**THE WEEK MARKETS RAN OUT OF LIQUIDITY
AND CENTRAL BANKS ROLLED OUT THE FIREHOSES.**

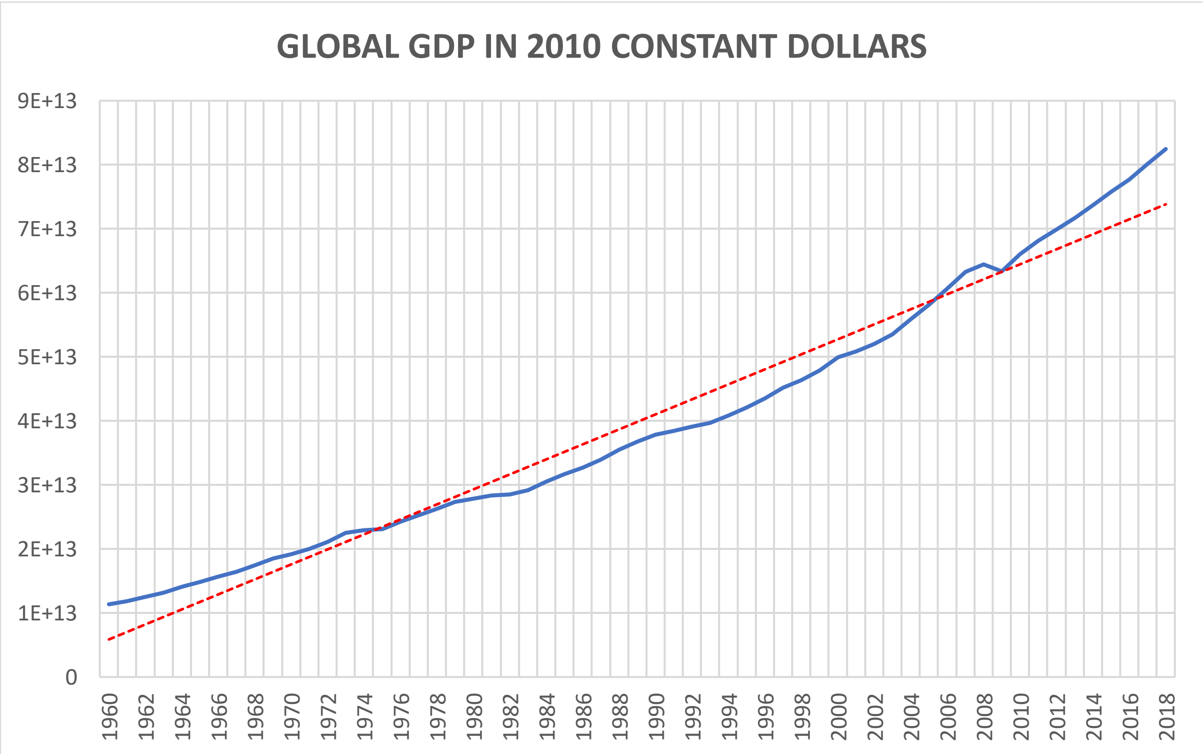
This was a week of historic falls, of liquidity evaporating, derivatives ricocheting, scrambling central bankers tripping over their own feet, and traders suffering the vapours. Blind panic. A truly memorable week.

How did we get here?

In tragicomedies the actors usually set the scene. So, let us proceed on this basis. The current and we may add rapidly expiring phase of globalisation started properly in the mid-nineties and extended to about 2015. During that time it generated a period of prosperity for capital which was interrupted by two market crashes, the 2001 dotcom bubble and the 2008 residential mortgage financial crash.

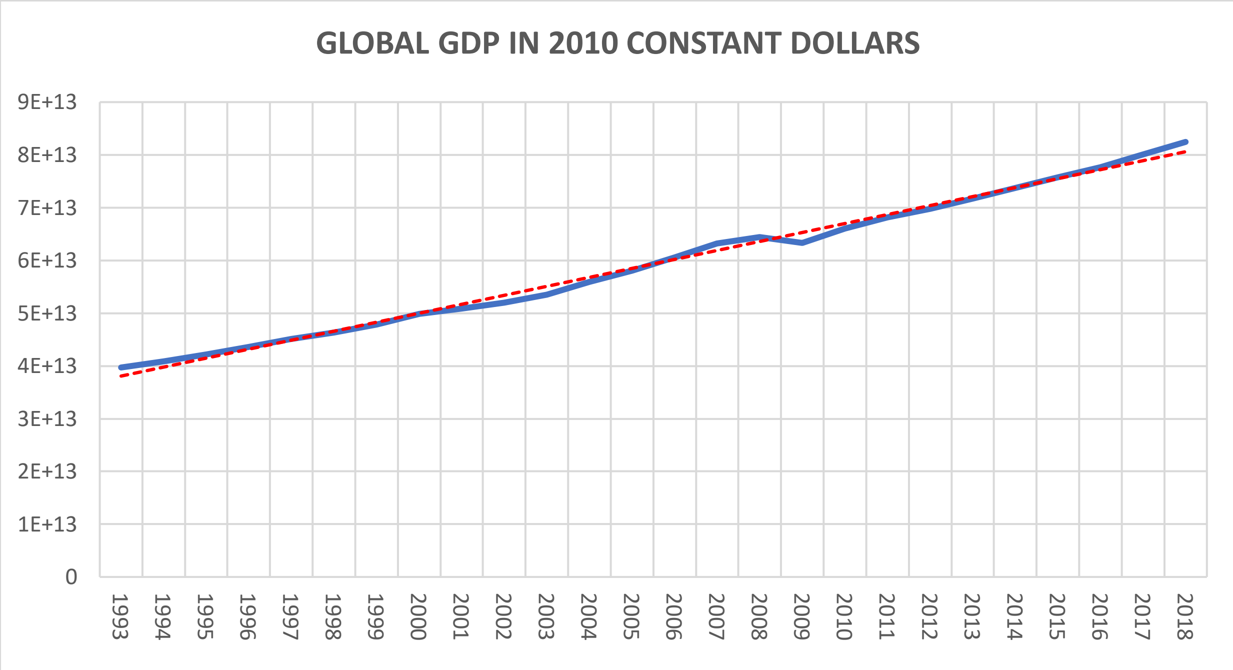
As the two graphs below show, neither of these two crashes reversed the growth in the world economy. Admittedly, the 2008 crash did stall it for 24 months before it resumed its trend growth once again, as Graph 2 shows. To adopt the view that the dynamic of globalisation ended in 2008 is to adopt a national centric view. It is to ignore the growth of China and other Emerging Markets during this time, a rapid growth which saw them claim nearly 50% of Global GDP by 2016. All data is downloaded from the World Bank and while I dislike using constant currency it is the only way to present a relative trend. On a world scale the global economy did not enter into anything like a depression following the financial crash in 2008.

