



# A VIRAL MARKET UPDATE X: A CORPORATE LIFE CYCLE PERSPECTIVE

Heat and Light...

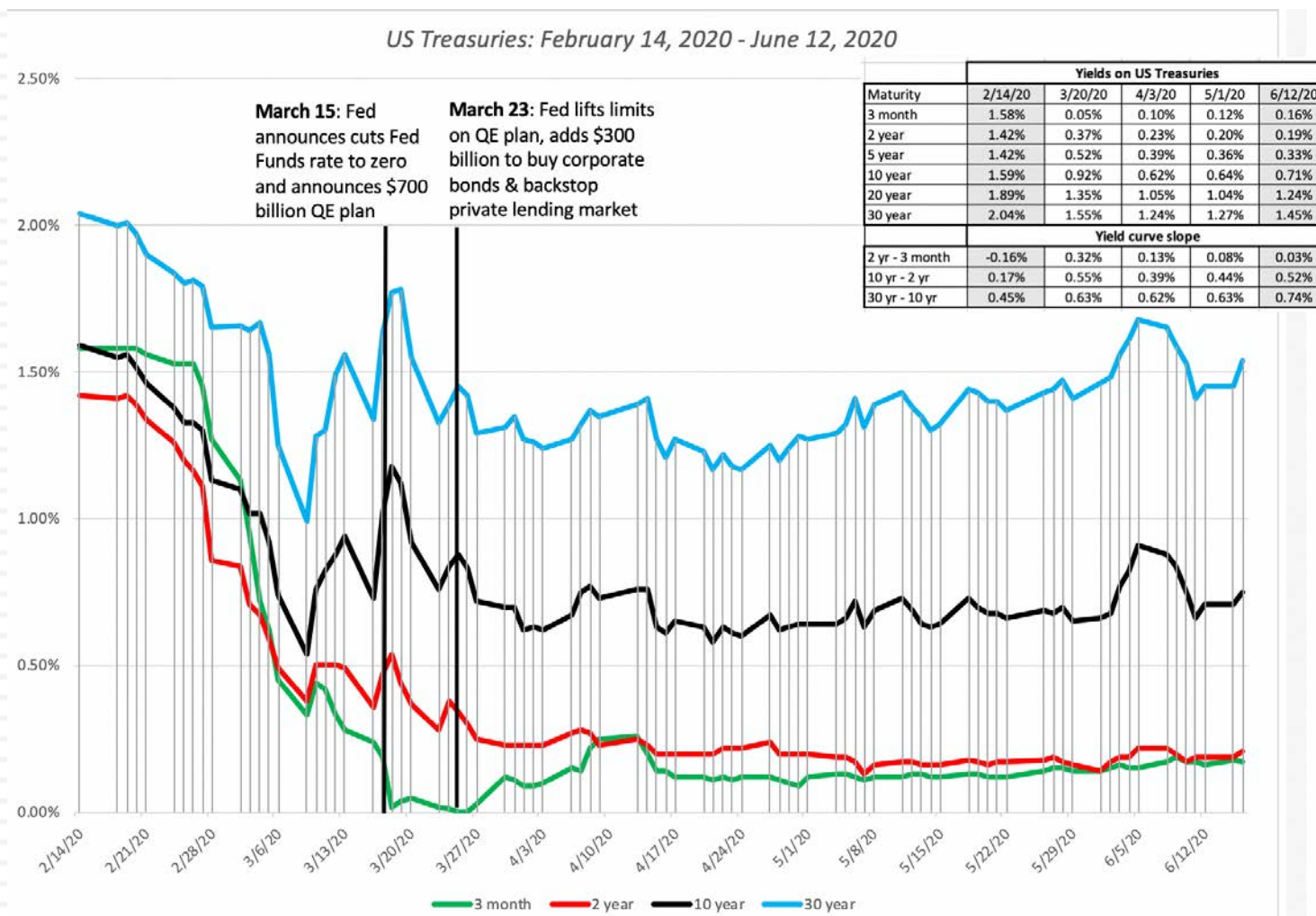
# The Lead In

- Fear versus Greed: Fear and greed are dueling forces in financial markets at all times, but especially so in periods of uncertainty, when they pull in opposite directions, causing wild market swings and momentum shifts.
- Crisis Sub-periods: I think that no matter what your market views are, you would agree that we are in a period of intense uncertainty, with divergent views on how this pandemic will play out, not just in the coming months, but in the coming years. It is this divergence that have been at the heart of both the steep fall in markets in February and March, and the equally precipitous rise in April and May.
- Life cycle: Using the framework of a corporate life cycle, and record a redistribution of value from older, low growth, more capital-intensive companies to younger, high growth companies.

