\$ 20,543,948	\$ 14,320,642	\$ 17,310,244	\$ 19,967,731	\$ (6,223,306)	\$ 2,989,602	\$ 2,657,487	\$ (576,218)	-30.29%	20.88%	15.35%	-2.80%
9th decile	4,011	\$ 16,672,949	\$ 11,980,331	\$ 15,106,977	\$ 17,969,326	\$ (4,692,618)	\$ 3,126,645	\$ 2,862,349	\$ 1,296,377	-28.15%	26.10%	18.95%	7.78%
Top decile	4,012	\$ 8,946,736	\$ 6,463,096	\$ 8,673,039	\$ 11,041,075	\$ (2,483,640)	\$ 2,209,943	\$ 2,368,036	\$ 2,094,339	-27.76%	34.19%	27.30%	23.41%

Debt and Value

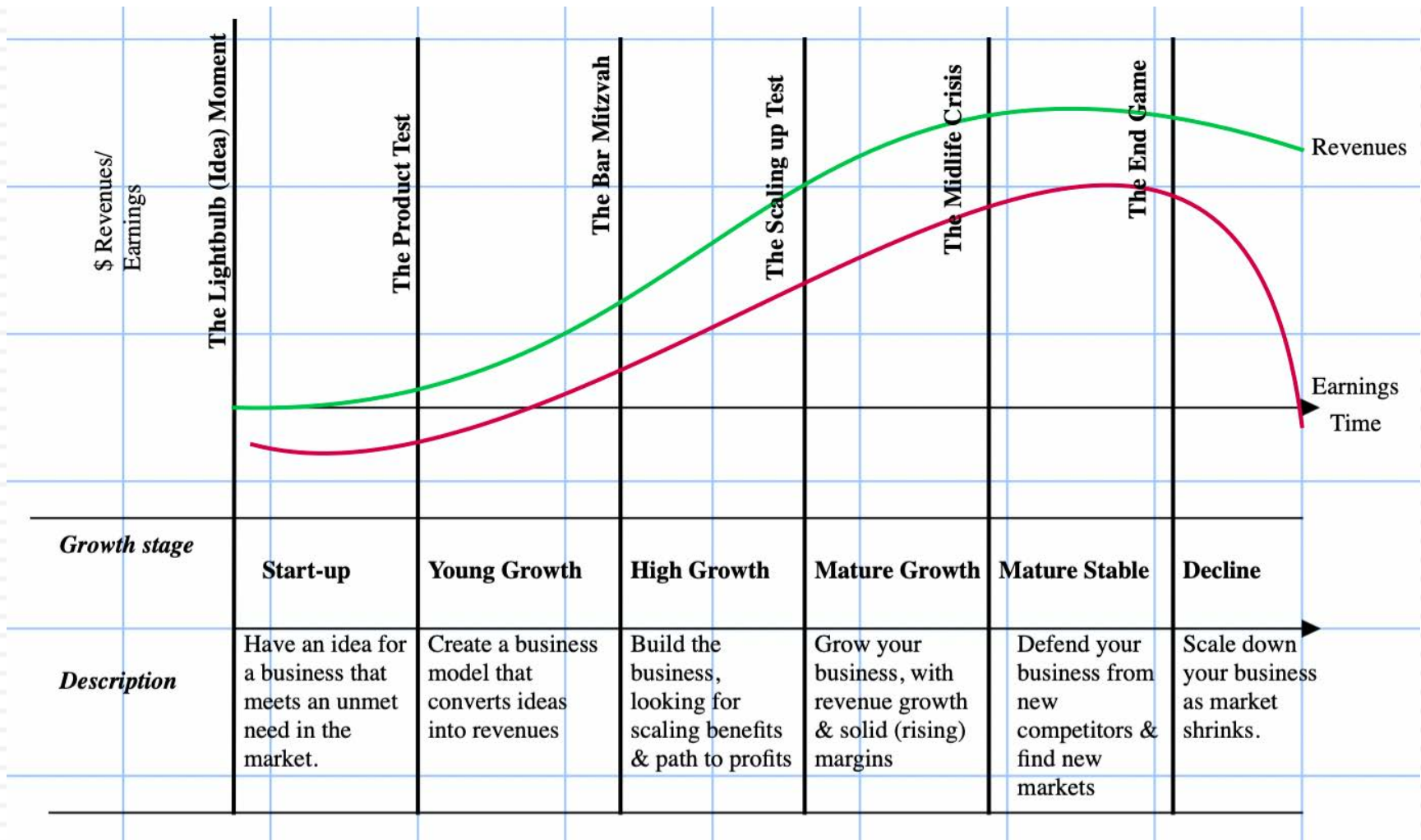


- The question of whether to borrow money is always a trade off between its tax benefits on the good side and the distress risk it exposes you to on the bad side.
- During this crisis, not surprisingly, companies that have borrowed more money, on a relative basis, have been more damaged than companies that are less indebted.

The Debt Load..

Net Debt/EBITDA	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20- 5/22	5/22 - 8/14	2/14 - 8/14
Bottom decile	2,685	\$ 2,618,921	\$ 2,035,474	\$ 2,389,694	\$ 2,948,824	\$ (583,447)	\$ 354,220	\$ 559,130	\$ 329,903	-22.28%	17.40%	23.40%	12.60%
2nd decile	2,685	\$ 5,243,727	\$ 4,012,622	\$ 5,054,528	\$ 6,007,582	\$ (1,231,105)	\$ 1,041,907	\$ 953,054	\$ 763,856	-23.48%	25.97%	18.86%	14.57%
3rd decile	2,685	\$ 8,718,018	\$ 6,641,688	\$ 8,186,586	\$ 9,696,229	\$ (2,076,329)	\$ 1,544,898	\$ 1,509,643	\$ 978,212	-23.82%	23.26%	18.44%	11.22%
4th decile	2,685	\$ 5,504,333	\$ 4,151,031	\$ 4,977,012	\$ 6,007,251	\$ (1,353,302)	\$ 825,981	\$ 1,030,238	\$ 502,918	-24.59%	19.90%	20.70%	9.14%
5th decile	2,685	\$ 15,072,419	\$ 11,366,442	\$ 13,963,127	\$ 16,313,340	\$ (3,705,977)	\$ 2,596,684	\$ 2,350,213	\$ 1,240,920	-24.59%	22.85%	16.83%	8.23%
6th decile	2,685	\$ 10,635,547	\$ 7,528,142	\$ 9,125,286	\$ 10,597,013	\$ (3,107,406)	\$ 1,597,145	\$ 1,471,727	\$ (38,535)	-29.22%	21.22%	16.13%	-0.36%
7th decile	2,685	\$ 11,153,680	\$ 7,692,609	\$ 9,274,882	\$ 10,647,627	\$ (3,461,070)	\$ 1,582,273	\$ 1,372,744	\$ (506,053)	-31.03%	20.57%	14.80%	-4.54%
8th decile	2,685	\$ 8,516,406	\$ 5,610,538	\$ 6,840,333	\$ 7,889,322	\$ (2,905,869)	\$ 1,229,796	\$ 1,048,989	\$ (627,084)	-34.12%	21.92%	15.34%	-7.36%
9th decile	2,685	\$ 6,261,111	\$ 3,974,639	\$ 4,716,189	\$ 5,365,426	\$ (2,286,472)	\$ 741,550	\$ 649,237	\$ (895,685)	-36.52%	18.66%	13.77%	-14.31%
Top decile	2,686	\$ 2,642,392	\$ 1,640,513	\$ 1,930,955	\$ 2,250,713	\$ (1,001,879)	\$ 290,443	\$ 319,758	\$ (391,678)	-37.92%	17.70%	16.56%	-14.82%
Negative EBITDA	17,119	\$ 14,031,856	\$ 9,467,041	\$ 10,751,771	\$ 12,626,241	\$ (4,564,815)	\$ 1,284,730	\$ 1,874,471	\$ (1,405,615)	-32.53%	13.57%	17.43%	-10.02%

