# Musings on Markets

My not-so-profound thoughts about valuation, corporate finance and the news of the day!

Monday, March 23, 2020

More

## A Viral Market Meltdown IV: Investing for a post-virus Economy

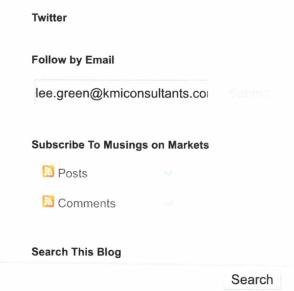
At the end of each of the weeks leading into the last one, I have done a market update, reflecting the changes that occurred in the week, not just to market values, but also to investor psyches, and each week, I have hoped that it would be the last one needed for this crisis. That hope was dashed last week, as markets continued on their downward spiral, and here I am again, writing another viral market update. In this week's update, I will begin by again first chronicling the market damage, across asset classes, and within equities, across sectors, industries and company types, but I will follow up by looking at four different investment strategies for those who have the capacity and the willingness to look past the near term, recognizing that many of you might not have that luxury.

#### Surveying the Market

In what has now become a common component of each of these weekly updates, I will start with a survey of overall market performance in different asset classes, and and then break down the damage in equity markets across the globe.

#### The Macro Picture

As was the case in 2008, it was difficult, perhaps impossible, to find a safe place to hold your money last week and no market was spared during the week. It was a week when equities lost trillions in value, across the world, but it was also a week when treasuries that had appreciated in prior weeks due to a flight to quality also saw no gain, oil continued its falls to multi-decade lows,



#### **About Me**



#### **Aswath Damodaran**

I am a Professor of Finance at the Stern School of Business at NYU. I teach

classes in corporate finance and valuation, primarily to MBAs, but generally to anyone who will listen. and gold did not play its historic role as a crisis asset. Let's start with equities. The week started badly and did not get much better, as fear ruled across markets:

				% Change		
	Index	Country/Region	Level on 3/20	3/13-3/20	Last Month	
	S&P 500	US	2305	-14.98%	-30.94%	
	NASDAQ	US	6994	-12.52%	-25.96%	
Americas	TSX	Canada	11852	-13.59%	-33.58%	
	IPC Mexico	Mexico	34270	-10.02%	-23.51%	
	Bovespa	Brazil	67069	-18.88%	-41.00%	
	FTSE 100	UK	5191	-3.27%	-29.89%	
Europe	DAX	Germany	8929	-3.28%	-34.25%	
Europe	CAC 40	France	4131	-1.67%	-33.31%	
	5&P Euro 350	Europe	1181	1.59%	-31.32%	
	Nikkei 225	Japan	16553	-10.81%	-29.50%	
Asia	Shanghai 50	China	2628	-6.09%	-11.45%	
4570	Hang Seng	Hong Kong	22805	-5.11%	-16.49%	
	BSE	India	29916	-12.28%	-25.88%	
Australia	ASX 50	Australia	4828	-12.87%	-31.97%	
& NZ	NZX 50	New Zealand	9202	-6.36%	-23.79%	
Africa	FTSE JSE top 40	South Africa	36302	-8.04%	-29.62%	
ryricu	NSE All-Share	Nigeria	22198	-2.36%	-18.95%	

Download spreadsheet

The European equity markets, at least collectively, did better than the American and Australian markets between March 6 and March 13, with the Asian and African markets falling in the middle. When equities are in free fall, US treasuries are usually the beneficiary, but last week proved to be an exception, as treasury rates at the long end stabilized, perhaps spooked by the prospect of inflation from the trillions of dollars in rescue packages being proposed:

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#### My web site

http://www.damodaran.com

#### **Popular Posts**



A Viral Market Meltdown III: Pricing or Value? Trading or Investing?



This is the third, and I hope the last, of my viral market updates, reflecting how

much change a week can deliver, and last week delivered...



## A Viral Market Meltdown: Fear or Fundamentals?

It has become almost a rite of passage for investors, at least since 2008, that they will be tested by a market

crisis precipitated someti...



## A Viral Market Meltdown Part II: Clues in the Debris!

Update on 3.9/20: In a sign of how volatile times are, over the weekend, oil prices plummeted to close to \$30,

the treasury bond rate to I...



