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HOW THE CORONA VIRUS IS IMPACTING THE MARKET

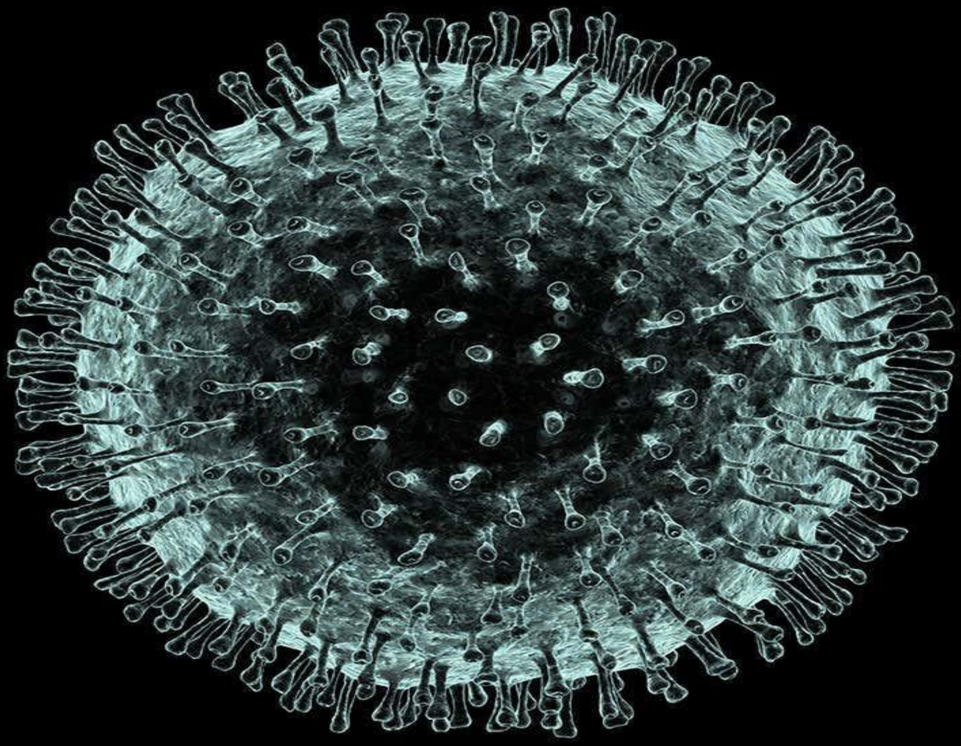


Table of Contents

Chapter 1

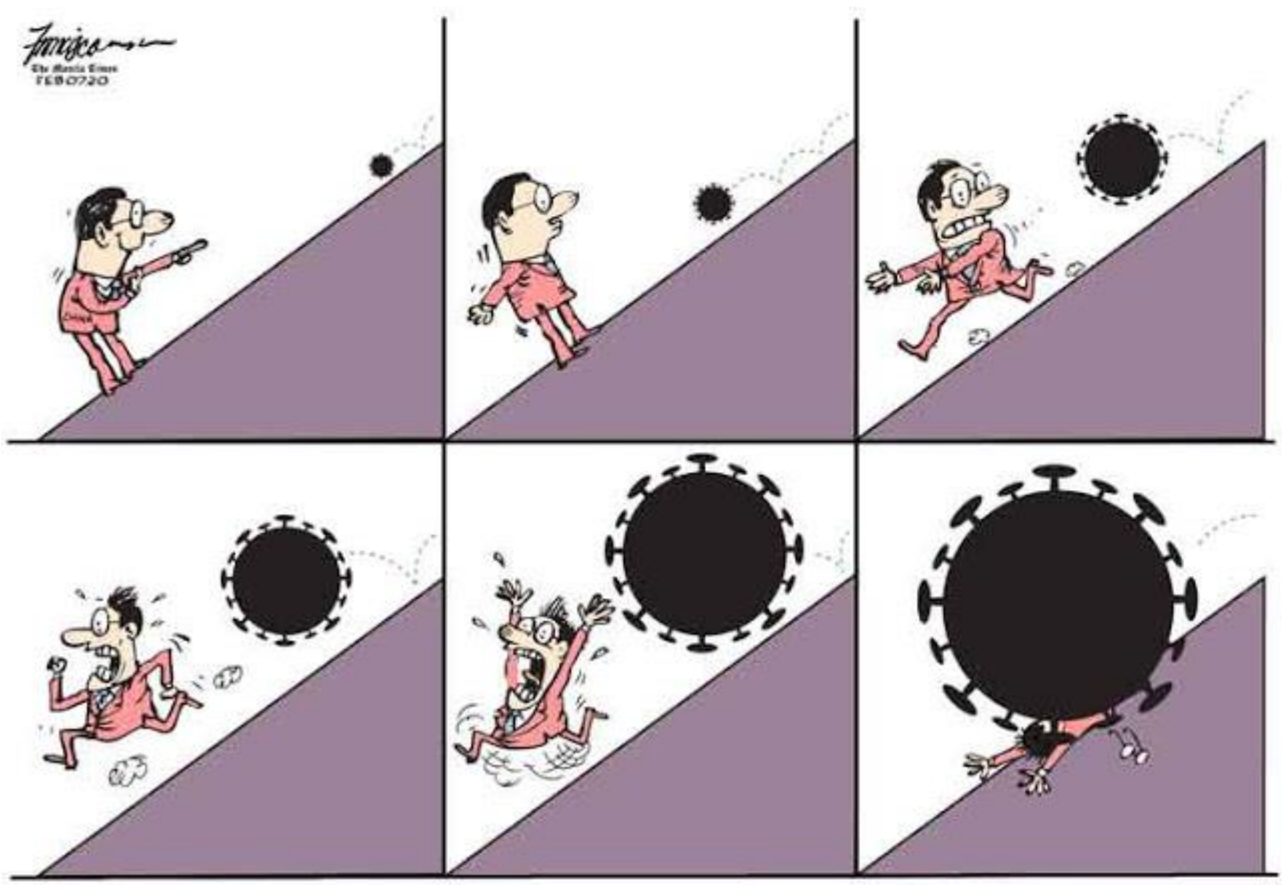
A Short History Of Superflu Pandemics

I was saying in my post on 24th February that if COVID-19 broke out to become a global pandemic then it would perhaps be the most predictable natural disaster in human history and this post is to explain why that is, and also the look at in detail how this is different from the normal surge in influenza cases that is seen in the winter months every year.
The image below was taken during the recent COVID-19 decontamination of Dolmabahce Palace in Istanbul and I'm posting it just because it is a beautiful image, and seems appropriate to use in a historical look at this kind of pandemic:

First though, I'll have a look at the stats we have seen in recent weeks on the spread of COVID-19 worldwide, and compare them to the numbers I was looking at in my post on 18th February. On 18th February there were 73,451 confirmed cases and, of those, there were about 1100 cases outside China. That was 30 days ago, and in the meantime cases outside China cases have risen to 154,546. Over that time therefore, cases outside China have been doubling approximately every four days and, just to put that in perspective, if cases were to increase at that same rate for another thirty days, then confirmed cases outside China at that point would exceed 20 million. To put that number in perspective it is estimated that in the 1889 pandemic, the 'Russian Flu', about 40% of the world population was infected, and in 1918, the 'Spanish Flu', about a third of the world population was infected.

In terms of the fatality rate, in terms of reported deaths per confirmed case that was about 2.5% on 18th February, and that has risen to about 4.15% now. The fatality rate in terms of reported deaths versus reported deaths per reported recovery that has dropped a bit from the 14% on 18th February to about 11.52% now. Overall the true eventual fatality rate may be between those numbers, I was suggesting 5% to 10% range on 18th February and that still looks reasonable, lower than SARS at 10% and a lot less than the more virulent Mediterranean version MERS at about 35%, though all of those numbers would likely be higher than the real numbers, as they would exclude many cases never picked up because those infected were asymptomatic or developed only mild symptoms.
On to the history.

The symptoms of human influenza were first described by Hippocrates about 2400 years ago, so flu in various forms has been with us for much of, and possibly all, of recorded history. In that time there have been many flu pandemics, though the further back that was, the harder it is to distinguish these from other disease pandemics, due to the lack of detail in the older historical records. In the first instance most of these pandemics were easy to confuse with the regular flu casualties in the winter months, but the difference was that the virus was a new strain to which humans had not yet developed immunity. After the first wave or three that immunity would develop in human populations and the virus would just become another of the many flu pandemic has-beens that return in the winters. Any new strain starts small, and unless you are familiar with the history of these pandemics, appears unthreatening in the early stages:



The fact that a new strain of influenza is new is the key difference, as exposure over time builds both herd and individual immunities, reducing the impact of subsequent outbreaks. The key example to illustrate that would be when Columbus 'discovered' the Americas. I say 'discovered' as the existence of the Americas was no surprise to the many people who already lived there, but the important point here is that at that point two human populations that had been isolated from each other for a long period, during which both had been exposed to, and built immunity to, those new diseases that had emerged during that period of isolation, introduced those diseases to another population that had not previously been exposed to them. The impact was dramatic.

In Hispaniola (modern Dominican Republic and Haiti), the Taino people who encountered the Columbus expedition in 1492 had a population of 250,000 at that time. By 1517 only 14,000 remained. The impact of the new european diseases on the native american population killed by some estimates perhaps as much as 90% of that population in the decades after they were exposed to them.

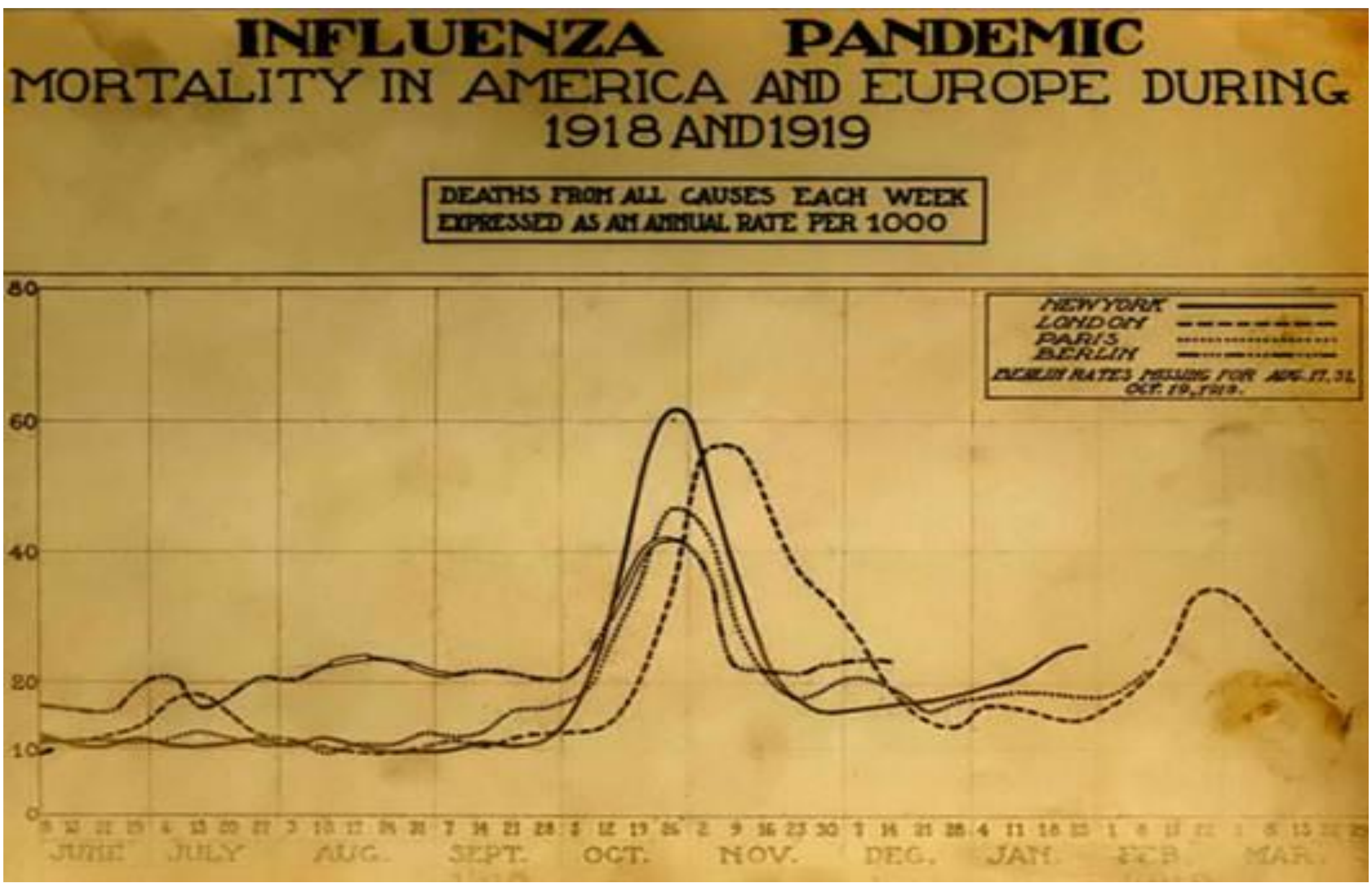
That works both ways of course, though the more populous europeans, also exposed historically to diseases originating in Asia and Africa, brought most of the new diseases to this exchange. It is argued by many historians that in return syphilis was introduced to Europe, initially in a very virulent form where the flesh would melt off the body, and death would be within week or months, rather than the decades that the later and milder forms of the disease took. This was a disease that had a huge impact on Europe over subsequent centuries, though not comparable in scale of course to the devastating impact of the diseases introduced to the american populations.