# Market Action: Equities

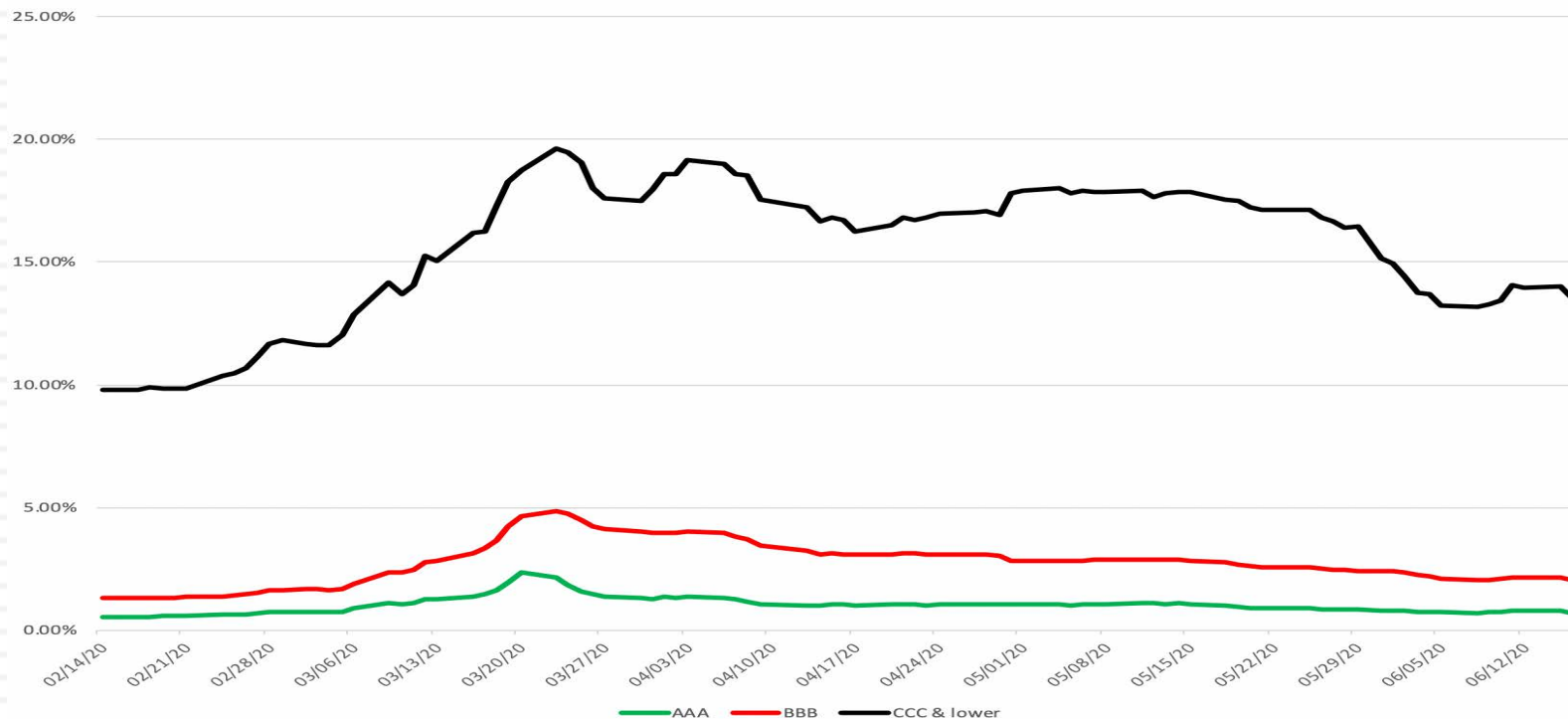
			Levels			% Change				
	Index	Country/Region	14-Feb	20-Mar	12-Jun	6/5-6/12	5/12-6/12	2/14-3/20	3/20-6/12	2/14 - 6/12
Americas	S&P 500	US	3214	2305	3041	1.31%	-4.78%	-28.28%	31.93%	-5.38%
	NASDAQ 100	US	9624	6994	9664	0.79%	-1.63%	-27.33%	38.18%	0.42%
	TSX	Canada	17848	11852	15257	1.37%	-3.77%	-33.59%	28.73%	-14.52%
	IPC Mexico	Mexico	45000	34270	37679	2.31%	-3.26%	-23.84%	9.95%	-16.27%
	iBovespa	Brazil	114381	67069	92795	-2.00%	-1.95%	-41.36%	38.36%	-18.87%
Europe	FTSE 100	UK	7409	5191	6105	0.47%	-5.85%	-29.94%	17.61%	-17.60%
	DAX	Germany	13744	8929	11949	-0.18%	-6.99%	-35.03%	33.82%	-13.06%
	CAC 40	France	6069	4131	4826	0.21%	-7.16%	-31.93%	16.82%	-20.48%
	S&P Europe 350	Europe	1731	1181	1417	0.27%	-5.60%	-31.77%	19.97%	-18.15%
Asia	Nikkei 225	Japan	23688	16553	22305	-0.75%	-2.44%	-30.12%	34.75%	-5.84%
	Shanghai 50	China	2895	2628	2884	0.26%	-0.42%	-9.22%	9.74%	-0.38%
	Hang Seng	Hong Kong	27816	22805	24301	-0.73%	-1.89%	-18.01%	6.56%	-12.64%
	Sensex	India	41258	29916	33781	0.72%	-1.48%	-27.49%	12.92%	-18.12%
Australia & NZ	ASX 200	Australia	7133	4825	5848	-1.89%	-2.52%	-32.36%	21.20%	-18.01%
	NZX 50	New Zealand	11835	9202	10906	-2.23%	-2.38%	-22.25%	18.52%	-7.85%
Africa	FTSE/JSE TOP 40	South Africa	52050	36302	49248	0.73%	-1.90%	-30.26%	35.66%	-5.38%
	NSE-All Share	Nigeria	27756	22198	25183	-0.13%	-0.51%	-20.02%	13.45%	-9.27%

