



S&P 500

Monthly Valuation Analysis

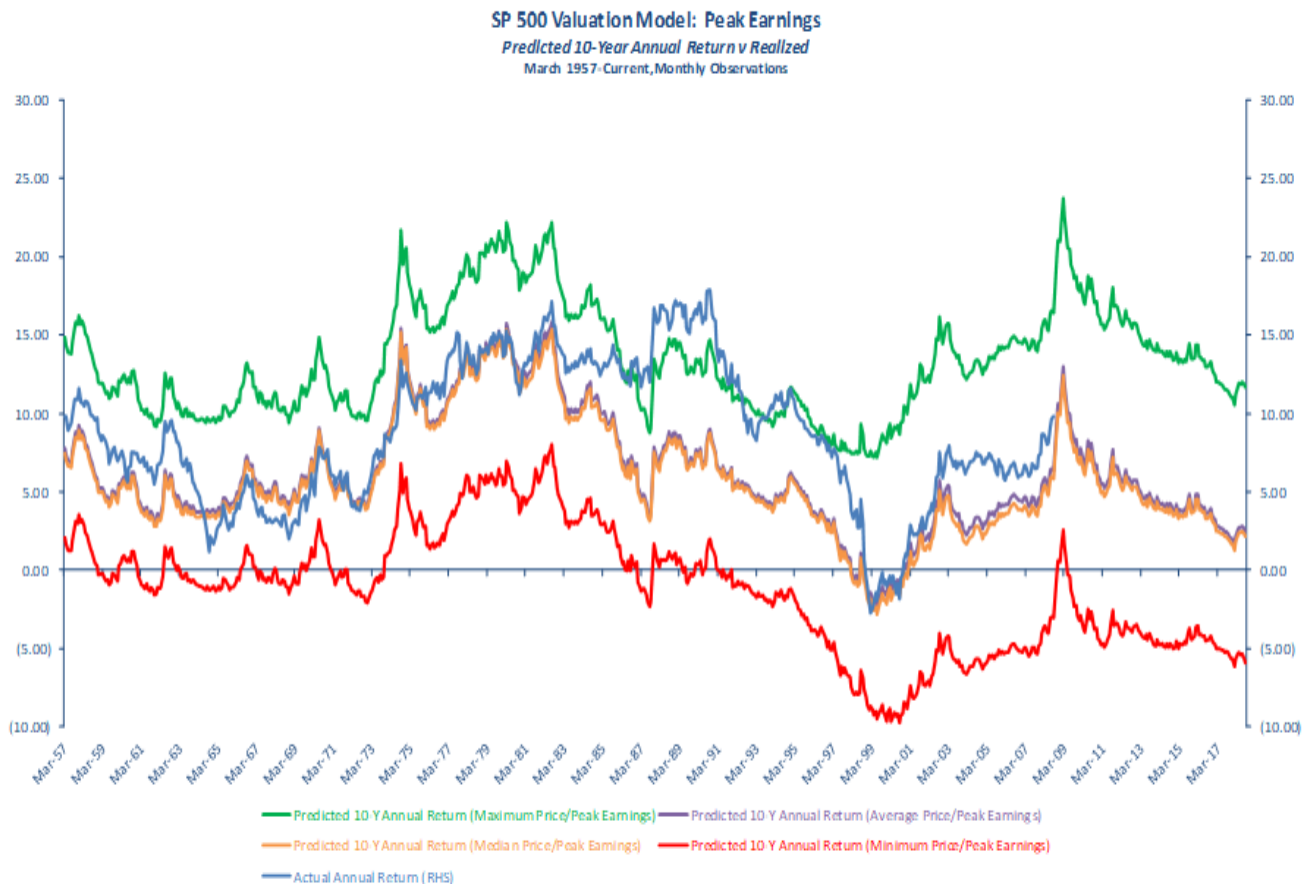
As Of August 31st, 2018

J. Brett Freeze, CFA, founder of Global Technical Analysis. Each month Brett will provide you their valuable S&P 500 Valuation Chart Book. This unique analysis provides an invaluable long term perspective of equity valuations. If you are interested in learning more about their services, please [connect with them](#).

