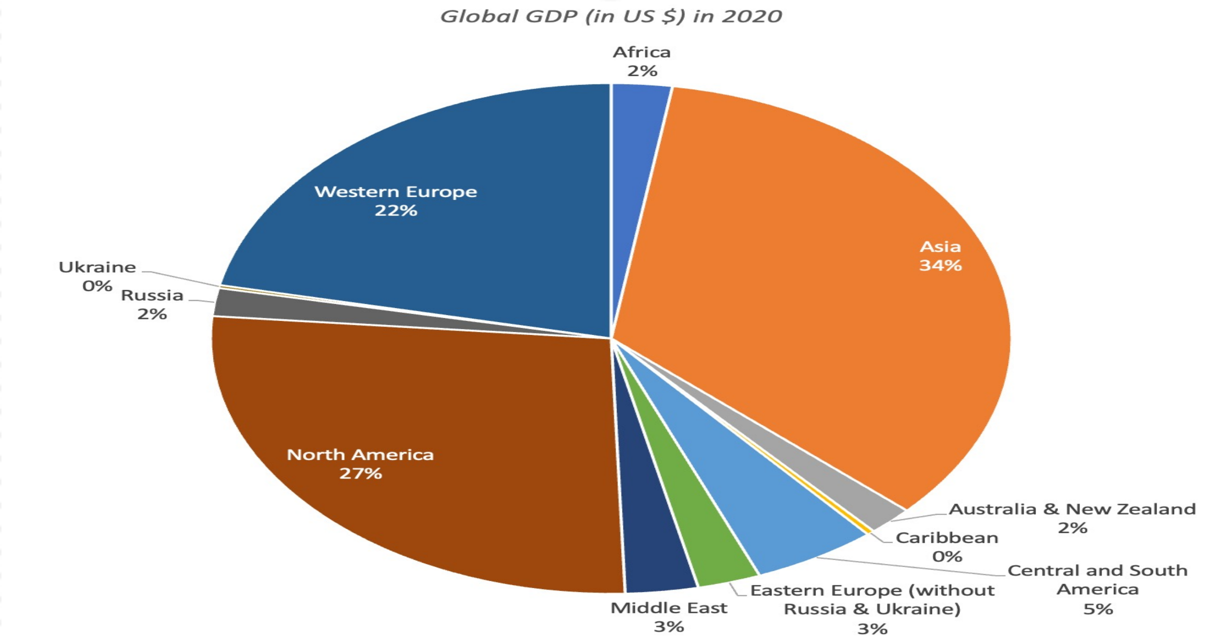
RUSSIA IN THE UKRAINE: LET LOOSE THE DOGS OF WAR!

World War III?

A Human Tragedy

- As the world's attention is focused on the war in the Ukraine, it is the human toll, in death and injury, that should get our immediate attention, and you may find a focus on economics and markets to be callous.
- However, I am not a political expert, with solutions to offer that will bring the violence to an end, and I don't think that you have come here to read about my views on humanity.
- Consequently, I will concentrate this post on how this crisis is playing out in markets, and the effects it has had, so far, on businesses and investments, and whether these effects are likely to be transient or permanent.

The Lead In: Small Economic Footprints..



Region/ Country	*Sum of GDP (in $ billions) in 2020*		*% of Global GDP*
Africa	$	2,051	2.45%
Asia	$	28,761	34.33%
Australia & New Zealand	$	1,544	1.84%
Caribbean	$	256	0.31%
Central and South America	$	4,212	5.03%
Eastern Europe (without Russia & Ukraine)	$	2,136	2.55%
Middle East	$	2,461	2.94%
North America	$	22,580	26.95%
Russia	$	1,484	1.77%
Ukraine	$	156	0.19%
Western Europe	$	18,133	21.65%
Global Total	**$**	**83,773**	**100.00%**