# Market Action: Treasuries



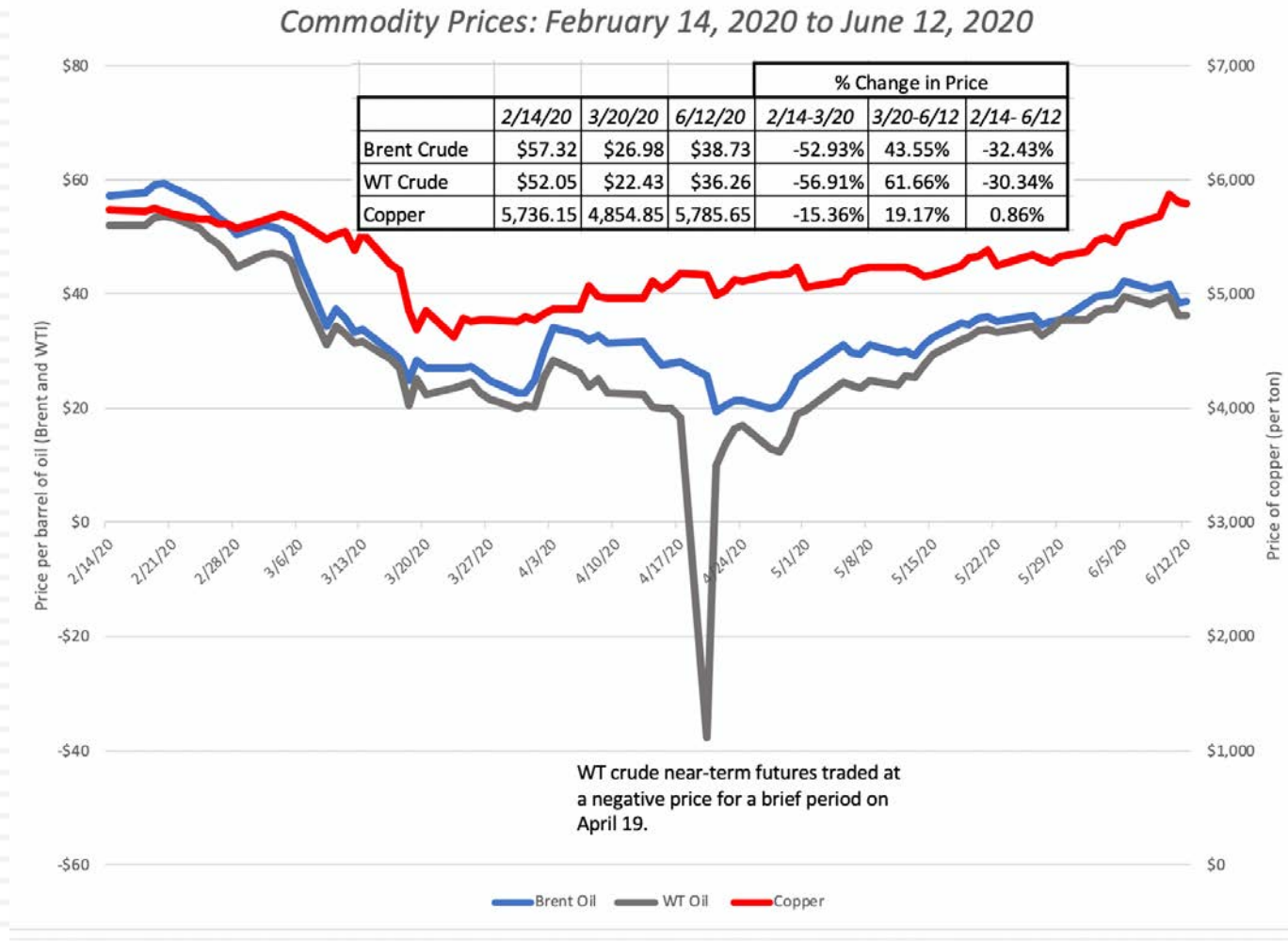
# Market Action: Corporate Bonds

Default Spreads by Ratings Class: 2/14-6/12



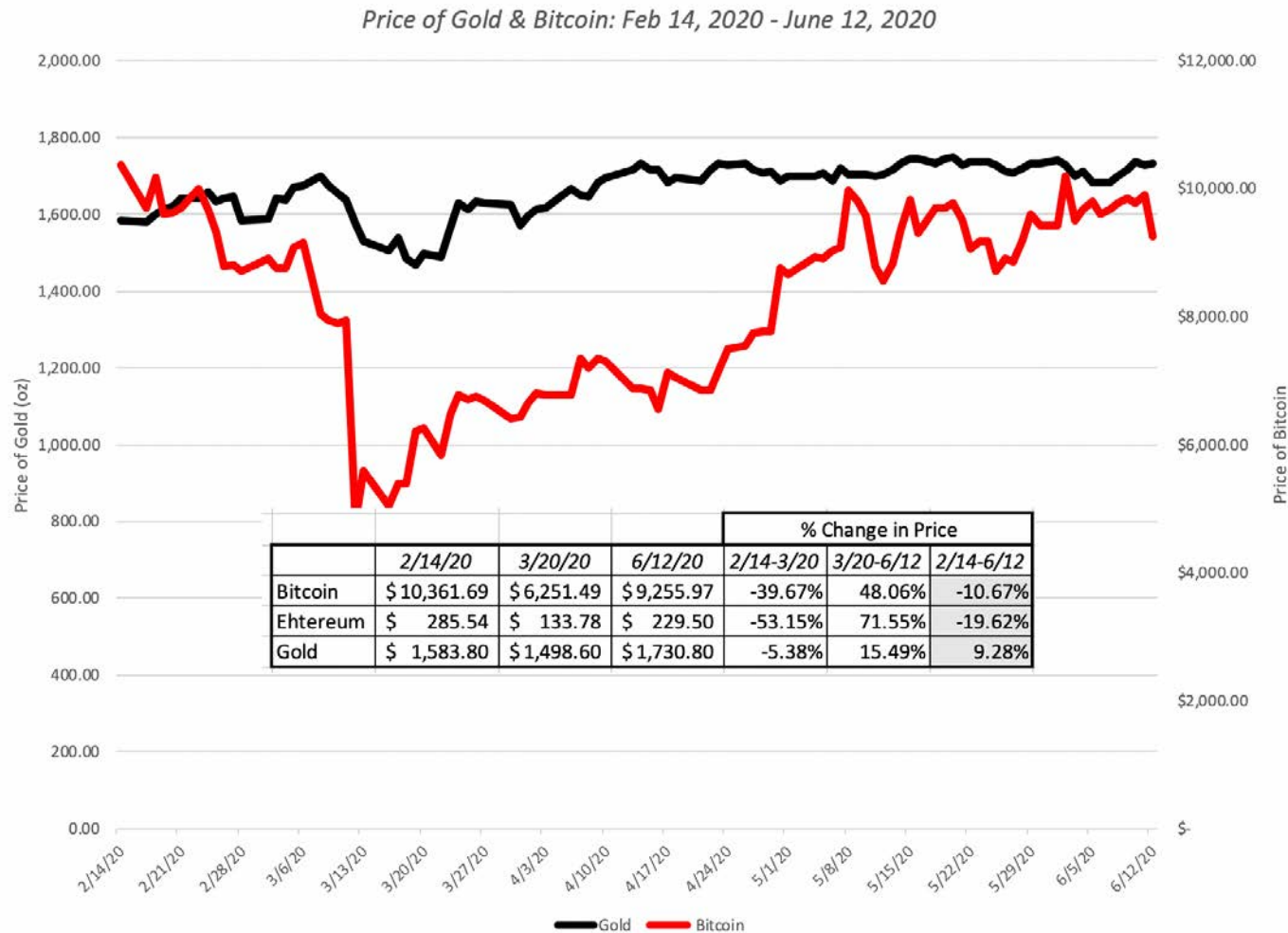
S&P Bond Rating	Yields and Spreads on Corporates						Change in default spread		
	Spread over 10-yr Treasury			Yield on Treasury					
	2/14/20	3/20/20	6/12/20	2/14/20	3/20/20	6/12/20	2/14-3/20	3/20-6/12	2/14 -6/12
AAA	0.69%	1.43%	0.89%	2.28%	2.35%	1.60%	0.74%	-0.54%	0.20%
AA	0.72%	2.64%	0.94%	2.31%	3.56%	1.65%	1.92%	-1.70%	0.22%
A	0.80%	3.15%	1.22%	2.39%	4.07%	1.93%	2.35%	-1.93%	0.42%
BBB	1.33%	3.73%	2.11%	2.92%	4.65%	2.82%	2.40%	-1.62%	0.78%
BB	1.93%	7.45%	4.28%	3.52%	8.37%	4.99%	5.52%	-3.17%	2.35%
B	3.40%	10.74%	6.02%	4.99%	11.66%	6.73%	7.34%	-4.72%	2.62%
CCC or lower	9.65%	17.81%	13.56%	11.24%	18.73%	14.27%	8.16%	-4.25%	3.91%

# Market Action: Commodity Prices





# Market Action: Gold and Bitcoin



# Equities: By Region

Sub Region	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	Change in Market Cap (\$)			Change in Market Cap (%)		
					2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Africa	654	\$ 575,496	\$ 359,162	\$ 443,640	\$ (216,334)	\$ 84,478	\$ (131,857)	-37.59%	23.52%	-22.91%
Australia & NZ	1,371	\$ 1,617,138	\$ 952,067	\$ 1,400,976	\$ (665,071)	\$ 448,909	\$ (216,162)	-41.13%	47.15%	-13.37%