The Corporate Life Cycle



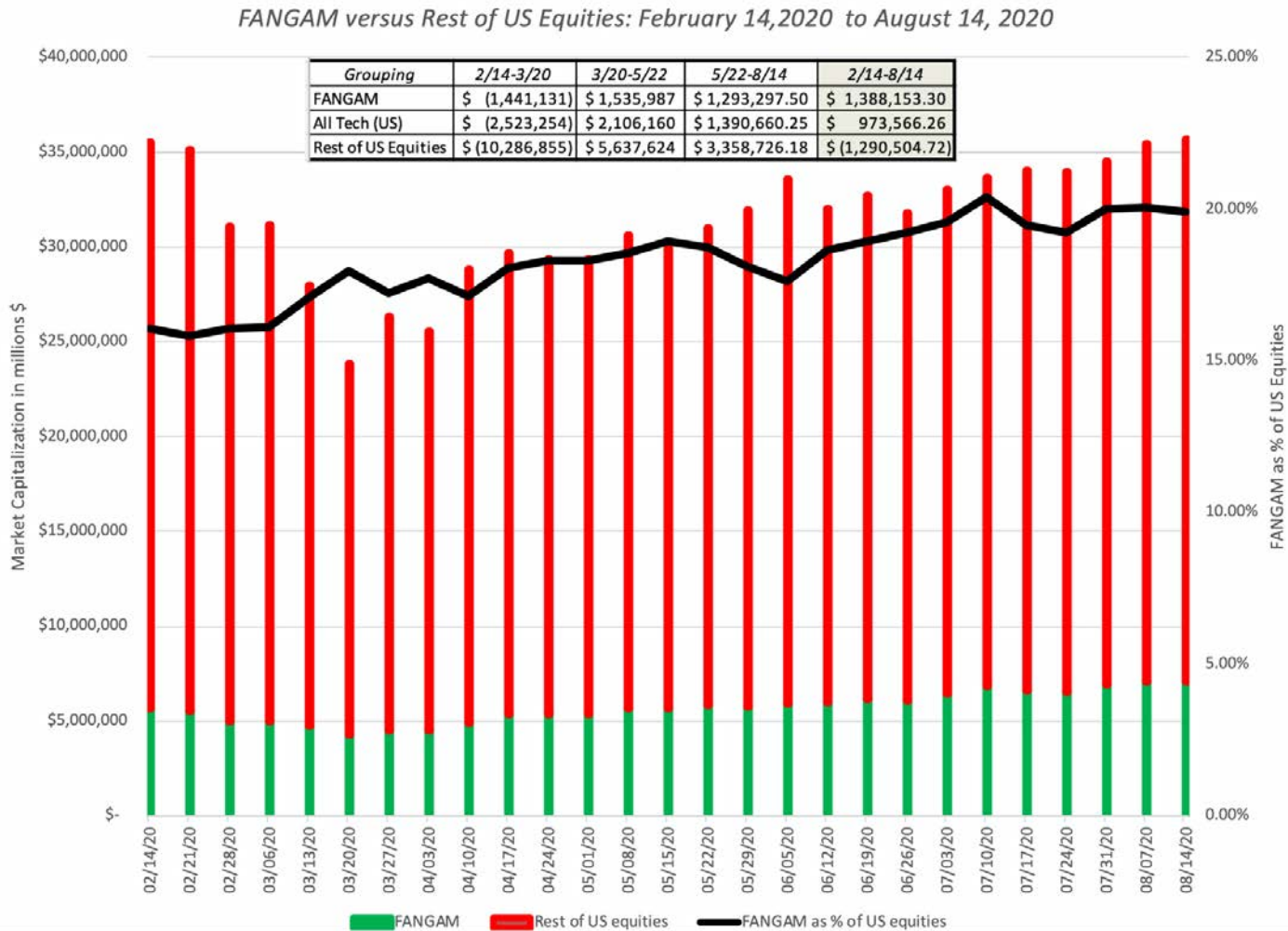
COVID: Young versus Old

Age of company	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14
Bottom decile	3,712	\$ 2,698,650	\$ 1,869,458	\$ 2,472,348	\$ 2,961,005	\$ (829,192)	\$ 602,890	\$ 488,657	\$ 262,355	-30.73%	32.25%	19.76%	9.72%
2nd decile	3,836	\$ 3,350,085	\$ 2,389,512	\$ 2,971,885	\$ 3,595,908	\$ (960,573)	\$ 582,373	\$ 624,023	\$ 245,823	-28.67%	24.37%	21.00%	7.34%
3rd decile	3,185	\$ 4,046,398	\$ 3,006,664	\$ 3,834,212	\$ 4,789,015	\$ (1,039,733)	\$ 827,548	\$ 954,803	\$ 742,618	-25.70%	27.52%	24.90%	18.35%
4th decile	3,949	\$ 8,658,784	\$ 6,597,980	\$ 7,863,953	\$ 9,256,879	\$ (2,060,804)	\$ 1,265,974	\$ 1,392,925	\$ 598,095	-23.80%	19.19%	17.71%	6.91%
5th decile	4,403	\$ 6,732,948	\$ 5,198,361	\$ 6,320,021	\$ 7,610,835	\$ (1,534,587)	\$ 1,121,660	\$ 1,290,814	\$ 877,887	-22.79%	21.58%	20.42%	13.04%
6th decile	3,856	\$ 4,924,936	\$ 3,644,831	\$ 4,230,347	\$ 5,020,670	\$ (1,280,105)	\$ 585,516	\$ 790,322	\$ 95,734	-25.99%	16.06%	18.68%	1.94%
7th decile	4,087	\$ 9,070,705	\$ 6,429,646	\$ 7,979,016	\$ 9,447,799	\$ (2,641,058)	\$ 1,549,370	\$ 1,468,783	\$ 377,095	-29.12%	24.10%	18.41%	4.16%
8th decile	3,822	\$ 8,935,720	\$ 6,088,135	\$ 7,577,142	\$ 8,738,365	\$ (2,847,585)	\$ 1,489,008	\$ 1,161,223	\$ (197,355)	-31.87%	24.46%	15.33%	-2.21%
9th decile	3,960	\$ 10,417,079	\$ 7,208,036	\$ 8,526,124	\$ 9,887,293	\$ (3,209,042)	\$ 1,318,087	\$ 1,361,170	\$ (529,785)	-30.81%	18.29%	15.96%	-5.09%
Top decile	3,945	\$ 27,706,077	\$ 18,916,104	\$ 22,188,000	\$ 25,094,122	\$ (8,789,973)	\$ 3,271,896	\$ 2,906,122	\$ (2,611,955)	-31.73%	17.30%	13.10%	-9.43%