A Viral Market Meltdown IV: Investing for a post-virus Economy

At the end of each of the weeks leading into the last one. I have done a market

update, reflecting the changes that occurred in the week, ...

## Data Update 7 for 2020: Debt Delusions and Reality

In the midst of a crisis, it is very difficult to think about life in its aftermath, but there will

1							
	Yields on US Treasuries						
Maturity	2/14/20	3/13/20	3/20/20				
3 month	1.58%	0.28%	0.05%				
2 year	1.42%	0.49%	0.37%				
5 year	1.42%	0.70%	0.52%				
10 year	1.59%	0.94%	0.92%				
20 year	1.89%	1.31%	1.35%				
30 year	2.04%	1.56%	1.55%				
	Yield curve slope						
2 yr - 3 month	-0.16%	0.21%	0.32%				
10 yr - 2 yr	0.17%	0.45%	0.55%				
30 yr - 10 yr	0.45%	0.62%	0.63%				

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The fears that this crisis will create an extended and deep recession, which, in turn, will cause corporate defaults to rise, especially in natural resource and travel-related companies, caused corporate bonds to have their worst week of this five-week crisis period:

	Yields and Spreads on Corporates									
	Spread	over 10-yr 1	reasury	Yield on Bond						
S&P Bond Rating	2/14/20	3/13/20	3/20/20	2/14/20	3/13/20	3/20/20				
AAA	0.69%	1.45%	2.18%	2.28%	2.39%	3.10%				
AA	0.72%	1.48%	2.21%	2.31%	2.42%	3.13%				
A	0.80%	1.84%	2.97%	2.39%	2.78%	3.89%				
888	1.33%	2.83%	4.31%	2.92%	3.77%	5.23%				
88	1.93%	5.09%	6.77%	3.52%	6.03%	7.69%				
В	3.40%	7.78%	10.59%	4.99%	8.72%	11.51%				
CCC or lower	9.65%	14.76%	17.96%	11.24%	15.70%	18.88%				

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The damage in the corporate bond market, not surprisingly, was worse for lower-rating bonds, but the even highest rated bonds were not spared. Speaking of natural resource companies, oil continued on its downward trend, falling well below what many analysts had pronounced as its floor:



come a time, when investors and compan...



A Do-it-yourself (DIY) Valuation of Tesla: Of Investment Regrets and Disagreements!

I was hoping to move on from Tesla to my data

update posts, but my last post on Tesla drew some attention, in good and bad ways, partly be...



Data Update 6 for 2020: Profitability, Returns and the value of Growth

In an age, where scaling up and growth seems to have won out over building

business models and profitability, as the most desirable busine...



Data Update 5: Relative Risk and Hurdle Rates

In my last four posts, I focused on the macro variables that we draw on, in both corporate finance and

valuation, to estimate required ret...



An Ode to Luck: Revisiting my Tesla Valuation

When investing, I am often my own biggest adversary, handicapped by the preconceptions and priors

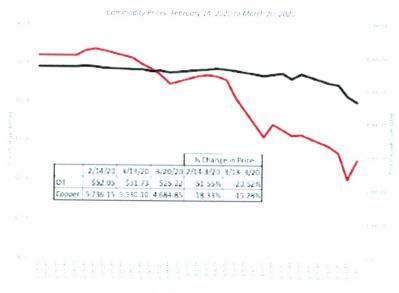
that I bring into analysis and decision ...



Data Update 4: Country Risk and Currency Questions!

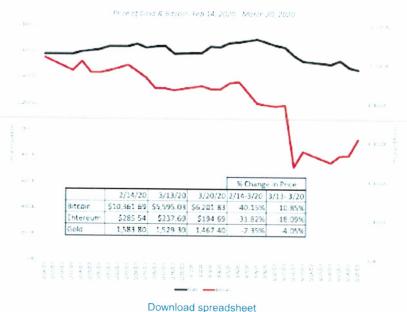
In my last post, I looked at the risk premiums in US markets, and you may have found that focus to be a little

parochial, since as an inv...



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The fact that copper, another commodity sensitive to global growth, has not dropped as much shows how much of an effect the Russia-Saudi tussle is having on oil prices. Closing off, gold had a better week than stocks, but it too was down, but bitcoin ended the week on a little bit of an upswing.