Canada	1,571	\$ 2,227,644	\$ 1,352,771	\$ 1,865,157	\$ (874,874)	\$ 512,386	\$ (362,487)	-39.27%	37.88%	-16.27%
China	6,158	\$ 14,015,652	\$ 12,415,827	\$ 13,895,918	\$ (1,599,826)	\$ 1,480,091	\$ (119,734)	-11.41%	11.92%	-0.85%
EU & Environs	4,740	\$ 13,571,684	\$ 9,202,075	\$ 11,794,851	\$ (4,369,610)	\$ 2,592,777	\$ (1,776,833)	-32.20%	28.18%	-13.09%
Eastern Europe & Russia	414	\$ 816,965	\$ 489,932	\$ 659,411	\$ (327,033)	\$ 169,479	\$ (157,554)	-40.03%	34.59%	-19.29%
India	1,955	\$ 2,196,012	\$ 1,513,323	\$ 1,752,009	\$ (682,690)	\$ 238,686	\$ (444,004)	-31.09%	15.77%	-20.22%
Japan	3,810	\$ 6,037,683	\$ 4,465,063	\$ 5,714,884	\$ (1,572,620)	\$ 1,249,821	\$ (322,800)	-26.05%	27.99%	-5.35%
Latin America & Caribbean	944	\$ 2,381,042	\$ 1,377,871	\$ 1,799,639	\$ (1,003,171)	\$ 421,768	\$ (581,404)	-42.13%	30.61%	-24.42%
Middle East	1,260	\$ 3,093,494	\$ 2,572,681	\$ 2,917,388	\$ (520,812)	\$ 344,707	\$ (176,105)	-16.84%	13.40%	-5.69%
Small Asia	8,171	\$ 5,113,426	\$ 3,580,396	\$ 4,752,640	\$ (1,533,030)	\$ 1,172,244	\$ (360,786)	-29.98%	32.74%	-7.06%
UK	1,088	\$ 3,057,235	\$ 1,918,106	\$ 2,444,548	\$ (1,139,129)	\$ 526,442	\$ (612,687)	-37.26%	27.45%	-20.04%
United States	4,914	\$ 35,643,839	\$ 23,875,859	\$ 32,069,578	\$ (11,767,980)	\$ 8,193,719	\$ (3,574,261)	-33.02%	34.32%	-10.03%
Global	37,050	\$ 90,347,312	\$ 64,075,133	\$ 81,510,639	\$ (26,272,179)	\$ 17,435,506	\$ (8,836,673)	-29.08%	27.21%	-9.78%