COVID: High Growth versus Low Growth

decile (Est. Annual Revenue)	Number of firms	Market Cap (\$ Millions)				\$ Change in Market Cap				% Change in Market Cap			
		2/14/20	3/20/20	5/22/20	8/14/20	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14	2/14 - 3/20	3/20 - 5/22	5/22 - 8/14	2/14 - 8/14
Bottom decile	1,422	\$ 6,269,298	\$ 3,307,541	\$ 4,084,068	\$ 4,567,027	\$ (2,961,758)	\$ 776,528	\$ 482,959	\$ (1,702,271)	-47.24%	23.48%	11.83%	-27.15%
2nd decile	1,420	\$ 9,852,982	\$ 6,726,627	\$ 7,679,547	\$ 8,544,768	\$ (3,126,355)	\$ 952,920	\$ 865,221	\$ (1,308,214)	-31.73%	14.17%	11.27%	-13.28%
3rd decile	1,425	\$ 8,535,682	\$ 5,505,306	\$ 6,378,173	\$ 7,311,712	\$ (3,030,375)	\$ 872,867	\$ 933,539	\$ (1,223,970)	-35.50%	15.86%	14.64%	-14.34%
4th decile	1,417	\$ 11,647,079	\$ 8,113,032	\$ 9,562,531	\$ 10,703,109	\$ (3,534,047)	\$ 1,449,499	\$ 1,140,579	\$ (943,970)	-30.34%	17.87%	11.93%	-8.10%
5th decile	1,430	\$ 11,053,101	\$ 7,976,953	\$ 9,389,850	\$ 10,660,656	\$ (3,076,148)	\$ 1,412,897	\$ 1,270,806	\$ (392,445)	-27.83%	17.71%	13.53%	-3.55%
6th decile	1,419	\$ 10,162,251	\$ 7,281,962	\$ 8,731,904	\$ 9,999,634	\$ (2,880,289)	\$ 1,449,942	\$ 1,267,730	\$ (162,617)	-28.34%	19.91%	14.52%	-1.60%
7th decile	1,414	\$ 9,163,122	\$ 6,749,448	\$ 8,373,046	\$ 10,125,381	\$ (2,413,674)	\$ 1,623,598	\$ 1,752,334	\$ 962,259	-26.34%	24.06%	20.93%	10.50%
8th decile	1,430	\$ 6,692,737	\$ 5,011,051	\$ 6,307,952	\$ 7,588,977	\$ (1,681,686)	\$ 1,296,901	\$ 1,281,026	\$ 896,241	-25.13%	25.88%	20.31%	13.39%
9th decile	1,425	\$ 8,105,604	\$ 6,452,557	\$ 8,298,728	\$ 10,334,221	\$ (1,653,048)	\$ 1,846,172	\$ 2,035,493	\$ 2,228,617	-20.39%	28.61%	24.53%	27.49%
Top decile	1,427	\$ 3,164,340	\$ 2,374,336	\$ 3,408,682	\$ 4,580,311	\$ (790,004)	\$ 1,034,346	\$ 1,171,630	\$ 1,415,971	-24.97%	43.56%	34.37%	44.75%

The Strong get stronger... The FANGAM stocks...





