A VIRAL MARKET CRISIS: FEAR OR FUNDAMENTALS?

When markets drop…

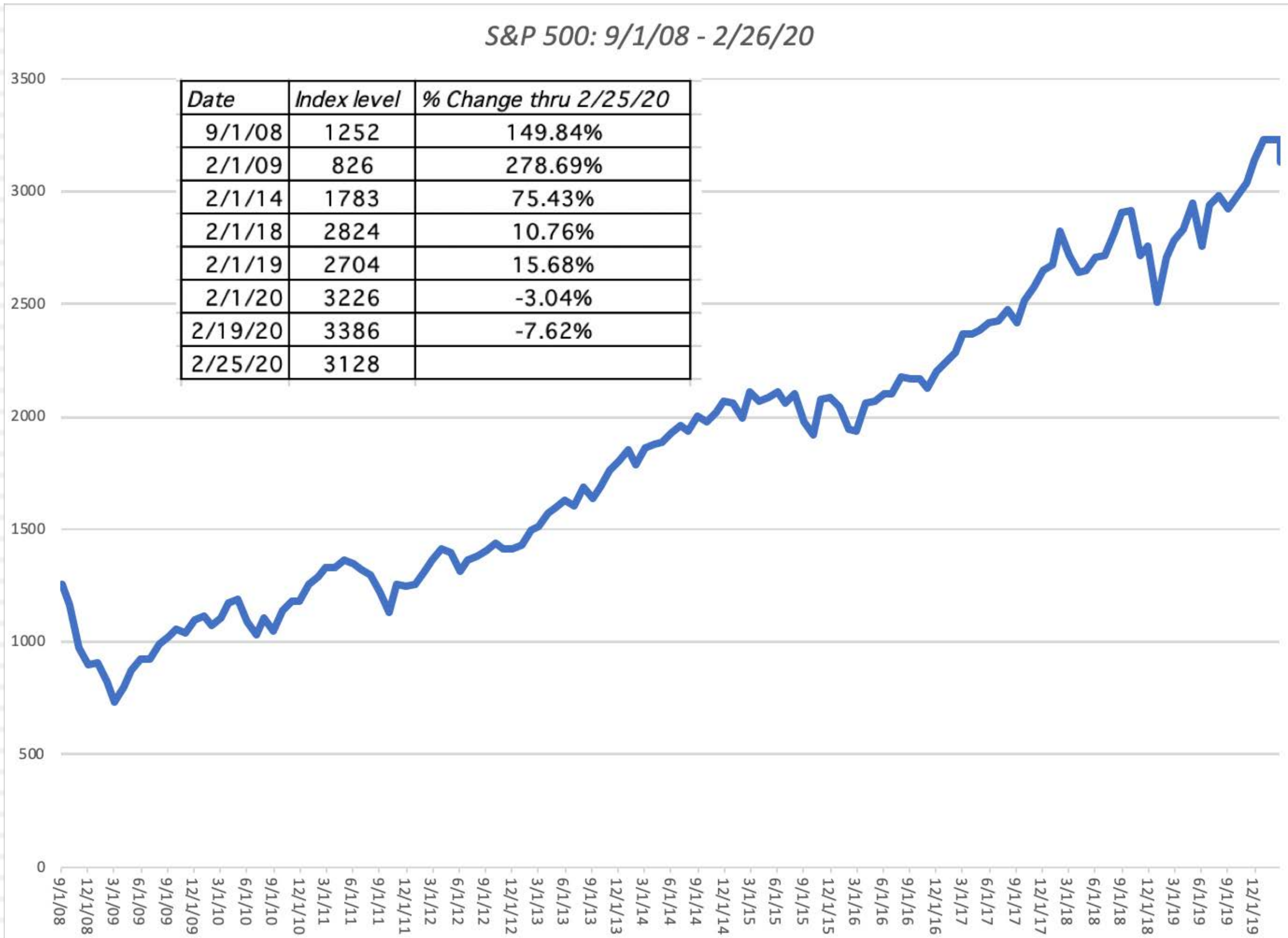
The Crisis Test

- It has become almost a rite of passage for investors, at least since 2008, that they will be tested by a market crisis precipitated sometimes by political developments (Brexit), sometimes by governments (trade wars), sometimes by war and terrorism (the US/Iran standoff) and sometimes by economics (Greek default).
- With each one, the question that you face about whether this is the "big one", a market meltdown that you have to respond to by selling everything and fleeing for safety (or the closest thing you can find to it) or just another bump in the road, where markets claw back what they gave up, and then gain more.
- After yesterday's global meltdown in equity markets, I think it is safe to say that we are back in crisis mode, with old questions returning about the global economic strength and market valuations. I have neither the stomach nor the expertise to play market guru, but I will go through my playbook for coping.