The point is that a new disease, or new strain of an existing disease, has a disproportionate impact as it first sweeps though the population, and every so often, as a sufficiently virulent new influenza variant develops and makes the step from animals or birds to humans, then it develops into a pandemic that can have a major impact, depending on the communicability of the variant and the parts of the population most vulnerable to it.

Over the last few centuries the first generally agreed influenza pandemic started in Asia in 1580, another started in Russia in 1729, another two started in China in 1781 and then 1830-3 and then the first 'modern' pandemic started in Russia in 1889, and for this and subsequent epidemics we have reasonably detailed numbers. There will most likely have been numerous other pandemics not listed before 'modern' times but only those with higher death rates will have made it into the records.

In this ‘modern’ period there have been five previous superflu (new variant) pandemics that infected at minimum 250 million people, and these were the Russian Flu in 1889-90, the Spanish Flu (originating region unknown but unlikely to be Spain) in 1918-20, the Asian Flu in 1957-8, the Hong Kong Flu in 1968-9, and the 2009-10 Flu (mixed american and asian variants). Four of these pandemics, all except the Spanish Flu, had relatively low death rates in the 0.03% (2009-10) to less than 0.3% (Russian, Asian and Hong Kong Flus), but the Spanish Flu had a much larger impact as the death rate was at least 2%, killing somewhere between 20 to 100 million people worldwide, out of a global population of about 1.8 billion at the time.

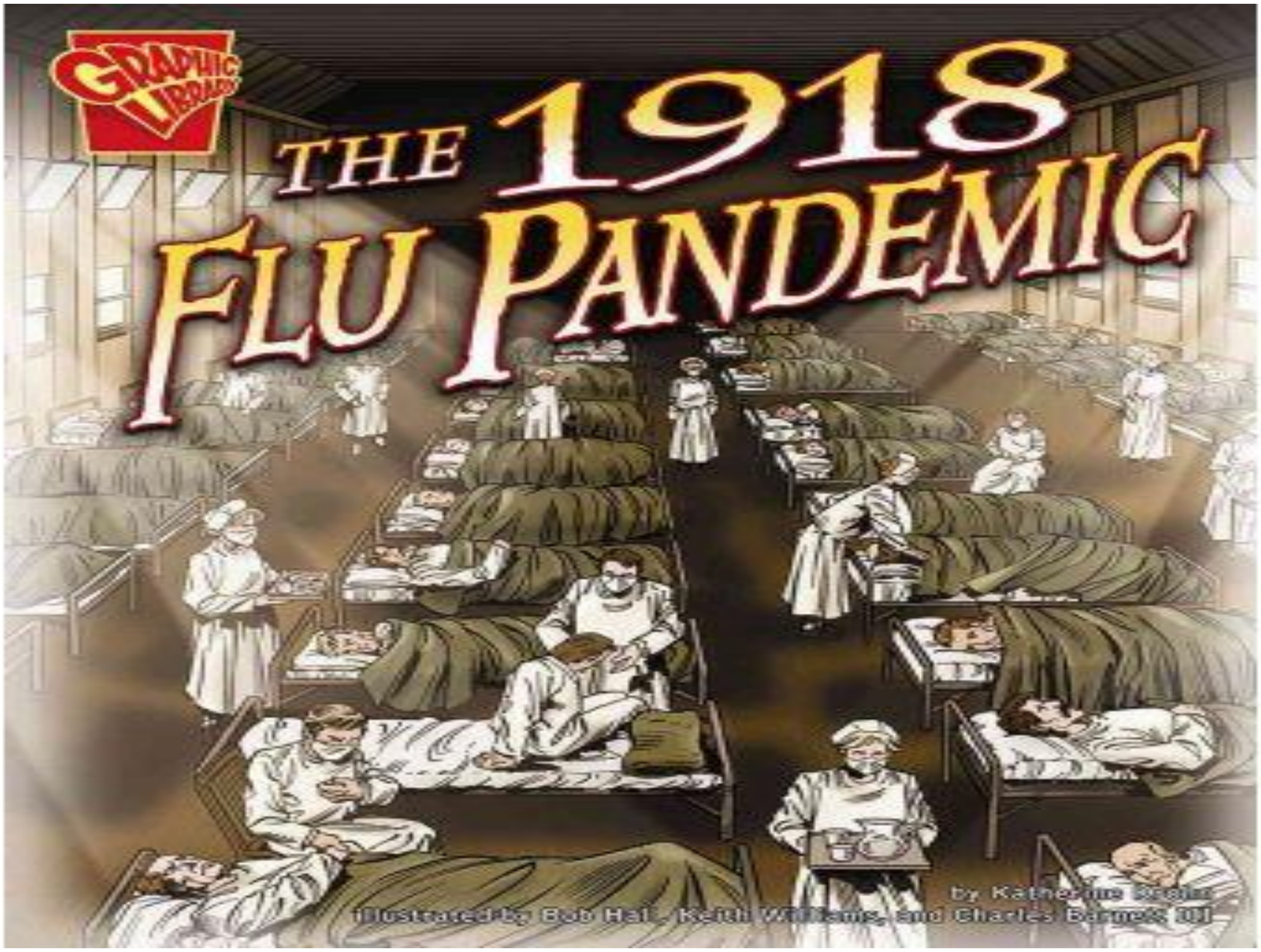
The Spanish Flu also had a disproportionate impact as unlike most superflu pandemics, which preferentially killed higher proportions of the very young, the old and the weak, the Spanish Flu epidemic preferentially killed the young and strong, as they were killed by their stronger immune systems, triggering something called a Cytokine Storm where an immune overreaction killed the virus hosts.



I've been reading about these epidemics since I was a teenager, as I've always been interested in history and read widely, so I've been watching new possible pandemic candidates as they've emerged and petered out over recent decades, such as SARS and MERS, or widened into pandemics with low death rates such as the 2009 epidemic. When I was writing on 4th February about the coronavirus post that I was going to write I was therefore already alarmed about this new variant, and astounded by the obvious lack of preparation that governments had in place for containing any new superflu pandemic, as it has just been always been a matter of time before the new superflu pandemic would emerge, likely from China, and every so often one of those pandemics would be virulent enough to kill millions of people. Governments should have been aware of this risk and at least somewhat prepared for this eventuality, and I remain astonished that this has caught them so unprepared.

So what about COVID-19? Well the fatality rate is still a work in progress, but it already looks at least comparable to the Spanish Flu from 1918-20. In terms of the sections of the population most vulnerable to the disease the numbers so far suggest strongly that the very young are among the least likely to die, which is unusual, but that the most likely to die are the most predictable groups, the old, the ill, the obese and the smokers, and that among these groups the death rates may be over 10%, though these numbers likely exclude numerous cases that weren't identified because there were no symptoms. Western world populations have the oldest and most obese populations and that seems likely to be the reason that while Italy only has half the confirmed cases that China has admitted at 41k versus China's 81k, the number in deaths is now higher than in China. I would add a caveat here though in that while China may well have now stopped the progress of the pandemic, the quality of their numbers is nonetheless doubtful. Those particularly at highest risk are those in their 80s or 90s, and those with heart disease or diabetes.

So what is the overall health impact likely to be? Well the number infected has yet to be determined, and despite the very slow start that Western governments made in containing this pandemic, it may well be that the measures being taken mean that the proportion of the world population infected is considerably lower than the third of the world population infected in 1918-20. The outbreaks in Singapore and Hong Kong particularly seem to have been contained by swift and firm action and while they may not be typical in terms of their situations as islands with dense populations, that success may well be replicable elsewhere. The fatality rate might look higher on the numbers we have so far, but factoring in the large number of those infected (perhaps 50%) that seem to be asymptomatic or just develop mild symptoms, might be equivalent or lower than in 1918-20, with the deaths being in parts of the population that are less economically significant than in 1918-20.
The economic impact is another question of course. Much of China seems to have been shut down for at least a couple of months, and that is now happening in much of the rest of the world. This is reducing economic activity, reducing consumer spending and disrupting supply chains. This may well result in a world recession this year and, depending on the number of waves in this pandemic (there were three main waves in 1918-20), this may well reduce world economic activity for the next couple of years.



What about after that? Well historically periods where economic activity is significantly depressed by natural or human caused (notably war) disasters, tend to be followed by reconstructive periods of strong activity. The first world war and then the Spanish Flu developed into the roaring 1920s, and the second world war delivered an economic boom that lasted into the 1960s, with that boom being strongest and most durable in those most beaten down in the second world war such as Japan and Germany. The odds favor the period after this pandemic being a strong recovery, possibly considerably stronger than the generally tepid growth in much of the developed world since the financial crisis in 2007/8. We'll see.

I'm planning my next post over the weekend or on Monday, and that will be the bigger picture levels and targets for SPX on this move now that the major support at rising support from the 2009 low in the 2350 has been broken.

A couple of other announcements to make:

Stan and I are doing a free public Big Five and Key Sectors webinar tonight at theartofchart.net at the RTH close at 4pm EST. That's covering AAPL, AZN, FB, GOOG, NFLX, TSLA, IBB, IYR XLE, XLF, XLK, XRT. If you'd like to attend then you can sign up for that here.

We have also scheduled a special free public webinar at 4PM EDT Sunday 29th March to look at COVID-19 and the Financial Markets, and in that webinar we will be considering COVID-19's impact on the economy, systemic risk and impact on dealers, the Fed's actions and credit risk, and reviewing potential trading opportunities. Be There Or Be Unaware! If you'd like to attend you can sign up for that here.
This has been a very interesting and surprisingly predictable market to trade and we have been delivering a lot of impressive moves for subscribers. If you'd like to see some of this analysis before the market moves, you can get free access to that for a month just by signing up for a 30 day free trial at theartofchart.net on this page here. That gives you access to most of our analysis and particularly our subscriber only twitter feed where we post our intraday updates and targets. The trial is free for 30 days, at the end of which you can either cancel with no obligation or subscribe to one of our services.

Chapter 2

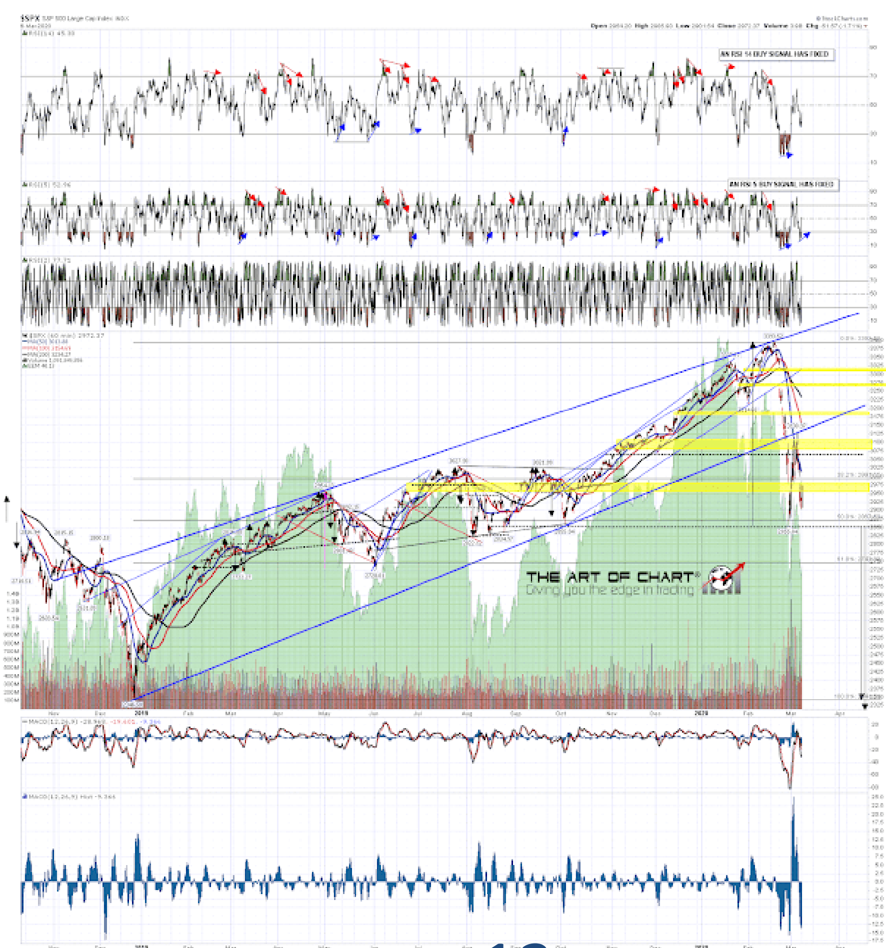
A Tale Of Two Cities

I live in Chester in the UK, and the government here has been gearing up heavily for a coronavirus COVID-19 outbreak. There have been dedicated facilities set up to test and treat those affected for several weeks now, and the government has made it very clear that it will take strong measures to combat any COVID-19 outbreak here, up to and including shutting down travel and quarantining entire cities if necessary. As the evidence so far worldwide suggests that a strong response can contain an outbreak this is very reassuring.

