



THIS IS A TEST, THIS IS ONLY A
TEST! MARKET TURMOIL IN 2018

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A Market Crisis

- In a market crisis, the fear factor rises, some investors sell and head for the safer pastures, some are paralyzed not knowing what to do, and some double down as contrarians, buying into the sell off.
- In the last week, I found myself drawn to each of three camps, at different points in the same day, as the market went through wild mood swings.
- I feel the urge to abandon my investment principles and go with my gut, never a good idea. I know that I have to step back from the action, regain perspective and return to what works for me in markets, and it is for that reason that I find myself going through the same sequence, each time I face a market crisis.

Step 1: Assessing the Damage & Getting Perspective

- The first casualty in a crisis is perspective, as drawn into the news of the day, we tend to lose any sense of proportion.
- It was a bad week, but in context:

	2/1/08	2/1/17	1/1/18	2/1/18
S&P 500 on date	1355	2279	2674	2822
S&P 500 on 2/8/18	2581	2581	2581	2581
% Change	90.48%	13.25%	-3.48%	-8.54%

The pain cut across sectors..

Industry	Market Cap (\$mm)	Return in last week	Relative to Market	Return last year
Energy	\$ 5,137,375	-11.93%	1.40	-6.24%
Real Estate	\$ 3,699,797	-7.32%	0.86	-4.99%
Materials	\$ 6,117,691	-7.51%	0.88	10.89%
Industrials	\$ 10,574,220	-8.34%	0.98	12.08%
Consumer Discretionary	\$ 10,691,677	-6.10%	0.71	18.29%
Consumer Staples	\$ 7,047,157	-6.97%	0.82	0.68%
Healthcare	\$ 7,485,608	-8.24%	0.96	13.40%
Financials	\$ 27,098,950	-9.64%	1.13	16.10%
Information Technology	\$ 13,006,413	-9.55%	1.12	24.89%
Telecommunication Services	\$ 2,632,461	-9.43%	1.10	-8.29%
Utilities	\$ 2,727,960	-5.53%	0.65	-3.85%
S&P 500	\$ 96,219,308	-8.54%		12.48%

And geographies..

Worst Performing Indices				Best Performing Indices			
	Weekly Change	YTD Change	1-year change		Weekly Change	YTD Change	1-year change
Merval (Argentina)	-10.45%	3.18%	60.70%	Colombo Stock Exchange (Sri Lanka)	0.68%	2.73%	7.40%
S&P 500	-8.34%	-3.48%	13.25%	Jakarta Composite (Indonesia)	-0.82%	2.97%	21.80%
Nikkei Stock Avg (Japan)	-6.79%	-3.84%	15.80%	PSEi (Philippines)	-1.07%	1.01%	19.20%
Hang Seng (Hong Kong)	-6.71%	1.78%	29.40%	Kuala Lumpur Composite (Malaysia)	-1.56%	2.37%	8.90%
RTS Index (Russia)	-6.37%	4.87%	4.10%	PX 50 (Czech Republic)	-1.99%	3.63%	17.20%
Dow Jones China 88 (China)	-6.34%	1.57%	27.10%	S & P/NZX 50 (New Zealand)	-2.47%	-2.63%	14.80%
Kospi (South Korea)	-6.27%	-2.43%	16.50%	OMX Copenhagen (Denmark)	-2.54%	-5.90%	6.60%
IBEX 35 (Spain)	-6.18%	-2.86%	3.40%	SET (Thailand)	-2.56%	1.88%	12.80%
DAX (Germany)	-5.72%	-5.09%	5.30%	All-Shares (Norway)	-2.74%	-1.69%	15.80%
Swiss Market (Switzerland)	-5.68%	-6.60%	3.90%	S & P/ASX 200 (Australia)	-3.27%	-2.88%	4.00%

The Bond Market

	3 month T.Bill	0-year T.Bon	AAA (Aaa)	BBB (Baa)	Junk Bonds (BAML)
1-Feb-08	2.75%	3.74%	5.33%	6.54%	13.75%
1-Feb-17	0.51%	2.47%	3.92%	4.66%	10.95%
1-Jan-18	1.32%	2.41%	3.51%	4.22%	10.68%
1-Feb-18	1.41%	2.74%	3.55%	4.26%	10.16%
8-Feb-18	1.53%	2.83%	3.79%	4.48%	10.74%
Weekly Change	0.12%	0.09%	0.24%	0.22%	0.58%
YTD Change	0.21%	0.42%	0.28%	0.26%	0.06%
Year Change	1.02%	0.36%	-0.13%	-0.18%	-0.21%
10-year Change	-1.22%	-0.91%	-1.54%	-2.06%	-3.01%

Step 2: Look for reasons, but don't get carried away..