Macro: SP 500

August 31, 2018

We believe that the chief determinant of future total returns is the relative valuation of the index at the time of purchase. We measure valuation using the Price/Peak Earnings multiple as advocated by Dr. John Hussman. We believe the main benefit of using peak earnings is the inherent *conservatism* it affords: not subject to analyst estimates, not subject to the short-term ebbs and flows of business, and not subject to short-term accounting distortions. Annualized total returns can be calculated over a horizon period for given scenarios of multiple expansion or contraction.



As of 08/31/2018: If current Price/Peak Earnings of 22.6 expands or contracts to:

Maximum Price/Peak Earnings of 33.5, Predicted Return = 11.70%, Capital Gain 10.23% Dividend 1.47%
 Minimum Price/Peak Earnings of 3.0, Predicted Return = -5.91%, Capital Gain -13.50% Dividend 7.59%
 Average Price/Peak Earnings of 12.7 Predicted Return = 2.50%, Capital Gain 0.05% Dividend 2.45%
 Median Price/Peak Earnings of 12.2, Predicted Return = 2.16%, Capital Gain -0.35% Dividend 2.51%

Predicted Returns: Sensitivity Analysis

August 31, 2018

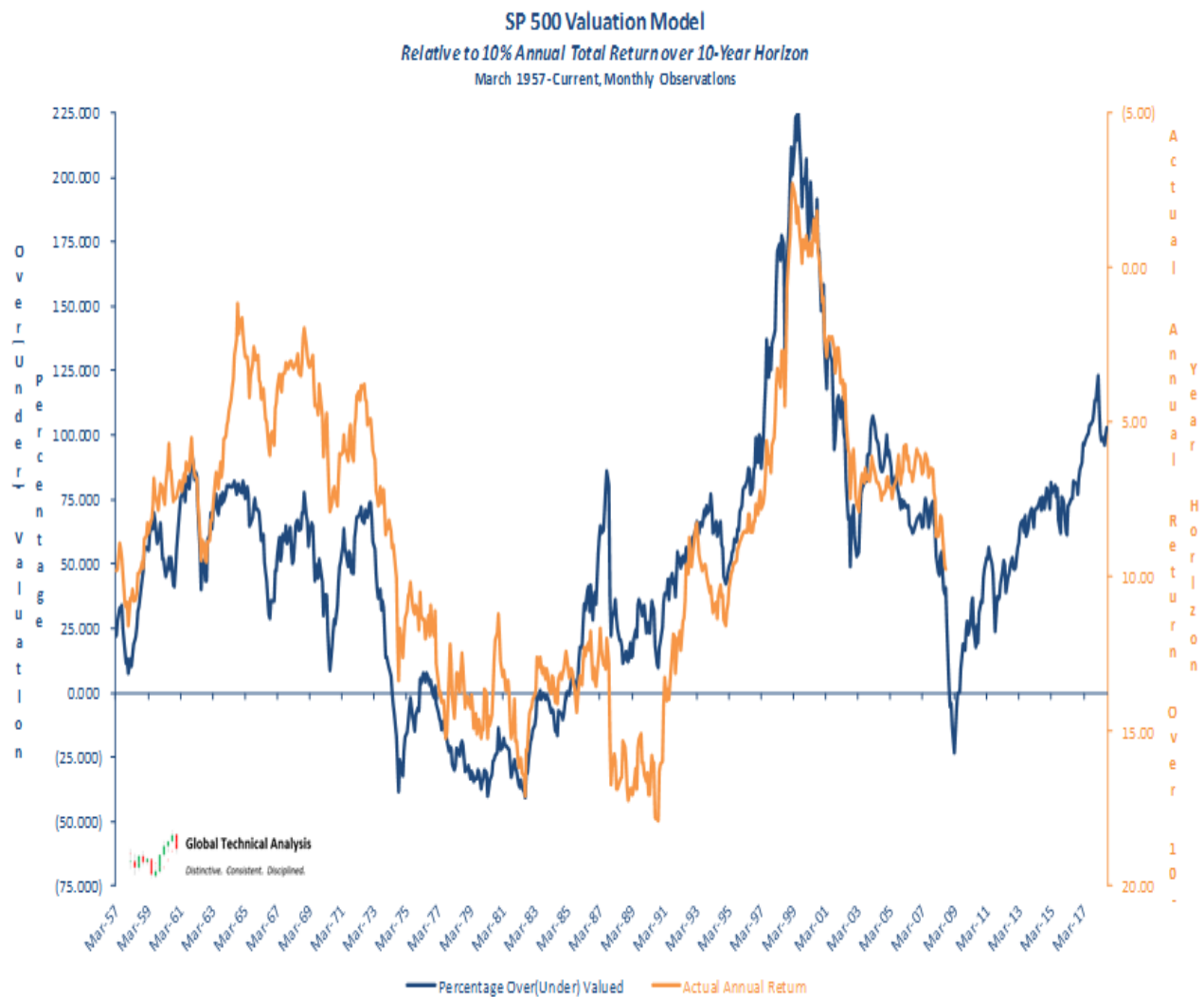
Time Horizon	Price / Peak Earnings															
	3.0	7.0	9.0	11.0	12.2	12.7	14.0	16.0	18.0	21.0	23.0	25.0	27.0	29.0	31.0	33.5
10	(5.91)	(2.02)	(0.25)	1.31	2.16	2.48	3.33	4.51	5.58	7.03	7.91	8.73	9.50	10.22	10.91	11.70
9	(7.84)	(3.24)	(1.24)	0.52	1.47	1.83	2.79	4.11	5.32	6.95	7.93	8.85	9.71	10.52	11.29	12.18
8	(10.20)	(4.74)	(2.45)	(0.46)	0.63	1.04	2.12	3.62	4.99	6.84	7.95	9.00	9.98	10.90	11.77	12.78
7	(13.13)	(6.64)	(4.00)	(1.70)	(0.45)	0.02	1.27	3.00	4.57	6.70	7.99	9.19	10.32	11.38	12.39	13.56