Graph 1.



Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD

Graph 2.



Looking in finer detail. Global profitability recovered from 2008 and grew until 2013 in China and 2014 in the USA. After this time the global rate of profit declined. Post-2014 we see represented for the first time, the classical end of cycle or period features, in the form of the structural elements. Globally, the rate of turnover falls, the rate of surplus value falls and the rate of profit falls absolutely. This delineates it from the period pre-2008 when some of these features are absent.

As a result of this systemic fall in the absolute rate of profit, the conditions for the descent into recession are prepared. The first sign of this impending recession is the Renminbi crisis in mid-2015. This is followed by a sharp slowdown in investment, trade and production worldwide. By the end of 2015 the world economy teeters on the edge of recession. During the final quarter of 2015 and the first quarter of 2016 the US economy grows by only 0.5% a quarter.

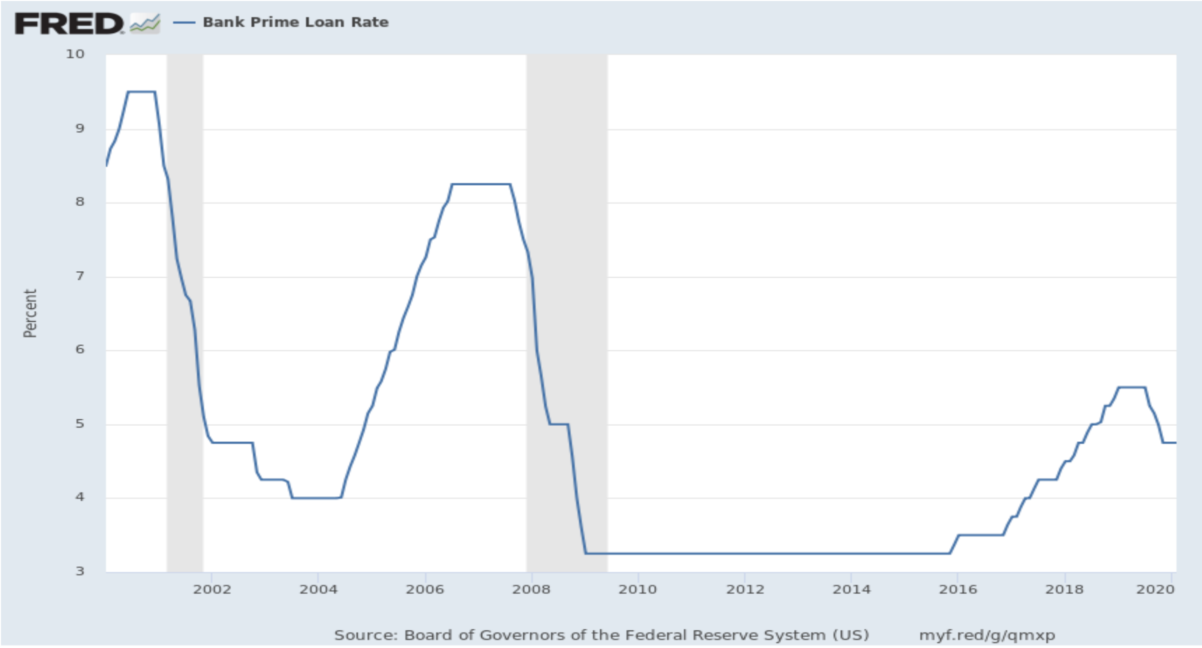
I call this period a pseudo recession. The recession that should have happened but did not happen. It was averted by means of additional liquidity pumped into the markets to cap short term interest rates. This can clearly be seen in the FED graph below which plots Prime Overdraft rates. We note how rates fell precipitously to 3.25% and remain trapped in that range ticking up to 3.5% in December 2015 when risk increased.

These rates only resume their rise at the end of 2016, once the emergency is over and production recovers, rising to a peak of 5.5% in January 2019. I call the period from the end of 2016 to the end of 2018 the phase of rising animation. The global economy never moved on to the recapture the phase of prosperity, which would have implied a rise in the mass of profits above the 2014 peak.