But Big Commodity Footprints…

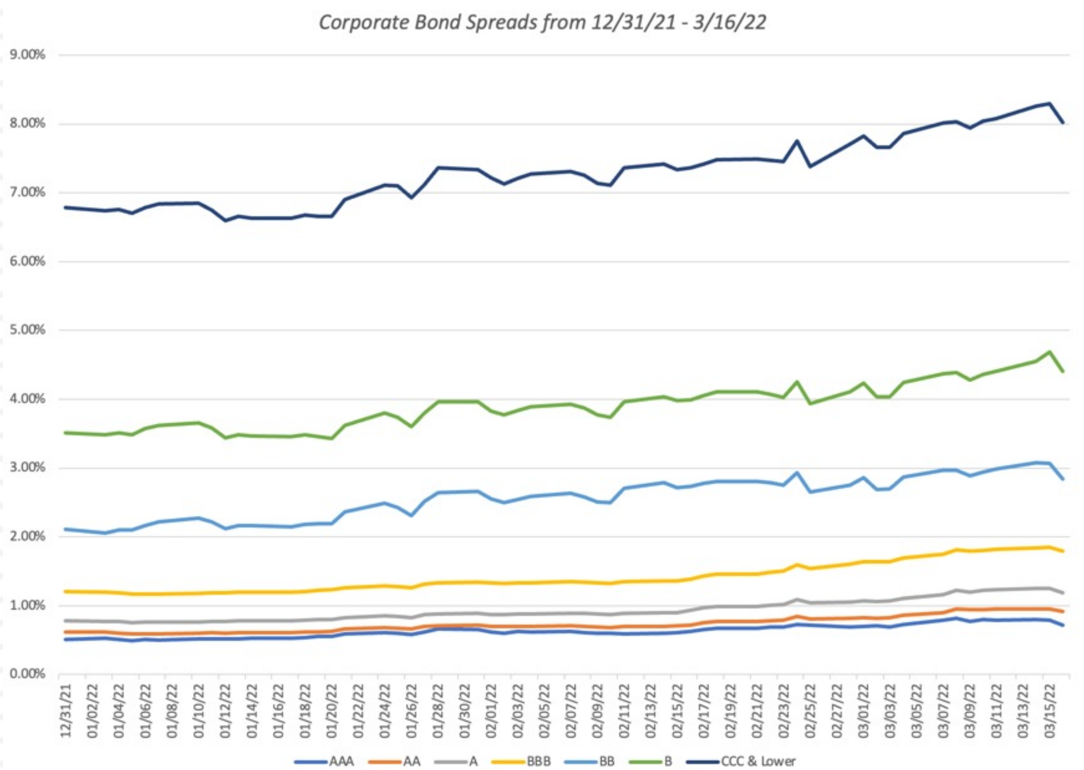
Oil Production in 2020		*Coal Production in 2020*		*Nickel Production in 2020*		*Iron Ore Production in 2020*	
Country	*Production (in '000s of barrels)*	*Country*	*Production (in million tons)*	*Country*	*Production (in thousands of metric tons)*	*Country*	*Production (in thousands of tons)*
United States	19510	China	3,902	Indonesia	760.00	Australia	900.00
Russia	11810	India	757	Philippines	320.00	Brazil	400.00
Saudi Arabia	11490	Indonesia	563	Russia	280.00	China	340.00
Canada	5500	United States	485	New Caledonia	200.00	India	230.00
China	4890	Australia	477	Australia	170.00	Russia	95.00
Iraq	4740	Russia	400	Canada	167.00	South Africa	75.00
United Arab Emirates	4010	South Africa	248	China	120.00	Ukraine	60.00
Brazil	3670	Kazhakhstan	113	Brazil	73.00	Canada	50.00
Iran	3190	Germany	107	Cuba	49.00	United States	45.00
Kuwait	2940	Poland	101	Colombia	40.00	Kazakhstan	43.00

Bond Markets and Default Risk: The Direct Casualties…

With ripple effects on other sovereigns..

Region	*# Countries*	*CDS (1/1/22)*	*CDS (3/16/22)*	*Change*	*Percentage Change*
Africa	12	5.47%	5.80%	0.33%	6.02%
Asia	12	2.65%	3.19%	0.54%	20.50%
Australia & New Zealand	2	0.22%	0.24%	0.02%	9.09%
Central and South America	12	5.84%	6.94%	1.11%	18.96%
Eastern Europe (without Russia & Ukraine)	13	0.86%	1.30%	0.44%	50.89%
Middle East	8	2.02%	1.88%	-0.15%	-7.16%
North America	2	0.24%	0.29%	0.06%	23.40%
Russia	1	1.70%	10.56%	8.86%	521.18%
Ukraine	1	6.17%	28.63%	22.46%	364.02%
EU, Switzerland & UK	19	0.72%	0.77%	0.05%	7.18%
Global	**82**	**2.65%**	**3.39%**	**0.74%**	**27.95%**