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- **▶** 2012 (49)
- **2011** (55)
- ▶ 2010 (45)
- **2009 (60)**
- **2008 (42)**

All in all, no asset class was safe and creative asset allocation would have best reduced the pain, not eliminated it.

#### The Breakdown

As in the weeks before, I will take apart the drop in equities around the world and look at the differences meted out, both in the last week and cumulatively over the five weeks since February 14.

#### Sector and Industry

I start by looking at the loss in value, broken down by sector, with the percentage changes in value computed over a week and over five weeks:

					3/20	2/14 3/20	
Sub Region	Market Cep (2/18)	MM Cop 3/13	Abr. Cap (1/20)	5 Change	& Change	S Chenge	% (hange
Communication Services	57.884,613	56.036.485	\$5,535,638	-S500.647	-8 30No	51,848,974	JN 045
Consumer Discretionary	\$10,170,019	57.931.202	\$7,100,584	\$830,827	10.47%	\$3,009,434	30 18%
Consumer Staples	57,138,019	\$6,095,210	\$5,752,410	5342,800	5 62%	51 585 668	19 41%
trergy	\$3,936,168	34 175 554	53,858,267	-5317,287	7.62%	-52.077.902	-85 DON
financials	\$14,989,759	\$11,484,604	\$10,022,128	\$1,462,565	12.73%	\$4,967,630	33 149
Health Care	\$4,982,000	\$7,581,670	\$6,937,020	-\$644,450	K 5086	\$7,044,980	22.17%
Industriah	\$10,191,830	\$7,866,278	\$6,952,360	5913.919	11.62%	\$3,239,471	31.789
Information Technology	513/535,819	\$11,160,356	\$9,794,692	\$1,365,664	12 24%	\$3,841,127	28 17%
Materials	54,994,750	55,880,705	\$3,539.559	-5341 164	.8 75%	-51.455.212	.79 139
RealEstate	\$4,048,594	53,293,223	52,713.351	5579.872	17.61%	\$1,335.243	32.58%
Utilities	53,207,906	\$2,595.085	\$2,131,050	\$261 126	10.06N	\$873.947	27.24%

Energy remains the most damaged sector, with financial services and real estate close behind., and consumer staples and health care have held up the best. Breaking the sectors down to industries, and looking at the ten best and worst performers last week:

	Worst Performers: 3/13-1/20									
					3/22	2/34 3/20				
Industry	Market Lap (7/14)	Mer Cap 2/13	Met Cap Lt/20	5 Drange	5 Change	\$ Change	Stagge			
Retal Building Supply	5453,437	5361.714	\$270,243	591 868	-25.29%	9181,192				
9.617.	\$2,213,113	\$1,740,687	\$1,329,023	5411,664	23.65%	5884,088				
Arta Hate period value	\$194,714	\$119,365	\$125,275	-516,030	-22.66%					
Homeb Ading	\$247,371	5162.537	\$127,595	534 941						
information Services	\$1,686,725	\$1,359,272	\$1,090,342	5258 931	· Committee of the same of	5595,384				
Aetopace/Detense	\$1,280,091	\$480,384	5.018,194	5171,941						
Heatherie Support Services	\$1,083,255	\$926.735	\$764,410	\$142.329		9318,845				
Air fareport	\$559,941	5363,475	\$317,049	\$56.425						
Hotel/Cumorg	5212.412	\$4,79,800	9393,635	981 000		5119.700	44.57%			
			Best Performe	15. 3/13 3/	20					
				1/23	3/20	2/24 1	40			
Industry	Market (ap 12/36)	Mer Cap 1/11	Mer Cap 13/20	5 Change	Ni Change	Scharge	A facage			
Retail (Grocery and Sood)	\$480,084	\$475,993	5398,136	\$7.857		\$81,946	17.07%			
Reful (Onlya)	\$7,458,484	52,043,293	51,952,217	-\$51,415	-2.52%	5466,187				
Food Processing	\$1,796,479	91,567,559	\$1,510,504	517.045	-3 64%	-5285,965				
Beverage (Alcoholic)	51.145,471	\$939.716	\$895,373	\$40,343	4.29%	\$246,098	21.48%			
Plasaurential Prastuate	\$1,463,594	\$1,751,012	51.130 819	\$14,005	4.33%	5465,775	18 25%			
Retal (Getera)	\$1,051,020	5936.828	9895,354	541 474	AND DESCRIPTION OF THE PARTY OF	5165,667	-19 51%			
Telecom (Wireless)	51,084,928	5898.035	\$856,820	\$41,215	and the second second	\$228,108				
Chi/Con (Irongrated)	\$3,629,286	52,749,752	52,620,851	512K902	4.60%	\$1,058,435	-28 27%			
Orugs (Pharmaceutical)	\$3,630,634	\$3,065,319	52,909,182	\$154 138	and the second second second	\$725,452	19 38%			