A Unifying Theory: The Resilience of Risk Capital

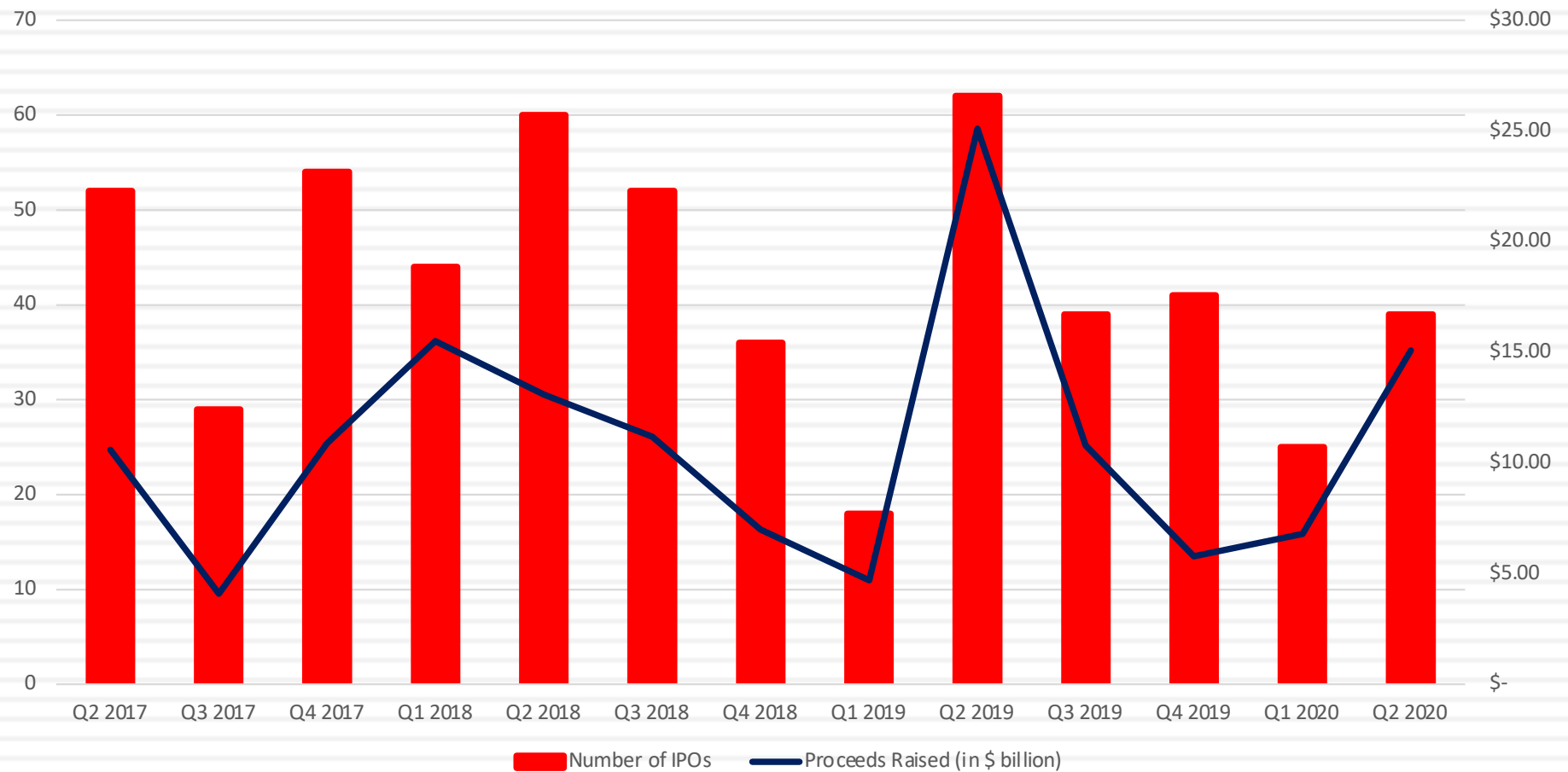
Venture Capital: The COVID effect

VC Investing: By Type

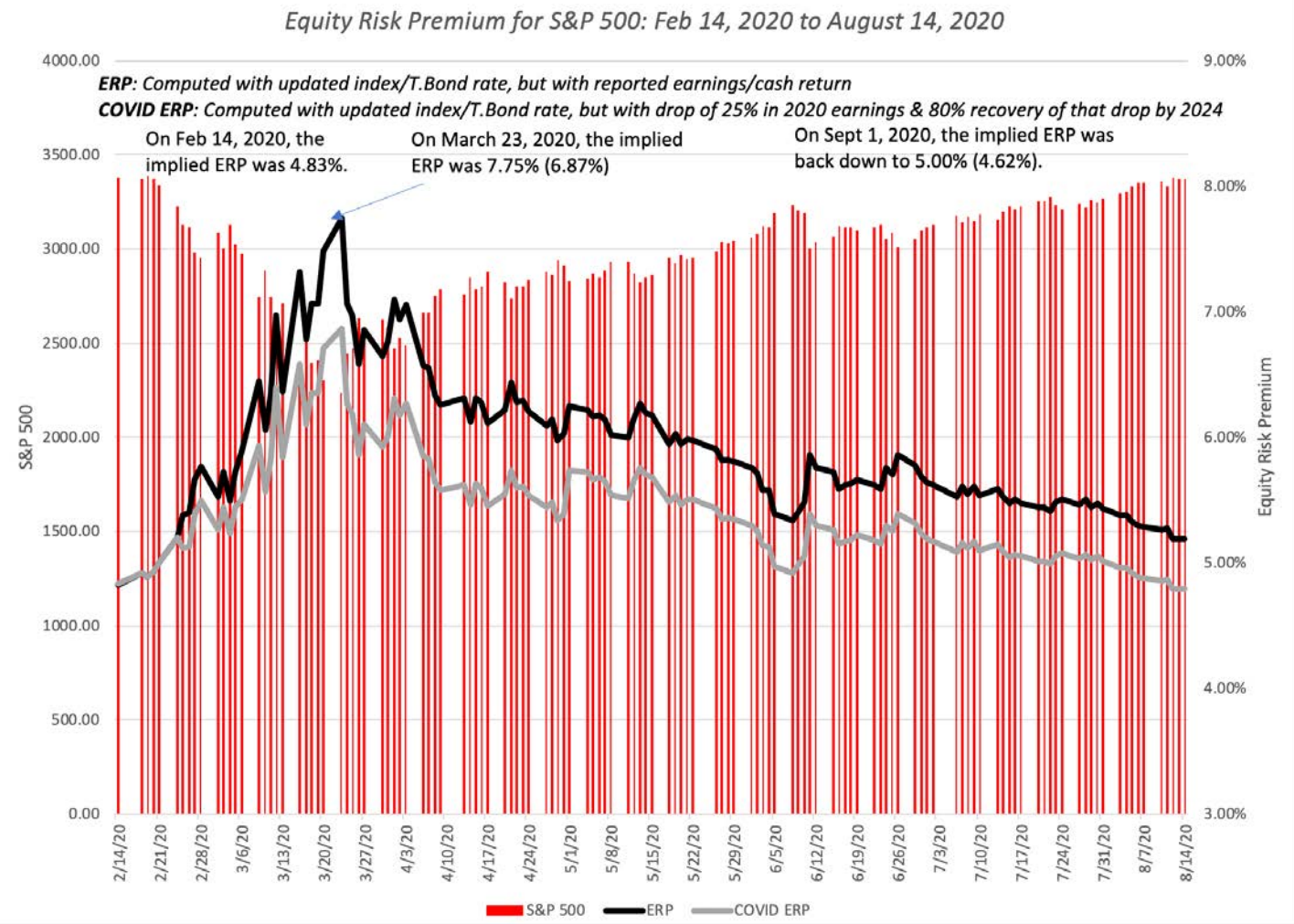


IPOs: The COVID effect

IPOs by Quarter: Including COVID quarters



The Price of Equity Risk: COVID



Andorra	7.08%	9.49%	8.03%	Italy	7.37%	10.04%	8.46%
Austria	5.59%	6.74%	5.81%	Jersey	5.89%	7.30%	6.12%
Belgium	5.80%	7.12%	6.12%	Liechtenstein	5.20%	6.01%	5.23%
Cyprus	8.16%	11.51%	9.64%	Luxembourg	5.20%	6.01%	5.23%
Denmark	5.20%	6.01%	5.23%	Malta	6.04%	7.56%	6.48%
Finland	5.59%	6.74%	5.81%	Netherlands	5.20%	6.01%	5.23%
France	5.69%	6.92%	5.96%	Norway	5.20%	6.01%	5.23%
Germany	5.20%	6.01%	5.23%	Portugal	7.37%	10.04%	8.46%
Greece	9.64%	14.25%	11.84%	Spain	6.77%	8.93%	7.58%
Guernsey	6.77%	8.93%	6.12%	Sweden	5.20%	6.01%	5.23%
Iceland	6.04%	7.56%	6.48%	Switzerland	5.20%	6.01%	5.23%
Ireland	6.04%	7.56%	6.48%	Turkey	9.64%	14.25%	11.84%
Isle of Man	5.69%	6.92%	5.96%	United Kingdom	5.69%	6.92%	5.96%

Country	1/20	4/20	7/20
Angola	11.62%	17.91%	14.79%
Benin	10.63%	16.08%	13.32%
Botswana	6.04%	7.56%	6.48%
Burkina Faso	10.63%	16.08%	13.32%
Cameroon	10.63%	16.08%	13.32%
Cape Verde	10.63%	16.08%	13.32%
Congo (DR)	12.59%	19.73%	16.25%
Congo (Rep)	14.08%	22.49%	18.46%
Côte d'Ivoire	8.75%	12.60%	10.52%
Egypt	10.63%	16.08%	13.32%
Ethiopia	9.64%	14.25%	13.32%
Gabon	12.59%	19.73%	16.25%
Ghana	11.62%	17.91%	14.79%
Kenya	10.63%	16.08%	13.32%
Mali	11.62%	17.91%	14.79%
Morocco	7.66%	10.58%	8.90%
Mozambique	14.08%	22.49%	18.46%
Namibia	8.16%	11.51%	9.64%
Niger	11.62%	17.91%	14.79%
Nigeria	10.63%	16.08%	13.32%
Rwanda	10.63%	16.08%	13.32%
Senegal	8.75%	12.60%	10.52%
South Africa	7.37%	10.58%	8.90%
Swaziland	10.63%	16.08%	13.32%
Tanzania	9.64%	14.25%	11.84%
Togo	11.62%	17.91%	14.79%
Tunisia	10.63%	16.08%	13.32%
Uganda	10.63%	16.08%	13.32%
Zambia	14.08%	27.97%	22.86%

Canada	5.20%	6.01%	5.23%
United States	5.20%	6.01%	5.23%

Argentina	14.08%	27.97%	22.86%
Belize	11.62%	17.91%	16.25%
Bolivia	8.75%	14.25%	11.84%
Brazil	8.16%	11.51%	9.64%
Chile	5.89%	7.30%	6.26%
Colombia	7.08%	9.49%	8.03%
Costa Rica	9.64%	16.08%	13.32%
Ecuador	11.62%	24.30%	19.92%
El Salvador	11.62%	17.91%	14.79%
Guatemala	7.66%	10.58%	8.90%
Honduras	9.64%	14.25%	11.84%
Mexico	6.38%	8.21%	7.58%
Nicaragua	10.63%	17.91%	14.79%
Panama	6.77%	8.93%	7.58%
Paraguay	7.66%	10.58%	8.90%
Peru	6.38%	8.21%	6.99%
Suriname	10.63%	16.08%	14.79%
Uruguay	7.08%	9.49%	8.03%
Venezuela	22.89%	29.46%	27.14%

Albania	9.64%	14.25%	11.84%
Armenia	8.75%	12.60%	10.52%
Azerbaijan	8.16%	11.51%	9.64%
Belarus	11.62%	17.91%	14.79%
Bosnia and Herzegovina	11.62%	17.91%	14.79%
Bulgaria	7.08%	9.49%	8.03%
Croatia	8.16%	11.51%	9.64%
Czech Republic	5.80%	7.12%	6.12%
Estonia	5.89%	7.30%	6.26%
Georgia	8.16%	11.51%	9.64%
Hungary	7.37%	10.04%	8.46%
Kazakhstan	7.37%	10.04%	8.46%
Kyrgyzstan	10.63%	16.08%	13.32%
Latvia	6.38%	8.21%	6.99%
Lithuania	6.38%	8.21%	6.99%
Macedonia	8.75%	12.60%	10.52%
Moldova	11.62%	17.91%	14.79%
Montenegro	9.64%	14.25%	11.84%
Poland	6.04%	7.56%	6.48%
Romania	7.37%	10.04%	8.46%
Russia	7.37%	10.04%	8.46%
Serbia	8.75%	12.60%	10.52%
Slovakia	6.04%	7.56%	6.48%
Slovenia	6.77%	8.93%	7.58%
Tajikistan	11.62%	17.91%	14.79%
Ukraine	12.59%	19.73%	14.79%
Uzbekistan	9.64%	14.25%	11.84%

Abu Dhabi	5.69%	6.92%	5.96%
Bahrain	10.63%	16.08%	13.32%
Iraq	12.59%	19.73%	16.25%
Israel	5.89%	7.30%	6.26%
Jordan	9.64%	14.25%	11.84%
Kuwait	5.69%	6.92%	5.96%
Lebanon	14.08%	27.97%	22.86%
Oman	7.66%	11.51%	10.52%
Qatar	5.80%	7.12%	6.12%
Ras Al Khaimah (Emirate of)	12.59%	19.73%	6.48%
Saudi Arabia	5.89%	7.30%	6.26%
Sharjah	6.38%	9.49%	8.03%
United Arab Emirates	5.69%	6.92%	5.96%

