S&P 500 Monthly Valuation & Analysis Review: 05-31-22 Also, read our commentary on ***why low rates don?t justify high valuations.***

Macro: S&P 500 — *May 2022*

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 its inherent *conservatism*: 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.

Our analysis highlights expansion/contraction to the minimum, mean, average, and maximum multiples (our data-set begins in May 1900) . The baseline assumptions for nominal growth and horizon period are 4% and 12 years, respectively. We also provide graphical analysis of how predicted returns compare to actual returns historically.

We provide sensitivity analysis to our baseline assumptions. The first sensitivity table, ceterus paribus, shows how future returns are impacted by changing the horizon period. The second sensitivity table, ceterus paribus, shows how future returns are impacted by changing the growth assumption.

We also include the following information: duration, over(under)-valuation, inflation adjusted price/10-year real earnings, dividend yield, option-implied volatility, skew, realized volatility, historical relationships between inflation and p/e multiples, and historical relationship between p/e multiples and realized returns.

Our analysis is not intended to forecast the short-term direction of the SP500 Index. The purpose of our analysis is to identify the relative valuation and inherent risk offered by the index currently.

Price to Peak Earnings — *May 2022*



Duration

May 2022



As of 05/31/2022: Duration 66.7 years

In the case of equities, *duration measures the percentage change in stock prices in response to a 1% change in the long-term return that stocks are priced to deliver.* So we have a basic financial planning concept. If a buy-and-hold investor with no particular view about market conditions or future returns wishes to have a fairly predictable amount of wealth at some future date, that investor should hold a portfolio with a duration that is roughly equal to the investment horizon. *(Excerpted from Dr. John Hussman)*