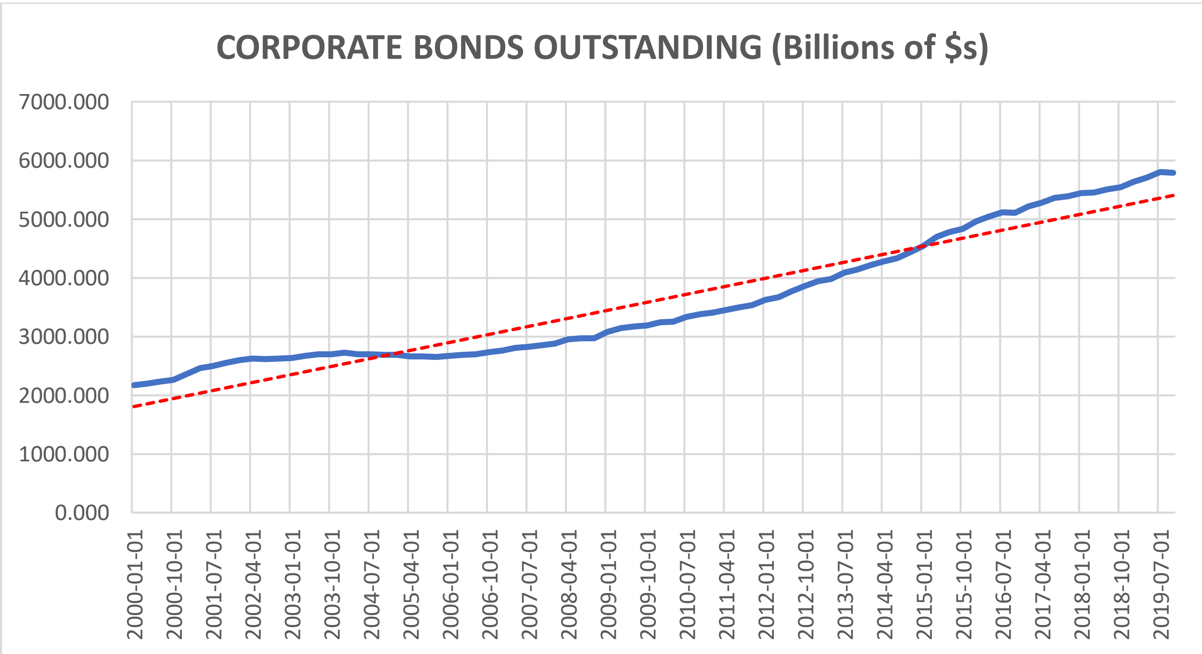
Rising animation ends at the beginning of 2019 when I anticipated a crash sometime that year. (2019 is characterised by a global investment, industrial and trade recession but not an associated financial crash.) The phase of rising animation up to 2019 was unhealthy. It was the product, not of rising investment, but the corrosive combination of unproductive corporate borrowing, and, consumption driven by the capital gains resulting from an increase in asset prices.

Had a full-blown recession taken place at the end of 2015, had interest rates been liberated to fulfil their role of culling excess capital and debt, the world economy would have been in a better place to resist the virus today. Instead artificially low interest rates sustained unprofitable firms and investments, and, encouraged speculation. Instead of zombie bonds being liquidated, zombie corporations added to them in vast quantities. Graph 3 shows the movement in interest rates while Graph 4 shows the growth in corporate debt (in the form of bonds).

Graph 3.



Graph 4.



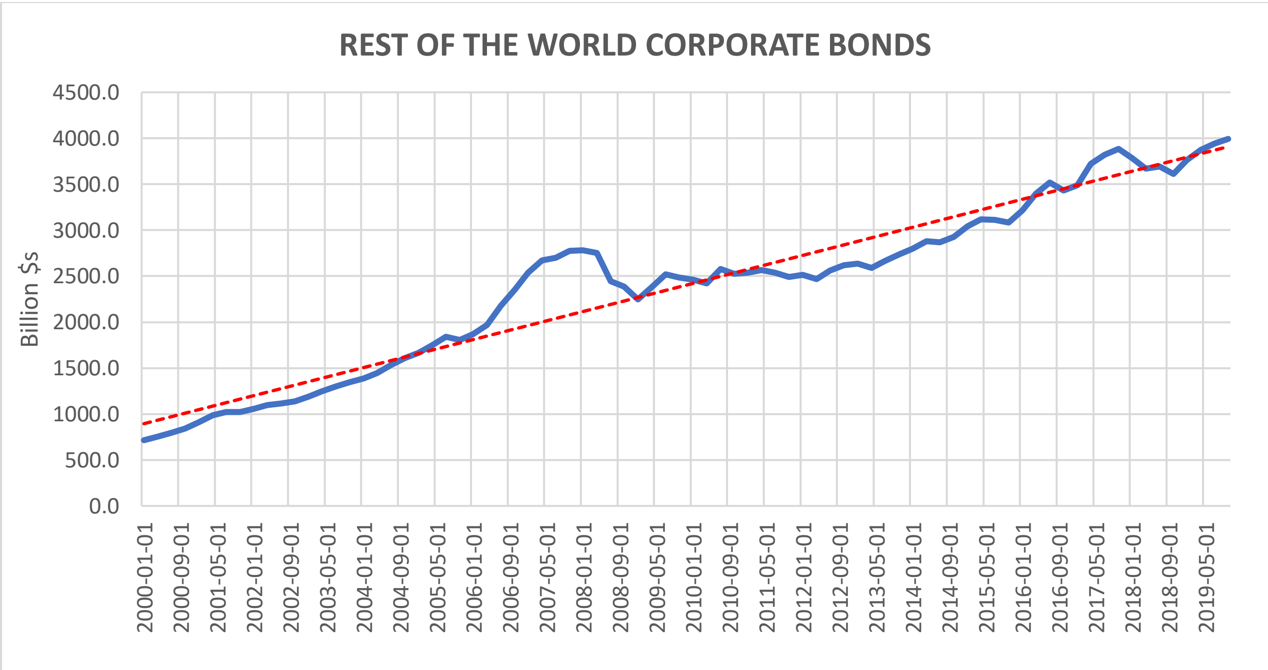
Source: FRED Table CBLBSNNCB

Graph 4 shows a sharp acceleration post 2008 in the issuance of bonds. Pre-2008 the quarterly issuance of bonds increased in nominal terms by 0.8%, compared to 2.1% post-2009. The proof that most of this borrowing was not spent on investment is to be found in Graph 5 below. This interesting Graph compares the relationship between Business Loans and Net Investment. The black line at 0 is business loans, and the Blue Graph is net investment relative to that line. From 1996 to 2006 business loans and net investment converge. But notice after 2009, how investment falls below the line with only one exception, 2012. Moreover, look at how it plunges towards the end of the decade.