And corporate spreads…



	AAA	*AA*	*A*	*BBB*	*BB*	*B*	*CCC & Lower*
12/31/21	0.51%	0.62%	0.78%	1.21%	2.11%	3.51%	6.78%
01/31/22	0.65%	0.72%	0.89%	1.34%	2.66%	3.96%	7.34%
02/24/22	0.73%	0.84%	1.09%	1.59%	2.93%	4.25%	7.75%
02/28/22	0.69%	0.82%	1.05%	1.60%	2.75%	4.11%	7.71%
03/16/22	0.72%	0.92%	1.19%	1.79%	2.84%	4.41%	8.02%

On to Equities: Russia and Ukranian Indices…

Zeroing in on Russian companies…

Ripple Effects: Regions

Sub-Region	*# Firms*	*Mkt Cap on 1/1/22*	*Mkt Cap on 3/16/22*	*% Change in Market Cap*
Africa and Middle East	2,236	$ 4,602,839	$ 5,049,827	9.71%
Australia & NZ	1,839	$ 1,959,924	$ 1,876,950	-4.23%
Canada	2,753	$ 3,048,061	$ 2,965,784	-2.70%
China	4,934	$ 16,311,119	$ 14,040,029	-13.92%
EU & Environs	5,800	$ 17,638,999	$ 15,328,237	-13.10%
Eastern Europe & Russia	322	$ 289,874	$ 142,996	-50.67%
India	3,812	$ 3,565,693	$ 3,349,269	-6.07%
Japan	3,925	$ 6,520,904	$ 5,845,470	-10.36%
Latin America & Caribbean	3,613	$ 6,333,808	$ 5,264,613	-16.88%
Small Asia	9,179	$ 7,091,566	$ 6,612,669	-6.75%
UK	1,206	$ 3,482,027	$ 3,196,765	-8.19%
United States	6,709	$ 52,180,134	$ 45,888,376	-12.06%
Global	46,376	$ 123,095,378	$ 109,617,766	-10.95%