# Equities: By Sector

Primary Sector	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	Change in Market Cap (\$)			Change in Market Cap (%)		
					2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Communication Services	1,704	\$ 7,347,017	\$ 5,493,369	\$ 6,957,578	\$ (1,853,648)	\$ 1,464,209	\$ (389,439)	-25.23%	26.65%	-5.30%
Consumer Discretionary	5,054	\$ 10,166,087	\$ 7,068,403	\$ 9,694,554	\$ (3,097,685)	\$ 2,626,152	\$ (471,533)	-30.47%	37.15%	-4.64%
Consumer Staples	2,369	\$ 7,125,338	\$ 5,708,041	\$ 6,771,545	\$ (1,417,296)	\$ 1,063,504	\$ (353,793)	-19.89%	18.63%	-4.97%
Energy	1,328	\$ 5,936,511	\$ 3,851,584	\$ 4,871,749	\$ (2,084,927)	\$ 1,020,165	\$ (1,064,762)	-35.12%	26.49%	-17.94%
Financials	4,044	\$ 14,945,750	\$ 9,937,595	\$ 11,795,978	\$ (5,008,155)	\$ 1,858,383	\$ (3,149,772)	-33.51%	18.70%	-21.07%
Health Care	3,424	\$ 8,904,743	\$ 6,852,095	\$ 8,896,443	\$ (2,052,648)	\$ 2,044,348	\$ (8,300)	-23.05%	29.84%	-0.09%
Industrials	6,615	\$ 10,108,394	\$ 6,889,681	\$ 8,705,180	\$ (3,218,712)	\$ 1,815,499	\$ (1,403,214)	-31.84%	26.35%	-13.88%
Information Technology	4,864	\$ 13,588,589	\$ 9,729,618	\$ 13,154,096	\$ (3,858,971)	\$ 3,424,478	\$ (434,493)	-28.40%	35.20%	-3.20%
Materials	4,464	\$ 4,983,621	\$ 3,520,252	\$ 4,574,380	\$ (1,463,369)	\$ 1,054,128	\$ (409,241)	-29.36%	29.94%	-8.21%
Real Estate	2,344	\$ 4,034,867	\$ 2,693,800	\$ 3,338,419	\$ (1,341,066)	\$ 644,618	\$ (696,448)	-33.24%	23.93%	-17.26%
Utilities	836	\$ 3,206,018	\$ 2,330,427	\$ 2,750,312	\$ (875,591)	\$ 419,885	\$ (455,706)	-27.31%	18.02%	-14.21%
Global	37,050	\$ 90,347,312	\$ 64,075,133	\$ 81,510,639	\$ (26,272,179)	\$ 17,435,506	\$ (8,836,673)	-29.08%	27.21%	-9.78%