6	(16.88)	(9.11)	(6.02)	(3.33)	(1.87)	(1.32)	0.14	2.17	4.01	6.51	8.03	9.44	10.78	12.03	13.22	14.61
5	(21.83)	(12.46)	(8.77)	(5.56)	(3.82)	(3.16)	(1.41)	1.02	3.23	6.25	8.08	9.80	11.42	12.95	14.40	16.09
4	(28.65)	(17.23)	(12.74)	(8.81)	(6.67)	(5.85)	(3.70)	(0.69)	2.08	5.86	8.17	10.34	12.39	14.34	16.19	18.36
3	(38.59)	(24.60)	(18.97)	(13.98)	(11.23)	(10.18)	(7.39)	(3.46)	0.19	5.21	8.31	11.24	14.03	16.69	19.23	22.23
2	(54.06)	(37.33)	(30.07)	(23.42)	(19.67)	(18.23)	(14.34)	(8.76)	(3.49)	3.92	8.59	13.07	17.38	21.54	25.57	30.36
1	(78.53)	(63.50)	(54.77)	(45.80)	(40.36)	(38.19)	(32.14)	(22.95)	(13.73)	0.16	9.45	18.74	28.05	37.36	46.69	58.18



As of 08/31/2018: Price/Peak Earnings 22.6

To get at the significance of the P/E, you have to start by understanding that stocks are not a claim to earnings anyway. Stocks are a claim to a future stream of free cash flows—the cash that can actually be delivered to shareholders over time after all other obligations have been satisfied, including the provision for future growth. Knowing this already tells us a lot. For example, price/earnings ratios based on operating earnings are inherently misleading, since that “earnings” figure does not deduct interest owed to bondholders nor taxes owed to the government. This isn’t to say that P/E ratios are useless, *but it’s important for the “E” chosen by an investor to have a reasonably stable relationship to what matters, which is the long-term stream of free cash flows.* For that reason, our favored earnings measure for market valuation (though it can’t be used for individual stocks) is “peak earnings” - the highest level of net earnings achieved to date. *(Excerpted from Dr. John Hussman)*