Graph 5.

The failure of the pseudo recession to erupt into a full-blown recession has saddled capitalism with substantial additional corporate debt. The total outstanding corporate debt as of February stood at $10 trillion. In this financial crash, corporate bonds is ground zero. Corporate debt built up elsewhere. The same pattern is to be found in the rest of the world, with issuance accelerating from 2015.

Graph 6.



Source: FRED Table BOGZ1LM263063005Q

Corporate Bonds, it is agreed by most analysists, is the primary debt concern. However, before we examine this in detail, we need to take a short tour around leverage. It is the question of leverage; how pervasive it is and its weight, which will determine the profile of the crash, just as it did in 2008 with the leverage on sub-prime mortgages.

Leverage

Before proceeding we need to take a brief tour of leverage. There are two tiers of fictitious capital. Primary and secondary, or tier 1 and tier 2. Primary paper is a direct claim on income (value) such as shares (dividends) or bonds (interest). Secondary paper, or leverage, or derivatives, is a bet on the movement of primary paper. Its profits or losses are generated by the movement in the price of the primary paper alone. In vulgar terms, the holders of primary paper are parasitic on productive workers while the holders of secondary paper are parasitic on the capitalist rentiers who hold primary paper.

In short, the holders of secondary paper force the holders of primary paper to share part of their revenue with them through a reduction in yield. Or put another way, in normal times leverage drives up the price of bonds and shares. This means that to achieve the same return, say a dollar of interest, now requires a larger investment. In extremis leverage changes the order of things. Now it is capital gains that takes precedence over revenue or income, rather than the other way around.

What leverage cannot do is increase the revenue stream. That is finite. It is the quantum of surplus value that arises from the rate of exploitation times the number of productive workers times the number of hours they work each year. This yields currently around $30 trillion per year. All leverage achieves is to create more proboscises feeding off this pool of value generated by workers, and it finances lots and lots of large and tall buildings to house these proboscises and their agents.

There are a lot of myths about leverage. Most “experts” use the gross figure to determine the size of the derivative pool. But the netted-out figure is far smaller as the latest data from the International Bank of Settlements shows. Figures are in Trillions of Dollars.

Notional amounts outstanding				**Gross market value**			
H2 2017	H1 2018	H2 2018	H1 2019	H2 2017	H1 2018	H2 2018	H1 2019
531,911	594,832	544,383	640,442	10,956	10,326	9,662	12,061
Leverage				48.55x	57.6x	56.3x	53.1x

(Source: https://stats.bis.org/statx/srs/table/d5.1?f=pdf)

The notional amount is the derivatives outstanding. The gross market value is the “capital” financing it. Compared to the global primary market of tradeable primary paper amounting to at least $180 trillion of “capital”, the $12 trillion in the first half of 2019 amounted to only 7% of that figure. But leverage counts. In 2008 the value of sub-prime mortgages amounted to $2 trillion, not enough to generate the losses that almost sunk the world economy. But when one takes leverage of around 30 into account, that figure jumps to $60 trillion which was not far off global GDP at the time. https://www.forbes.com/sites/stevedenning/2011/11/22/5086/#86907e0f92f1

There are three additional factors to take into account. Firstly, the life span of most derivatives is measured in months, whereas primary paper can endure for decades. Secondly, violent downward movements in the price of primary paper leads to paper losses, whereas in derivatives it leads to cash losses through a combination of margin calls and forced closure of the derivative. Finally, many derivatives require the delivery of primary paper itself, which normally is insignificant, except in an emergency where deliveries shoot up to cover large price movements, thereby dislocating the primary markets themselves.

The week that was.

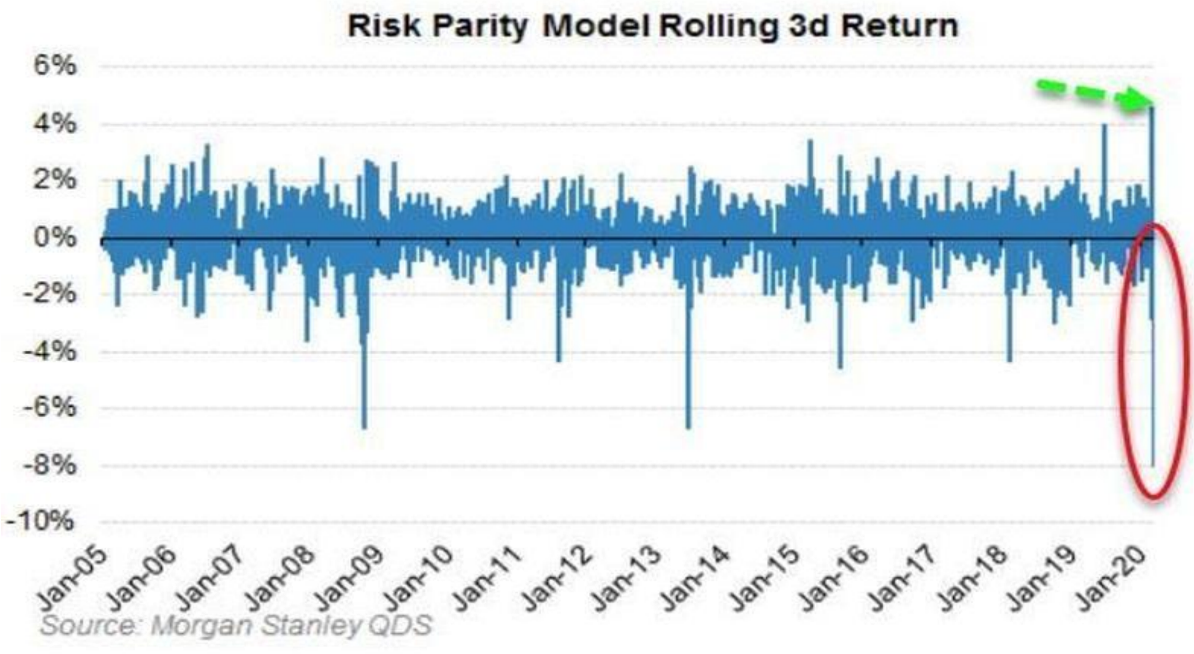
Modern Financial crashes, at least the ones occurring during the last 30 years, generally begin in the derivatives market. According to the BIS quoted above, equity related derivatives amounted to $3.2 trillion gross and $0.23 trillion net, giving a leverage of 14. Interest rate derivatives in US dollars was **sixty** times as big or close to $200 trillion gross.