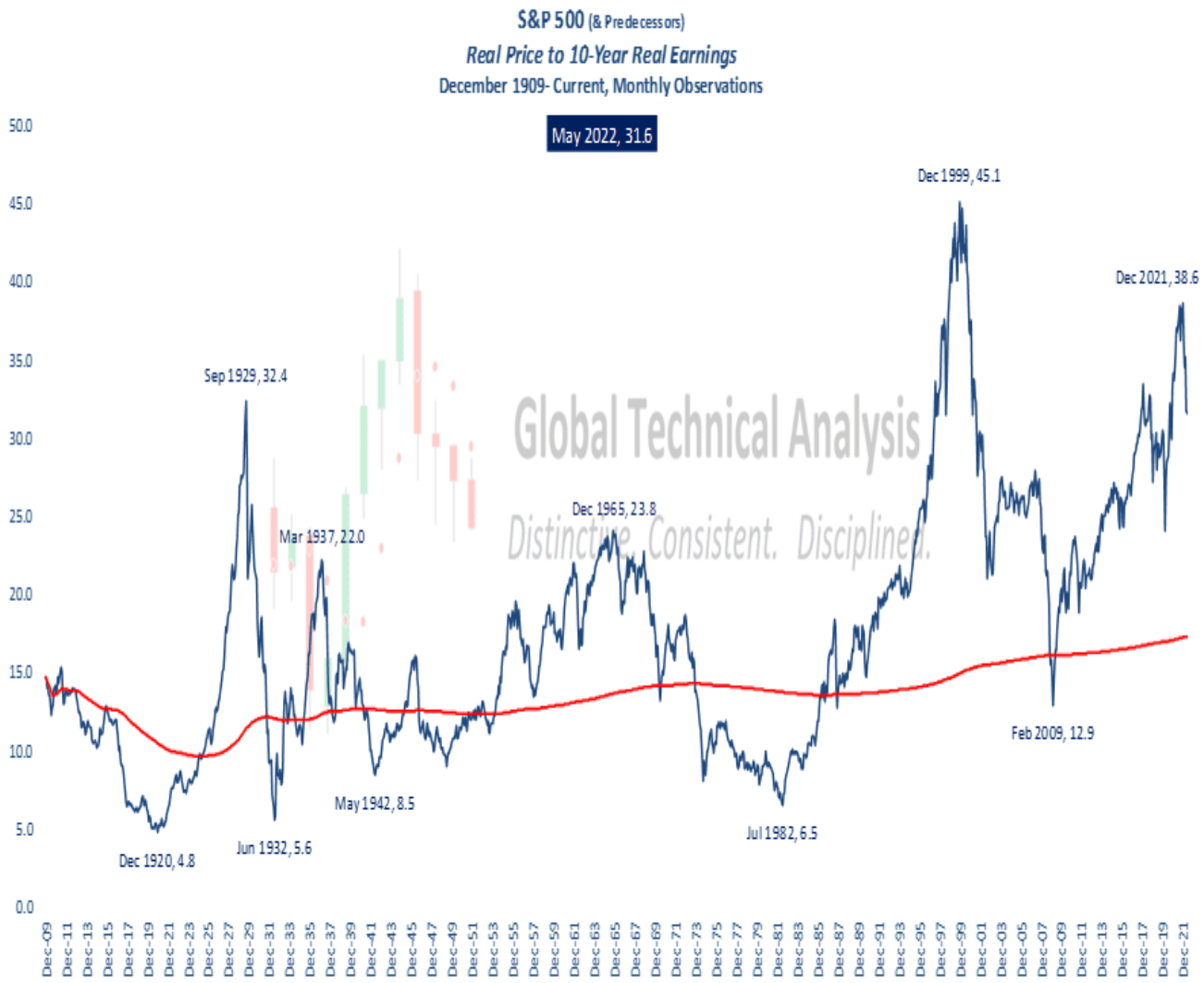
Valuation

May 2022



Inflation Adjusted PE

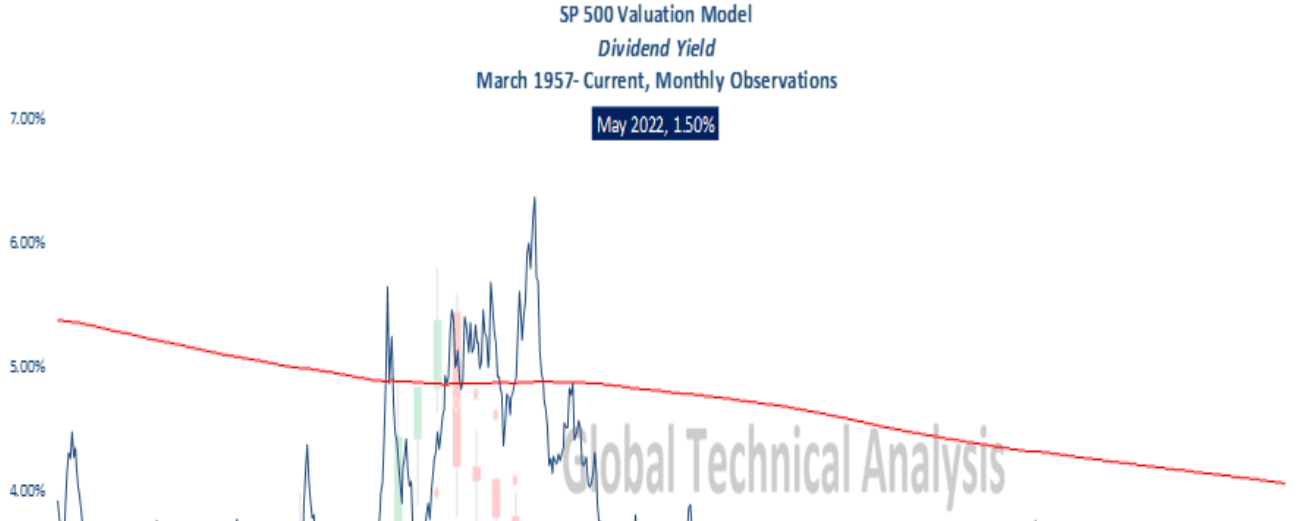
May 2022



As of 05/31/2022: Real Price to 10-Year Real Earnings 31.6x

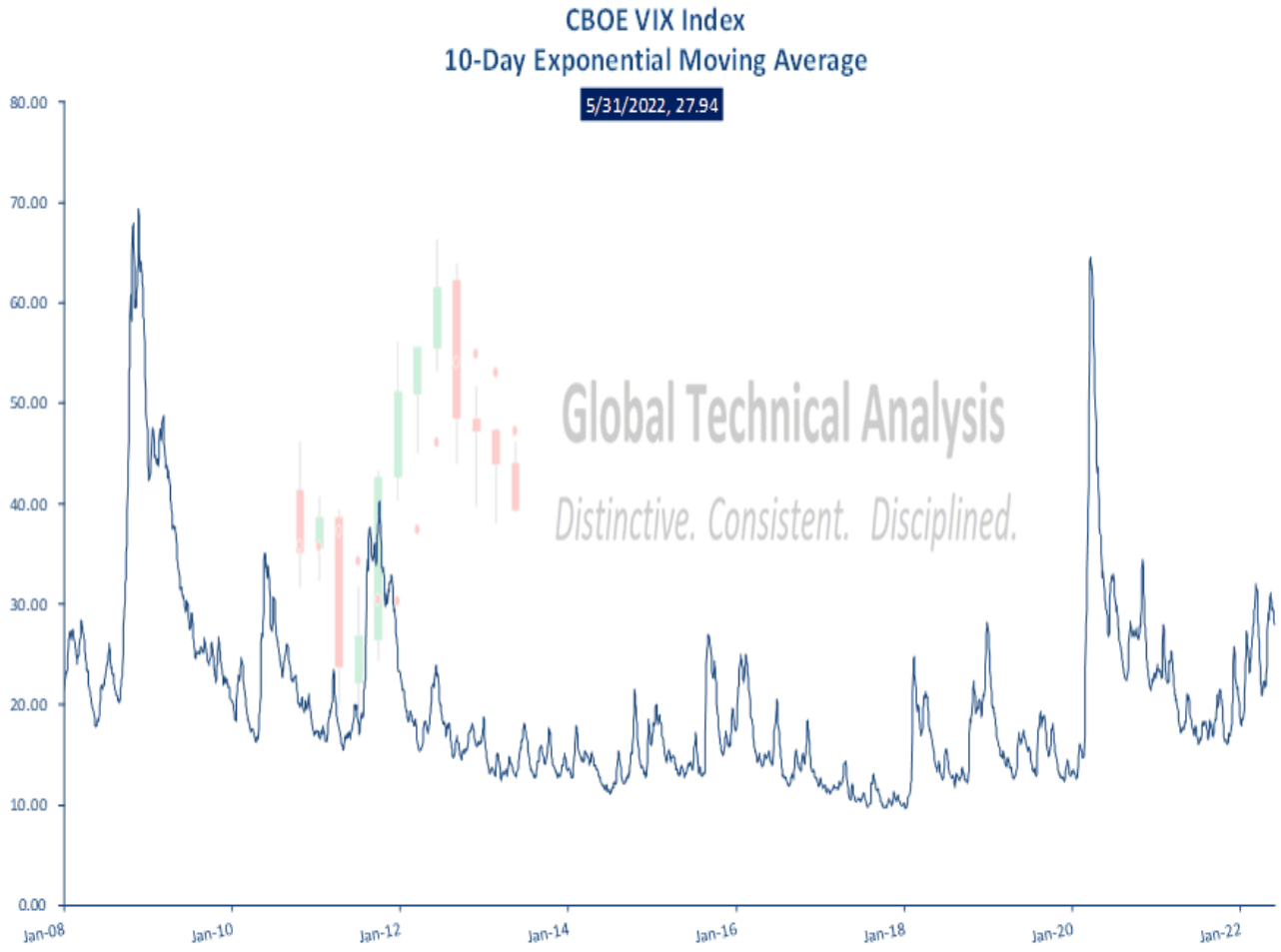
Dividend Yield

May 2022



Option Implied Volatility

May 2022



VIX measures 30-day expected volatility of the S&P 500 Index. The components of VIX are near- and next-term put and call options, usually in the first and second SPX contract months. "Near-term" options must have at least one week to expiration; a requirement intended to minimize pricing anomalies that might occur close to expiration.