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The industries that were worst hit were infrastructure companies (with the exception of healthcare support services and automotive retail) that tend to have debt. Read in conjunction with the

earlier table on the widening of default spreads for corporate bonds, last week's market collapse seems to have been driven more by default risk concerns than the prior weeks. The least affected businesses tend to be those that cater to non-discretionary demand.

#### Region

Earlier in this post, I looked at market indices around the world to conclude that stocks listed on the American and Australian continents were more affected than European stocks. Expanding on that proposition, I look at the market value lost, both in dollar and percentage terms, across regions:

				1/77	1/22	2/14 -	3/20	
Sub Region	Market Cap (2/14)	Met Cap 3/13	Mkt Cop (3/20)	\$ Chavige	5 Cargo	£ Change	5 Change	
Minica	5579,775	54.16.338	5371,100	-565,290	-14.95%	-5204/172	35, 995	
Australia & NZ	\$1,617,590	\$1,152,785	5953.181	\$195,603	17.31%	\$664,409	41 679	
Catada	52 277 627	\$5,656,454	\$1,144,142	3267,010	-15 82%	-5381,784	- IK 28%	
China	\$14,038,674	\$13,357,358	\$12,478,705	\$878,653	6.58%	\$1,3\$9,969	11 11%	
LJA Invitors	51 4629 724	59,917,667	39,325,834	\$5.05,777	5 92%	-64,151,490	-11 #33%	
Eastern Europe & Russia	\$821,126	\$591.311	\$907,339	\$43,979	7.98%	\$313,790	38 21%	
Itotics	57.706.945	\$1,730,910	51,511,107	-\$205,721	-11.84%	5675,858	-10 62%	
12920	\$6,034,160	\$4,607,680	\$4,483,693	\$124,028	2.69%	\$1,970,907	25 94%	
Latin America & Caribboar	\$7.680 6.84	51,091,446	\$1,411,496	\$281,750	-15.65%	5989,189	49.71%	
Middelag	93.098.229	\$2,601,800	92,593,386	55,414	0.32%	\$304,843	16 29%	
Strial Asia	\$5,109,556	\$4,085,586	\$3,900,000	\$492,374	-13.06%	-51,516,764	29 68%	
14	53 030 537	\$2,170,363	91,927,541	9242,823	-11 19%	\$1,142,995	37 22%	
United States	\$15,745,889	\$28,142,381	523,976,467	\$4,165,527	-14.80%	\$11,761,427	-12 93%	
Global .	\$90,680,569	\$77,104,920	\$54,546,973	\$7,557,948	-10 48%	\$25,133,397	78 829	

Globally, companies have lost \$26.1 trillion in market capitalization over the last five weeks, and US stocks alone have lost \$11.8 trillion in market cap. Canadian, Australian and Latin American stocks have been worst hit, in percentage terms, and China and the Middle East have taken the smallest hits, in percentage terms.

#### Net Debt and Profitability

It looks like debt concerns rose to the top of the worry heap last week, and to see how this shows up at the company level, I broke companies down into five quintiles, in terms of net debt ratios, and five quintiles in terms of operating profit margins. Specifically, I want to see how much having a profit buffer and low debt has protected companies during this meltdown.