The Corona Virus: A Quick Overview from a Novice..

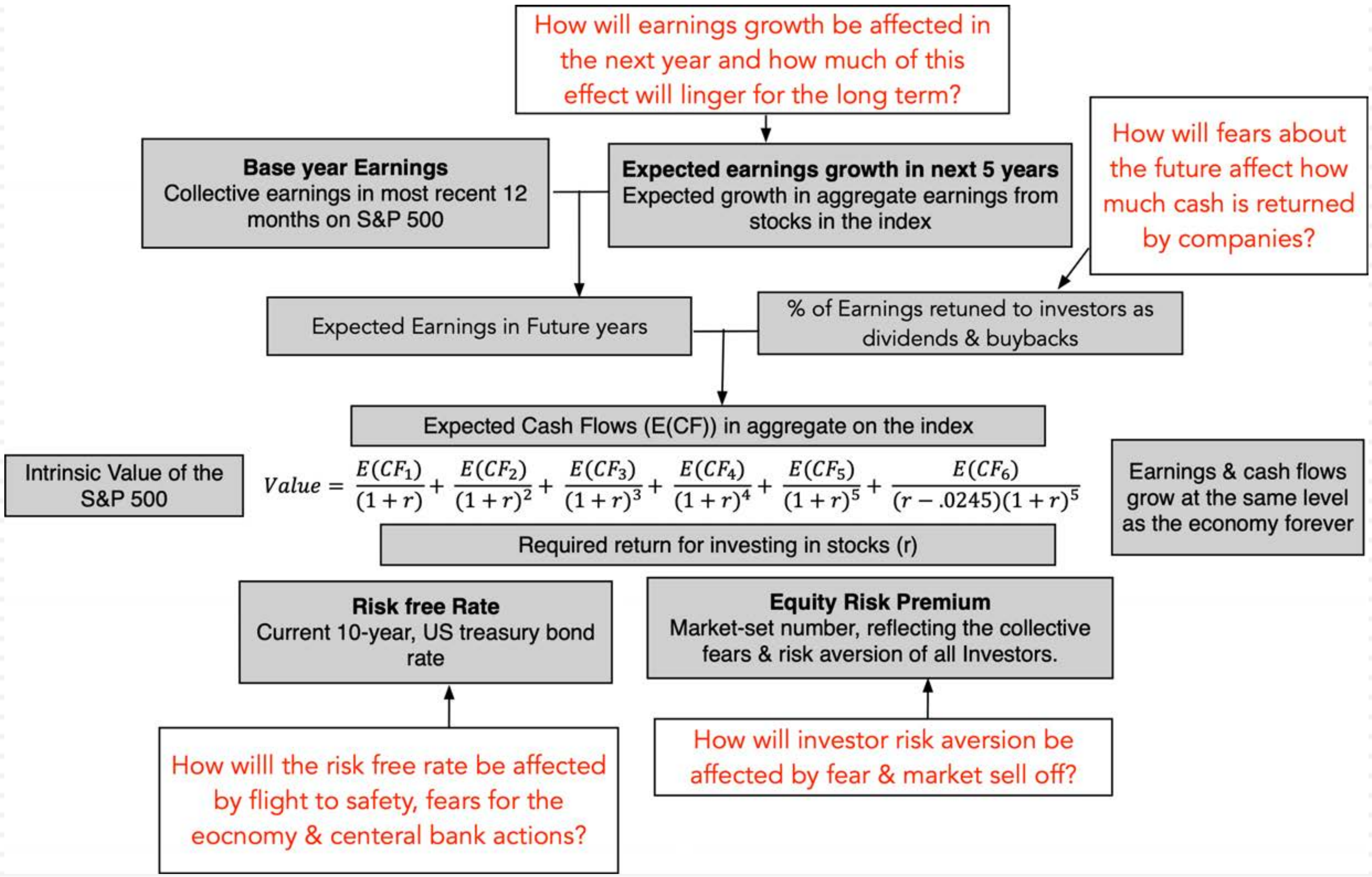
- It started in China: The virus (COVID-19) had its origins in China, though what caused it to spread into the human population is still unclear and rife with conspiracy theories. The Chinese government initially went into crisis mode, trying to control the information that is being made public and that has created both confusion and skepticism about official claims.
- And it has had a toll: Within China, the virus has had its biggest impact in the Wuhan province, but it has affected other parts, though there is still not clear by how much or how many. The count, which is obviously a moving target, is that there are more than 80,000 cases of the virus, with more than 2700 fatalities so far.
- It is jumping borders: The most immediate spread has been to the neighboring Asian countries, with Singapore being an early casualty and South Korea a recent-add on. Over the weekend, though, the Italian government set alarm bells ringing with an announcement of a large cluster of cases in the country, which suggests that earlier assessments that the virus was not easily communicable may need to be rethought, and it was this news that seems to have precipitated this week's sell off.
- And has no cure: There is no cure or vaccine yet for the virus, but the mortality rate from the virus seems to vary across the population, with the very young and the very old being the most likely to die from it.