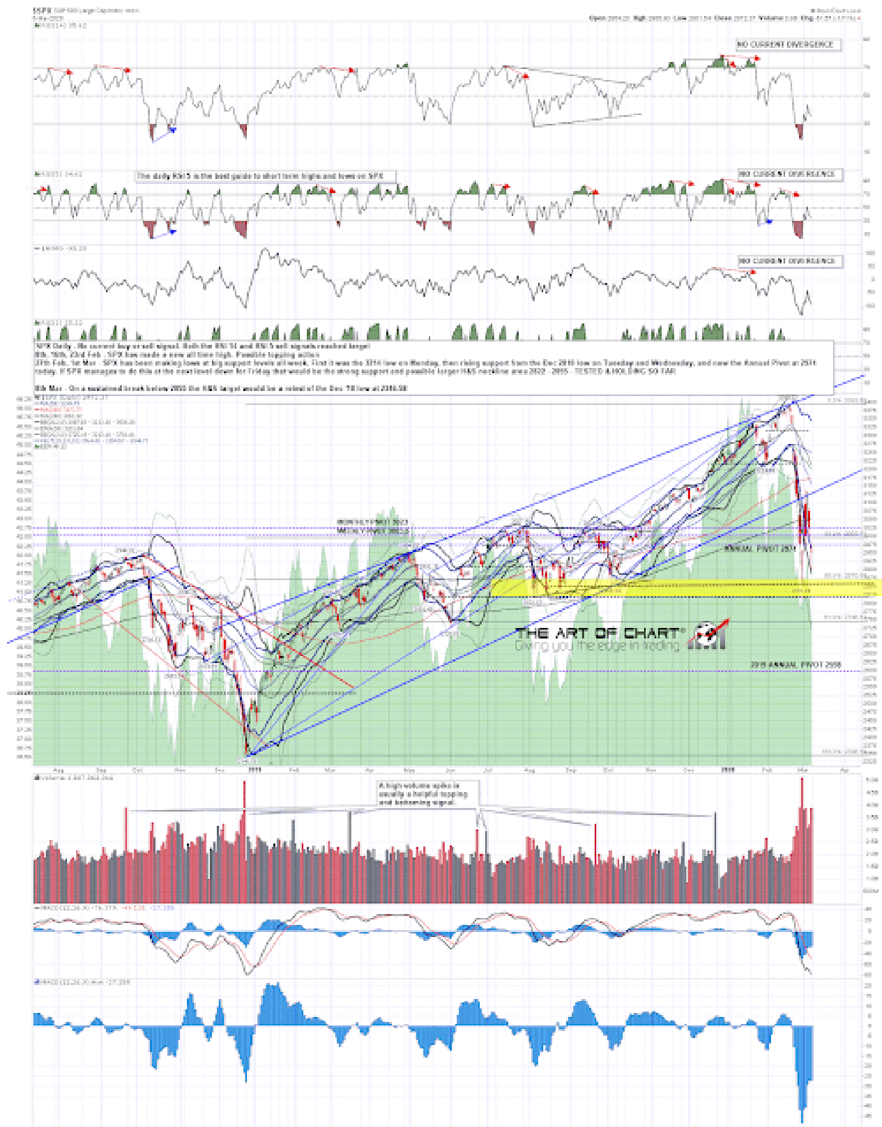
I have a friend living in Bedford Texas, and last week he was at a local hospital asking about COVID-19 preparation. He was told that in the event that it became an issue at all, it would most likely be less of a problem than the usual flu fatalities in any normal year, and that really it was nothing to worry about. Since then the first serious outbreaks have been detected in California, New York and other areas and we'll see whether this will prompt the serious response needed to contain COVID-19 in the US. In the meantime the US is still seriously behind the curve on this, and needs to catch up fast:

On the markets last night was strange to say the least. After US equity index futures hit 5% down from Friday's close they effectively shut down until the RTH open, when they immediately fell to 7% down, closing again for 15 minutes and then dropped again to find a low slightly over 2700. Since then they have been rallying but will likely see lower soon.

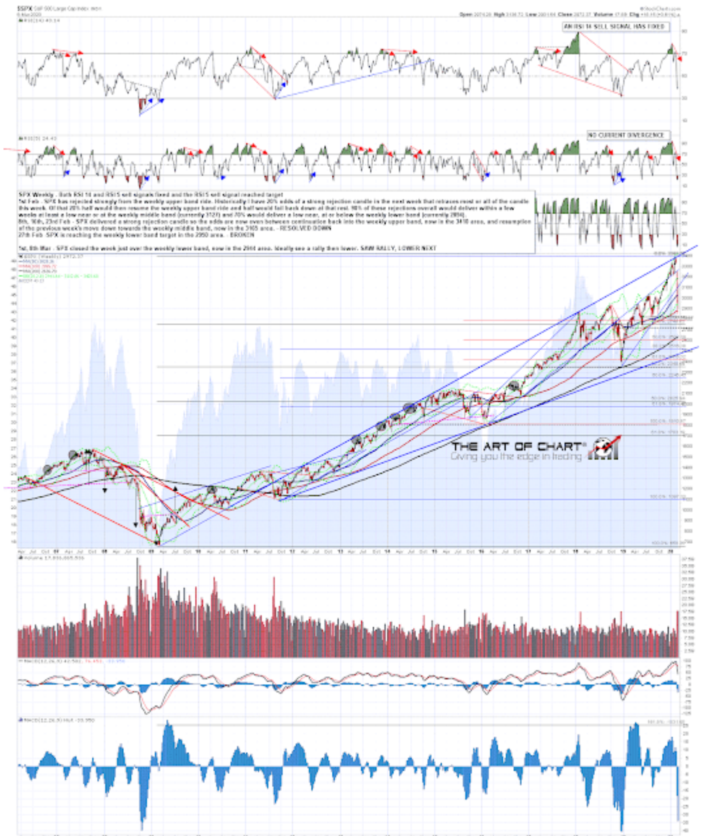
Another strange thing today is that stockcharts.com has been down since the open, so I'll be using the charts I did for subscribers yesterday, but those should be fine. In my last post on 28th February I was talking about the big rally that we should see on SPX and noted the two obvious bounce levels for that rally at the possible H&S necklines at 2856 and 2822. The low was at 2855, a whisker under that first level and the 50% retracement rally that followed was a somewhat high but still perfectly acceptable H&S right shoulder. That H&S has broken down at the open today of course, with a target at a full retracement back to the Dec 2018 low at 2346.58. If seen that would be below the rising megaphone support from the 2011 low currently in the 2500 area, and would be a decent match with rising support from the 2009 low. I've marked up the H&S below.
SPX 60min chart:



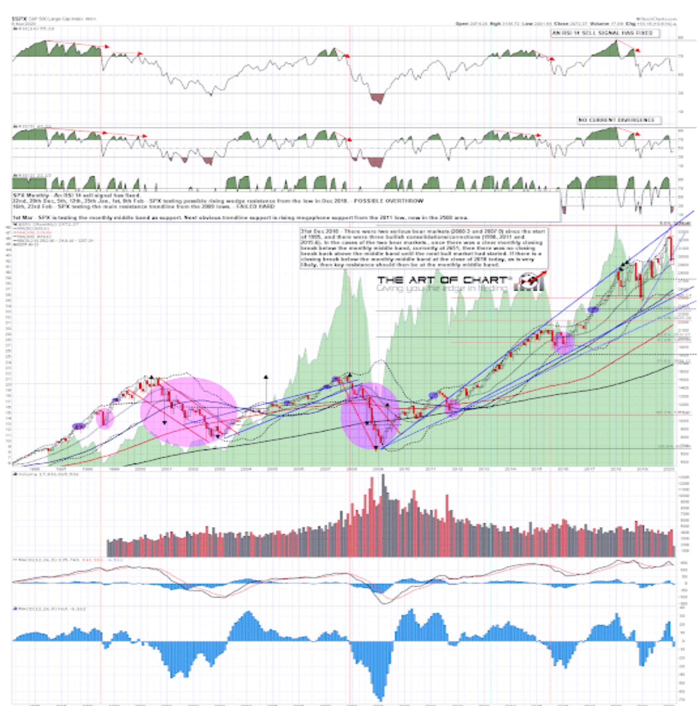
On the daily chart the daily sell signals have made target of course and, as and when stockcharts is back up, there may now be daily positive divergence, but I’d be pretty surprised to see a major reversal directly back up from here.
SPX daily chart:



On the SPX weekly chart there is an open RSI 14 sell signal that will likely reach target this week. This is the best chart to see the rising megaphone support trendline from the 2011 low, and this is now very much the obvious next big target.
SPX weekly chart:



On the SPX monthly chart you can see the rising support trendline from the 2009 low, currently in the 2350 area as I mentioned, and a strong match with the H&S target at a retest of the 2018 low at 2346.58. If seen, this area is a strong candidate for a low, or at least a big rally.
SPX monthly chart:



One question I was asked in my premarket video this morning was how much impact the Fed could expect to have in this news environment. Well they have already given us the rally high on SPX on the brief spike on the 0.5% rate cut last week. That didn't last long and as I recall from 2008/9, he impact the Fed was having in a very strong news environment was at best delayed for any sustained reaction. I don't think even a full percentage point cut at this stage would do more than rally the tape for a day or two, and perhaps not even that.

There is another issue here. In normal times the Fed would be cutting rates from a level that was a lot further from zero. Interest rates are already at historic lows and can't be cut much without resorting to negative interest rates, which might or might not be effective in any case as they have never been tried on any real scale. In terms of QE, in effect QE4, at a level higher than any of the previous three QE interventions, has already been running for several months and is still ongoing. The fact that the Fed has been avoiding calling this QE4 doesn't change the numbers, which are what they are. (Not) QE4 helped push markets into ever higher highs until recently, but hasn't done anything so far to slow this decline. To the contrary, pushing so much air into the markets over recent months has likely accelerated this decline so far. The Fed may not have much to offer here and markets likely just need to find a new level the old fashioned way.

Has the bull market from the 2009 low finished? If we see a break below rising support from the 2009 low then maybe, but I as was saying on 24th Feb, this is all likely to deliver a major buying opportunity later this year from a level we are unlikely to be close to yet. Best case on COVID-19 is that this outbreak peaks in April and currently cases outside China are still doubling every three days, so the next few weeks should be pretty interesting.
In the short term I'm watching the 2855-60 level today as the backtest of the broken H&S neckline. If reached, SPX may well turn back down towards lower lows there.

Chapter 3

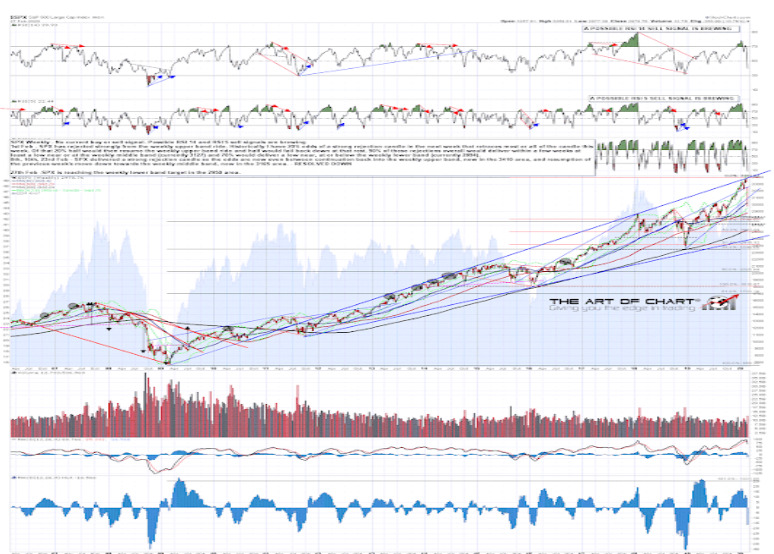
Falling Down The Steps

Well it has definitely been a week to remember, with the coronavirus outbreak taking position front and centre. I was expecting a strong reaction as and when this penny finally dropped, though not this fast I have to say. Let's review the bigger picture on SPX first.