As of 05/31/2022: 10-Day EMA 27.94

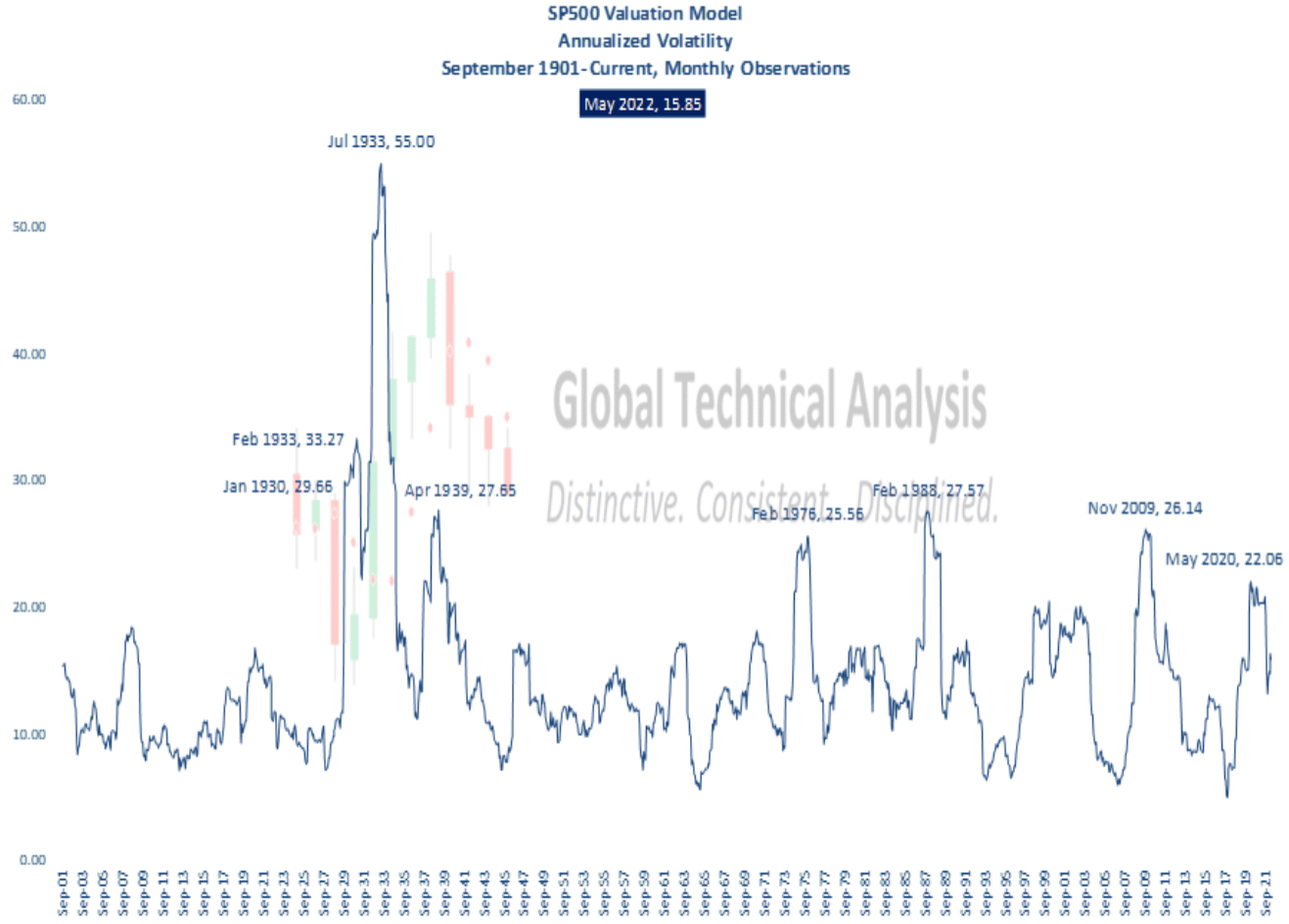
Option Skew

May 2022



Realized Volatility

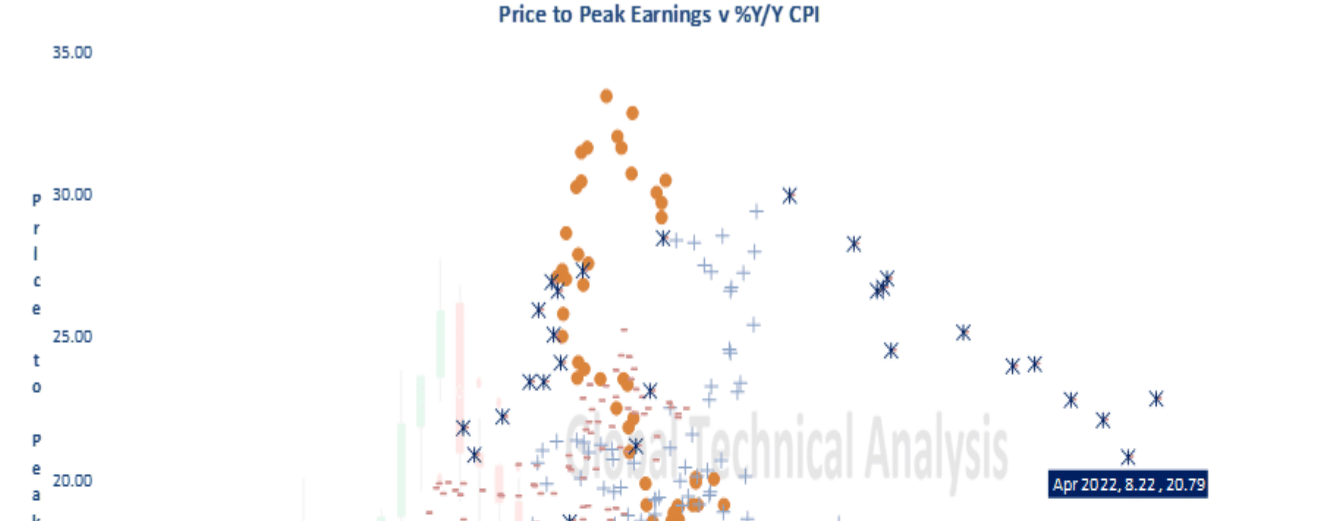