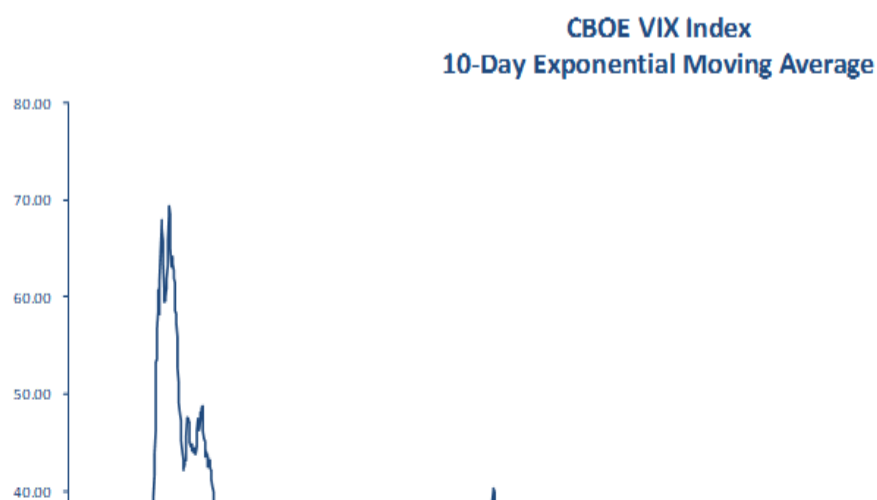
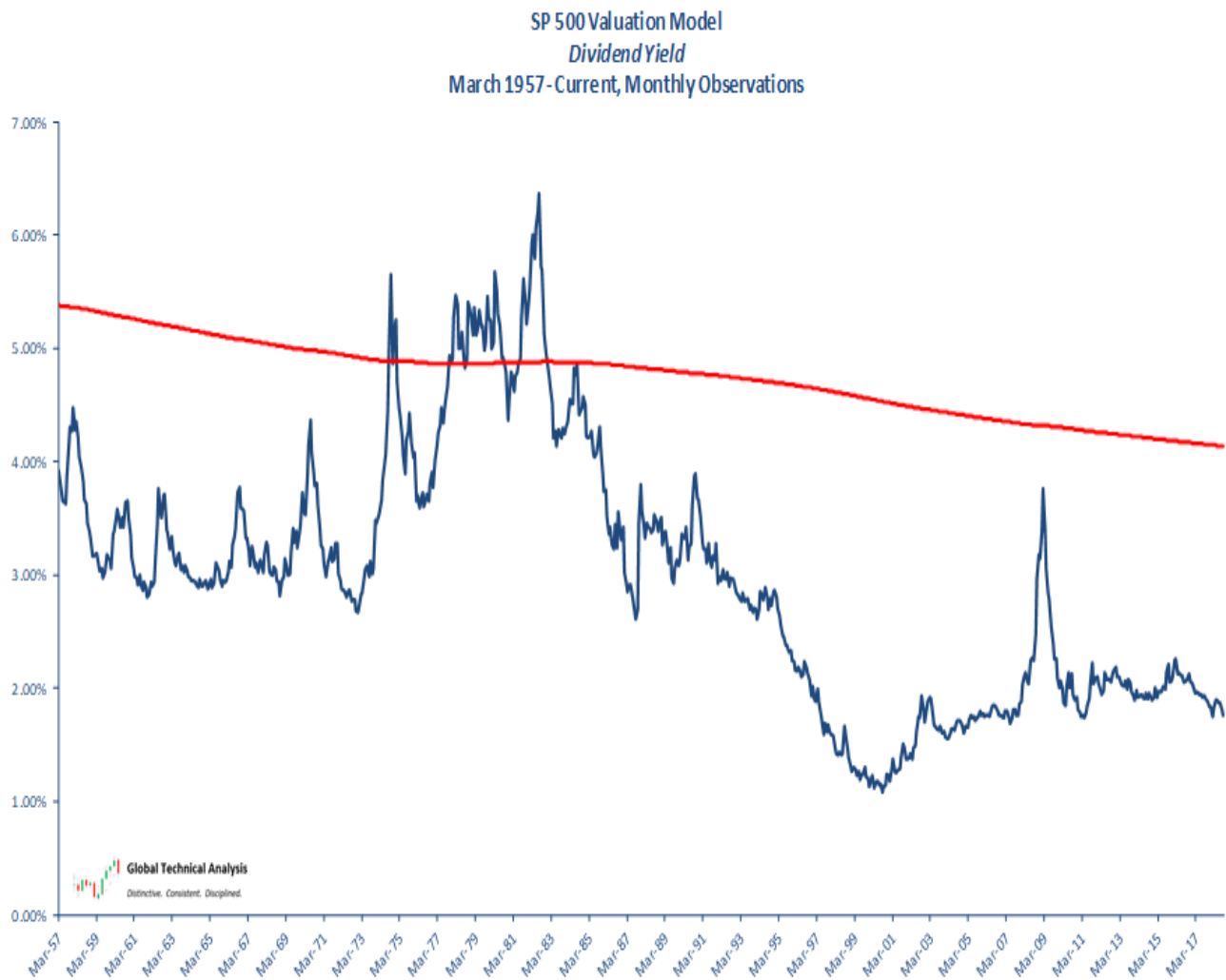