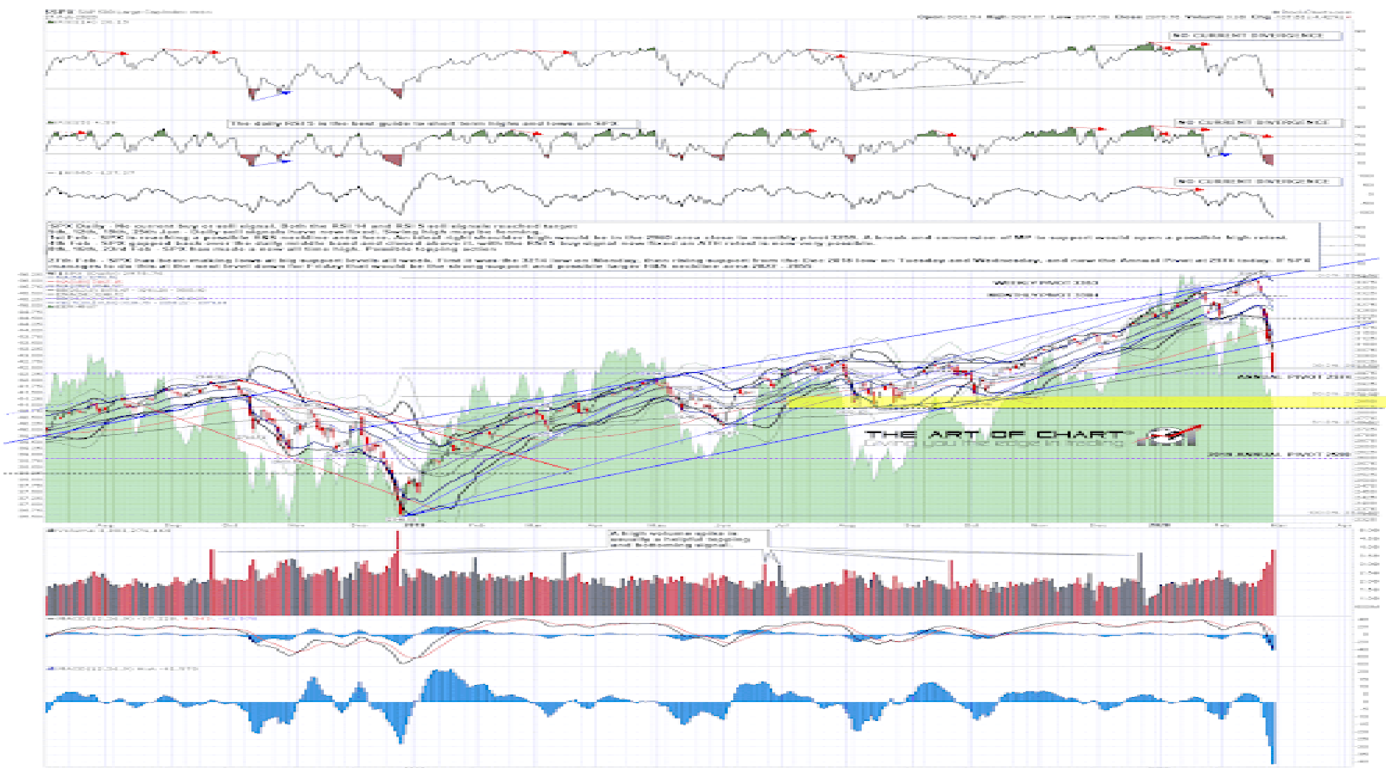
On the bigger picture I was noting (notes on the chart) at the start of February the stats after the relatively small decline that we had just seen, and we saw the 20% odds reversal candle that sometimes follows such a decline. At that point there were even odds of resuming either the weekly upper band ride or the decline, and SPX has taken the second option, and is now (overnight) below the lower target at the weekly lower band in the 2950 area.

On the way SPX has broken the rising wedge support trendline from the Dec 2018 low and reached the minimum 38.2% retracement target at 2993 yesterday. The more usual target would be the 50% retracement in the 2880 area, and that area has been reached overnight. The possible weekly sell signals that I've been watching will fix at the close tonight and, depending on where that close is, the weekly RSI 5 sell signal will almost certainly reach target, and the RSI 14 signal may reach the possible near miss target.

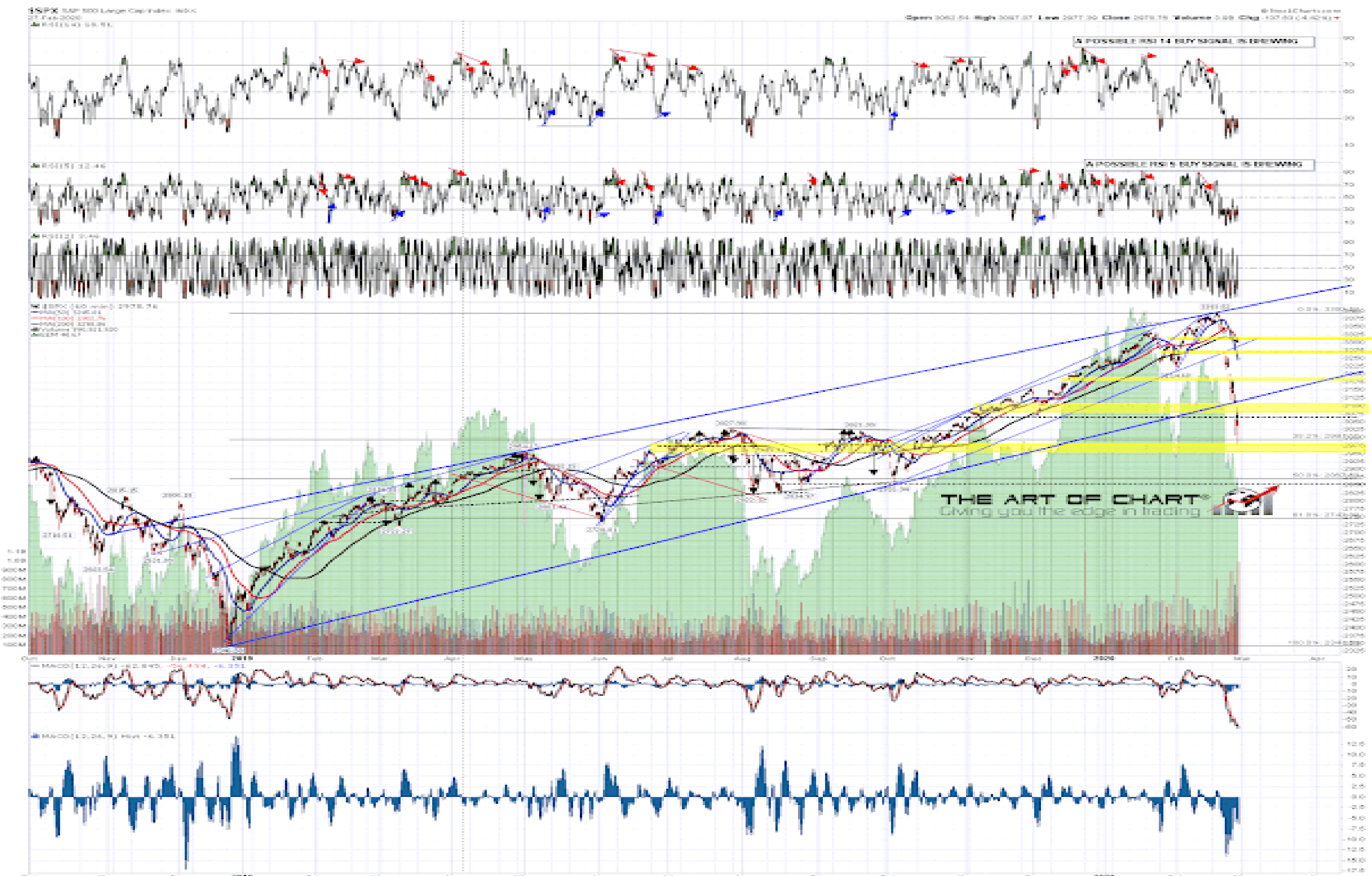
How well is this setting up for the move to the 2500 main trendline support that I was talking about on Monday? Well I'm concerned that an H&S forming from a neckline in the 2800s would look for a full retracement of the rising wedge back to the 2346.59 low, and that would break my support trendline, but that would also be a strong target because it would also be an almost exact 38.2% retracement of the rising megaphone from the 2011 low. If that extended into a 50% retracement that would be in the 2025 area, and that's about as low as I could see this move going, though that is higher than the 1800 that Goldman Sachs have been suggesting this week as a target.
SPX weekly chart:



The daily chart has been interesting, with SPX falling down the obvious support levels day by day. On Monday the low was at the prior low and possible H&S neckline at 3214, then on Tuesday and Wednesday the lows were at tests of the rising wedge support trendline from the Dec 2018 low, which was breaking slightly at the close and then followed through downwards overnight. Yesterday SPX bounced at 3000 support and then fell through to close just above the annual pivot at 2974. If we don't see the strong rally that we should really be seeing soon today, or if that starts today after a retest of the overnight lows, then the next big level is a range between the 50% retracement level at 2870, and the previous lows and possible larger H&S neckline areas at 2856 and 2822. Looking at the overnight action those are very much potentially in range today. Both daily sell signals reached target with no current positive divergence as that would require a rally that would be large enough to show up on the daily chart.
SPX daily chart:



On the hourly chart positive divergence has been building for much of the week, with hourly buy signals fixing on both RSI 14 and RSI 5 on Tuesday I think. Further lower lows have been on increasing positive divergence and unless this move is going to accelerate lower, I'm expecting these to make target in a strong bear market rally starting either today or Monday. If that rally is from one of the possible H&S necklines at 2856 and 2822 then the obvious right shoulder high would be in the 3000-50 area, though I wouldn't be at all surprised to see it go a bit higher.
SPX 60min chart:



So what about the coronavirus news? Well that has been mixed this week. The good news has been that the virus looks containable in countries that are actively trying to contain it, with Singapore particularly having tested tens of thousands of people with only a few new cases in the last ten days. The bad news is that the US does not appear to be one of those countries, with the speech that Trump made on Wednesday to reassure markets that everything necessary was being done, instead seeming both to confirm that his administration has no idea of the serious risk of an outbreak in the US, and that the administration is not paying much or possibly any attention to the CDC, which is very aware of that risk. There's an interesting analysis of Trump's speech at CNN here. I'd been suggesting this appeared to be the case on Monday but it's not good news at all.

Friends in the US that I've been talking to this week have been telling me that the US news is reporting this mainly as a foreign problem, and a friend in Texas told me that he'd heard advice this week that anyone thinking that they might be suffering from the coronavirus should go to their doctor's office, which of course would be a good way to spread it further there. The advice here in the UK by contrast is to stay at home, call the dedicated helpline, and then if necessary be taken to one of the many dedicated coronavirus centres that have been set up nationwide to manage the problem. If there is a serious outbreak in the UK or elsewhere in Europe there seems a very good chance that it would be contained. Not so in the US so far at least.

In the US the CDC is saying that the spread of coronavirus in the US is inevitable, and that seems likely to be the case. As and when there is a significant outbreak, then I'm sure that the usual impressive US response that one would normally expect will get going, and the virus will be contained there too, but I'm concerned about the initial market reaction when that outbreak becomes obvious as that would seem likely to trigger further market declines. That is a big wild card over the next few days.

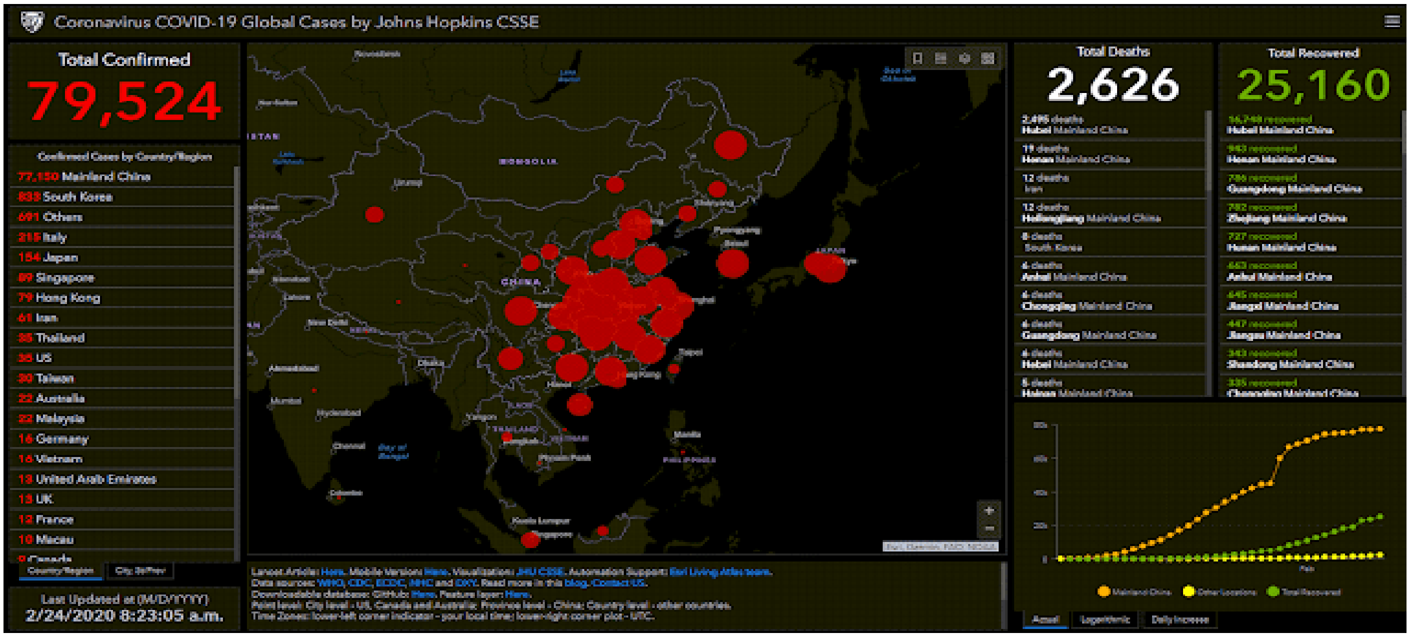
Subject to that big wild card, unless this is going to become an uncontrolled decline on markets now, I'm looking for support today at that very strong 2820-70 support range, and I'd expect to see a strong rally from there that will at least reach the 3000 area, ideally lasting at least two or three days and possibly reaching as high as the 3150-3200 area. We'll see if I'm right about that.