May 2022



As of 05/31/2022: 15.85%

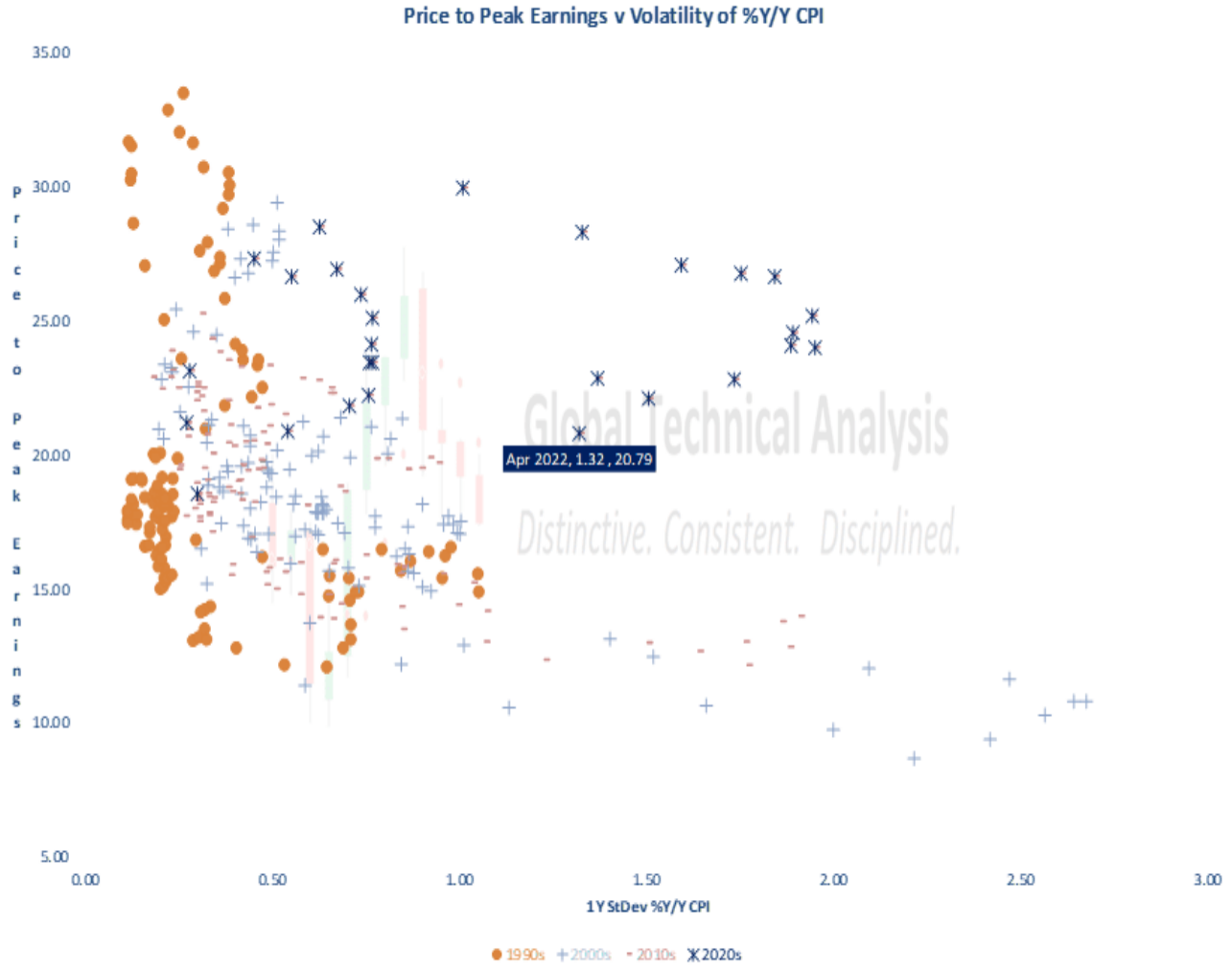
Inflation and PE Multiples

May 2022



Inflation and PE Multiples