Region	Weighted Average: ERP
Africa	12.42%
Asia	6.78%
Australia & New Zealand	5.23%
Caribbean	13.37%
Central and South America	10.70%
Eastern Europe & Russia	8.42%
Middle East	7.70%
North America	5.23%
Western Europe	6.44%
Global	6.76%

Country	PRS	1-Jan	1-Apr	1-Jul
Algeria	55	11.62%	17.91%	22.86%
Brunei	80	5.59%	6.74%	6.48%
Gambia	63.5	11.62%	17.91%	14.79%
Guinea	54	15.06%	24.30%	22.86%
Guinea-Bissau	62	11.62%	17.91%	16.25%
Guyana	65	11.62%	17.91%	13.32%
Haiti	54.5	14.08%	22.49%	22.86%
Iran	58.5	11.62%	17.91%	18.46%
Korea, D.P.R.	50.3	17.03%	27.97%	22.86%
Liberia	53.5	21.71%	31.93%	22.86%
Libya	58.3	8.16%	11.51%	18.46%
Madagascar	63	10.63%	16.08%	14.79%
Malawi	57.8	11.62%	17.91%	18.46%
Myanmar	62.8	11.62%	17.91%	14.79%
Sierra Leone	59	15.06%	24.30%	18.46%
Somalia	50.5	17.03%	27.97%	22.86%
Sudan	36.3	21.71%	31.93%	27.14%
Syria	53.8	17.03%	27.97%	22.86%
Yemen, Republic	50	17.03%	27.97%	27.14%
Zimbabwe	51.3	17.03%	27.97%	22.86%

Bangladesh	8.75%	12.60%	10.52%
Cambodia	10.63%	16.08%	13.32%
China	5.89%	7.30%	6.26%
Fiji	8.75%	12.60%	10.52%
Hong Kong	5.69%	7.12%	6.12%
India	7.08%	9.49%	8.46%
Indonesia	7.08%	9.49%	8.03%
Japan	5.89%	7.30%	6.26%
Korea	5.69%	6.92%	5.96%
Laos	NA	8.21%	6.99%
Macao	5.80%	7.12%	6.12%
Malaysia	6.38%	8.21%	6.99%
Maldives	10.63%	16.08%	14.79%
Mauritius	6.77%	8.93%	7.58%
Mongolia	11.62%	17.91%	14.79%
Pakistan	11.62%	17.91%	14.79%
Papua New Guinea	10.63%	16.08%	13.32%
Philippines	7.08%	9.49%	8.03%
Singapore	5.20%	6.01%	5.23%
Solomon Islands	11.62%	17.91%	14.79%
Sri Lanka	10.63%	16.08%	13.32%
Taiwan	5.80%	7.12%	6.12%
Thailand	6.77%	8.93%	7.58%
Vietnam	8.75%	12.60%	10.52%

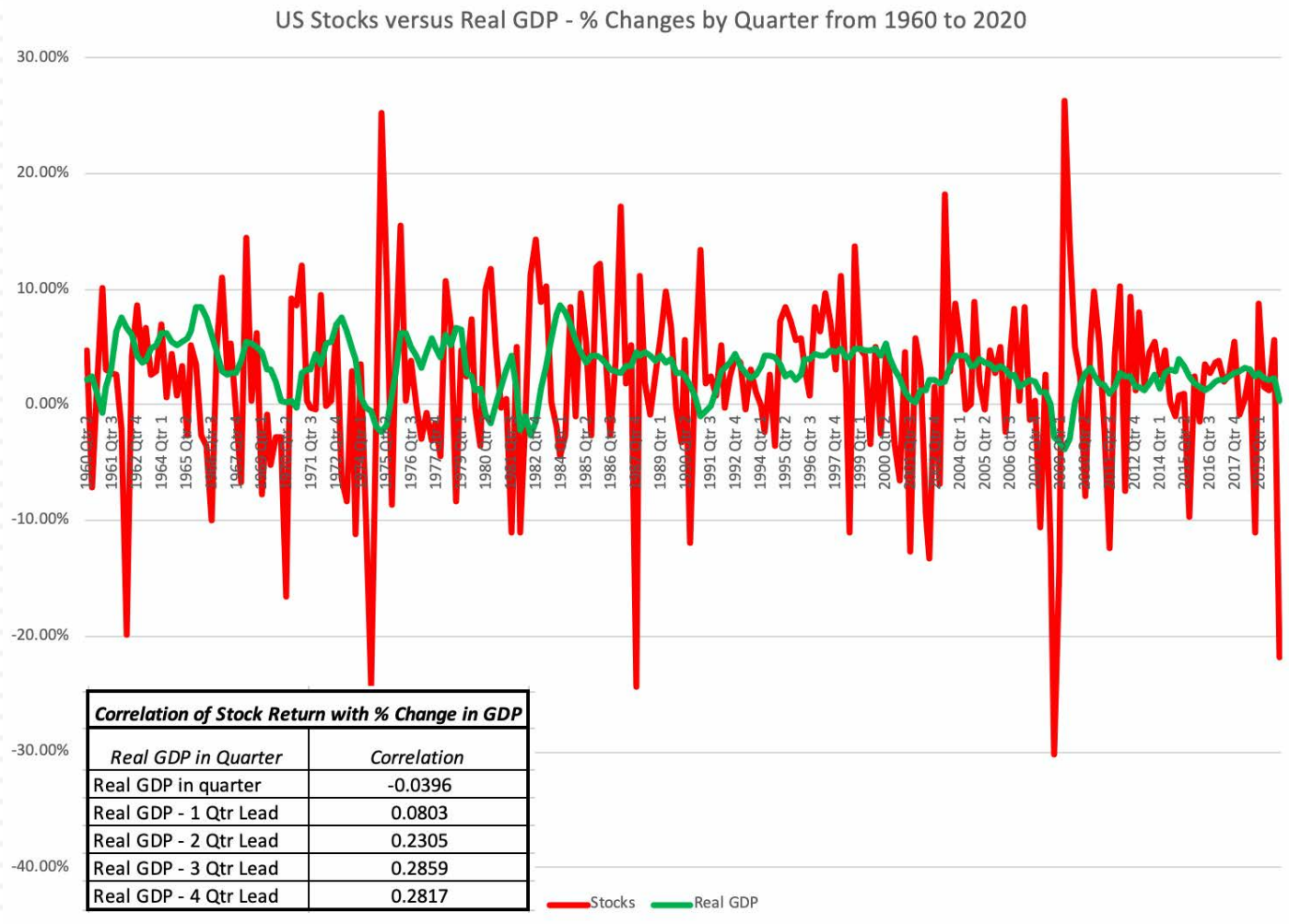
Australia	5.20%	6.01%	5.23%
Cook Islands	9.64%	14.25%	11.84%
New Zealand	5.20%	6.01%	5.23%