We'd normally do our monthly free public Chart Chat at theartofchart.net in a week, but given that markets are looking so fragile right now we are bringing that forward to 4pm EST on Sunday. Once that has been arranged I'll post the link on my twitter. As ever, all are welcome and we'll be covering the usual forty to fifty instruments over the main equity index, forex, and commodity markets.

Chapter 4

Some Genuine Coronavirus Numbers Coming Through

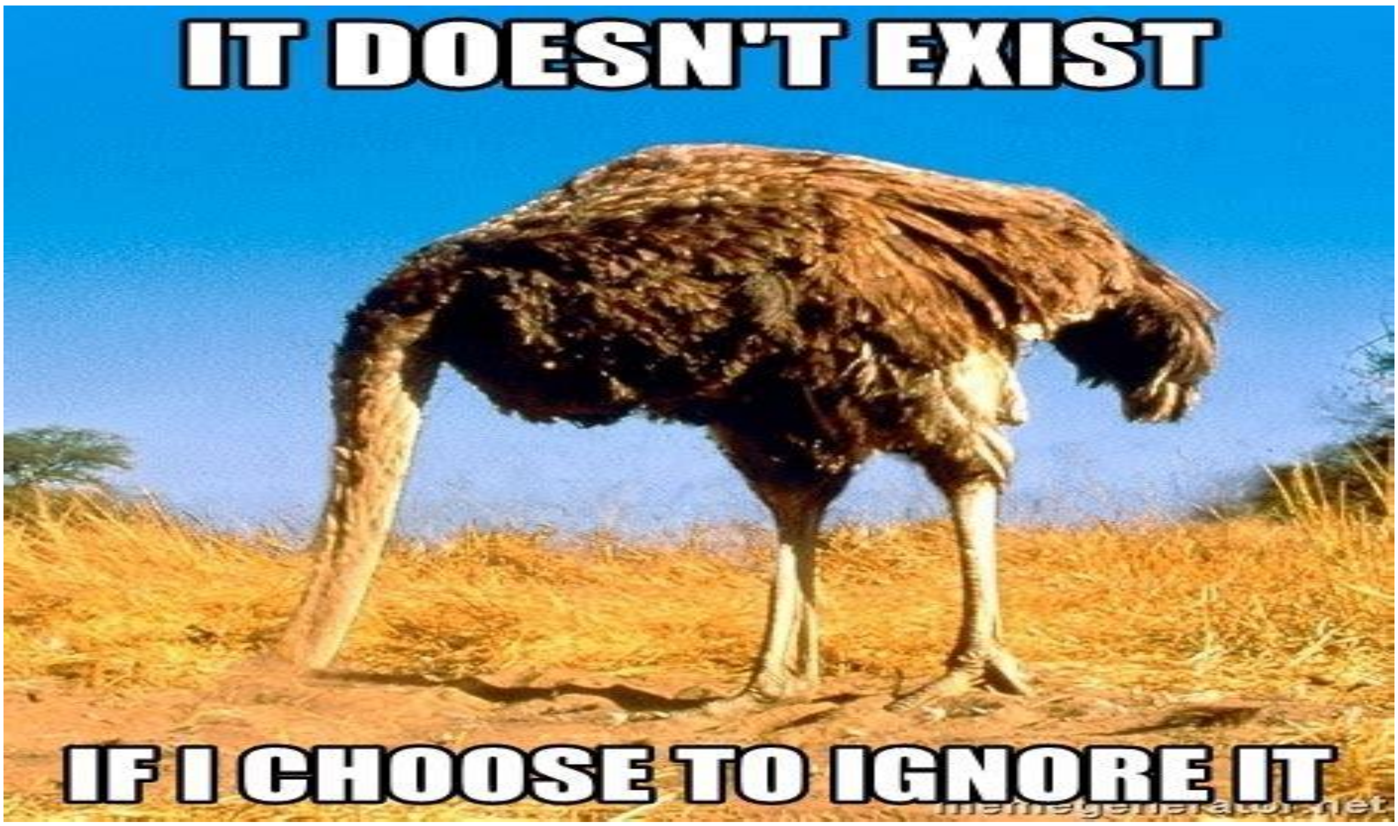
Following on from [my post last week about the coronavirus COVID-19 here](), we are now seeing some genuine coronavirus numbers coming through, and the numbers at the weekend weren't great so equity markets are down this morning in response. How bad was the news? Here are this morning's numbers:



Honestly these numbers are not too bad so far in my opinion. There are serious outbreaks now in South Korea and Italy, but excluding the very dubious quality China numbers, not many deaths so far and there is not much to say as yet that the virus is likely to become a global pandemic like the Spanish Flu pandemic in 1918/9 that wiped out between 2% to 5% of the world population at the time. You can read about that [here](). If this does happen then obviously markets worldwide will be seriously affected, and this morning's gap down would likely just be a taste of what is to come, but if the virus is contained over the next few weeks then we should see a significant decline here and very possibly drop the 20% required to qualify as a bear market, but at that point there would likely be a buy opportunity and much or all of that decline might then be recovered over the rest of 2020. We'll see

One thing that I have found very strange watching all this though is the general cluelessness and lack of preparation of governments worldwide in response to this outbreak, which if it does break out to become a global pandemic will be perhaps the most predictable natural disaster in human history. I was reading back in the 1980s, in The Economist I think, about Spanish flu as just one of a series of superflu pandemics that have broken out over the course of human history, and about the likelihood that it was just a matter of time before the next one broke out, most likely having originated in China, into a worldwide pandemic that could kill 2%+ of the world population, and possibly more than 10%. I've been reading about this likelihood regularly since. I had perhaps naively assumed that the US particularly would have wargamed this scenario extensively, and that steps would have been taken to try to avoid a worldwide pandemic in the event that a strong superflu candidate emerged. It seems that was not the case.

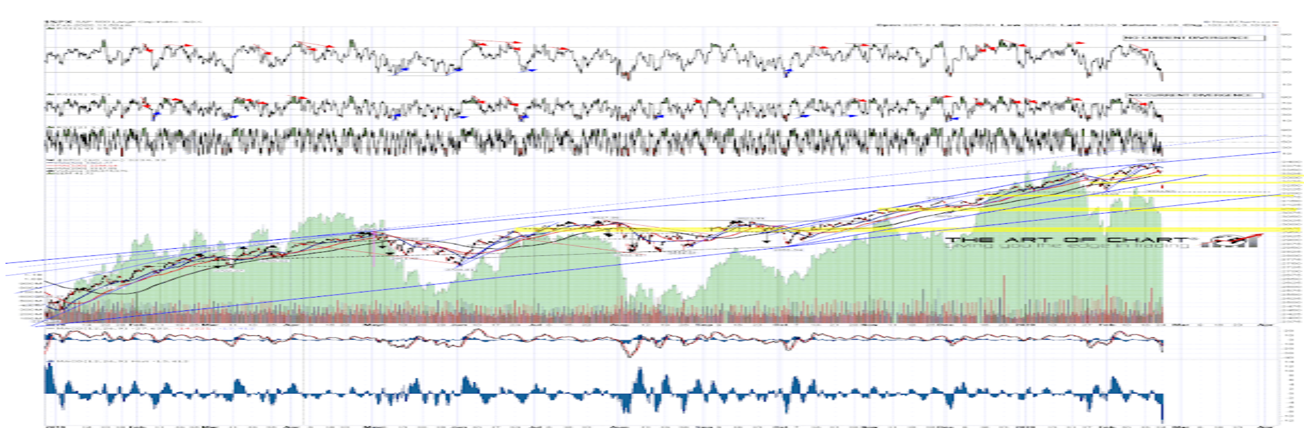
In the US I was reading at the weekend, and I hope that it wasn't true, that only two US states have any COVID-19 testing kits, which are in any case rather hit and miss with a lot of false negatives, and that the only people tested so far have been those in contact with recent arrivals from China. If true, that means that the US have no real idea whether they have a problem yet, and the first confirmation of an outbreak might be a lot of dead and dying Americans. This is, to say the least, somewhat disappointing, and suggests that if COVID-19 doesn't become a worldwide pandemic, that will only be because it wasn't virulent enough, and that when there is another that is virulent enough, years or decades from now, then it will follow a natural progress unimpeded by any kind of planned intervention by governments:



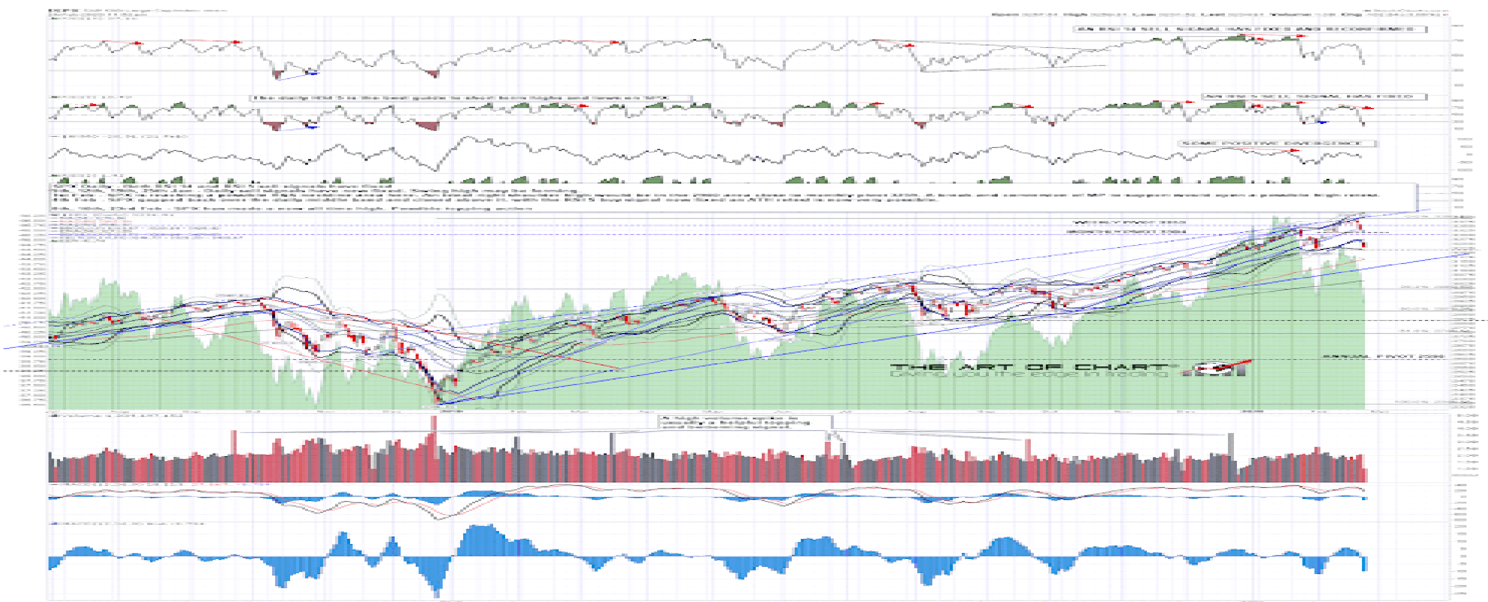
That said, on to the markets and I'll start by posting the premarket video that I recorded this morning looking at the declines so far and important levels to watch. If you're just interested in equity markets then those are at the start and if you haven't seen one of these before, the instruments covered in the video are SPX, ES, NDX, NQ, INDU, YM, RTH, DAX, ESTX50, CL, NQ, GC, SI, HG, ZB, DX, EURUSD, USDJPY, USDCAD, AUDUSD, KC, SB, CC, ZW, ZC, ZS and LH. Mostly futures and forex with a look at the RTH index charts and TNX for bond yields:

In the short term the rising wedge on the SPX 15min chart has an obvious target at a retest of the early Feb low at 3214.36. That is a possible H&S neckline so would be a decent candidate for a strong bounce from there.
SPX 15min chart:

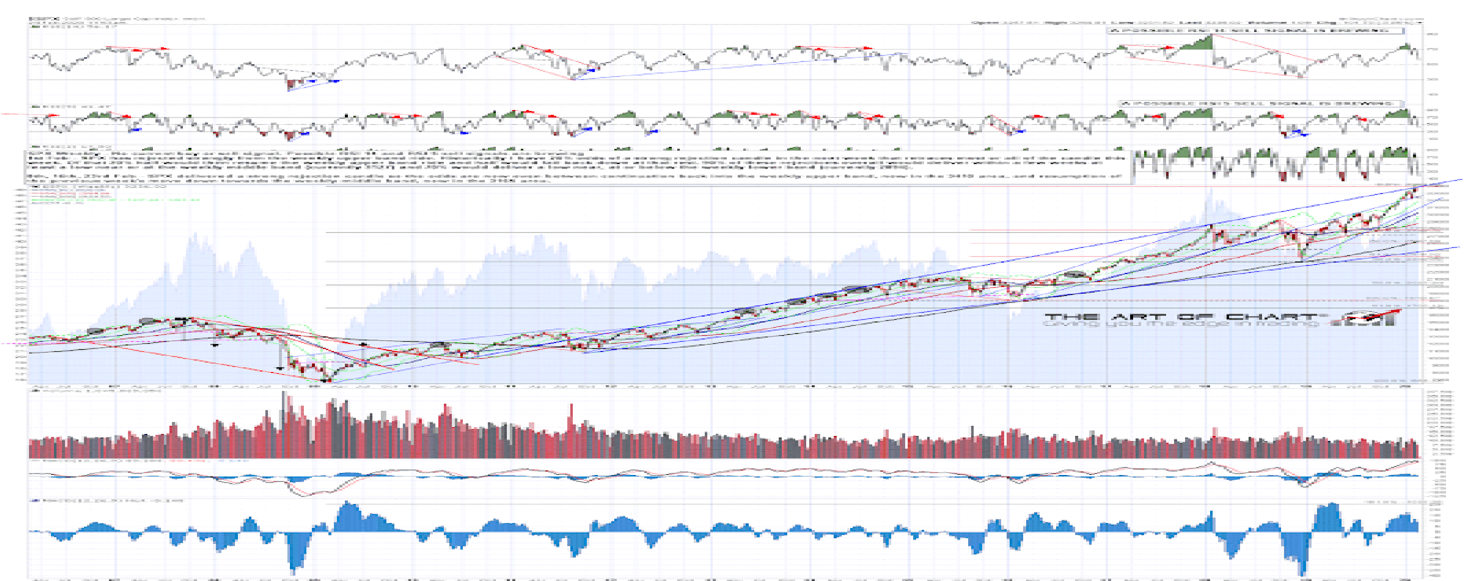
On the SPX 60min chart the hourly sell signals have reached target and there is no current positive divergence. SPX gapped down through the rising megaphone support from the October low and that opens the next obvious big rising support trendline target currently in the 3110 area. That is the rising support trendline from the December 2018 low, and is a solid target for this move if SPX goes through the 3124 area with confidence. If we do see a bounce in the (roughly) 3214 area to make an H&S right shoulder, then that ideal right shoulder high would be in the 3337 area. SPX 60min chart:



If SPX was to deliver that strong right shoulder rally then the likely target area would be the daily middle band area, with the daily middle band closing in the 3325 area on Friday and still rising for the moment. With a strong gap below the daily middle band at the open this morning that is now important resistance that may well get a test on a decent rally. The daily RSI 5 sell signal has reached target but the daily RSI 14 sell signal still has some way to go yet. SPX daily chart:



So where might this be going on the bigger picture? Well the last high gave SPX possible weekly sell signals brewing and if we close the week in this area those would fix. A break below trendline support in the 3100 area would then open a possible test of the very decent quality rising megaphone support from the 2011 low, currently in the 2500 area. That would be an ideal target to reach and find support and, if seen, could deliver a major buying opportunity later this year. We shall see. SPX weekly chart:



In summary the coronavirus news so far isn't too bad so far, but will likely get worse before it gets better. Equity markets too will likely go lower before there is any decent buy opportunity here, but we'll have to see how this develops in terms of reversal patterns particularly to give form to this decline, and give us clues as to where this is likely to be headed. We'll see how that develops. If you'd like to hear Stan and I analysing this increasingly interesting market on a daily basis you could sign up for a 30 day free trial at theartofchart.net on this page here. That gives you access to most of our analysis and particularly our subscriber only twitter feed where we post our intraday updates and targets. The trial is free for 30 days, at the end of which you can either cancel with no obligation or subscribe to one of our services.

Chapter 5

Peering Through The Fog Around Coronavirus COVID-19

This is an unusual post for me, in that it is not about the markets, but rather about an issue that might be a strong influence on the markets over the next few months, namely the current coronavirus outbreak that has so far been mainly confined to China. I'll be reviewing what appears to be the cases so far from both official and unofficial sources, and share what I'm watching to assess whether this is likely to remain a mainly Chinese issue, or might spread much wider to become a worldwide one.

Regardless of the numbers though, some aspects of life in Wuhan continue as normal. Here is a recent image of a local resident out walking their dog in a familiar scene that might currently come from any number of large cities in China:

Setting the doubtful reliability of the official numbers aside for the moment, what we do have is the daily numbers for confirmed cases over the last few weeks, so what do those tell us? Well the earliest numbers I have are from 21st Jan, at which point there were 448 officially confirmed cases and nine deaths. As of this morning 18th Feb, using the excellent live John Hopkins CSSE page, that has increased to 73,451 confirmed cases, and 1875 deaths. That's a period of 28 days in which time the confirmed case numbers have so far doubled 7.2 times, on average therefore doubling every 3.9 days or close to quadrupling every week. Obviously that's a very high rate of increase, and, if sustained, could put confirmed cases close to a million cases within two weeks. The rate of increase for deaths over that period has been marginally higher, but in effect can be considered to be the same.

What about the fatality rate? Well so far if the death rate is simply divided by the confirmed cases rate, then that comes out at about 2.5%, though an adjustment to account for the lag between a case being confirmed and death, together with the effect of the high rate of increase in confirmed cases that might put the fatality rate at a less reassuring 5% to 10%. For reference that's coming under SARS at about 10%, and the more virulent Mediterranean version MERS at about 35%. A more alarming calculation would be a division of reported deaths by reported recoveries, which comes through at about 14%, but that is likely to be an unreliable number for three reasons. The first of those reasons is that a lot of cases are mild and aren't likely to enter the reported numbers, and that also most likely applies to both the SARS and MERS numbers. The second reason is that reportedly at least, only about 14% of the confirmed cases become severe cases and not all of those will be dying. The third of those reasons is a bigger issue that applies to all of the coronavirus statistics that we have seen so far, and that is that all of the official coronavirus numbers that we have seen from China so far are likely to be very understated, in effect more propaganda than genuine statistics.

Why is this likely? Well there is no free press in China of course, and social media is restricted and monitored, but with some local VPN connections to twitter accounts and local WeChat posts there is quite a bit of leakage. The images and videos of chinese police and soldiers apparently welding shut the entrances to some infected housing developments and tower blocks are disturbing, and the WeChat employment advertisements for extra help in funeral homes and for workers to collect bodies, as well as videos showing those bodies being collected, are also disturbing, and suggest both that the numbers of deaths are considerably higher than the Chinese government currently wishes to admit, and that the situation in Wuhan particularly may have deteriorated well beyond the ability to gather decent statistics even if there was any desire to do so.

There is some evidence that extra help has also been drafted in from other provinces to help handle the extra workload at Wuhan crematoria and funeral homes, and if that's right, then the death rate must be a lot higher than advertised, as Wuhan has a population of 11 million, and the extra two thousand deaths officially reported so far wouldn't be an inordinate increase over the 10,000 to 20,000 deaths that a city of that size should see in an average month. There's also quite a lot of unofficial evidence that supply chains across China are breaking down, and that's not just an issue for Apple of course, that's also a big issue for the local production and distribution of food, which may be a serious humanitarian issue brewing down the line.

In terms of the economic impact on China this year that's all worrying but the likely and ongoing uselessness of the official statistics from China should no longer be an issue for weighing whether the virus outbreak is likely to expand into a worldwide problem. Why? Well the chinese numbers may be unreliable but there are now significant outbreaks in three areas where the numbers should be of high quality, and as of this morning those areas are Singapore, with 81 cases, Japan, with 74 cases, and Hong Kong, with 61 cases. These countries all have decent health systems, and all three, with the possible exception of Hong Kong if pressure is applied on them, should report honest numbers about the progress of the outbreaks in their areas. We should be watching those carefully, and if this going to be a global problem, then that risk should first become apparent there.

What is going to happen to markets if this virus starts to develop into a global pandemic akin to the pandemic in 1918/9? Nothing good, so this is something I'll be watching with keen interest, and will be including updates as they come in on my usual market posts. I'm planning to do one of those tomorrow.

Chapter 6

The January Barometer

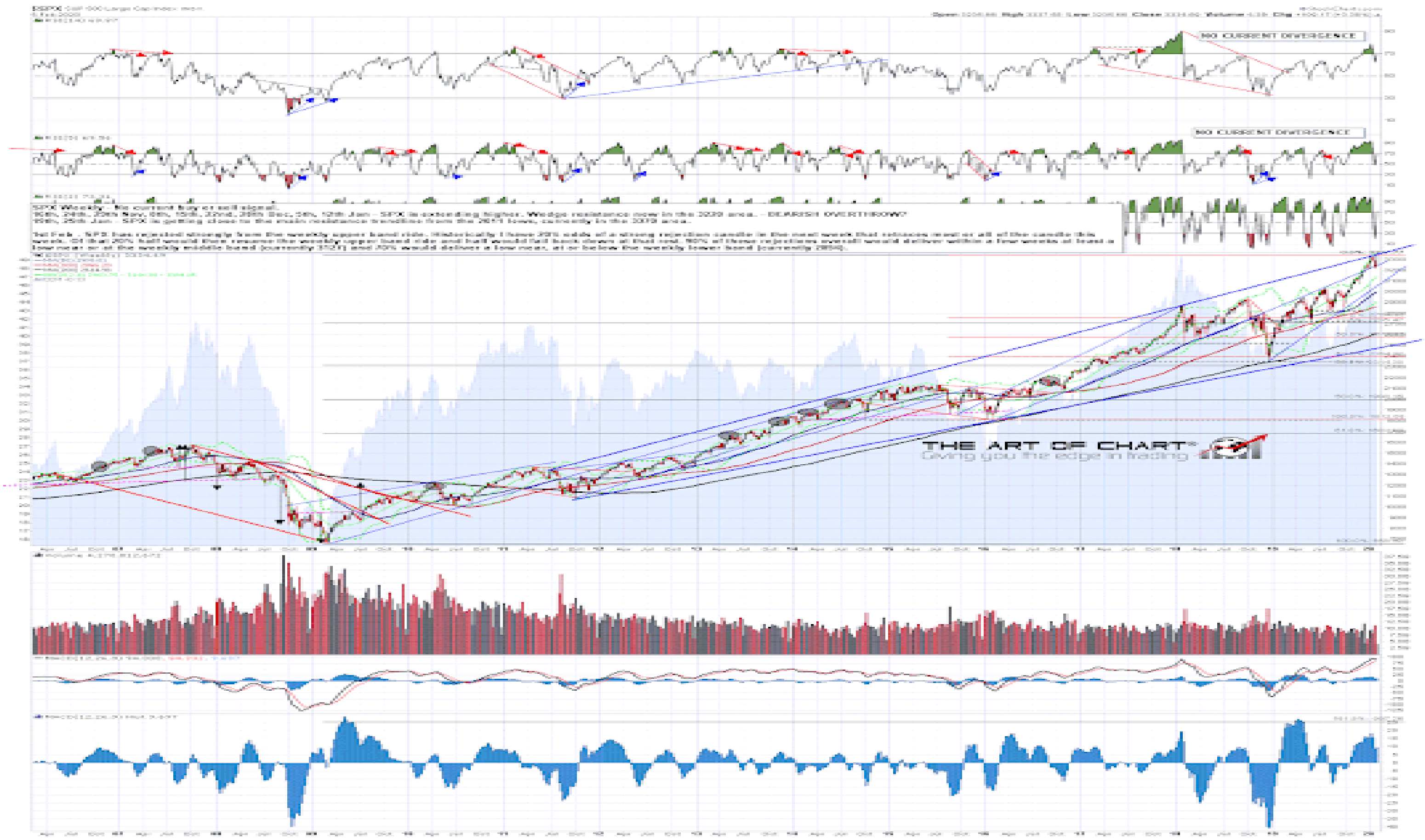
When I looked a few weeks ago at the stat for the first five days of the year I found that the correlation with the yearly close there was essentially random, so I was wondering when I had a look at the full January Barometer stat whether I would find the same but was pleasantly surprised when I did not.

The numbers I was looking were from 1950 to the present, so that's a good statistical sample, and in that time 72.86% of years closed green, and 27.14% of years closed red, with 61.43% of Januaries closing green in that time and 38.57% of them closing red.