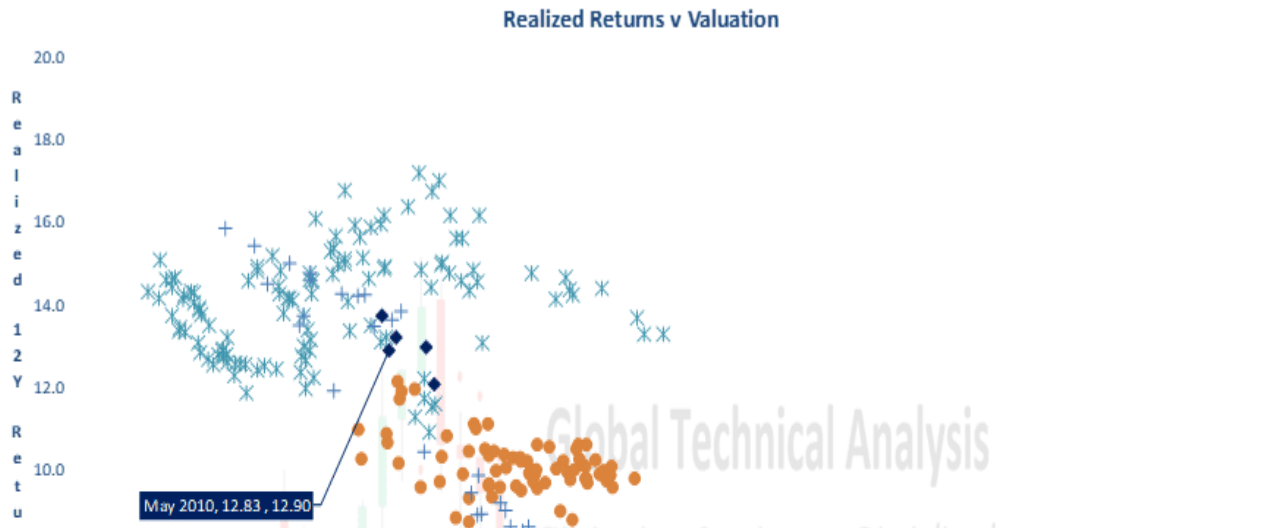
May 2022



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

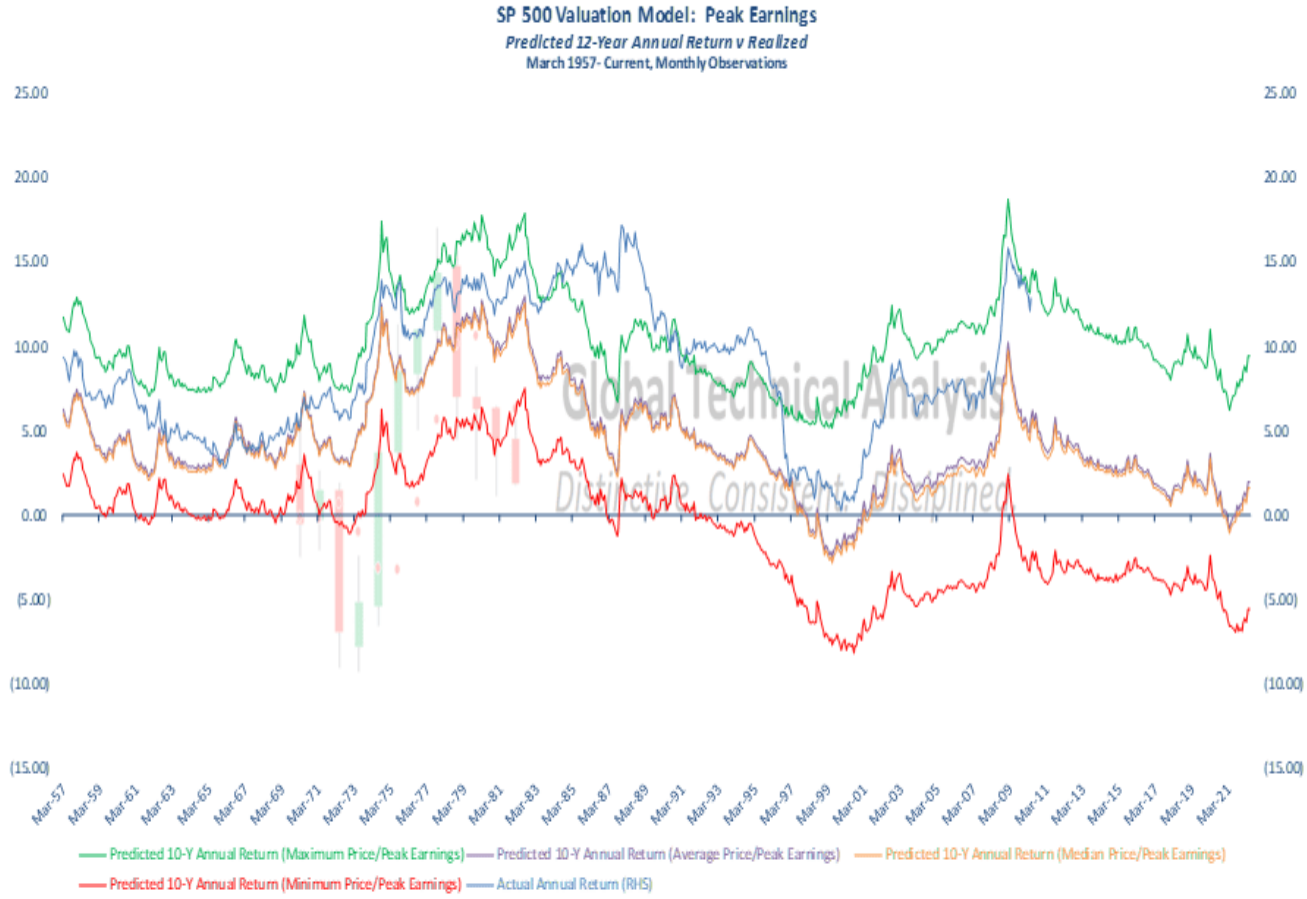
PE Multiples and Realized Returns

May 2022



Predicted Returns

May 2022



As of 05/31/2022: If current Price/Peak Earnings of 20.7 expands or contracts to:

Maximum Price/Peak Earnings of 33.5, Predicted Return = 9.46%, Capital Gain 8.24% Dividend 1.22%
Minimum Price/Peak Earnings of 3.0, Predicted Return = -5.57%, Capital Gain -11.56% Dividend 5.99%
Average Price/Peak Earnings of 13.0 Predicted Return = 2.00%, Capital Gain 0.06% Dividend 1.94%
Median Price/Peak Earnings of 12.4, Predicted Return = 1.63%, Capital Gain -0.38% Dividend 2.01%

Predicted Returns: Sensitivity Analysis

May 2022

	Price / Peak Earnings															
Time Horizon	**3.0**	7.0	9.0	11.0	**12.4**	**13.0**	14.0	16.0	18.0	21.0	23.0	25.0	27.0	29.0	31.0	**33.5**
12	**(5.57)**	(2.02)	(0.50)	0.82	**1.63**	**2.00**	2.52	3.51	4.40	5.61	6.34	7.01	7.65	8.24	8.80	**9.46**
11	**(6.86)**	(2.80)	(1.11)	0.35	**1.24**	**1.65**	2.22	3.31	4.29	5.62	6.42	7.16	7.86	8.52	9.13	**9.85**
10	**(8.39)**	(3.72)	(1.84)	(0.22)	**0.77**	**1.23**	1.86	3.07	4.16	5.63	6.52	7.35	8.12	8.84	9.53	**10.32**
9	**(10.22)**	(4.84)	(2.72)	(0.90)	**0.21**	**0.72**	1.43	2.78	4.00	5.65	6.64	7.57	8.43	9.25	10.02	**10.91**
8	**(12.45)**	(6.22)	(3.82)	(1.75)	**(0.49)**	**0.09**	0.89	2.42	3.80	5.67	6.79	7.84	8.83	9.75	10.63	**11.64**
7	**(15.23)**	(7.96)	(5.20)	(2.83)	**(1.39)**	**(0.72)**	0.20	1.95	3.55	5.69	6.99	8.20	9.34	10.41	11.42	**12.59**
6	**(18.80)**	(10.23)	(7.01)	(4.25)	**(2.57)**	**(1.79)**	(0.71)	1.34	3.21	5.73	7.26	8.68	10.02	11.28	12.48	**13.87**
5	**(23.52)**	(13.32)	(9.50)	(6.20)	**(4.19)**	**(3.27)**	(1.98)	0.49	2.73	5.77	7.62	9.36	10.99	12.52	13.98	**15.68**
4	**(30.05)**	(17.74)	(13.09)	(9.06)	**(6.58)**	**(5.44)**	(3.84)	(0.78)	2.02	5.85	8.18	10.38	12.45	14.41	16.28	**18.46**
3	**(39.62)**	(24.59)	(18.76)	(13.62)	**(10.43)**	**(8.95)**	(6.87)	(2.86)	0.86	5.96	9.12	12.10	14.93	17.63	20.21	**23.24**
2	**(54.68)**	(36.57)	(28.97)	(22.05)	**(17.65)**	**(15.58)**	(12.64)	(6.88)	(1.44)	6.20	11.01	15.62	20.06	24.34	28.48	**33.40**
1	**(79.13)**	(61.89)	(52.34)	(42.61)	**(35.93)**	**(32.64)**	(27.85)	(17.95)	(8.02)	6.92	16.90	26.89	36.88	46.88	56.89	**69.23**

J. Brett Freeze, CFA, founder of Global Technical Analysis. Each month Brett will provide you with 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.