Blue: ERP on 7/1/20
 Red: ERP on 4/1/20
 Green: ERP on 1/1/20

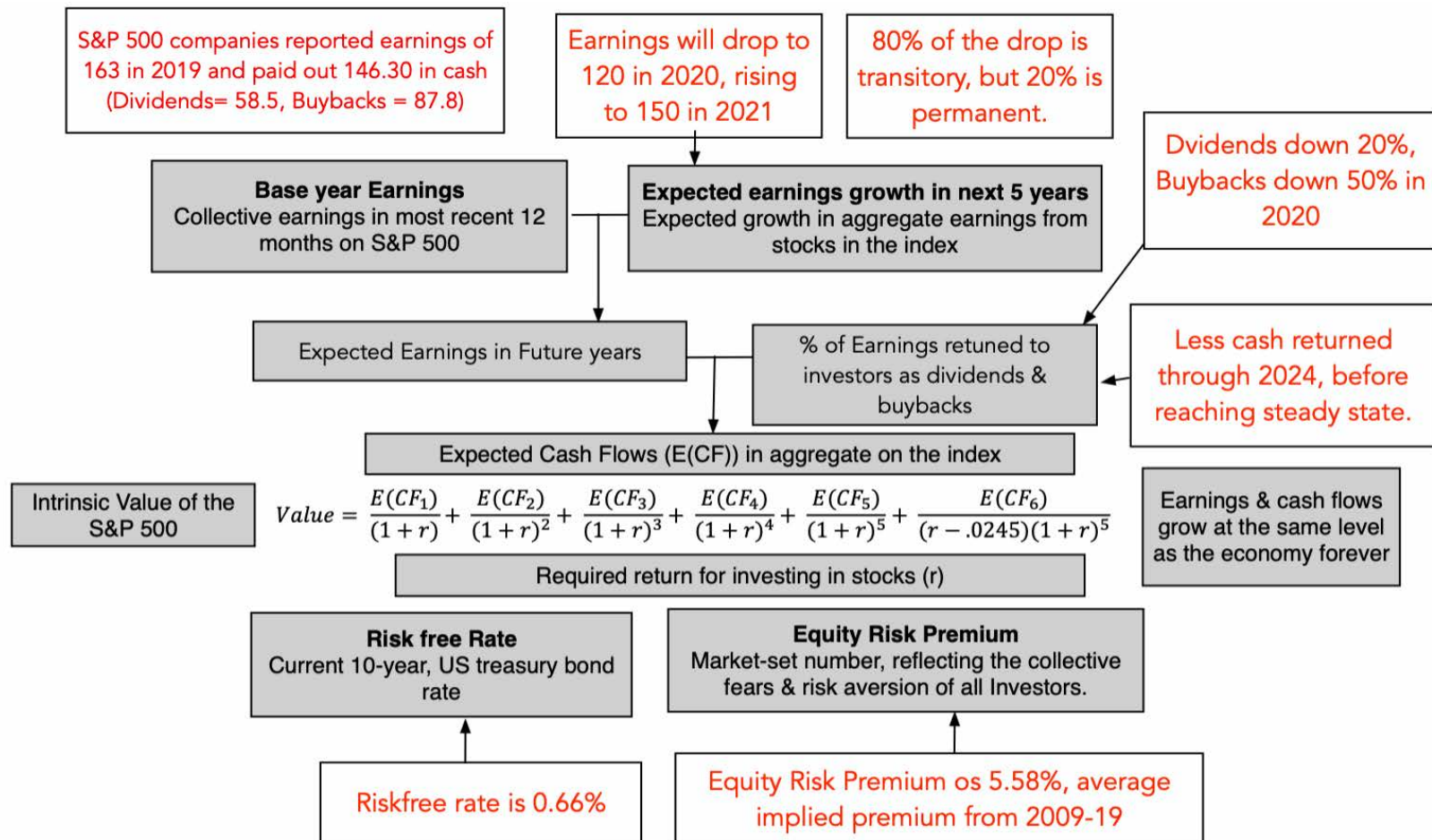


Crazy like a fox? Market Assessments

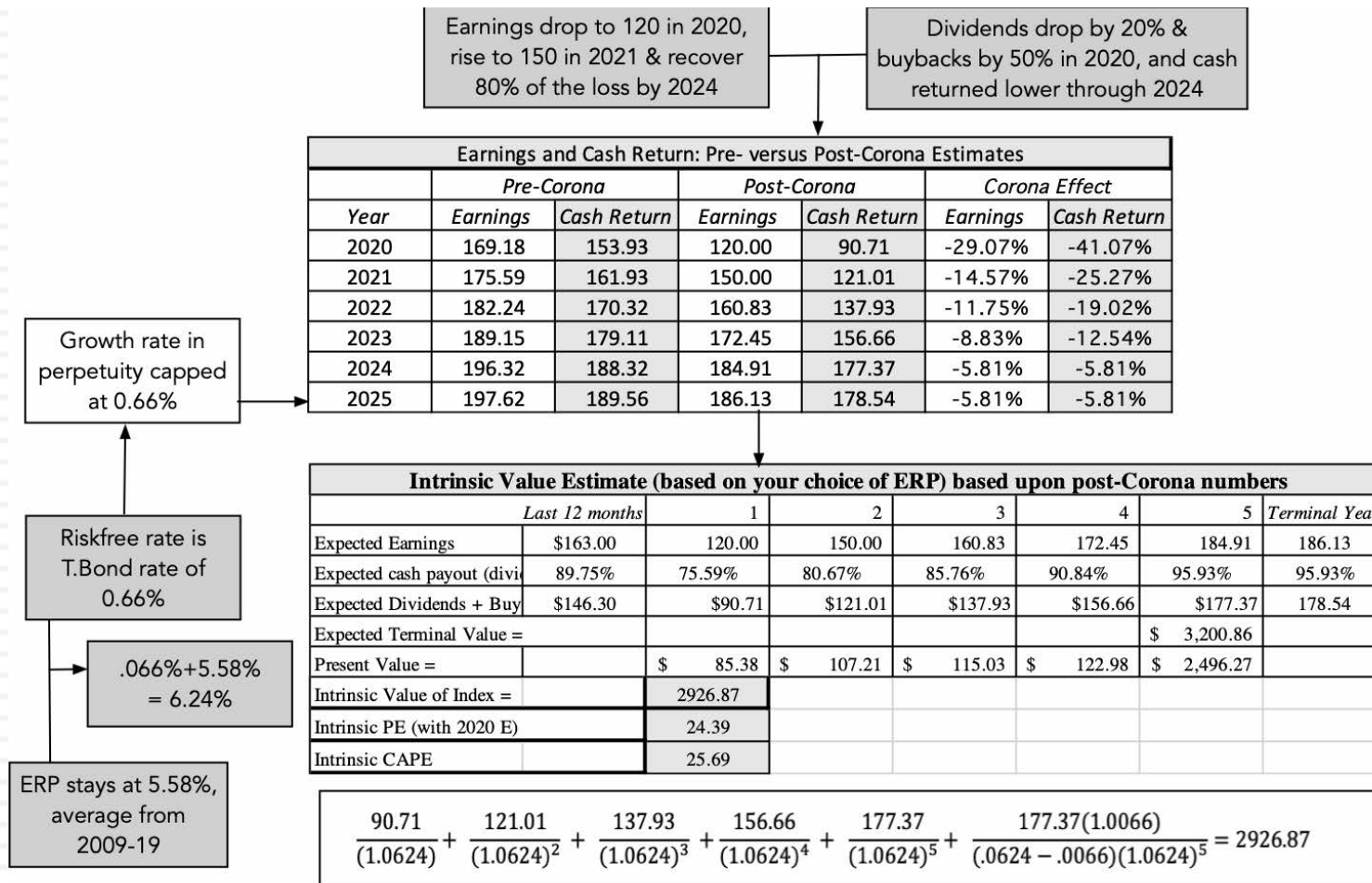
Markets vs the Economy: Explaining the disconnect...