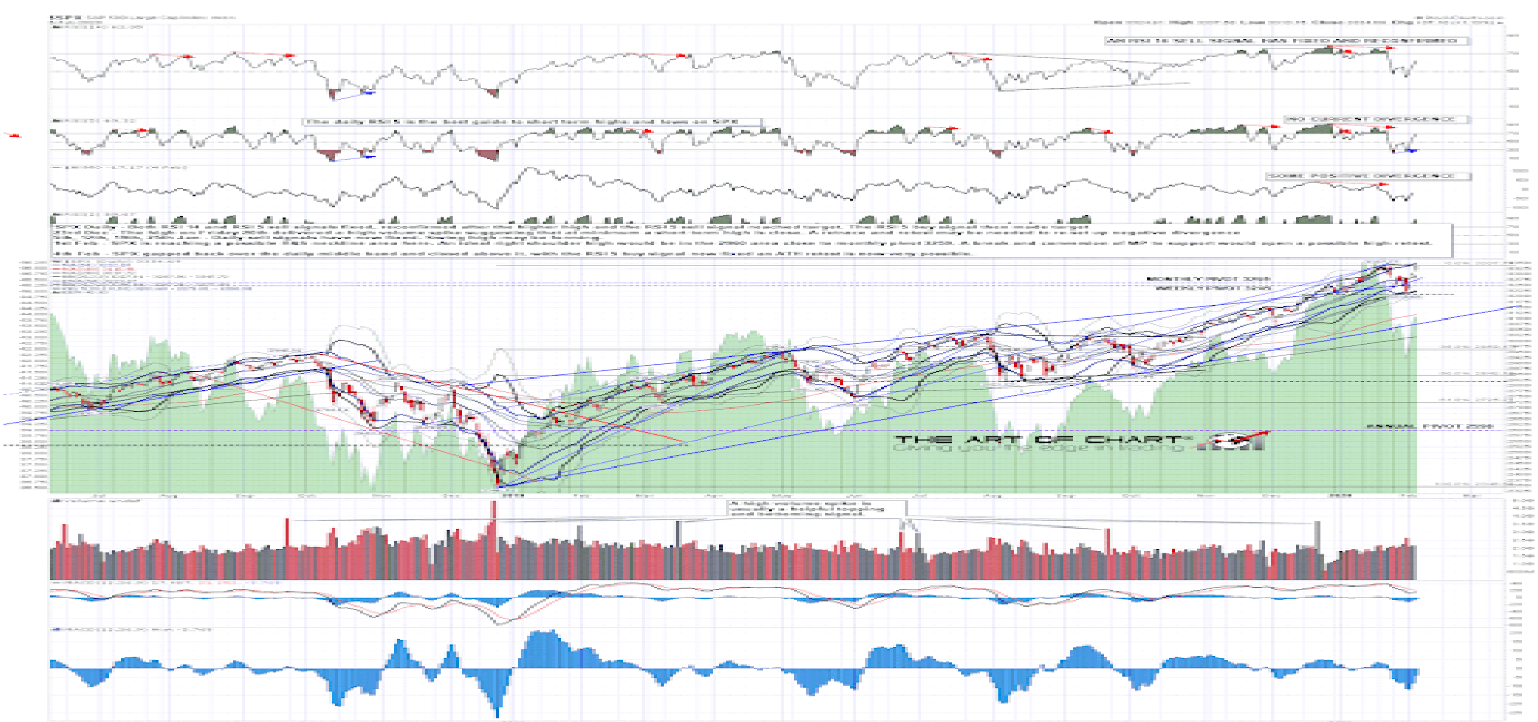
I've looked at the numbers for continuation from those January closes, so in the event that January closed green, then a continuation would be that year closing higher than that January close, not just closing green for the full year, and the same for bearish continuations after a red close in January. On that basis the odds of a bullish continuation into the yearly close were 83.872%, well up from the average 72.86%, and where a January closed up over 2% then that strengthened further to 87.1% odds of the year closing up from there.

In the event of a red close in January, that delivered 40.74% odds of continuation down from there into the close for the year, up almost 50% from the average but obviously still significantly less than even odds of a red close. Now January this year closed red of course, but very marginally, only by 0.2%, so I have also had a quick look to see how many red January closes were 0.5% or less, and how they performed afterwards. Unfortunately there were no other instances so I expanded that to closes less than 1% or less and there were four. That is too few to be a reliable number really but for what that's worth three out of those four closed red, for an average decline of 17.5%, helped along by one of them being January 1974. The other closed up less than 2% in 1984.

Overall the January Barometer is a solid stat that has delivered good results in the past and may well continue to do so in the future. On to the markets.
As it is likely after today's gap up and go that we are looking at a reversal candle this week, that puts the historical odds from the last ten years at about even between continuation up to resume the broken weekly upper band ride or resumption of last week's downtrend in the near future. For reference that would involve at least a near miss of the weekly upper band soon and that is currently in the 3385 area. A hit there in the next week or two could deliver a continuation of the strong uptrend over the last few months though I'm doubtful about that. I think the odds favor a resumption of last week's downtrend after this spike up has blown out, though likely we will need to see a new all time high on SPX before that, which was missed by 0.19 handles at the high today, though a new all time high was made on ES after the RTH close.
SPX weekly chart:

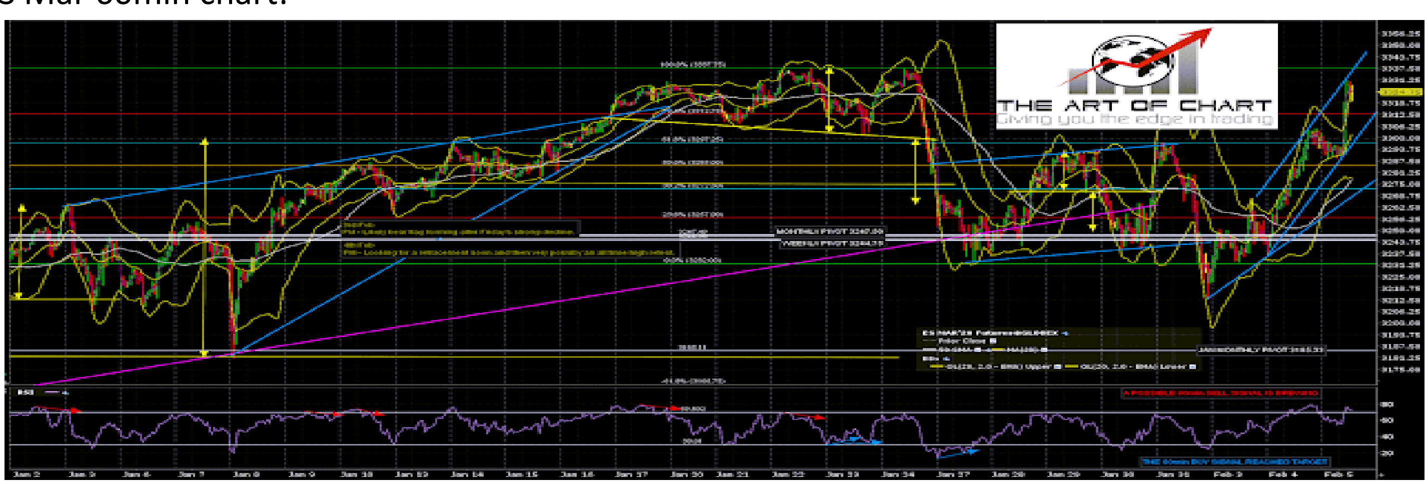


On the daily chart SPX closed over daily upper band today and we may well see the retracement we didn’t see today tomorrow instead. There is some support for that on the shorter term charts.
SPX daily chart:

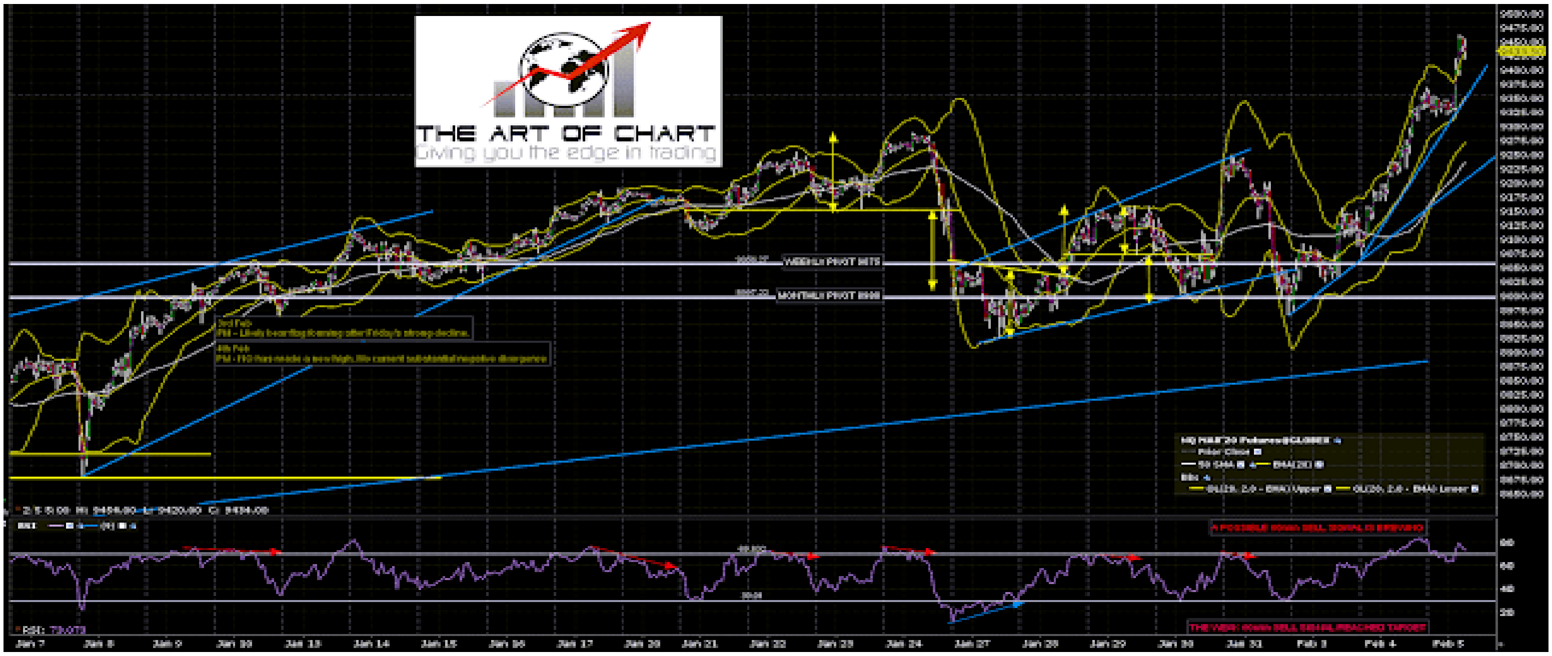


On the SPX 15min chart my channel resistance trendline was broken by the gap up this morning, and that has expanded into an even nicer rising wedge resistance trendline. If that survives tonight, unlike yesterday's resistance trendline, then then the obvious next move would be a test of the rising support trendline from Friday's low, which closed today in the 3305 area and is rising at about four handles per hour in regular trading hours. If that wedge support breaks then this move might be over, though I don't think that any SPX high here that failed to make a new all time high would last long. I can't recall any instances offhand from the last decade at least of a high on SPX lasting more than a couple of weeks where ES had made a new all time high and SPX had not.
SPX 15min chart:

On the futures charts I have decent quality possible 60min sell signals brewing on ES, DAX and ESTX50, though obviously they would need some kind of a retracement to fix, and that negative RSI divergence might be lost soon if the equity futures continue falling upwards the way they have the last two days.
ES Mar 60min chart:



On NQ and RTY those 60min sell signals have already fixed and both of the last two retracements including last week's move started with a 60min sell signal on NQ alone, so I'm watching that with particular interest.
NQ Mar 60min:



My lean is towards more downside and that's only in part because I'm not seeing any evidence that the coronavirus situation isn't likely to get a lot grimmer over coming weeks, if only because the virus incubation period almost guarantees that the confirmed case numbers are likely to get at minimum an order of magnitude larger.

That being said, there is never any certainty in market action and this has been a very persistent uptrend, perhaps because (not officially) QE4 has been pouring record amounts of liquidity into markets since October. That's still ongoing and China has added another $250bn of liquidity and stimulus to that this week. That's a lot of money and it that's certainly been having a strong impact since yesterday's pre-market announcement from China delivered the strong gap up yesterday morning.

On Friday I'm planning the third post this week crunching the coronavirus numbers and considering the virus news. I'll be doing a market update then too, so by that stage we should have a better idea whether any retracement is possible on equities this week other than the impressive retracement we finally saw on TSLA today.