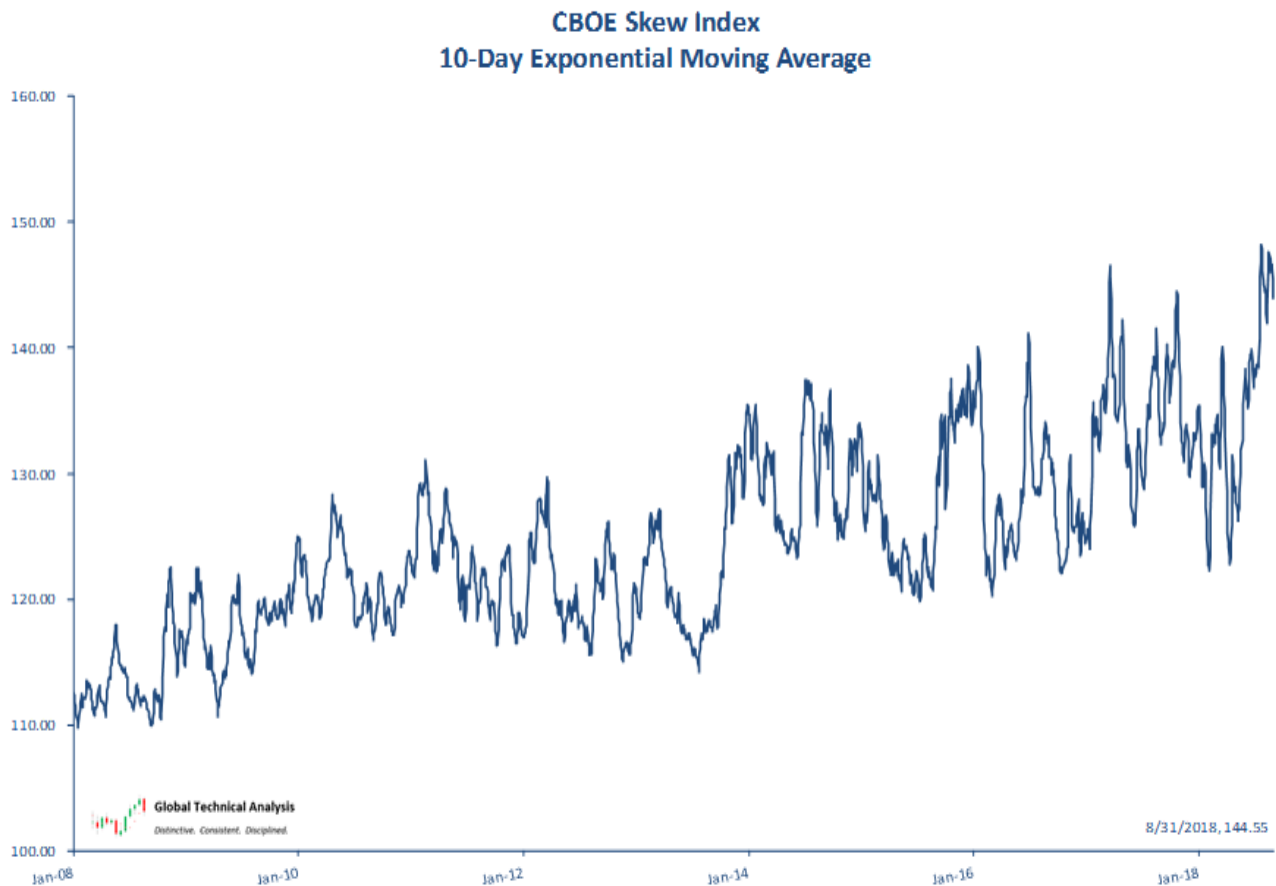


As of 08/31/2018: Overvalued by 102.7%

SP500 Valuation Model
Real Price to 10-Year Real Earnings
 March 1957-Current, Monthly Observations