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Reason	Symptoms	Market Consequences
Panic Attack	Sharp movements in stock prices for no discernible reasons with surge in fear indices	Market drops sharply but quickly recovers back most or all of its losses as panic subsides
Fundamentals	Event or news that causes expected cash flows, growth or perceived risk in equities to change significantly.	Market drops sharply and stays down, with price moves tied to the fundamental(s) in focus.
Repricing of Risk	Event or news that leads to repricing of risk (in the form of equity risk premiums or default spreads).	If price of risk is reassessed upwards, market drops until the price of risk finds its new equilibrium.

With this correction, the trigger was fundamental

- This avalanche of selling was started last Friday (February 1, 2018) by a US unemployment report that contained mostly good news, with 200,000 new jobs created, a continuation of a long string of positive jobs reports. Included in the report, though, was a finding that wages increased 2.9% for US workers, at odds with the mostly flat wage growth over the last decade.
- That higher wage growth has both positive and negative connotations for stock fundamentals, providing a basis for strong earnings growth at US companies that is built on more than tax cuts, while also sowing the seeds for higher inflation and interest rates, which will make that future growth less valuable.

That led to a repricing of risk

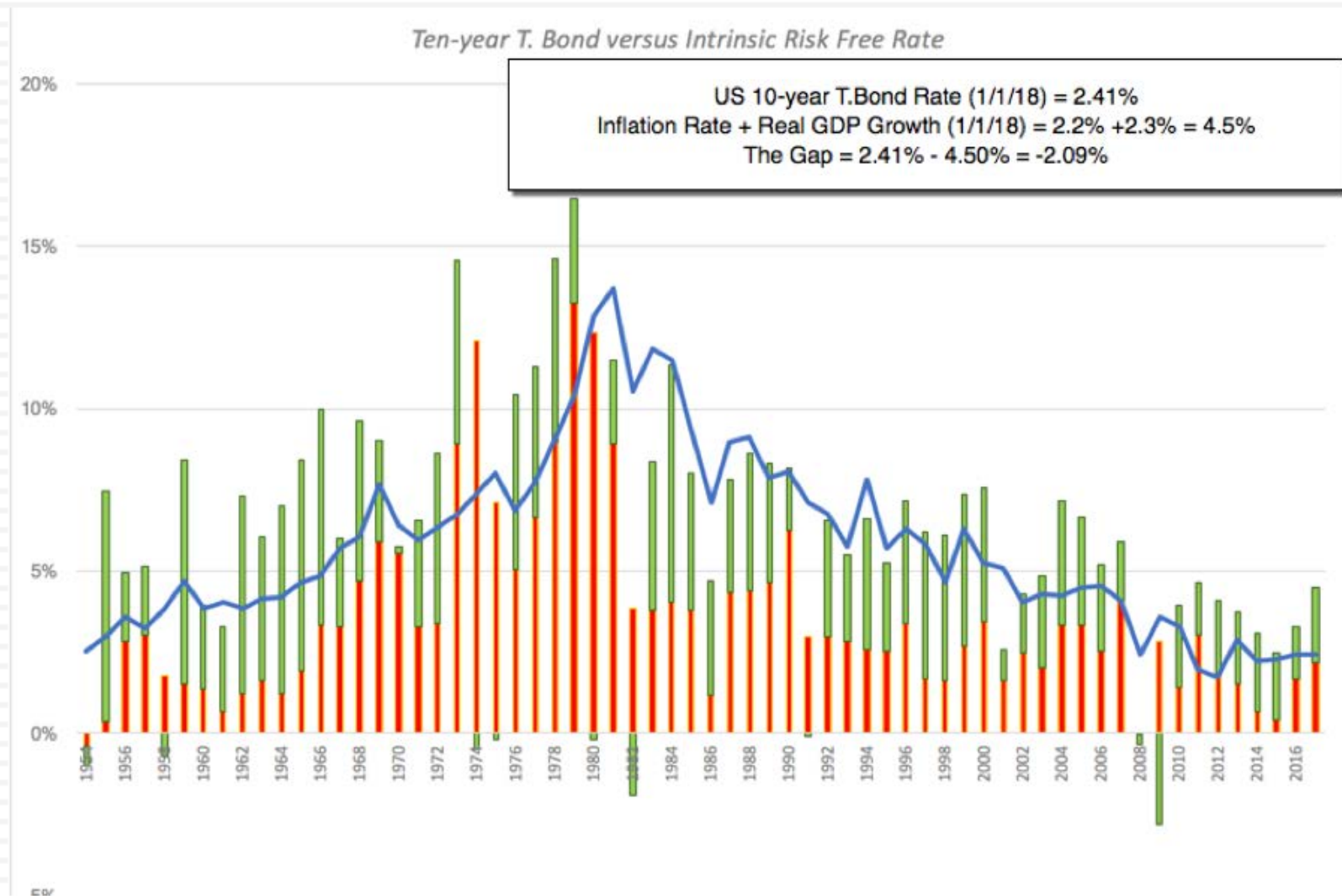
Date	S&P 500	T.Bond Rate	Implied ERP	Link to spreadsheet
31-Jan-18	2823.81	2.74%	4.78%	ERP, Jan 31
1-Feb-18	2821.98	2.77%	4.78%	ERP, Feb 1
2-Feb-18	2762.13	2.85%	4.88%	ERP, Feb 2
5-Feb-18	2648.94	2.79%	5.09%	ERP, Feb 5
6-Feb-18	2695.14	2.77%	5.00%	ERP, Feb 6
7-Feb-18	2681.66	2.84%	5.02%	ERP, Feb 7
8-Feb-18	2581.00	2.83%	5.22%	ERP, Feb 8