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Chapter 7

A Feast Of Numbers

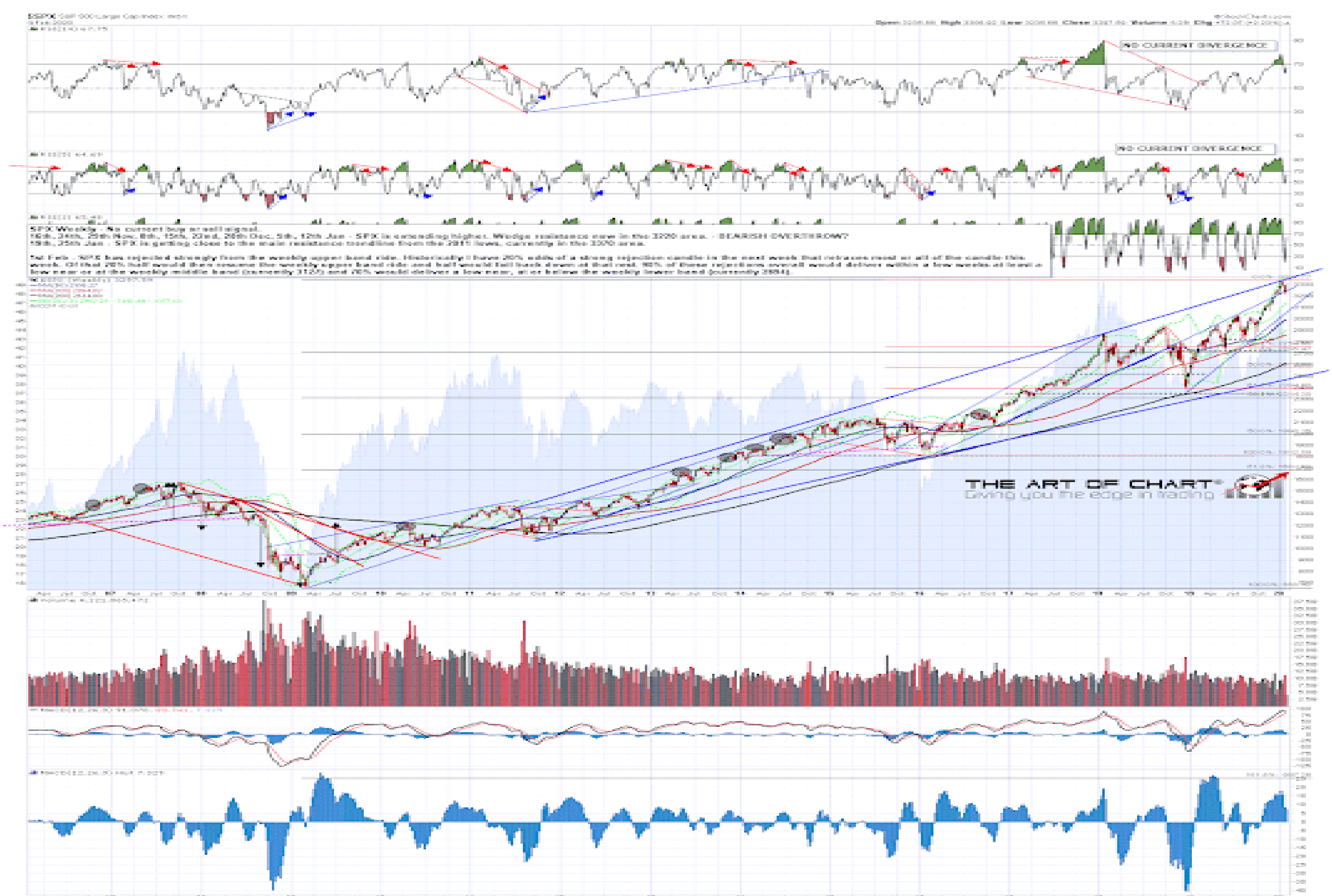
Between cancer treatments (for my wife) and some serious IT issues I didn't manage a post last week, and have a bit of a conundrum this week as the post I'd ideally like to have published today would have involved too many charts and and an likely indigestibly large quantity of numbers for a single post. I've given this some thought and have decided to do three posts this week. The first one today will look at short term prospects for the market and the implications of the weekly candle last week coming off the weekly upper band ride that has likely just ended.
The second one tomorrow will look at changes on SPX since this post and the January Barometer with the implications of the red close for January on SPX last week. In brief the historical stats tell us that the chances of a red close in 2020 have increased from the normal 27% or so to about 42%, though I'd note that this still gives the odds of a green close for 2020 at about 58%, so it might be a bit early for bears to be ordering in foie gras and champagne. The stat is actually for a decline from the January close, but as the decline in January was less than 0.2% the effect is much the same.

The third post, currently planned for Friday, will have a look at the numbers for the coronavirus outbreak and attempt to assess the chances of this becoming a serious issue. The numbers are interesting and haven't really had enough attention in my view, and just as something to consider before I publish that post, I'd invite you to keep an eye on the outbreak numbers on the excellent [John Hopkins Coronavirus Dashboard] which updates a couple of times a day, and bear in mind that the numbers that you are seeing are ten to fourteen days out of date. Why is that? Well that is the incubation period for the virus. Given that the number of confirmed cases has quadrupled in the last seven days that is certainly food for thought, as that means the true figure today may be closer to 400k cases now and might be well over a million cases in another week if the limited efforts to contain the spread of the virus until seven days ago (the start of the incubation period for the confirmed cases we should see in a week) were ineffective. This issue may be just getting started, and it is certainly way too early as yet to dismiss this as the usual news storm that is here today and gone tomorrow.

One other thing to mention is that if you missed our free monthly public Chart Chat at [theartofchart.net] on Sunday then the recording is posted on our [February Free Webinars] page, so you can see that there. On to today's post.
I was looking at last week's candle at the weekend and that was a strong weekly candle down from an extended weekly upper band ride. These aren't particularly common so I had a look at what happened after similar candles over the last decade and came up with the following.

After a candle like this there is a 20% chance of a rejection candle the following week that retraces most or all of the previous weekly candle. The candle high last week was under 3300 so it seems so far at least that we are looking at one of these this week, though obviously we won't know until the candle fixes at the close this week. When one of these candles is seen, then half of the time the longer term uptrend is resumed and the other half of the time the shorter term downtrend is resumed, giving an overall 90% chance that the candle close last week was not a low that will hold long.

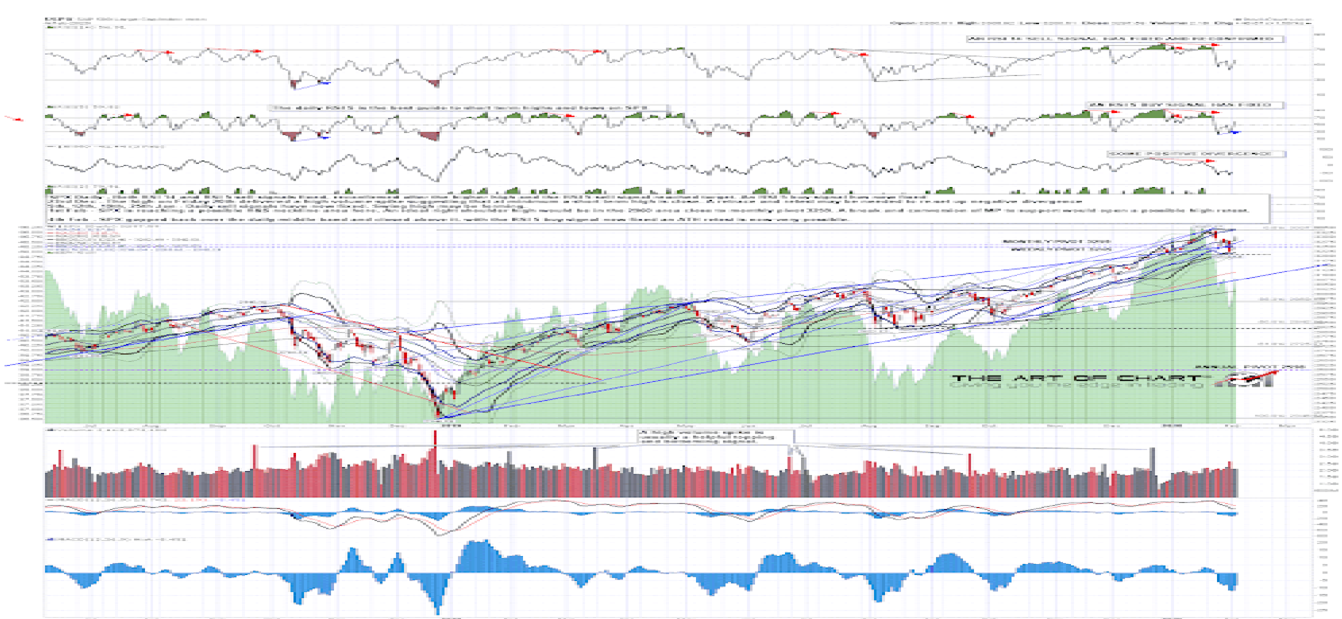
In terms of downtrend targets 85% + of the time the target within a few weeks will be close to, at, or below the weekly middle band, currently in the 3142 area, and about 70% of the time the target will be close to, at, or below the weekly lower band, currently in the 2907 area. Obviously these are moving targets which are rising, but bottom line is that normally a candle like last week's will deliver a multi-week retracement of decent size, and this is obviously a strong match with the cycle low in April that we've been expecting.
The coronavirus story doesn't look likely to end soon either, so wherever this current move lands more downside seems the most likely option afterwards.
SPX weekly chart:



So where will this current rally land? Well I've mentioned before that something like 70% of significant highs and lows on SPX historically involve some kind of respectively high or low retest, so I always have a lean towards a high forming with a retest that sets up a double top. What are the prospects for that here? Well the larger RSI 14 daily sell signal hasn't reached target, but I noted at the weekend that a shorter term possible daily RSI 5 buy signal was brewing and that has now fixed, so that is favoring more rally and a possible new all time high coming on SPX.

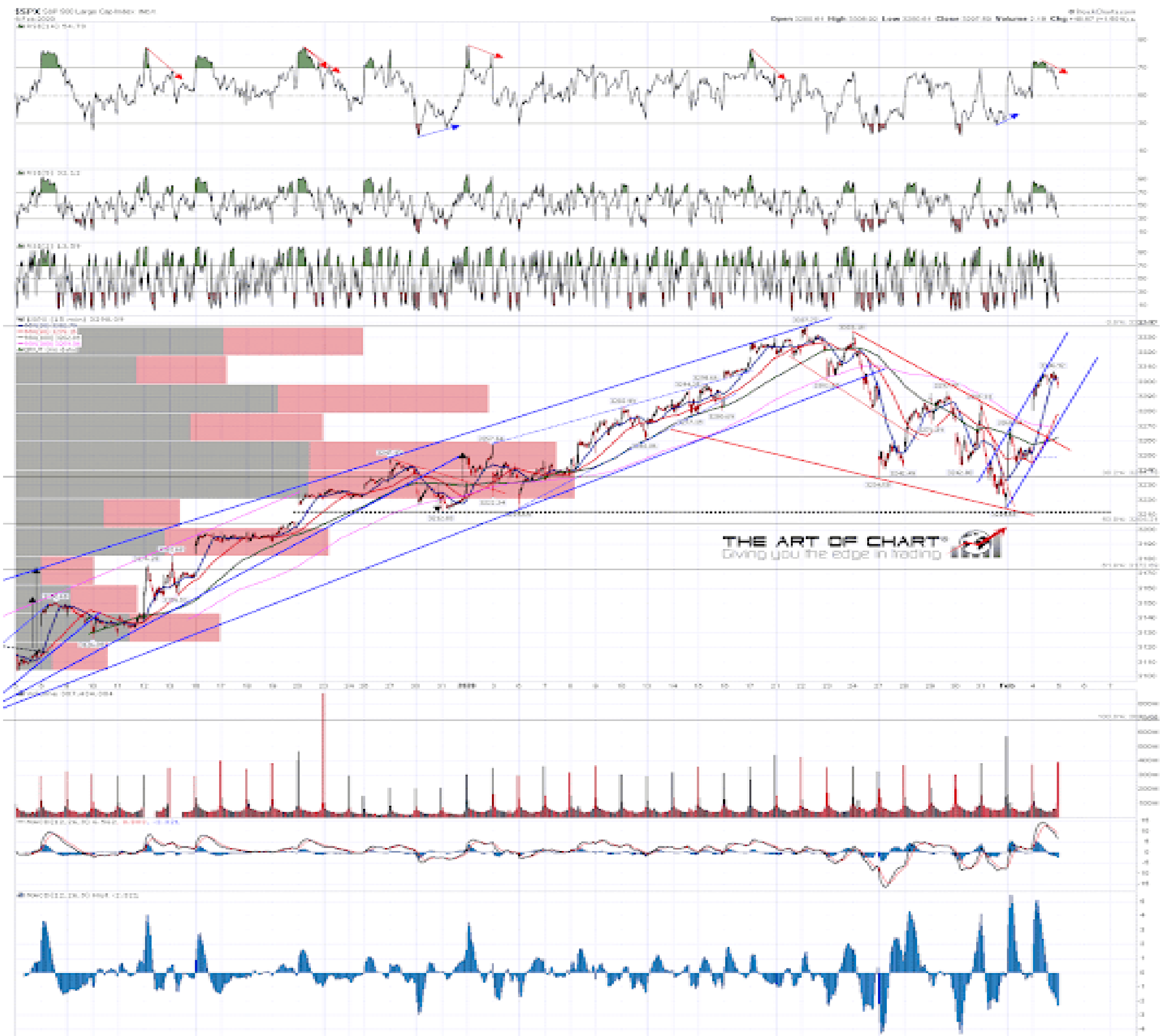
Also favoring that option was the gap up over the daily middle band today, currently at 3282,with that holding all day and a strong close above it at the end of the day. Decent short term resistance at the 50 hour MA was lower and therefore also strongly broken today. I'm not posting the daily 5dma chart here today but the close above the 5dma today, currently at 3266, puts SPX back on my Three Day Rule. If we see a close back below the 5dma (3+ handles below to exclude closes effectively on the support), then we should see a retest of Friday's low soon afterwards.

SPX daily chart:



The shorter term charts favor a retest of the all time high as well in my view. The move down last week broke down from the rising wedge shown below on the 15min chart and retraced just under 50% of that wedge. When a wedge is going to fully retrace then a high retest is ideally seen from this area to set up a double top setting up that full retracement (back to 3070.33 in this instance). Last week's decline was also within a decent quality bull flag falling wedge that broke up today with a target at the all time high retest. My lean is therefore to see that retest, ideally with a subsequent fail at a marginal higher high into the next and larger leg down.

In the short term I have a very interesting rising channel formed from Friday's low, with a 15min RSI 14 sell signal fixed at the close today and a small double top setup looking for the mid 3280s. We may see that target made tomorrow, with a backtest of support at the daily middle band and a hit of that short term rising channel support. If that holds that channel can take us straight up into the all time high retest this week, which would be a very nice setup to trade, so I'm hoping that's the way this plays out. We'll see.
SPX 15min chart:



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