					1/11	1/20	2/34	1/00
the three	Deptite any	Manket Cop (2714)	Min Cop 513	Marchest 20.	Silverge	5 Chonge	5 Change	& Change
	8303T-955, E	\$457,795	1357473	3851383	125 322	1.25%	\$1.01.245	26 78%
	are quality	52 508 541	\$2019.227	51,881,055	5237.453	11.43%	\$797,877	275 447
Rottom gant &	odgav r	\$1,717,174	5847745	SMARO	577362	1-229	3750,200	15.74%
	Military File	31.712.765	STAIN BAS	\$1,774,008	9101,216	134%	5100,000	7.678
	Topiquartile	\$1,025,005	\$1,070,449	SAMP PAR	-582353	-1,789	· 多数600.000	65.40h
	Romanique de	\$1,627,434	\$1256230	\$1,180,701	525.872	6,348	\$442,239	07.50%
	are quarter	\$1,727,733	5 ; 162 422	\$1,256,140	\$124,082	8. 18%	5492, 192	27 328
independent	Indigate e	51 241 412	51 012 8 15	5541,138	585 577	6.32%	5231,234	23.64%
	Ach quince	53.455.743	52388.058	52.663.193	5234.865	8.13%	\$812.550	43.45%
	Topiquete	\$12,765,044	519.935.112	130.003.135	2734.474	0.25%	\$2,732,300	31.55%
	Barrangerie	5841.876	1602753	5842361	583,435	14 95%	5373.270	39.55%
	THE GOODLE	51.594.575	\$1330.480	\$1,000,750	5045 862	11.54%	5450,000	(51.52%)
and quint is	And opin in in	54793,115	54.857 467	Settlemen	5781 425	7.55%	51,093,478	.2.54%
	Ellingwood or	37,741,474	SELEVERS	\$1,380,295	5155 534	1 / 14%	37,441,475	21949
	Tripriparative	515,966,658	\$12,813,935	\$10,299,064	\$1,160,000	111.78%	\$4,041,471	20,669
	HERETONISM TO P	\$352,588	5372 048	5227 464	-535.532	411.12%	51.20,227	17 K. h
	incopartie	\$2,513,829	51878.158	\$1,616,970	\$239,128	11.73%	5874 930	34,80%
V. V. S. J. C. M.	Indiger e	53 522,323	52 625 666	53,544,712	5281 134	10.738	\$1,277,996	20 27 %
	Jeh quint e	\$5,159,910	54367261	54.014.354	5545,008	11.37%	52 143 557	32 23%
	Topiquete	55,793,555	56,505,824	35,008,773	51 001 051	14 47%	52.530.755	32.85%
	historia rista	\$275,894	2353,289	21200.007	427,844	18,100	361,037	WA 1910
	Inducation	\$5.270,169	53304,188	55,486,754	5478 534	10.55%	31.714.816	50 87%
ing exception	Sed great v	51.824.717	50 (60 79)	\$1,718,715	5141 661	311.435	SMINAL	55.578
	Magnete	31 142,691	\$1,024,006	STURINGER	5189822	1 - 14 -	Spermen	51 474
	hipoport a	52 135,847	51611416	\$1,594,517	SUUTARN	1 . 442	9797.815	36.749

I apologize if this table is a little overwhelming, but the way to read it to look at the combinations of net debt and profitability. For instance, companies with the least debt are in the bottom quintile of the net debt column and companies with the highest profitability are the top quintile of the profitability column. I don't want to read too much into this table, but if you look at last week's action, stocks with lower net debt ratios (in the bottom two quintiles) did much better than stocks in the top debt quintile. At least for the moment, the profitability effect is being drowned out by the debt effect, since there is little discernible relationship between operating profit margins and market markdown. If you squint hard enough, you may be able to find something, especially in the middle quintile, but I will leave that up to you.

#### **Looking Past the Crisis**

In one on my first posts on this viral market crisis, I mentioned that the first casualty in a crisis is perspective. As you get deeper and deeper into the specifics of the crisis, you will find yourself not only getting bogged down in numbers, and in despair. I have had moments in the last few weeks, when I have had to force myself to step back from the abyss, think about a post-virus world and to reclaim the initiative as an investor. If you are a pessimist, you may view this as being in denial about what you see as an economic catastrophe that is about to unfold, but I am a natural optimist, and I believe that this too shall pass!

#### The Economy

There is no disagreement that the virus will cause the economy to go into a deep recession, since commerce is effectively shut down for at least a few weeks. During that period, economic indicators such as unemployment claims and measures of economic activity will hit levels not seen before, bur that should come as no surprise, given how large and broadly based the shock thas been. There are two questions, though, where there can be disagreement.

- How quickly will the global economy come back from the shut down, and when it does how completely will it recover?
- How much permanent change will be created by this crisis in terms of both consumer (and investor) behavior and economic structure?