And precipitated panic

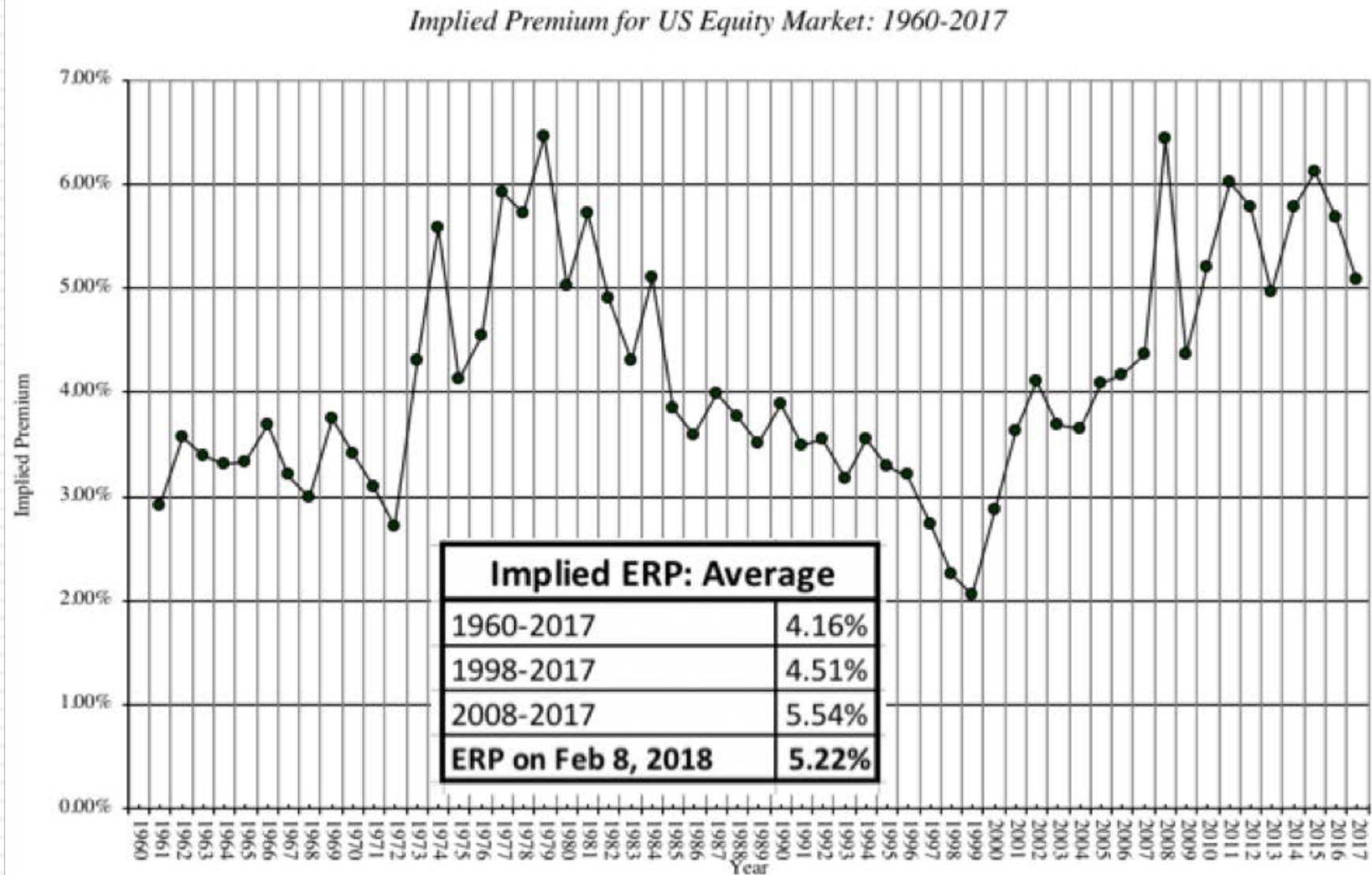
- The rise in the volatility indices are a clear indicator of this panic response, with the VIX almost tripling in the course of the week.
- Just in case you feel the urge to blame millennials, with robo-advisors, for the panic selling, they seem to be staying on the side lines for the most part, and it is the usual culprits, "professional" money managers that are most panicked of all.