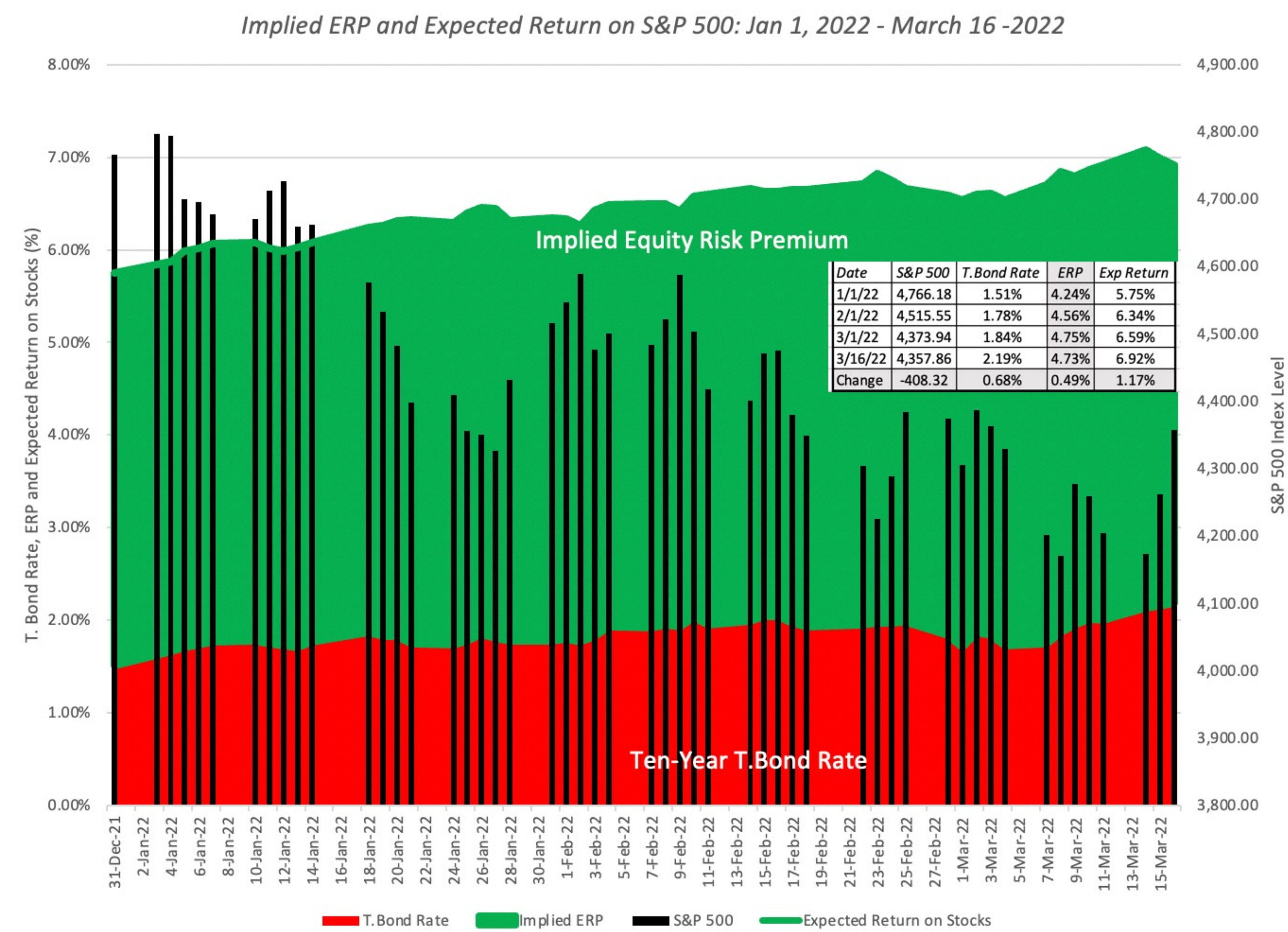
And across sectors…

Primary Sector	# Firms	Mkt Cap on 1/1/22	Mkt Cap on 3/16/22	% Change in Market Cap
Communication Services	2,156	$ 9,382,907	$ 7,957,323	-15.19%
Consumer Discretionary	6,129	$ 15,406,900	$ 12,428,082	-19.33%
Consumer Staples	2,951	$ 8,944,979	$ 8,105,104	-9.39%
Energy	1,484	$ 6,039,444	$ 6,804,460	12.67%
Financials	5,295	$ 17,252,000	$ 16,512,443	-4.29%
Health Care	4,536	$ 12,589,859	$ 11,082,804	-11.97%
Industrials	8,058	$ 14,322,573	$ 12,835,636	-10.38%
Information Technology	6,103	$ 23,264,992	$ 19,046,163	-18.13%
Materials	6,104	$ 7,754,213	$ 7,305,766	-5.78%
Real Estate	2,663	$ 4,434,176	$ 4,027,117	-9.18%
Utilities	887	$ 3,699,699	$ 3,509,253	-5.15%
Global	46,376	$ 123,095,378	$ 109,617,766	-10.95%