The principal trade responsible for disrupting the bond market last week is called “Risk Parity Equity”, which combines two legs, equity and bonds (interest). This market is considered to be worth $2.5 trillion though only when it has crashed will we find out how big it was. Generally, share prices and bond prices tend to move in predictably opposing directions. Why bet on only one-leg, say equities, when you can bet on this two-leg split, which makes you typically a third more money?

Normally this risk parity is managed by juggling the proportions of bonds and shares held. What happened on Wednesday and Thursday was that this relationship broke down. Instead of the price of bonds rising as share prices fell, bond prices fell alongside falling share prices overwhelming the ability of these funds to exchange shares for bonds.

The reason for this was that the market in US treasury bonds had seized up following a near collapse in a new 30-year offering. It must be appreciated that the US treasury market is one of the deepest, largest and most liquid market in the world in normal times. On its broad shoulders rest trillions of dollars of bets and a whole host of secondary financial instruments which trade globally.. When a rare seizure occurs, it imperils all those bets. Margin calls proliferate and to meet them assets have to be sold. J P Morgan wrote that 9 years of leverage in this market was unwound in three weeks. Worse than in 2008.

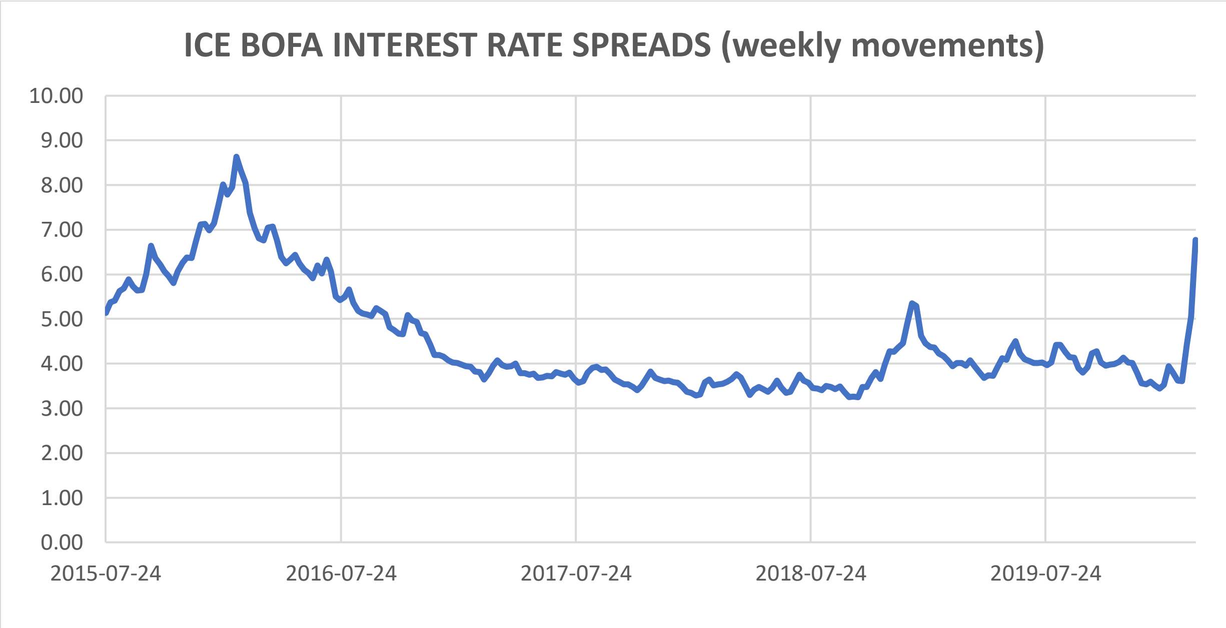
Graph 7.



The New York Fed was forced to act to rescue this vital market upon which the functioning of the economy depends. This was the reason the FED injected between $1 and $4 trillion (eventually) into the REPO market while increasing the term length of loans on offer. This market it must be said is many times larger and more significant than the sub-prime market in 2008.

In my previous article I said it was too early to say whether or not the contagion had spread from the stock to the bond markets. The evidence is now in, and it has. Over the last two weeks the ICE spread has spiked 3.5% or the same as in the second half of 2015. However, what took 5 months in 2015 took only two weeks in 2020. We are reminded again at the rapidity with which markets turned this time. Unparalleled. (I have attached the spreadsheet to show the ICE spread is much lower than the high teens reached in 2009, meaning there is still a long way to go.)

Graph 8.