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Question 1: Where are interest rates headed?



Question 2: What is a reasonable ERP?



When will the panic end?

- There will be a moment, perhaps later today or in two weeks or two months, where the fever will pass and the momentum will shift.
- If you are a trader, you can get rich playing this game, if you play it well, or poor in a hurry, if you play it badly. I choose not to play it all.
- If you are an investor, you should not even try to answer this question.

An Intrinsic Valuation of the S&P 500

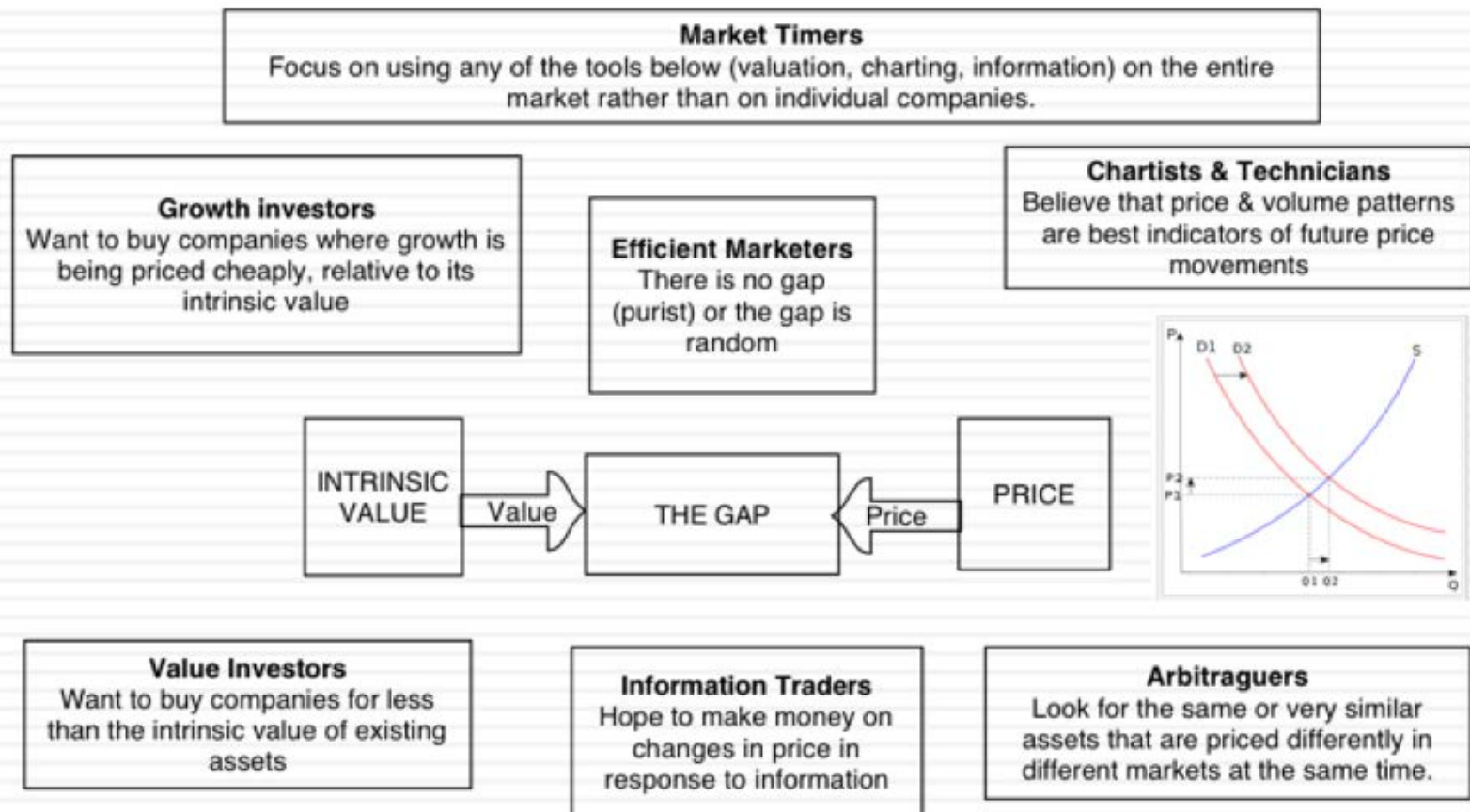
What is your expected growth in earnings for the S&P 500?

Current: Historical growth in last 5 years= 3.03%

Used: Top-down analyst estimated growth rate in earnings = **7.26%**

	Last 12 months	1	2	3	4	5	Terminal Year
Expected Earnings	118.22	126.80	136.01	145.89	156.49	167.85	172.89
Expected Dividends + Buybacks =	108.28	\$ 116.14	\$124.57	\$133.62	\$143.32	\$ 153.73	158.35
Expected Terminal Value =						\$3,166.90	
Present Value =		\$ 107.54	\$106.80	\$106.07	\$105.35	\$2,259.97	
T. Bond Rate =	3.00%	<p>Where do you see the 10-year T.Bond rate going? Current: 2.87% Used: 3.00%</p>					
Equity Risk Premium =	5.00%						
Required Return for Equity =	8.00%						
Intrinsic Value of Index =	2685.73	<p>What is a "fair" equity risk premium for the S&P 500? Current: 5.08% Used: 5.00%</p>					
Actual level of index (2/8) =	2581.00						
Percentge under (-) or over valued (+)	-3.90%						

Step 3: Revisit your investment philosophy



And don't let a market crisis change it..

- The truest test of whether you have an investment philosophy is a week like the last one, where you will be tempted to or panicked into abandoning everything that you believe about markets.
- I see myself as an investor, not a trader, and that given my tool kit and personality, what works for me is to be a investor grounded in value, though my use of a more expansive definition of value than old-time value investors, allows me to buy both growth stocks and value stocks.
- I am not a market timer for two reasons. First, the overall market has too many variables feeding into it that I do not control and cannot forecast, making my valuations inherently too noisy to be useful. Second, I see little that I bring to the overall market in terms of tools or information that will give me an edge over others.

Final Suggestions

- No regrets: During every market crisis, you will be tempted to look and ask that ever present question of "What if". Not only is this pointless, unless you have mastered time travel, but it can be damaging to your future returns, as your regrets about past actions taken and not taken play out in new actions that you take.
- Look forward: My suggestion is that you return to your core investment philosophy and start to think about the actions that you can take on Monday, when the market opens, that would be consistent with that philosophy.