Value vs Growth and Indebtedness

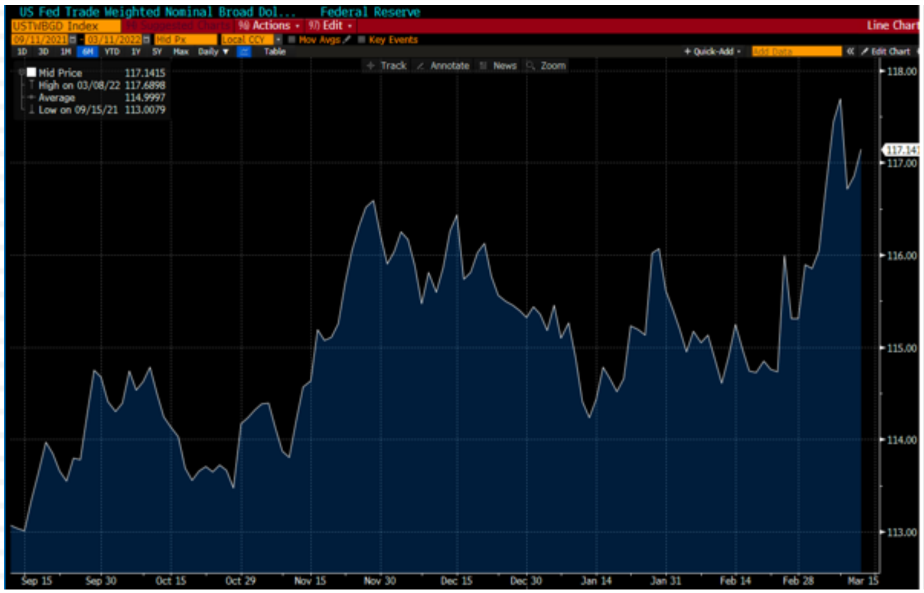
Mature (Low PBV) versus Growth (High PBV)					Indebtedness (Low to High)				
PBV Decile as of 1/1/22	*# Firms*	*Mkt Cap on 1/1/22*	*Mkt Cap on 3/16/22*	*% Change in Market Cap*	*Net Debt/EBITDA as of 1/1/22*	*# Firms*	*Mkt Cap on 1/1/22*	*Mkt Cap on 3/16/22*	*% Change in Market Cap*
Bottom decile	4,104	$ 3,415,016	$ 3,314,731	-2.94%	Lowest	2,833	$ 3,447,044	$ 2,715,534	-21.22%
2nd decile	4,105	$ 4,958,644	$ 4,791,247	-3.38%	2nd decile	2,834	$ 4,784,744	$ 3,858,507	-19.36%
3rd decile	4,105	$ 6,171,991	$ 5,956,267	-3.50%	3rd decile	2,834	$ 8,495,717	$ 7,342,616	-13.57%
4th decile	4,104	$ 7,487,722	$ 7,305,666	-2.43%	4th decile	2,834	$ 16,583,953	$ 13,968,473	-15.77%
5th decile	4,105	$ 9,844,813	$ 9,546,170	-3.03%	5th decile	2,834	$ 17,318,591	$ 15,916,605	-8.10%
6th decile	4,105	$ 8,240,230	$ 7,826,302	-5.02%	6th decile	2,834	$ 16,173,697	$ 14,987,310	-7.34%
7th decile	4,104	$ 9,803,611	$ 8,993,002	-8.27%	7th decile	2,834	$ 13,621,838	$ 12,293,529	-9.75%
8th decile	4,105	$ 12,254,051	$ 10,621,933	-13.32%	8th decile	2,834	$ 12,089,335	$ 11,184,129	-7.49%
9th decile	4,105	$ 19,492,336	$ 17,007,593	-12.75%	9th decile	2,834	$ 8,453,163	$ 7,815,569	-7.54%
Top decile	4,105	$ 37,583,632	$ 30,880,524	-17.84%	Highest	2,834	$ 3,716,898	$ 3,429,689	-7.73%
Negative Book value	5,329	$ 3,843,331	$ 3,374,331	-12.20%	Negative EBITDA	18,037	$ 18,410,398	$ 16,105,805	-12.52%
Global	46,376	$ 123,095,378	$ 109,617,766	-10.95%	Global	46,376	$ 123,095,378	$ 109,617,766	-10.95%

Implied ERP, by Day…



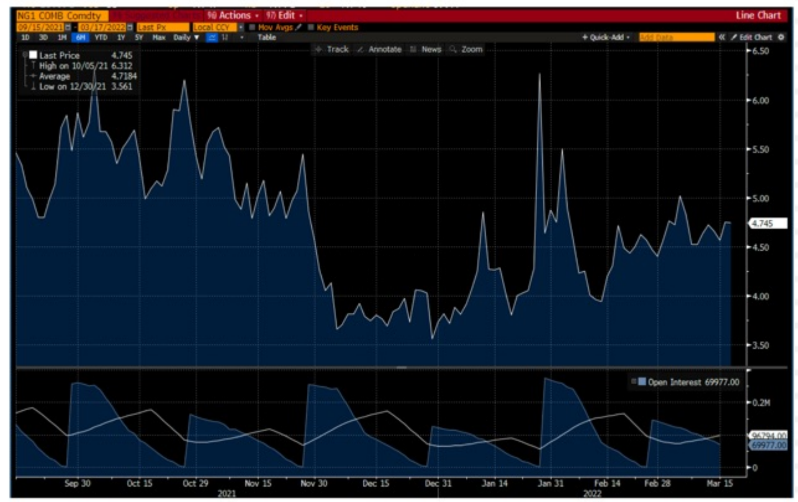
Date	S&P 500	T.Bond Rate	ERP	Exp Return
1/1/22	4,766.18	1.51%	4.24%	5.75%
2/1/22	4,515.55	1.78%	4.56%	6.34%
3/1/22	4,373.94	1.84%	4.75%	6.59%
3/16/22	4,357.86	2.19%	4.73%	6.92%
Change	-408.32	0.68%	0.49%	1.17%

Flight to safety?