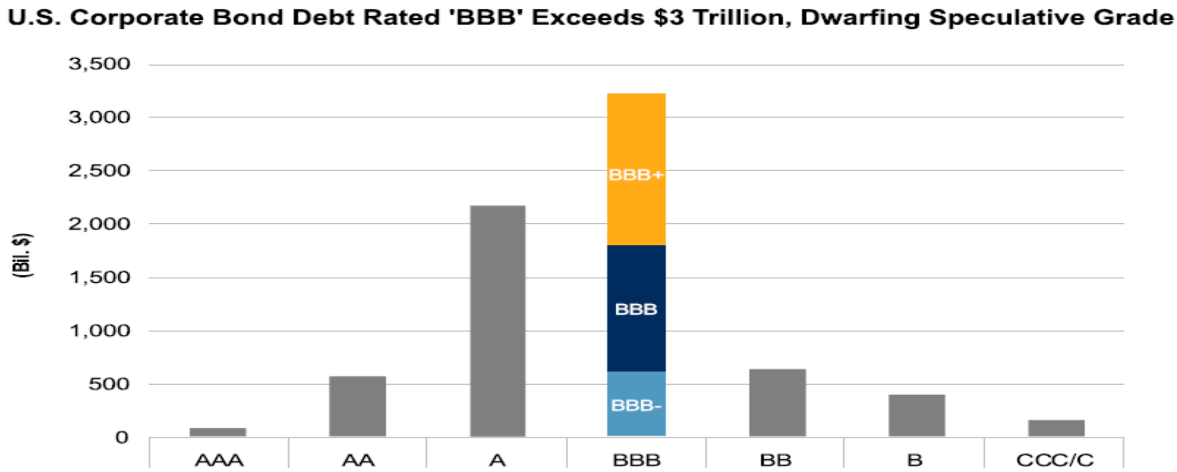


BAMLH0A0HYM2

BBB rated corporate bonds dominates corporate bond issuance as the graph below shows.

Graph 9

Chart 1

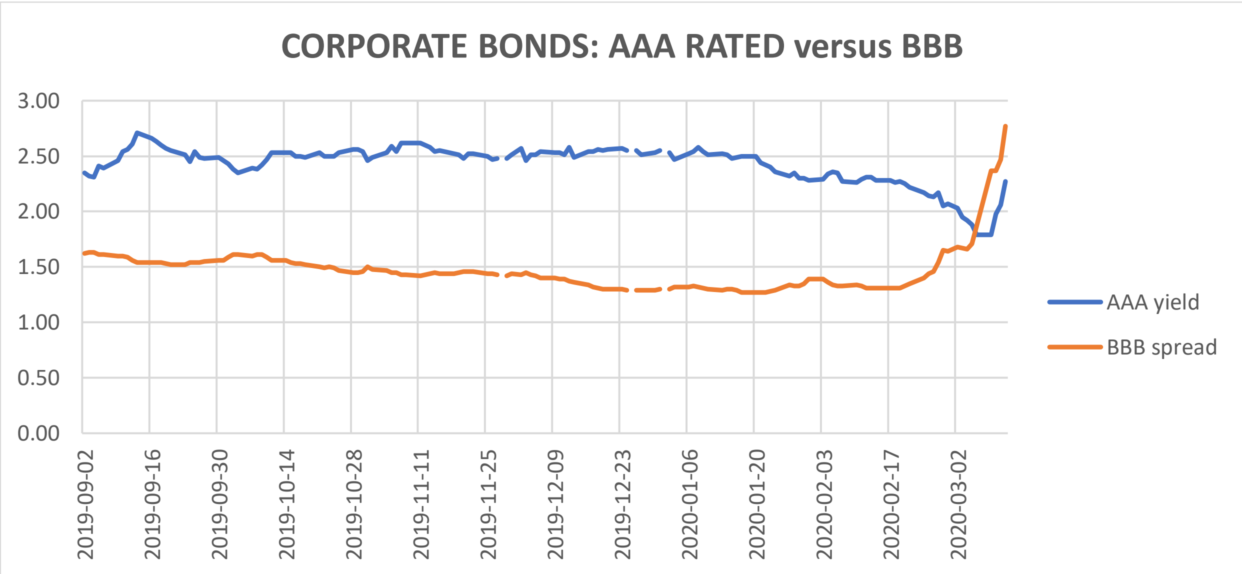


Note: Chart shows the face value of U.S. corporate bonds rated by S&P Global Ratings. Includes bonds from financial and nonfinancial corporates; excludes term loans and revolving credit facilities. Data as of Jan. 1, 2019. Source: S&P Global Fixed Income Research.

https://www.spglobal.com/en/research-insights/articles/the-bbb-u-s-bond-market-exceeds-3-trillion

THE BBB market remains the focus of concern. These bonds are the lowest rated investment grade bonds issued. Current outstanding global BBB stands at over $10 trillion of which $3.5 trillion is in the US. Any downrating to BB and lower robs these bonds of their investment grade status, forcing institutional investors to dump them. This would cause a high magnitude shock to the entire bond market and imperil many corporations who would no longer be able to issue investment grade bonds. It would effectively end the decade old regime of compressed rates between low-grade and high-grade bonds. In the graph below which compares the highest yielding bonds AAA to BBB spreads we note two facts. Firstly, that the relationship between the two has become inverted. Secondly, that the spread has doubled in two weeks despite the uptick in AAA yields. There is a secondary observation. Up to mid-February credit conditions continued to be increasingly benign as shown by BBB spreads residing below AAA rates. Hence this week's swift turnabout has been brutal for the markets.