Perspective!



Date	*Index level*	*% Change thru 2/25/20*
9/1/08	1252	149.84%
2/1/09	826	278.69%
2/1/14	1783	75.43%
2/1/18	2824	10.76%
2/1/19	2704	15.68%
2/1/20	3226	-3.04%
2/19/20	3386	-7.62%
2/25/20	3128	

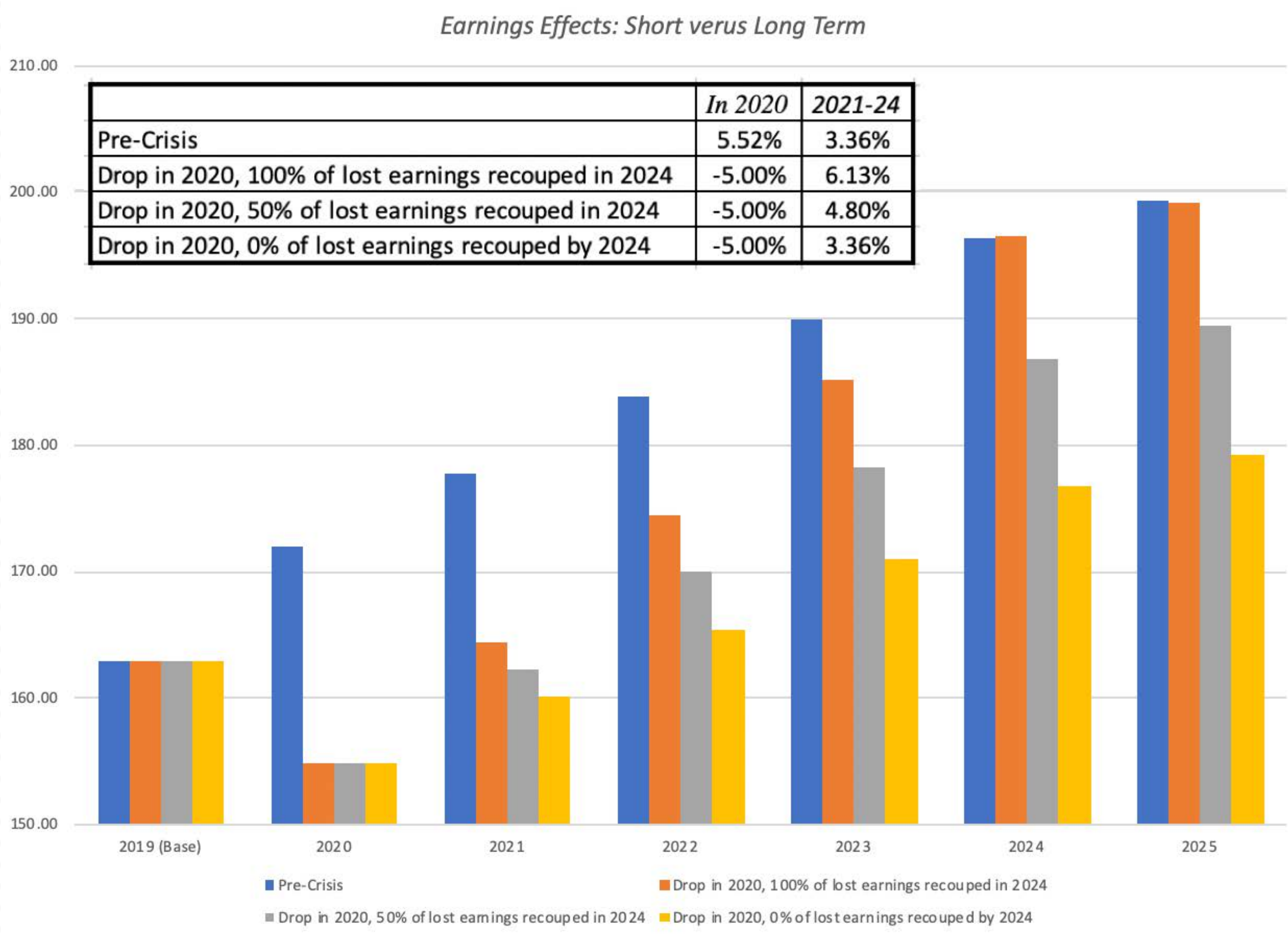
A Framework for assessing value effects



1. Earnings Growth

- Earnings Growth: Even at this early stage in this crisis, it is clear that the virus is having an effect on corporate operations. With some companies like hotels and airlines, the effect that the virus has had on global travel has clearly had an effect on revenues and operations. With others, it is concerns about supply chains. The follow up question then becomes one of specifics:
  - Drop in 2020 Earnings: This is the number that will reflect how you see Corona Virus affect the collective earnings on stocks in 2020. This will include not only earnings declines caused by lower revenues growth at companies like United Airlines, but also the earnings decline caused by higher costs faced by companies due to virus related problems (supply chain breakdowns). The wider the swathe of companies
  - Drop in long term Earnings: In previous crises, where consumers and workers stayed home, either for health reasons or because of fear, the business that was lost as a result of the peril was made up for, when it passed. It is important that we ask this question, because this effect will dominate, when it comes to trying to explain value.

Earnings Growth Effects



	In 2020	*2021-24*
Pre-Crisis	5.52%	3.36%
Drop in 2020, 100% of lost earnings recouped in 2024	-5.00%	6.13%
Drop in 2020, 50% of lost earnings recouped in 2024	-5.00%	4.80%
Drop in 2020, 0% of lost earnings recouped by 2024	-5.00%	3.36%

2. Cash Return

- In 2019, the companies in the S&P 500 returned 92.33% of their earnings to investors in dividends and buybacks, a reflection not only of how much their cash flows were that year but also how confident they were in their capacity to generate cash flows in the future.
  - That high number reflects not only the cash that many US companies had on hand, but a confidence that they could maintain earnings and continue to pay out cash flows.
- To the extent that this confidences is shaken by the virus, you may see a pull back in this number to perhaps something closer to the 85.24% that is the average for the last decade.
- .

3. Equity Risk Premiums

- The required return on stocks will be impacted, with one of the effects being explicit and visible in markets, in the form of the US treasury bond rate and the other being implicit, taking the form of an equity risk premium.
- If investors become more risk averse, they will demand a higher ERP, though as the fear factor fades, this number will fall back as well, but perhaps not to what it was prior to the crisis.