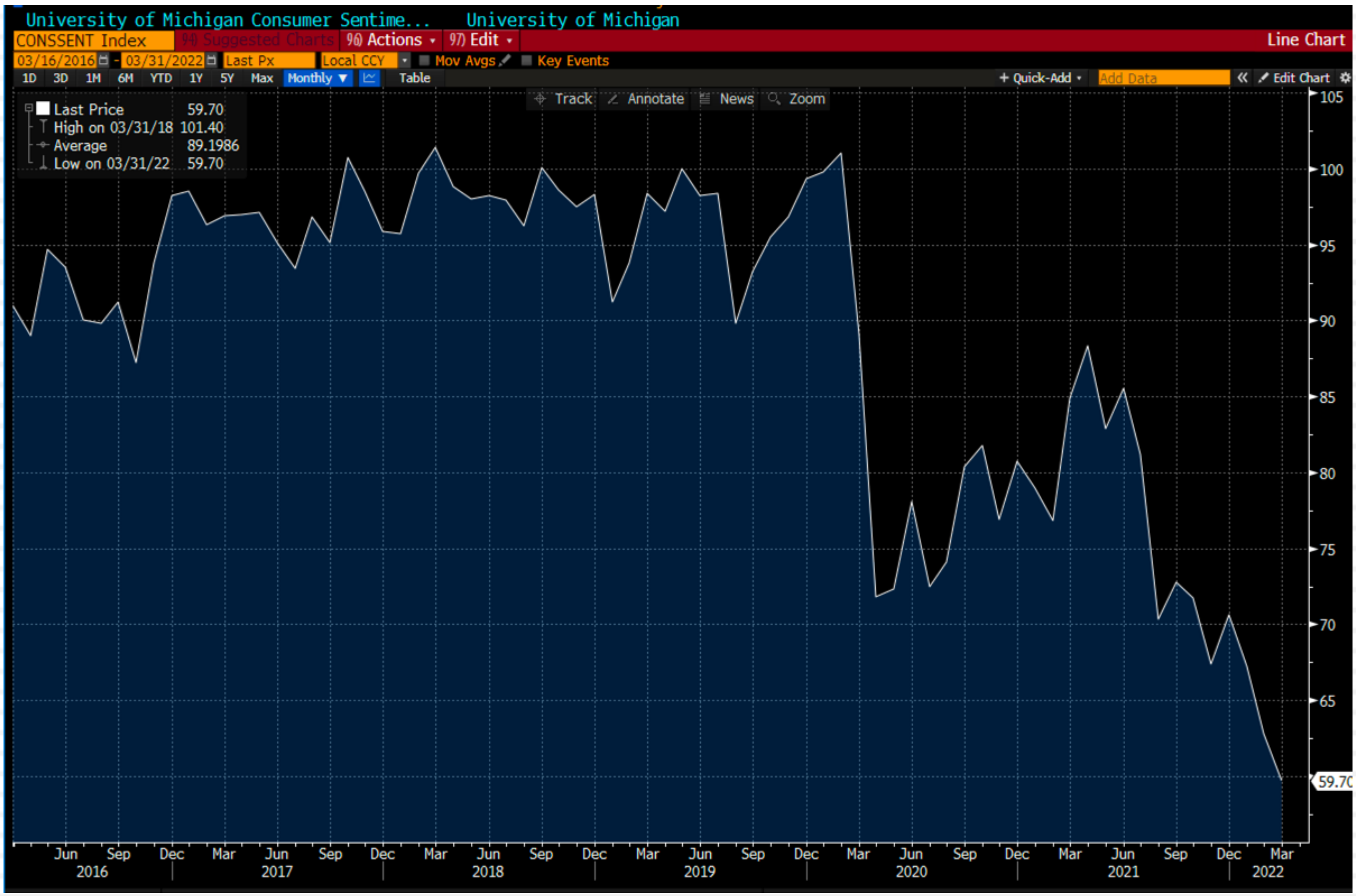
And to crisis assets…

Commodity Prices



Inflation Expectations

Consumer Confidence



Recession Fears

Investment Implications: Revaluing the S&P 500

Valuing the S&P 500 on March16, 2022

Risk free Rate
Assume that the treasury bond rate will rise to 3%, gradually over the next five years.