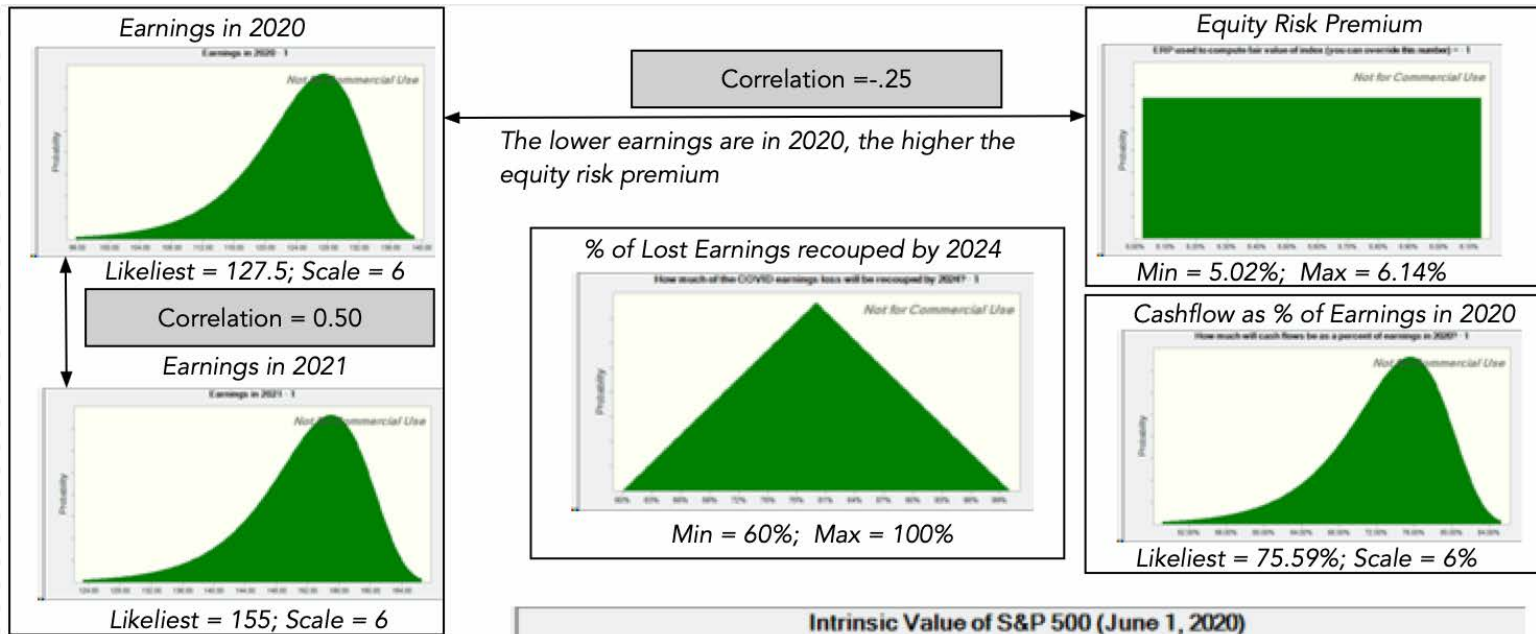
My Story for the Market



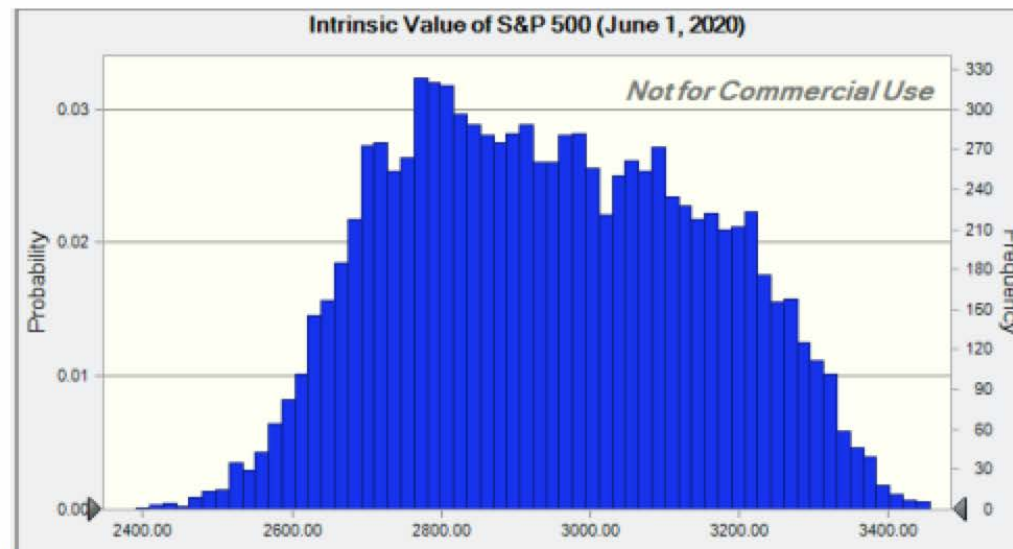
My Valuation of the Index



Facing up to uncertainty



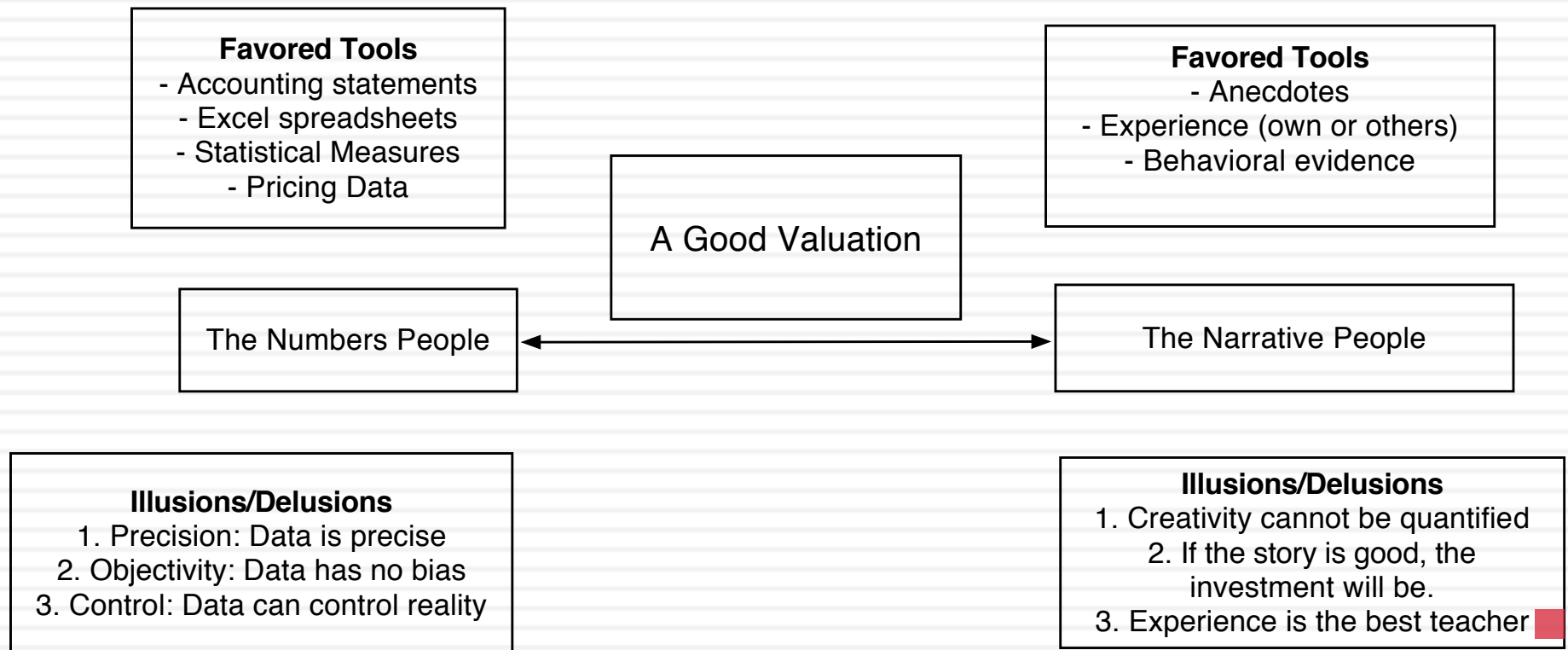
Percentile	Forecast values
0%	2277.04
10%	2685.17
20%	2752.07
30%	2809.79
40%	2870.31
50%	2932.91
60%	2999.98
70%	3072.14
80%	3144.45
90%	3226.31
100%	3455.33