# Equities: Worst hit and Best Industries

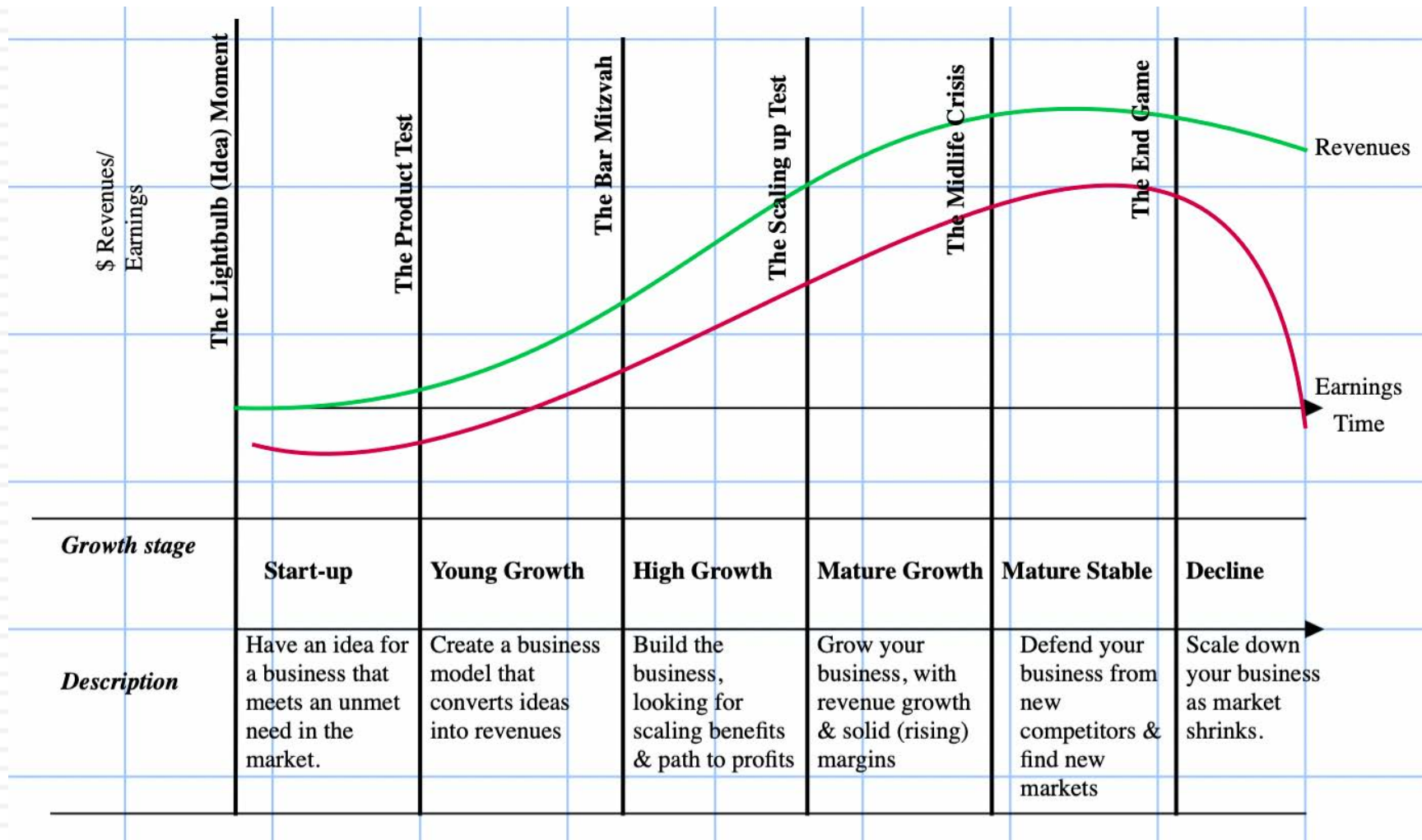
Worst Performing Industries (2/14 - 6/12)										
					Change in Market Cap (\$)			Change in Market Cap (%)		
Industry	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Oil/Gas (Production and Exploration)	482	\$ 692,302	\$ 317,710	\$ 496,757	\$ (374,592)	\$ 179,047	\$ (195,545)	-54.11%	56.36%	-28.25%
Air Transport	150	\$ 556,284	\$ 313,573	\$ 399,729	\$ (242,712)	\$ 86,157	\$ (156,555)	-43.63%	27.48%	-28.14%
Aerospace/Defense	209	\$ 1,217,710	\$ 674,040	\$ 880,027	\$ (543,670)	\$ 205,986	\$ (337,684)	-44.65%	30.56%	-27.73%
Broadcasting	122	\$ 164,611	\$ 93,921	\$ 119,701	\$ (70,690)	\$ 25,780	\$ (44,910)	-42.94%	27.45%	-27.28%
Food Wholesalers	118	\$ 92,996	\$ 49,886	\$ 67,931	\$ (43,110)	\$ 18,045	\$ (25,066)	-46.36%	36.17%	-26.95%
Oil/Gas Distribution	187	\$ 649,489	\$ 358,302	\$ 477,980	\$ (291,186)	\$ 119,678	\$ (171,509)	-44.83%	33.40%	-26.41%
Reinsurance	33	\$ 180,567	\$ 98,174	\$ 133,092	\$ (82,393)	\$ 34,918	\$ (47,475)	-45.63%	35.57%	-26.29%
Insurance (General)	194	\$ 833,907	\$ 508,235	\$ 638,415	\$ (325,672)	\$ 130,180	\$ (195,493)	-39.05%	25.61%	-23.44%
Homebuilding	147	\$ 247,004	\$ 127,536	\$ 189,240	\$ (119,469)	\$ 61,705	\$ (57,764)	-48.37%	48.38%	-23.39%
Bank (Money Center)	609	\$ 6,832,396	\$ 4,640,710	\$ 5,241,726	\$ (2,191,686)	\$ 601,016	\$ (1,590,670)	-32.08%	12.95%	-23.28%
Best Performing Industries (2/14 - 6/12)										
					Change in Market Cap (\$)			Change in Market Cap (%)		
Industry	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Software (Internet)	108	\$ 226,924	\$ 166,710	\$ 275,515	\$ (60,214)	\$ 108,805	\$ 48,591	-26.54%	65.27%	21.41%
Retail (Online)	251	\$ 2,455,480	\$ 1,989,459	\$ 2,816,540	\$ (466,021)	\$ 827,081	\$ 361,060	-18.98%	41.57%	14.70%
Drugs (Biotechnology)	907	\$ 1,407,275	\$ 1,133,375	\$ 1,548,157	\$ (273,900)	\$ 414,782	\$ 140,883	-19.46%	36.60%	10.01%
Precious Metals	518	\$ 418,790	\$ 297,835	\$ 460,466	\$ (120,954)	\$ 162,631	\$ 41,677	-28.88%	54.60%	9.95%
Healthcare Information and Technology	315	\$ 771,525	\$ 606,655	\$ 848,174	\$ (164,869)	\$ 241,519	\$ 76,649	-21.37%	39.81%	9.93%
Software (System & Application)	1,068	\$ 3,761,996	\$ 2,790,247	\$ 3,807,011	\$ (971,749)	\$ 1,016,764	\$ 45,015	-25.83%	36.44%	1.20%
Education	187	\$ 193,073	\$ 150,891	\$ 194,460	\$ (42,182)	\$ 43,570	\$ 1,387	-21.85%	28.88%	0.72%
Entertainment	516	\$ 1,115,176	\$ 843,007	\$ 1,123,147	\$ (272,168)	\$ 280,140	\$ 7,971	-24.41%	33.23%	0.71%
Beverage (Alcoholic)	196	\$ 1,147,100	\$ 874,777	\$ 1,146,214	\$ (272,323)	\$ 271,437	\$ (887)	-23.74%	31.03%	-0.08%
Software (Entertainment)	236	\$ 2,579,295	\$ 1,873,369	\$ 2,569,028	\$ (705,926)	\$ 695,659	\$ (10,267)	-27.37%	37.13%	-0.40%



# A Corporate Life Cycle

Growing old is hard to do...