Expected Earnings in 2022 & 2023
Used analyst forecasts for earnings in 2022 and 2023

Growth rates in 2024-26
Growth rate decreases from 2023 level to stable growth in linear increments.

Growth rate beyond 2026
Expected growth rate is 3% in perpetuity (= Risk free rate in 2026)

	2021E	2022	2023	2024	2025	2026	*Terminal Year*
Expected Earnings	$208.49	226.38	248.77	267.66	281.84	290.29	299.00
Expected Earnings Growth Rate		8.58%	9.89%	7.59%	5.30%	3.00%	3.00%
Expected cash payout as % of earnings	77.36%	77.36%	78.36%	79.36%	80.36%	81.37%	81.37%
Expected Dividends + Buybacks =	$161.29	$175.13	$194.94	$212.42	$226.50	$236.20	243.29
Expected Terminal Value =						$4,865.75	
Riskfree Rate	2.19%	2.35%	2.51%	2.68%	2.84%	3.00%	3.00%
Required Return on Stocks	7.19%	7.35%	7.51%	7.68%	7.84%	8.00%	8.00%
Present Value =		$163.13	$168.90	$170.93	$169.01	$3,524.90	
Intrinsic Value of Index =	**4196.86**						
Actual Index level =	**4431.12**						
% Under or Over Valuation =	5.58%						

Intrinsic Value of Index
PV of expected cash flows for next 5 years + PV of terminal value

Terminal Value
= 243.29/ (.08 - .03) = 4865.75

Contrarian or Momentum

- If you are a knee-jerk contrarian, your default belief is that markets over react, and you would be buying into the most damaged asset classes, which would include US, European and Chinese stocks (worst performing geographies), and especially those in technology and consumer discretionary spaces (worst performing sectors), and selling those investments (energy companies and commodities like oil, that have benefited the most from the turmoil.
- If, on the other hand, you believe that investors are not fully incorporating the effects of the long term damage from this war, you would reverse the contrarian strategy, and buy the geographies and sectors that have benefited already and sell those that have been hurt.
- As an avowed non-market-timer, I think that both these strategies represent bludgeons in a market that needs scalpels. Rather than make broad sector or geographic bets, I would suggest making more focused bets on individual companies.

Investment Strategies

- Discounted Tech: During the course of 2022, markets have reassessed their pricing of tech stocks, and marked down their market capitalizations, for both older, and profitable tech and young, money-losing but high growth tech.
  - A few weeks ago, I posted my valuation of the FANGAM stocks and noted that only one of them was under valued, at the prices prevailing then. In the last few days, every company on the list has dipped in price by enough to be at least fairly valued or even cheap.
  - While there may be value in some young tech companies, any investments in these firms will be joint bets on the companies and a strong economy, and with the uncertainties about inflation and economic growth overhanging the market, I would be cautious.
- Safety First: If you have been spooked by market volatility and the Russian crisis, and believe that there is more volatility coming to the market in the rest of the year, your stock picks will reflect your fears. You are looking for companies with pricing power (to pass through inflation) and stable revenues, and in my view, and while you should start by looking in the conventional places (branded consumer products and food processing, pharmaceuticals), you should also take a look at some of the big names in technology.
- The Russia Play: For the true bargain hunters, the wipeout of market capitalization of Russian stocks (like Sberbank, Severstal, Lukoil and Yandex) will create temptation. A less risky route would be to tag companies with significant exposure to Russia, such as Pepsi, McDonald's and Philip Morris, and evaluate whether the market is overreacting to that exposure. I have seen no evidence, so far, that this is the case, but that may change.

A Sobering Thought…

- There is one final sobering note to add to this discussion, and that relates to low probability, potentially catastrophic events, and how markets deal with them. There is a worst case scenario in the Russia-Ukraine war, that few of us are willing to openly consider, where the conflagration spreads beyond the Ukraine, and nuclear and chemical weapons come into play.
- While the probability of this scenario may be very low, it is not zero, and to be honest, there is no investing strategy that will protect you from that scenario, but market pricing will reflect that fear. If we escape that doomsday scenario, and come back to something resembling normalcy, markets will bounce back, and in hindsight, it will look like they over reacted in the first place, even if the risk assessments were right, at the time.
- Put simply, assuming that crises will always end well, and that markets will inevitably bounce back, just because that is what you have observed in your lifetime, can be dangerous.