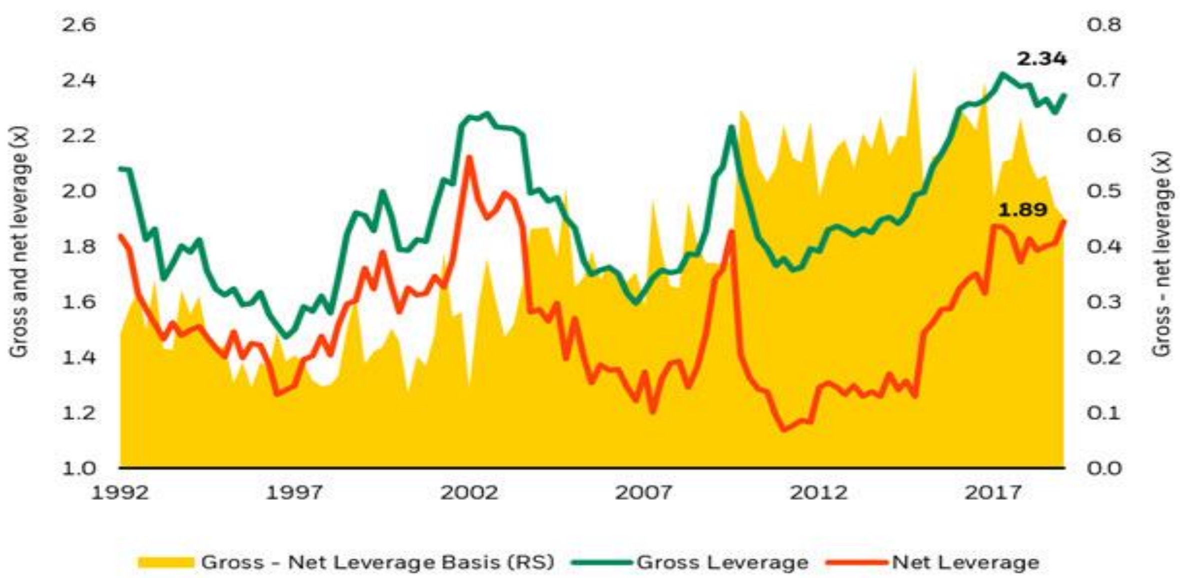
Graph 10.



(Source: FRED Tables BAMLC0A1CAAAEY for AAA & BAMLC0A4CBBB for BBB.)

Leverage levels are also at a high for both grades of Bonds, meaning the propensity to default is greater for any given economic event.

Graph 11.



https://www.blackrock.com/institutions/en-us/insights/investment-actions/assessing-risks-in-bbb-corporate-bonds

Net leverage is well above the level found in 2008 and is approaching the record levels found in 1992. This is one of the reasons why 2008 was in many ways, an aberration, something which occurred in the retail market rather than in production itself. For that reason, a crisis in the corporate bond market, rather than the residential mortgage market, will be much more consequential and enduring.

Revolving Credit lines.

On Wednesday Boeing the distressed aero maker shocked the market by drawing down its full tranche of revolving credit with various banks amounting to $13.825 billion. This was not so much a lack of confidence in its own financial future but in the banking system itself. Revolving Credit or as it is colloquially called, Revolvers, is equivalent to an overdraft facility. In this context it is better compared to a corporate ATM machine, and, we know where a rush to empty ATMs leads to. In 2008 the name given to this behaviour, was behaviour driven by risk of procyclicality.

Boeing's actions caused many other large corporates to draw down their own facilities as well as hundreds of smaller corporations. Generally, the drawees came from those sectors most affected by the virus, such as the owners of cruise liners and so on, who would not survive were these facilities to be pulled by banks fearing the solvency of these corporations. This run has the potential to deplete banking reserves, particularly of the smaller banks, unless the treasury steps in with a remodelled TARP.

One patch that has no revolvers and will not receive any additional credit is the tight oil industry, the land of the walking derrick dead. Trump's offer to bail out the sector was widely rebuffed, so he bought petrol to shove into the strategic reserve instead. The reason he was rebuffed was because financiers were concerned at his throwing of good money after bad, instead they suggested, it was far better to replace bad money with good money by bailing out the reckless banks that lent these "oilmen" the money in the first place.

The Stock Market.

Liquidity seized up in the markets. The FRA/OIS spread below is a key indicator of this. (Note 1.)

Graph 12.

https://www.zerohedge.com/markets/something-breaking-fed-fails-ease-epic-dollar-shortage-fraois-goes-parabolic

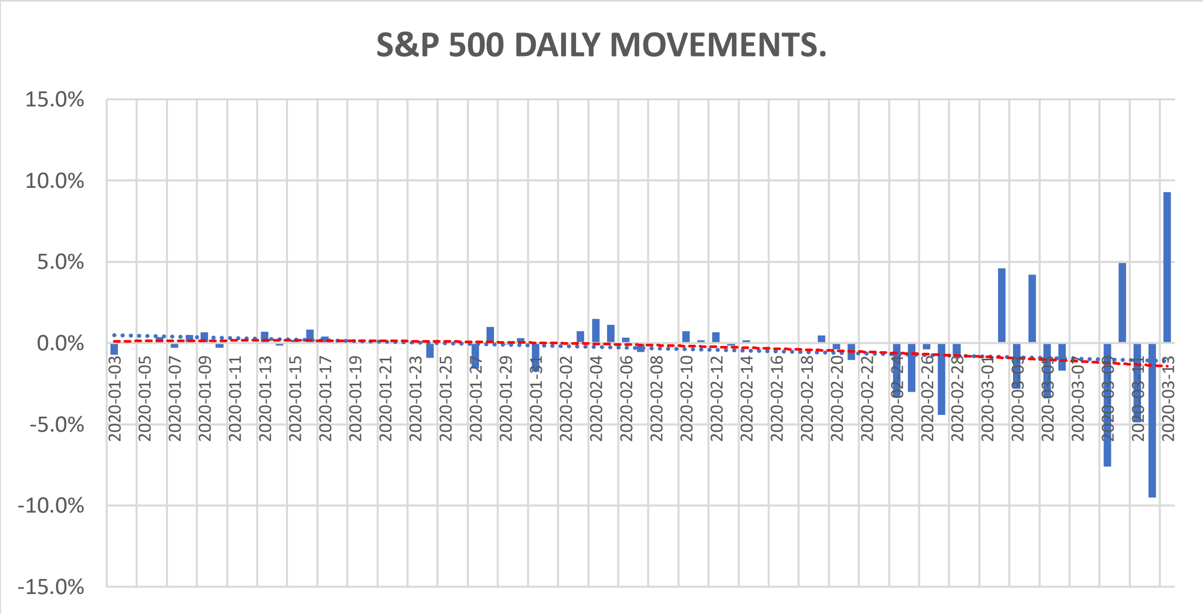
OIS means Overnight Index Swap and FRA means the Forward Rate Agreement. Its not necessary to go into detail about this nice little earner, except to say this spread is often used to provide insight into conditions in the various markets. We note it has spiked to levels last seen in the aftermath of the 2008 financial crisis when the world financial system almost seized up. This represents financial tightening, or what is the same thing the lack of liquidity in the markets.