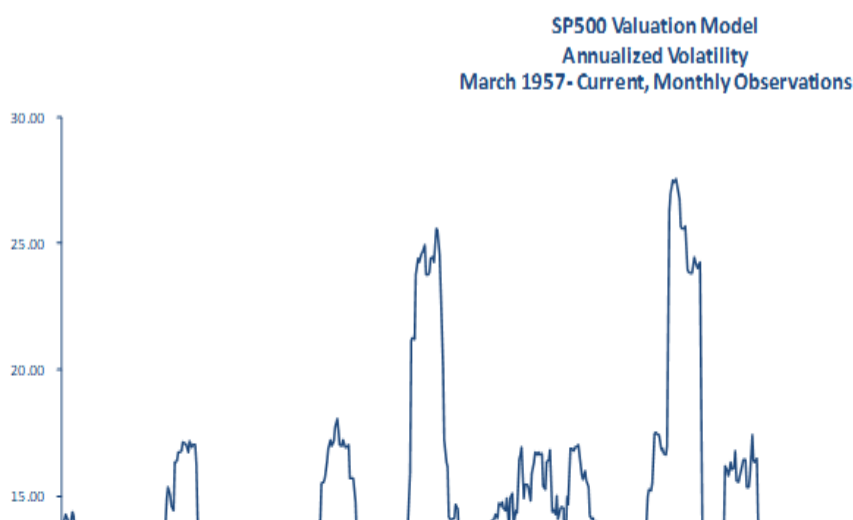


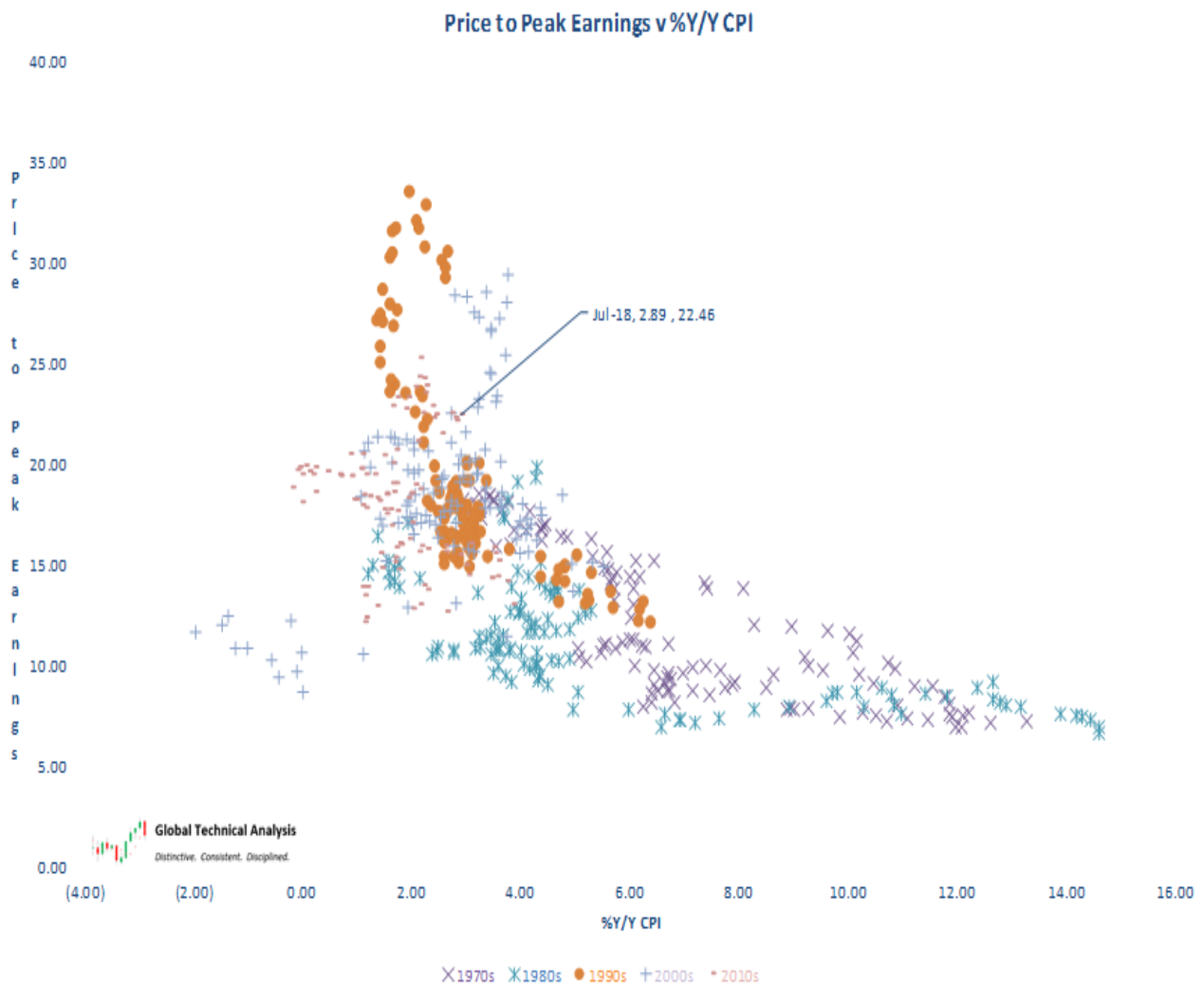




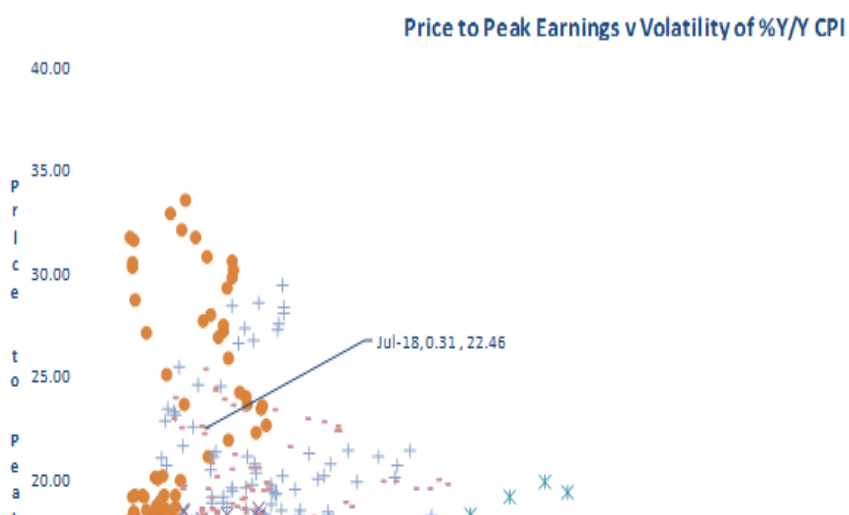
The CBOE SKEW Index ("SKEW") is an index derived from the price of S&P 500 tail risk. The price of S&P 500 tail risk is calculated from the prices of S&P 500 out-of-the-money options. SKEW typically ranges from 100 to 150. A SKEW value of 100 means that the perceived distribution of S&P 500 log-returns is normal, and the probability of outlier returns is therefore negligible. As SKEW rises above 100, the left tail of the S&P 500 distribution acquires more weight, and the probabilities of outlier returns become more significant.