# The Corporate Life Cycle



# Cashflows across the life cycle...

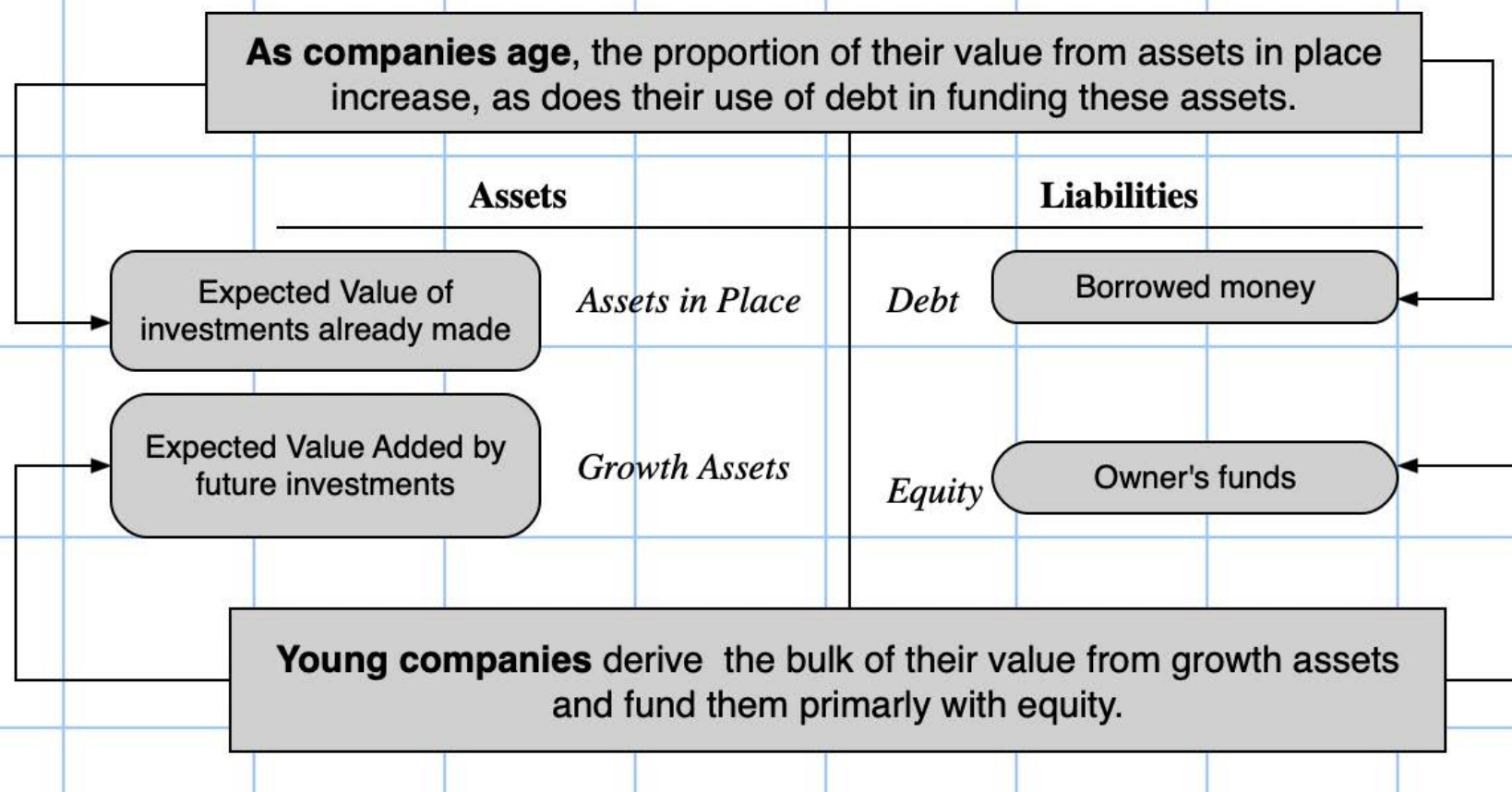
<i>Growth stage</i>	Stage 1 Start-up	Stage 2 Young Growth	Stage 3: High Growth	Stage 4 Mature Growth	Stage 5 Mature Stable	Stage 6 Decline
<i>Operating Profits</i>	Large operating losses	Operating losses narrow	Operating profits turn positive	Operating profits grow quickly	Operating profits level off	Operating profits decline
<i>Reinvestment</i>	Very high	High	Remain large, but scale down as percent of firm	Decrease	Scale down further	Divestment
<i>Free Cash Flow to Firm</i>	Negative	Negative	Cross over to positive territory	Positive & growing	Positive & stable	Positive & dropping





# And a Balance Sheet perspective...

## *The Corporate Life Cycle: A Balance Sheet Perspective*





# How crisis affect companies across the life cycle...

- Start up and very young companies: For young companies, the challenge is survival, since they mostly have small or no revenues, and are money losers. They need capital to make it to the next and more lucrative phases in the life cycle, and in a crisis, access to capital (from venture capitalists or public equity) can shut down or become prohibitively expensive, as investors become more fearful.
- Young growth companies: For young growth companies that have turned the corner on profitability, capital access still remains critical since it is needed for future growth. Without that capital, the values of these firms will shrink towards assets in place, and in a crisis, these firms have to hunker down and scale back their growth ambitions.
- Mature firms: For mature firms, the bigger damage from a crisis is the punishment it metes to assets in place, as the economy slows or goes into recession, and consumers cut back on spending. The effect will be greater on companies that sell discretionary products than on companies that sell staples.
- Declining firms: For declining firms, especially those with substantial debt, a crisis can tip them into distress and default, especially if access to risk capital declines, and risk premiums increase.

# COVID: Young versus Old

Company Age (Decile)	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	Change in Market Cap (\$)			Change in Market Cap (%)		
					2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Youngest	3,290	\$ 3,293,812	\$ 2,257,807	\$ 3,197,250	\$ (1,036,005)	\$ 939,443	\$ (96,563)	-31.45%	41.61%	-2.93%
2nd decile	3,289	\$ 4,260,977	\$ 3,111,165	\$ 4,137,437	\$ (1,149,812)	\$ 1,026,272	\$ (123,540)	-26.98%	32.99%	-2.90%
3rd decile	3,007	\$ 3,876,231	\$ 2,914,757	\$ 3,753,816	\$ (961,474)	\$ 839,059	\$ (122,416)	-24.80%	28.79%	-3.16%
4th decile	3,222	\$ 8,216,219	\$ 6,262,223	\$ 7,761,659	\$ (1,953,996)	\$ 1,499,437	\$ (454,560)	-23.78%	23.94%	-5.53%
5th decile	3,361	\$ 6,607,178	\$ 5,079,510	\$ 6,510,297	\$ (1,527,668)	\$ 1,430,788	\$ (96,881)	-23.12%	28.17%	-1.47%
6th decile	3,531	\$ 6,745,317	\$ 4,928,358	\$ 6,077,167	\$ (1,816,959)	\$ 1,148,809	\$ (668,150)	-26.94%	23.31%	-9.91%
7th decile	3,307	\$ 9,177,848	\$ 6,538,028	\$ 8,631,375	\$ (2,639,820)	\$ 2,093,347	\$ (546,473)	-28.76%	32.02%	-5.95%
8th decile	3,373	\$ 7,665,001	\$ 5,090,833	\$ 6,665,011	\$ (2,574,168)	\$ 1,574,178	\$ (999,990)	-33.58%	30.92%	-13.05%
9th decile	3,321	\$ 12,355,697	\$ 8,936,023	\$ 10,898,326	\$ (3,419,674)	\$ 1,962,303	\$ (1,457,370)	-27.68%	21.96%	-11.80%
Oldest	3,338	\$ 24,221,699	\$ 16,142,833	\$ 20,308,253	\$ (8,078,866)	\$ 4,165,419	\$ (3,913,446)	-33.35%	25.80%	-16.16%

# COVID: High Growth versus Low Growth

Expected Revenue Growth	Number of firms	Market Cap (2/14/20)	Market Cap (3/20/20)	Market Cap (6/12/20)	Change in Market Cap (\$)			Change in Market Cap (%)		
					2/14-3/20	3/20-6/12	2/14-6/12	2/14-3/20	3/20-6/12	2/14-6/12
Lowest Growth	1,430	\$ 8,053,586	\$ 4,939,470	\$ 6,323,465	\$ (3,114,115)	\$ 1,383,995	\$ (1,730,120)	-38.67%	28.02%	-21.48%
2nd decile	1,434	\$ 9,759,617	\$ 6,171,539	\$ 7,716,302	\$ (3,588,078)	\$ 1,544,763	\$ (2,043,315)	-36.76%	25.03%	-20.94%
3rd decile	1,431	\$ 9,523,772	\$ 6,203,029	\$ 7,847,628	\$ (3,320,743)	\$ 1,644,599	\$ (1,676,144)	-34.87%	26.51%	-17.60%
4th decile	1,431	\$ 10,020,274	\$ 6,981,006	\$ 8,694,882	\$ (3,039,268)	\$ 1,713,875	\$ (1,325,392)	-30.33%	24.55%	-13.23%
5th decile	1,436	\$ 11,638,075	\$ 8,369,858	\$ 10,372,567	\$ (3,268,217)	\$ 2,002,709	\$ (1,265,508)	-28.08%	23.93%	-10.87%
6th decile	1,432	\$ 10,796,357	\$ 7,971,081	\$ 9,953,453	\$ (2,825,276)	\$ 1,982,372	\$ (842,904)	-26.17%	24.87%	-7.81%
7th decile	1,422	\$ 6,202,696	\$ 4,473,418	\$ 5,699,189	\$ (1,729,279)	\$ 1,225,771	\$ (503,508)	-27.88%	27.40%	-8.12%
8th decile	1,437	\$ 7,893,925	\$ 5,874,647	\$ 7,763,962	\$ (2,019,278)	\$ 1,889,315	\$ (129,963)	-25.58%	32.16%	-1.65%
9th decile	1,442	\$ 7,971,026	\$ 6,341,751	\$ 8,567,384	\$ (1,629,275)	\$ 2,225,632	\$ 596,358	-20.44%	35.09%	7.48%
Highest Growth	1,433	\$ 2,917,285	\$ 2,256,708	\$ 3,363,268	\$ (660,576)	\$ 1,106,560	\$ 445,983	-22.64%	49.03%	15.29%

# What's different?

- Crisis Origins: This crisis seems to have had a much greater negative impact on older, more mature companies than on younger, high growth ones. perhaps because it started at a time, when capital markets were buoyant and investors were eagerly taking on risk, with risk premiums in both equity and bond markets at close to decade-level lows, with a global economic shut down, with a cessation of most business activity.
- With a Timer: That shut down came with a time frame, though there was uncertainty not only about when economic activity would start up again, but how vigorously it would return.
- Private Risk Capital: Young companies have benefited from the fact, that after being on hold in the first few weeks of the crisis, risk capital came roaring back in the middle of March, both in public and private markets. That access to risk capital has also benefited distressed companies at the other end of the life cycle, explaining why you have seen surges in airline stock prices and in portions of the oil sector.

# In conclusion

- The trajectory of markets in this crisis has followed the Corona virus, with markets rising and falling on news about viral breakouts in different parts of the world and vaccines/medication to mitigate its effects.
- It should therefore come as no surprise that just as the virus has had its most deadly effects on the elderly and the infirm, the market is meting out the biggest punishment to aging companies.
- As we pass the four-month mark since this crisis started roiling financial markets in the US and Europe, it is still an evolving story and there will be more twists and turns before it is done.