- The fact that the equity risk premium is already at the higher end of the historical norms, at about 5.50% on February 25, 2020, does indicate limits, but there could be a short-term jump in the number, at least until there is less uncertainty.

"My" S&P 500 Valuation

Inputs	2/1/20	Post Corona Virus (2/25/20)	My assumptions
Base Year Earnings for the Index	163.00	163.00	Base year.
Enter current level of index	3225.52	3128.21	S&P 500 at close of trading, 2/25/20
Dividends plus Buybacks (base year)	150.50	150.50	Base year.
Cash Return as percent of earnings	92.33%	85.28%	Drop to 10-year average
Expected growth rate in earnings next year =	5.52%	-5.00%	Virus caused earnings to drop by 5%, instead of rising by 5.52%
Expected growth rate in years 2-5	3.36%	4.80%	Half of earnings drop in 2020 recouped by 2025
Enter current long term risk free rate =	1.51%	1.34%	T. Bond rate at end of 2/25/20
ERP used to compute fair value of index	5.13%	5.25%	Long term effect on risk premium
Expected growth rate in the long term (after year 5) =	1.51%	1.34%	
	2/1/20	Post Corona Virus (2/25/20)	Explanations
Expected Earnings in 2020	172.00	154.85	Earnings drop in 2020, as virus affects businesses
Expected Earnings in 2025	**199.28**	**189.29**	Earnings stay low, as only half of 2020 drop is recouped
Intrinsic Value	**3225.29**	**3002.83**	Value drops, as negative effects on value roll through.
Percent under or over valued	**0.01%**	**4.18%**	Stocks go from fairly valued to slightly over valued, even with price drop
Intrinsic Trailing PE	**19.79**	**18.42**	Trailing PE drops as index level drops
Intrinsic Forward PE	**18.75**	**19.39**	Forward PE rises as earnings drop is greater than value drop.

Action Phase?

- The bottom line with my calculations is that I am inclined to do very little, at the moment. I don't feel the urge to buy the market, because there is a plausible case to be made that the adjustment in value, steep and sudden, was merited. I feel little need to sell either, because I don't see an over valuation large enough to trigger action.
- As for whether I should be reducing my exposure to companies that are directly affected by the virus (hotels and airlines) and increasing my exposure to companies that are more insulated, I don't believe there will be any segment of the market that is fully protected from the consequences, no matter how far you get from China and from travel-oriented companies.
- I am loath to offer advice, but my only suggestion is that rather than listen to the experts on either side of this debate tell you what to do, you should make your own best judgments, recognizing that they can and will change as more facts emerge, and act accordingly.