The lack of liquidity always leads to volatility. Spreads between buyer and seller open up. A sale order of a given magnitude, which before would have caused hardly a ripple, now creates a cascade. The volatility last week was epic. This was evidenced by the behaviour of the VIX. This is the insurance policy (derivative) bought to protect against rapid price changes. The higher the VIX the more it costs to protect against unexpected price movements. Thus, an elevated VIX is always found amidst elevated volatility. At 75.7 currently, the VIX has exceeded its previous high of 60 in October 2008.

Graph 13.

The volatility on the stock markets last week was epic. This can be seen in Graph 14 below which plots daily movements of the S&P 500 from the beginning of the year. Before the 19th of February, daily movements were below 2%, after that they regularly exceed 2%, even 5%. These movements reached a crescendo last week. On Thursday the market fell 9.5% (the worst since 1987) and then bounced back 9.3% (the largest jump in history). In researching the matter, I have found no evidence of such a back to back event ever.

Graph 14.



(Source: FRED Table SP500.)

The outlook.

Central bankers fired blanks last week. Lagarde's presidential address as head of the European Central Bank went down very badly. She was forced to repeat the address in order to retract some of the assertions she had made earlier. The FED's huge, trillion dollars huge, intervention was ignored by the markets on the day. It appears the god like stature of Central Bank Governors has been smashed.

What revived the markets on Friday was TARP. Government officials around the world announced they would do whatever it took to support stricken companies with government aid. Trump who had made a fool of himself and the markets in his Wednesday appearance, was obviously tutored for his Friday appearance, during which he was more assertive and collaborationist. Additionally, Congress had agreed to wave its recess in order to draw up an emergency package. Thus, the markets felt confident the governments would have their back.

It is therefore likely that the extreme volatility found this week will not repeat itself next week. Markets will continue to sit in a bear market and the medium projection is for further falls to below 40% and beyond. It is now being increasingly recognised that the virus is established in the human race and that it will continue to plague populations every winter. Therefore until, and unless a vaccine is found, the financial fear will persist, unless of course the medical profession capitulates allowing the virus to run its course on the basis of widespread testing, thereby minimising the economic costs of containment.

The black swan in the USA has yet to unfurl its wings. The government's response to the epidemic there has been woeful, in inverse proportion to the lies put out by Trump. By Monday less than 7,000 Americans (North) had been tested. When the CDC reported to Congress on Friday, 11,000 had, a tally of 1,000 a day, disgraceful. The World Health Organisation had offered the CDC test kits, but this had been declined. After all, making America Great is about blaming foreigners not accepting help from them. On the other hand, the Chinese are on top of their outbreak. They are scoring lots of points by now sending teams of Chinese specialists to corona hot spots such as Italy and Spain to advise and assist.

Until the USA starts widespread testing, the markets are not protected from the virus. If the governor of Ohio's estimate is accurate, namely that over 100,000 are infected in the state, and, if this is replicated around the country, then the outbreak could be affecting millions of Americans (North). If testing in the weeks ahead proves this, it is likely to sharply jolt the markets once again. The question is: has the administration, just as in Britain, deliberately under-tested in order to keep the lights on and the shop doors open? Once again that toxic special relationship. Two bodies one head.

It is likely that the TARP like interventions will be highly inflationary. The FED will get its wish, inflation roaring past 2%. The reason will be the imbalance between value production and the monetary equivalent. Forcing money into a market where the production of value is plummeting, means money chasing fewer goods. If this money is put into the hands of those who need to spend it, such as employees without wages, it will be spent. This is in contrast to QE which put money into the pockets of high earners who speculated with it driving up the price of assets rather than of goods, except of course luxury goods.

Originally, I was of the opinion that capitalism could not manage the challenges it faced. There were four interconnected challenges. The first was a moribund world economy relying on falling standards of living. The second was the struggle for economic hegemony between the USA and China which potentiated war. (Note 2.) The third was the march of AI which threatened the jobs of whole layers of workers both blue and white collar. The fourth was global warming. I did not anticipate a fifth, the corona virus.

In the end the virus will not kill of capitalism. Only the class struggle can. What the virus does highlight is how capitalism threatens humanity and its gains. If society is to move forward to protect itself and repair the planet it has to do away with private ownership of the means of production, the land, and information. There is no other safe option.

Note 1. Zero Hedge is a useful site populated by capitalist purists, radicals who believe that the way capitalism has evolved is a heresy and central banks an abomination. Because they are critical of the way capitalism works today, they do not hold back in their research. Rather they are keen to highlight the shortcomings of the system, which means their research often provides valuable insights into the functioning of the markets. So, hold your nose so as not to be put off by their politics and visit the site to read their economic articles.

Note 2. The virus has shown how inter-connected the world continues to be. It has provoked a discussion on the advantages of ending the trade war and working towards deeper co-operation. Time will tell.

Brian Green 15th March 2020.