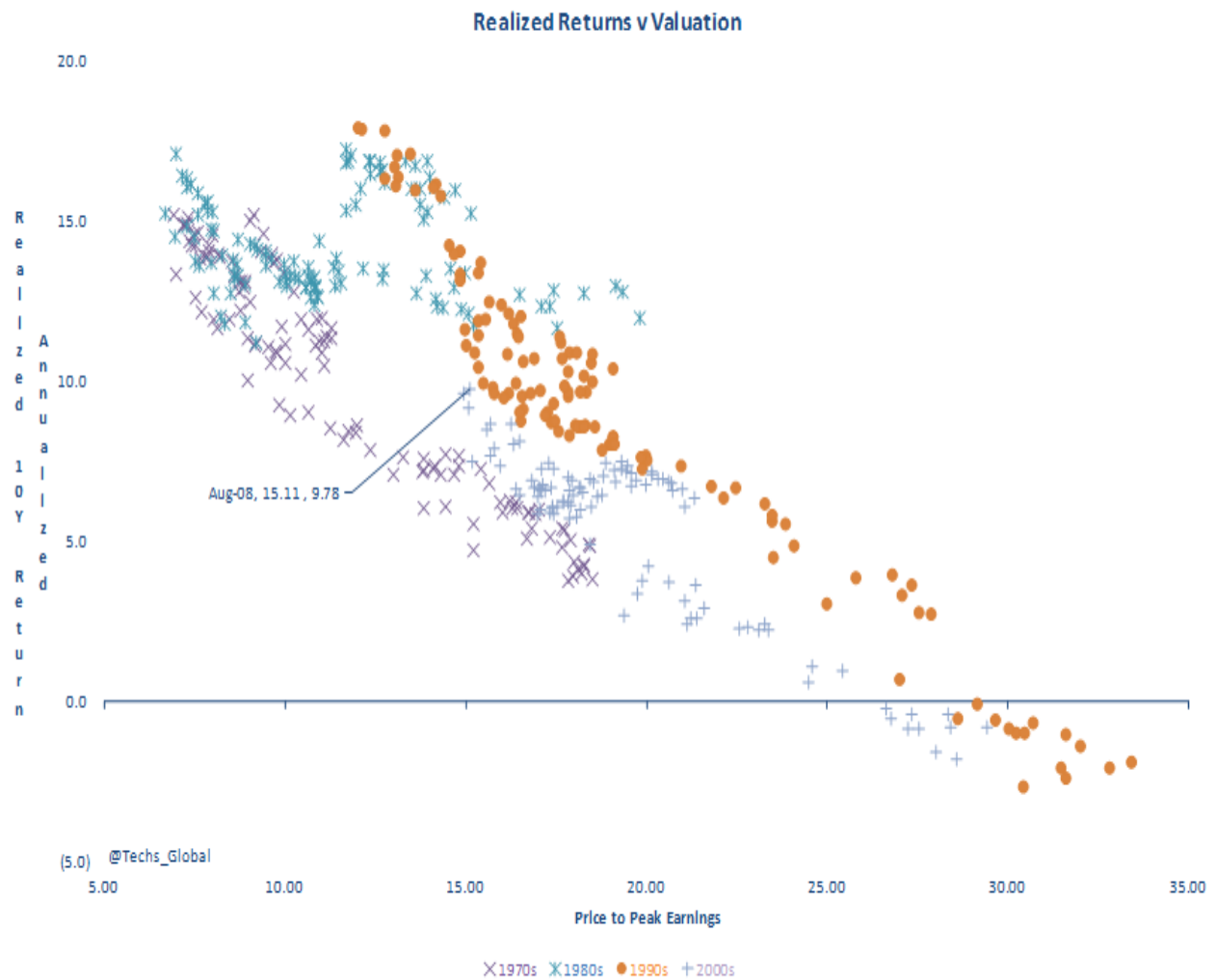
As of 08/31/2018: 10-Day EMA 144.55





Lower levels of inflation are rewarded with *higher* earnings multiples.
 Higher levels of inflation are punished with *lower* earnings multiples.





Lower valuations are rewarded with *higher* realized returns.

Higher valuations are punished with *lower* realized returns.

As of 08/31/2018: Price to Peak Earnings 22.6x Average: 12.7x