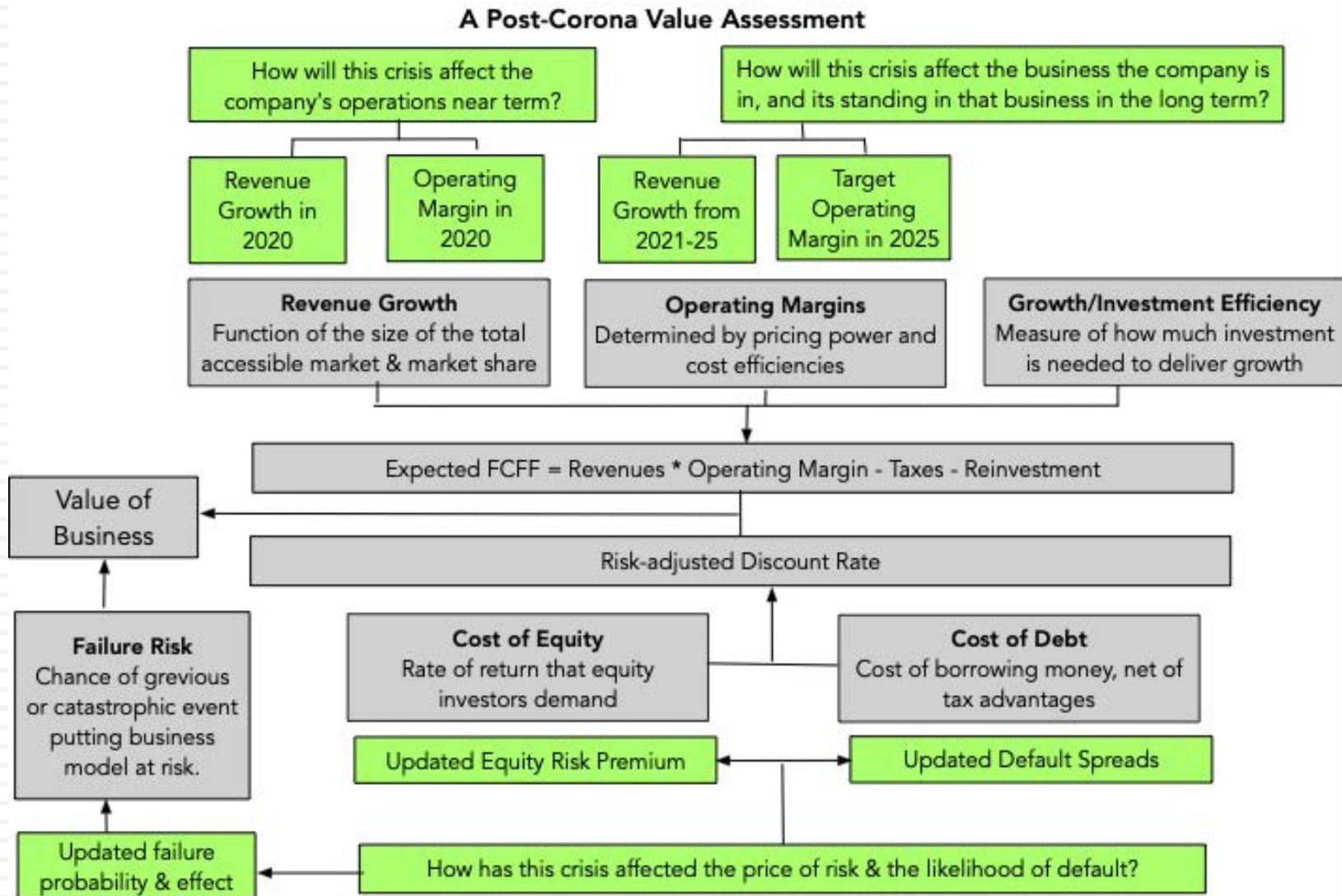


Company Valuation: Tell your story

Lesson 5: Stories + Numbers



A Post-Corona Version



Company	Base Year Numbers	Valuation Story	Valuation Inputs	Value per Share (Simulation)		Pricing per share	
Facebook	Revenues = \$75 B	User Base pays off: Immense & Intense user base allows for continued ad growth & new business potential.	Rev Growth = 10%	10th:	\$ 267.77		
	EBIT = \$27.9 B		Target Margin = 40%	25th:	\$ 293.89	Price =	\$262.59
	Oper. margin =44.3%		Sales to capital = 2.64	Median:	\$ 327.68	Under/Over =	Under valued
	Rev Growth (LTM) = 13.02%		Cost of capital = 6.08%	75th:	\$ 364.79	% under/over	-19.86%
				90th:	\$ 398.85	IRR	7.16%
Amazon	Revenues = \$ 322 B	Disruption Platform rolls on: Continue to expand into new businesses, delaying profitability to deliver higher growth.	Rev Growth = 20%	10th:	\$1,479.65		
	EBIT = \$16.7 B		Target Margin = 12%	25th:	\$ 1,969.46	Price =	\$3,260.48
	Oper. margin = 7.99%		Sales to capital = 1.94	Median:	\$ 2,778.22	Under/Over =	Over valued
	Rev Growth (LTM) = 31.58%		Cost of capital = 6.11%	75th:	\$ 3,617.74	% under/over	17.36%
				90th:	\$ 4,295.58	IRR	5.77%
Netflix	Revenues = \$ 22.6 B	Streaming Player: Wiith new competitors, will continue to add subscribers, but struggle to control content costs.	Value/Existing Subscriber = \$446.	10th:	\$ 312.79		
	# Subscribers = 192.3 mil		Growth in Subscribers = 12%	25th:	\$ 372.49	Price =	\$484.53
	Growth in LTM = 27.3%		Growth in Content Costs = 5%	Median:	\$ 445.53	Under/Over =	Over valued
	Cost/New Subscriber = \$103		Cost of capital (Existing)= 6.5%	75th:	\$ 519.34	% under/over	8.75%
	Content Cost = \$9.95 B		Cost of capital (New) = 7.5%	90th:	\$ 585.58	IRR	6.16%
Google/ Alphabet	Revenues = \$166 B	More than a Search Engine: While the search box will continue to be the money-maker, other bets will start to pay off in growth.	Rev Growth = 8%	10th:	\$ 1,165.57		
	EBIT = \$33.4 B		Target Margin = 24%	25th:	\$ 1,267.31	Price =	\$1,544.61
	Oper. margin = 23.8%		Sales to capital = 2.64	Median:	\$ 1,406.96	Under/Over =	Over valued
	Rev Growth (LTM) = 5.22%		Cost of capital = 6.25%	75th:	\$ 1,551.26	% under/over	9.78%
				90th:	\$ 1,676.02	IRR	5.87%
Apple	Revenues = \$274 B	Cash Machine revs up: The iPhone will keep the cash machine going up, but services business will be growth driver.	Rev Growth = 8%	10th:	\$ 285.67		
	EBIT = \$52.6 B		Target Margin = 26%	25th:	\$ 312.28	Price =	\$462.83
	Oper. margin = 25.9%		Sales to capital =4.00	Median:	\$ 350.22	Under/Over =	Over valued
	Rev Growth (LTM) = 7.07%		Cost of capital = 6.58%	75th:	\$ 390.66	% under/over	32.15%
				90th:	\$ 425.04	IRR	5.30%
Microsoft	Revenues = \$143 B	Old company Reborn: Cloud/software business mix will continue to deliver growth with high margins.	Rev Growth = 12%	10th:	\$ 143.98		
	EBIT = \$52.6 B		Target Margin = 40%	25th:	\$ 157.81	Price =	\$209.70
	Oper. margin =40.1%		Sales to capital = 1.44	Median:	\$ 176.66	Under/Over =	Over valued
	Rev Growth (LTM) = 13.65%		Cost of capital = 7.11%	75th:	\$ 196.77	% under/over	18.70%
				90th:	\$ 214.83	IRR	6.32%