There are some who are more optimistic than others, arguing that once the viral fears disappear, there will be a return to business as usual for most parts of the global economy, stretched out over months rather than years, and that the changes to consumer behavior and economic structure will be small. At the other end, there are many more who feel that economies take time, measured in many years, to recover from shocks of this magnitude and also that there will be significant changes in consumer behavior and economic structure in the making.

#### **Investment Strategies**

Your views on the economy, both in terms of how quickly it will come back from this shock and how much change you see in economic structure, will determine your next steps in investing. If you believe that recovery will be quicker and with less structural change, there are two strategies you can adopt.

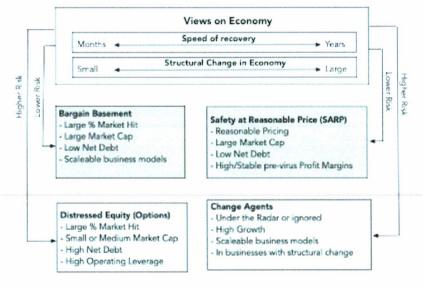
- <u>Bargain Basement</u>: In this strategy, you focus on stocks that have been pounded in
  the last few weeks, losing 50% or more of market value, but which have the
  ingredients that you believe will allow them to survive, perhaps stronger, in the postvirus economy. Key among these ingredients will be low net debt ratios (Net Debt to
  EBITDA less than one) and pre-virus operating margins that were solid enough to
  take the hit from the crisis. To the extent that survival until the turnaround occurs is
  key, you may also keep your search restricted to larger market cap companies.
- <u>Distressed Equity</u>: There is a more risky strategy you can adopt, where you also look for stocks that have seen a significant loss in value over the last five weeks, but focus on the most endangered of these, with high net debt and fixed costs. You are effectively buying options, with some already out-of-the-money, and as with any strategy built around doing that, you will see a significant number of your investments go to zero. The payoff from this strategy comes the companies that make it back to life, with equity values increasing by enough to cover your losses. At first sight, the airlines and Boeing meet these criteria, but there is a catch, insofar as they are large enough to be targeted for government bailouts, which are a mixed blessing, since they allow companies to survive, while wiping out or severely constraining equity claims. Thus, smaller companies that have to make it through on their own may be better candidates for this strategy than companies that are too big to fail, that attract large bailouts.

If you are more pessimistic about economic recovery, both in terms of its length and strength, and believe that the recovery will restructure the economy and how companies operate in many

businesses, there are two strategies that you may find work for you:

- <u>Safety at a Reasonable Price (SARP)</u>: Here, you focus on companies that are best positioned to not just survive a long downturn, but have the ammunition to make it work to their advantage. Large market cap firms with low debt ratios and high cash balances, that had high growth and profit margins in the pre-virus economy, would be good candidates. Facebook, Alphabet, Apple and Microsoft, for instance, clearly fit these criteria, but since these companies are already sought after in a market where safety is rare and highly valued, you should add pricing screens that allow you to get them at reasonable prices.
- Change Agents: This is as much a bet on changes in consumer behavior and economic structure as it is on individual companies. Thus, if you believe that this crisis will make people more comfortable with delivery services for a wider range of goods and online interaction (in business and education), you could seek out companies that are innovators in these spaces. Again, the highest profile players, like Zoom, may be priced out of your reach, but there are others like Chegg that may meet your criteria.

The picture below summarizes the four strategies:



My views on the economy are mixed. I do think that the global economy will come back, but it will take more than a few months, and there will be structural changes in some sectors. I ran screens for all of the strategies, other than the Change Agents strategy (which is less about screening, and more about detecting macro trends), across all publicly traded stocks (about 40,000+) on March 20, 2020. As I look at the companies that go through the screens, I realize that there is

more work to be done and better screens that can be devised, but think of it as work in progress, and if you have access to a large database, try your own.

#### YouTube Video



#### Data

- 1. Market Changes by Asset Class, through March 20, 2020
- 2. Market Changes by Industry, through March 20, 2020

#### **Screened Stocks**

- 1. Bargain Basement, as of March 20, 2020
- 2. Distressed Equity (Options), as of March 20, 2020
- 3. Safety at a Reasonable Price (SARP), as of March 20, 2020 (Add your pricing screen)

Posted by Aswath Damodaran at 12:46 PM Labels: Debt. Market Crisis



### No comments: