

COVID-19 CRISIS - UPDATE AND OUTLOOK

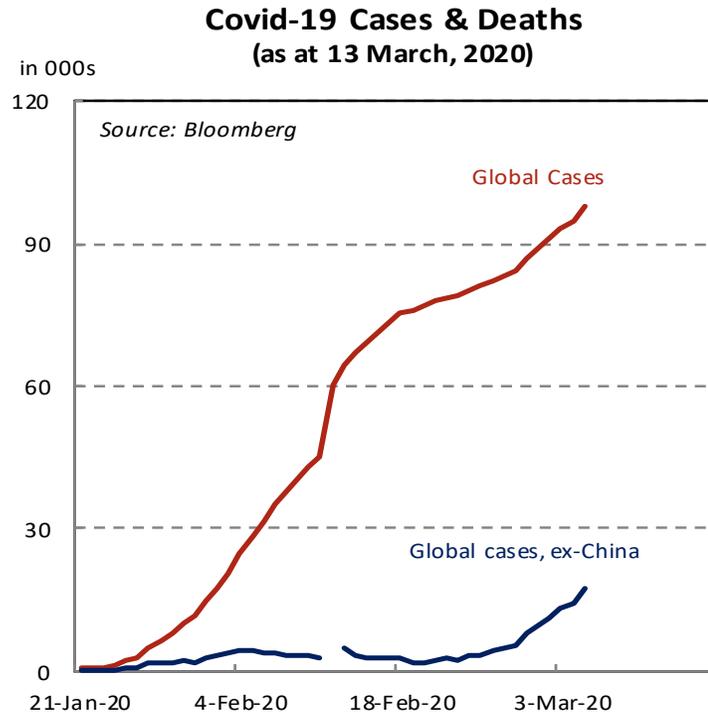
**ECONOMICS
BANK OF MELBOURNE**

Charts and data finalised as at 13 March at approximately 2pm AEDT

OVERVIEW

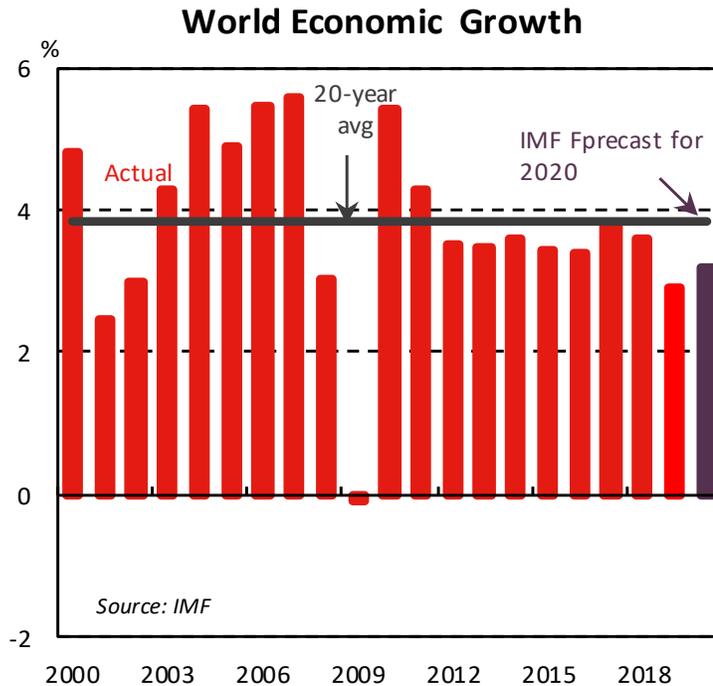
- Financial markets and economies are facing an unprecedented external shock from the coronavirus. The World Health Organisation (WHO) finally declared COVID-19 a pandemic on March 11.
- The outbreak has recently ramped up outside of China, led by Italy, causing heightened uncertainty and panic among financial market participants.
- There is still much unknown about the coronavirus. The outbreak is still evolving and so its impact is not yet fully quantifiable, which is contributing to uncertainty.
- This pack captures some of the key asset markets and their moves and what we need to look for. Indeed, we argue a decline in the daily run rate of global cases and deaths or a vaccine is what will be needed to restore confidence, reduce uncertainty and eventually lead to a recovery in economic activity.
- The daily run rate has slowed in China, giving some hope that containment measures can work. However, it is still early days and it is unclear if China's experience can be replicated in other economies.
- Governments and central banks are responding by deploying both fiscal and monetary stimulus. It includes the RBA cutting the cash rate last week and yesterday's stimulus package from the Australian Federal Government. While these measures will provide some offset from the adverse shock on the economy from the coronavirus, it is unlikely to avert a recession in Australia. Australia has not witnessed a recession in nearly 30 years.
- The spike in risk aversion has resulted in violent falls in global share markets, commodity prices & global bond yields. We have not seen such moves since the last crisis, the GFC. But this crisis is driven by different factors to the GFC.
- Financial markets will remain prone to further routs while the daily run rate in global cases continues to rise.

COVID-19 UPDATE



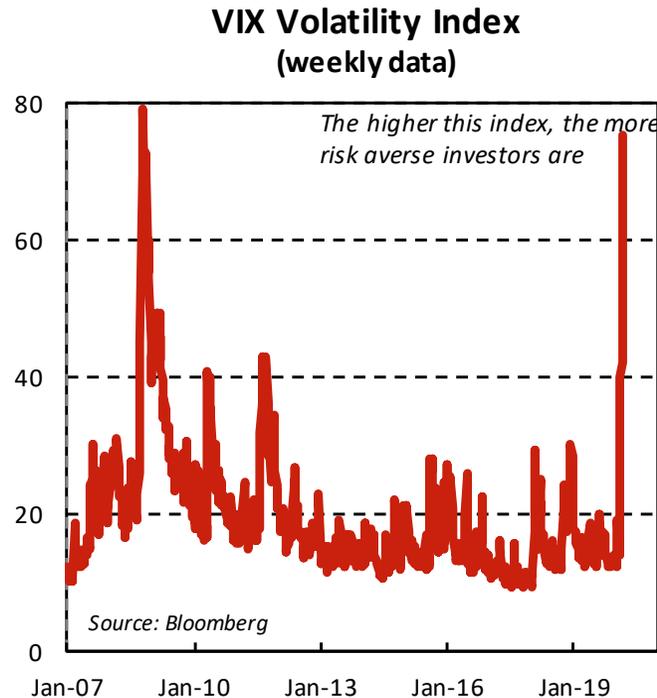
- The number of confirmed global cases has risen to a record high of 80,793 overnight. The number of deaths to 4,950, which gives a mortality rate of 3.7%.
- Global cases are still ramping up daily. However, for 5 of the past 6 days, the number of new cases in China have trended lower. It suggests that the containment measures employed by China might be working. However, it is still too early to call and it is unclear if other countries can adopt similar measures and be successful.
- Italy has the highest number of cases outside of China. The total number of fatalities rising to 1,016 in Italy and cases to 15,113. Italy's government has locked down the country this week in attempt to contain the virus.
- In Australia, confirmed cases have risen to 153 and deaths are at 3.
- The US government yesterday implemented a travel restriction on Europeans entering the US. The US is also considering restrictions on domestic travel. Other countries might soon follow suit.
- The Australian government today has restricted gatherings to 500 people and under in another containment measure.

GLOBAL ECONOMIC GROWTH FALTERING



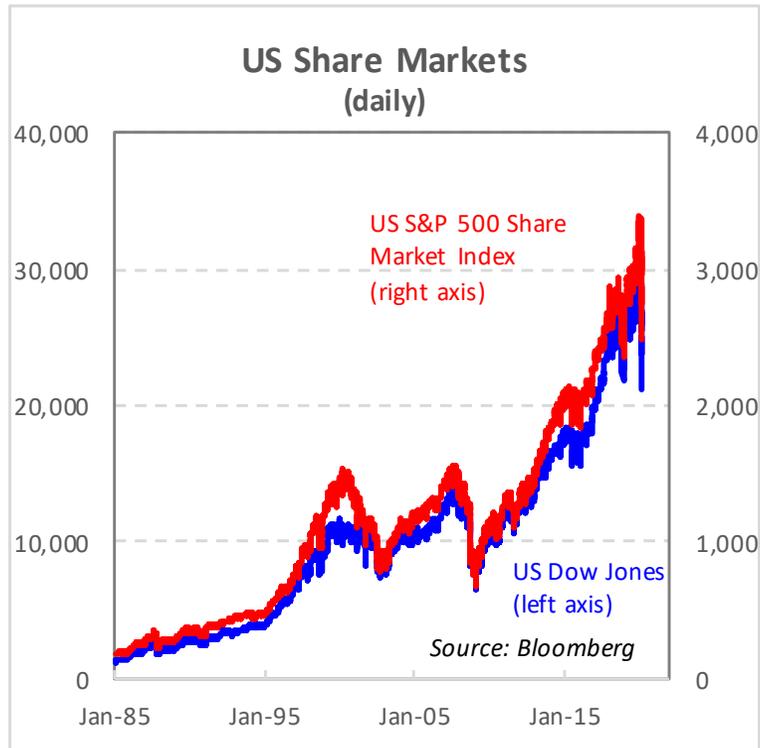
- Global growth is under great downward pressure.
- The global economy headed into 2020 on a sluggish footing, after facing US-China trade headwinds over 2019.
- Economic growth in 2019 worldwide is likely to have been slowest in 10 years.
- The International Monetary Fund (IMF) cut their world-growth forecasts in January and now expect world growth of 3.3% in 2020 and 3.4% in 2021.
- Further cuts to global growth forecasts are likely.
- Global-supply chain disruptions and travel restrictions are disrupting economic activity.
- Both forecasts are below the 10-year and 20-year averages.

INVESTOR ANXIETY AT NEAR RECORD HIGH



- A lot about COVID-19 remains unknown. The full impact of COVID-19 is still not fully quantifiable, as the situation is still evolving and the number of new global cases is ramping up.
- Uncertainty is causing investors to panic.
- The VIX index is a well known measure of risk aversion.
- The VIX index spiked nearly 22 points overnight to 75.5 – the highest level since the heights of the GFC and also just 5.4 points away from the all-time high recorded during the GFC.
- The extreme levels of the VIX index mean that wide trading ranges will continue to be a characteristic of financial markets, as the coronavirus outbreak continues.

SHARE MARKETS REVISIT 'BLACK MONDAY' 1987



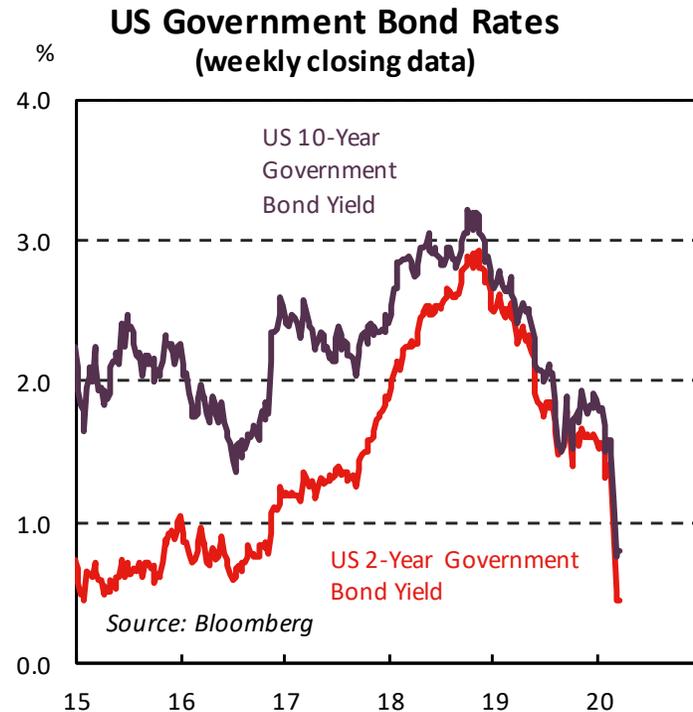
- The riskiest asset class is shares. The heightened risk aversion has resulted in a meltdown in share markets.
- The US Dow Jones overnight lost 2,352 points (or -10.0%) and the S&P 500 index dropped 261 points (or -9.5%). The daily percentage declines were the worst since Black Monday of 1987.
- Trading in US share markets overnight was also suspended.
- The Euro Stoxx 50 index dropped 360 points (or -12.4%). It is the worst decline on record.
- Further routs in global share markets cannot be ruled out while the number of global coronavirus cases continue to rise.
- From its peak on February 19, the S&P 500 index is down 26.7%. In the GFC crisis, the S&P 500 index lost 57% from peak to trough, suggesting share markets can fall further if this coronavirus crisis deepens.

ASX200 NOT IMMUNE TO GLOBAL MOVEMENTS



- The Australian share market has not remained immune.
- The ASX 200 index is down 30.8% from the peak struck on February 20 with trade not yet closed for March 13.
- During the GFC, the ASX 200 lost 53.9% from 1 November 2007 (an all-time peak at that time) to the trough during the GFC recorded on 6 March 2009.
- Stock picking is advisable in this current environment; possible buying opportunities are available for long-term good-quality stocks.

GLOBAL BOND YIELDS DROP TO RECORD LOWS



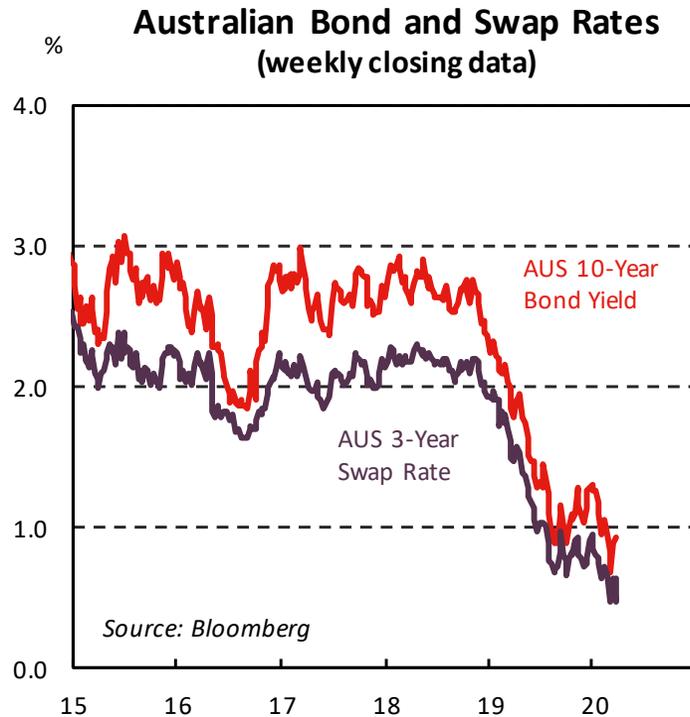
- Global bond yields have touched record lows this week, as markets price in a world recession and uncertainty about the outlook continues to grip investors.
- In the US, the 2-year bond yield has shed 138 basis points from an intraday high of 1.63% on January 9 to an intra-day low of 0.25% on March 9. It is currently trading at 0.46%.
- The US 10-year bond yield has shed 163 basis points from an intraday high this year of 1.94% on January 2 to an intra-day low of 0.31% on March 9. It is currently trading at 0.80%.
- The US Federal Reserve last week cut the Federal funds target rate by 50 basis points outside of a meeting and is widely expected to aggressively cut the rate again before or on March 18 when it next meets. A rate cut of 75 basis points is fully priced in. We expect it could be as large as 100 basis points. A new round of quantitative easing should also follow.
- Again, trade is whippy in the bond market and likely to remain so until evidence of a peak in the growth of daily coronavirus cases.

US YIELD CURVE SIGNALS



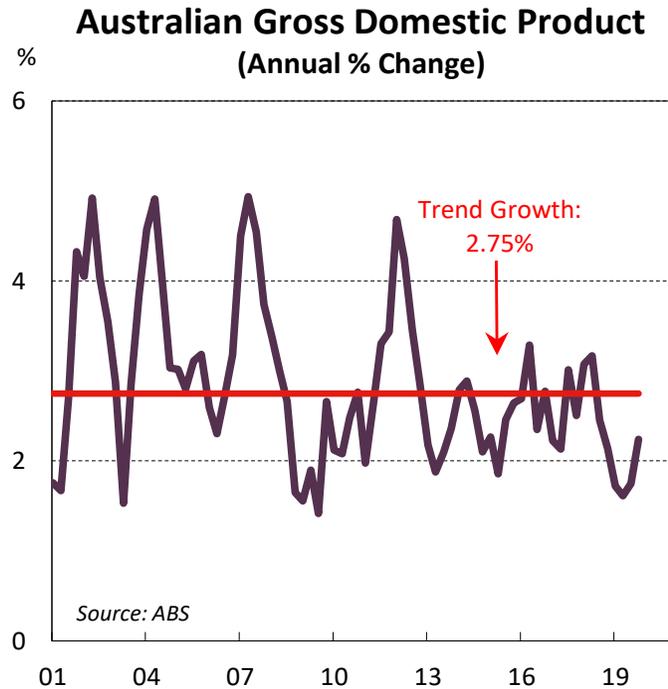
- The inversion of a yield curve is interpreted by financial markets to suggest a recession lies ahead.
- However, essentially an inverted yield curve does not forecast recession; instead, it forecasts the economic conditions that make recession more likely.
- In the past 3 decades, the US has had 3 recessions and in each of these, the 2-10-year curve inverted before the recession. The lags between inversion and a recession are unpredictable.
- The US 2-10-year curve is currently at +33 basis points, but has been as low as +11.7 basis points on February 21. Stimulus measures from the US Government and US Federal Reserve have helped provide some reprieve from the spread turning negative.

AUSTRALIAN YIELDS ALSO AT RECORD LOWS



- Australian bond and swap yields have participated in the decline in global yields.
- The 3-year Australian swap rate has declined 58 basis points from an intraday 2020 high of 0.97% on January 1 to an intraday low of 0.39% on March 2. It is currently trading at 0.63%.
- The 10-year Australian bond rate has declined 85 basis points from an intraday 2020 high of 1.41% on January 2 to an intraday low of 0.55% on March 9. It is currently trading at 0.91%.
- Interest-rate markets are fully priced for a rate cut of 25 basis points from the RBA at its next meeting on April 7, taking the cash rate to 0.25%. A move before then cannot be ruled out.
- We expect the RBA to deploy quantitative easing also in the first half of this year.

TECHNICAL RECESSION APPEARS INEVITABLE



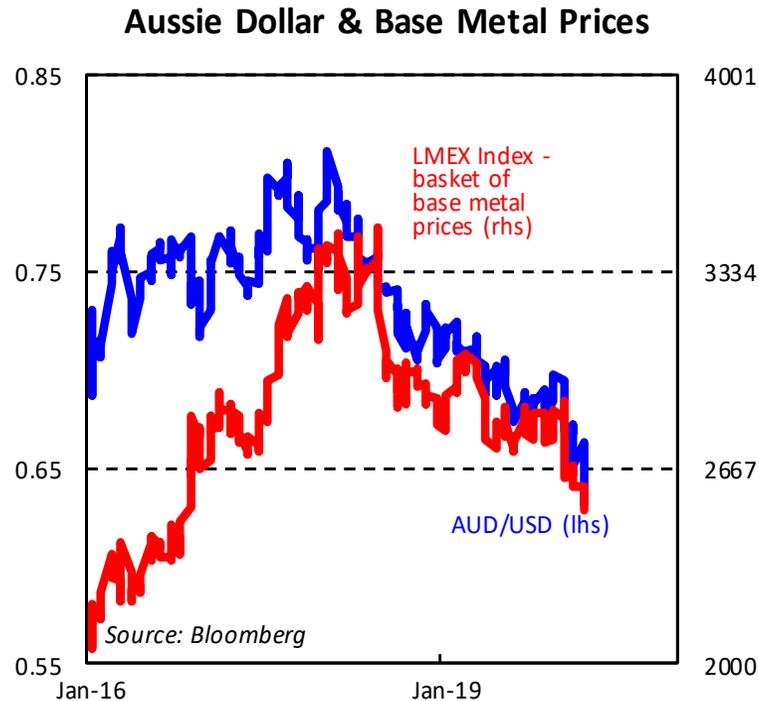
- The Australian economy had improved in the final quarter of 2019, however, it remained on a weak footing.
- GDP for year ended 2019 was 2.2%, which is well below the long-run average of 2.75% (also estimate of potential growth rate of the economy).
- We expect the economy to record a contraction in economic activity in the March quarter of 2020, due to the adverse impact of the bushfires and the coronavirus in particular. The hardest hit industries are linked to tourism and education. Discretionary areas of personal spending are also hard hit.
- We estimate that the contraction in Q1 will be 0.3%, but we caution this figure could be subject to change given the rapidly evolving situation.
- For Q2, we are anticipating another contraction, which means a technical recession will be recorded (defined as 2 consecutive quarters or more of a contraction in GDP).

FEDERAL GOVERNMENT'S STIMULUS MEASURES



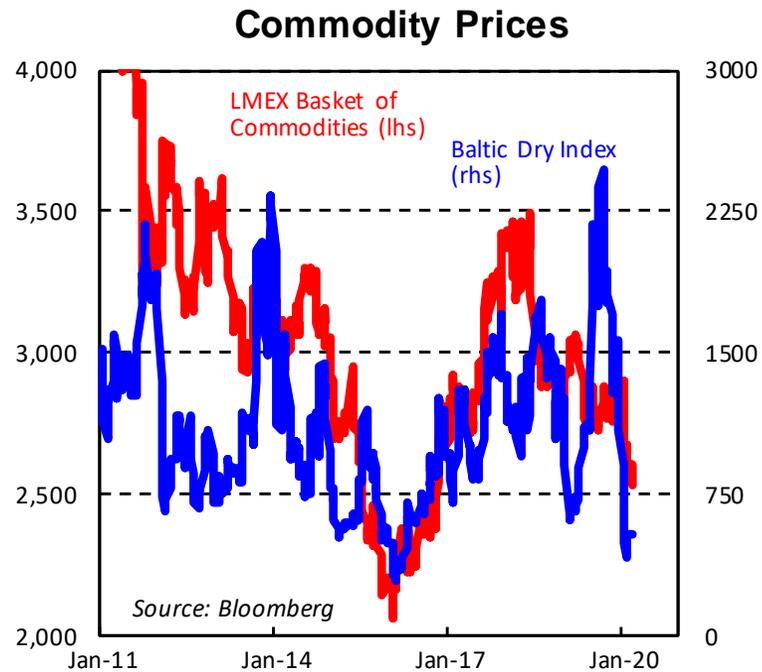
- Yesterday, the Australian Federal Government unveiled a \$17.6 billion stimulus package to support the economy to counteract the impact of the coronavirus. Much of the stimulus falls in Q2 this year.
- Support was mostly geared towards businesses, including investment incentives and handouts for small and medium-sized businesses and some cash payments to households.
- The measures will help offset some of the negative economic consequences from the coronavirus. It follows a \$2.4 billion funding package for the healthcare sector to better prepare the healthcare system for the coronavirus. But it is unlikely enough to prevent a recession over the first half of 2020. Key features are:
 - (1) Cash payments to households – a one-off \$750 payment to those on income support.
 - (2) Promoting business investment via expanding the existing instant asset write-off scheme – by lifting the threshold from \$30k to \$150k and expanding the coverage to firms with turnover of up to \$500 million.
 - (3) Promoting business via investment accelerated depreciation measures. This incentive is for the 15 months to mid 2021 and applies to businesses with a turnover up to \$500 million.
 - (4) Boosting cash flows for small and medium-sized businesses for the period to mid 2020 – aimed to encourage firms to continue employing staff. The payment, up to \$25k a business, is in effect a partial refund on tax withheld by the ATO on income tax paid by firms for their employees.
 - (5) Boosting cash flows for small businesses via a wage subsidy for retaining apprentices and trainees.

AUSTRALIAN DOLLAR EYES GFC LOWS



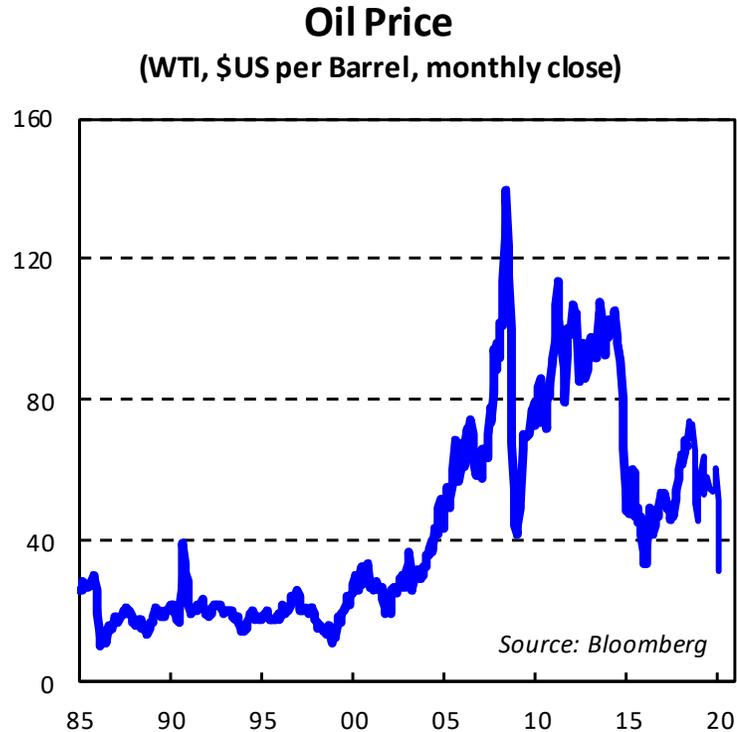
- On February 25 in this report, we warned in our daily morning report the risks lay to the AUD/USD heading to 0.6000 in coming weeks.
- Our reasoning was due to the mounting downside risks from weakening world growth, commodity price falls and heightened risk aversion.
- The technical picture also revealed a clear downtrend in place for AUD/USD. We flagged major support at 0.6300 needed to break first. Overnight, AUD/USD broke under 0.6300 falling to a low of 0.6264. A decline now to the GFC low of 0.6009 remains in sight in the near term.
- Volatility will continue to be high, so expect the AUD/USD to continue to trade in wide ranges. The AUD/USD has fallen 7.6 US cents from a 2020 high of 0.7024 on January 1 to a low of 0.6264. The weaker AUD will help export competitiveness, but with production weaker globally and demand for goods and services also weaker, the help to export activity will be muted.

COMMODITY PRICES



- The Baltic Dry Shipping index suggests further falls in commodity prices are ahead.
- The longer and deeper this coronavirus outbreak continues, the greater are the downside risks for commodity prices.

OIL PRICES TANK



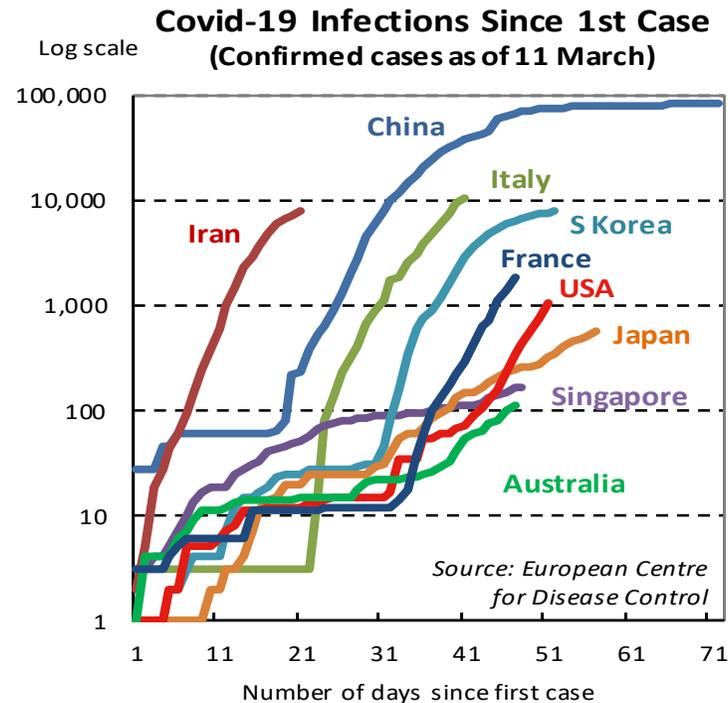
- Oil prices (using West Texas Intermediate spot) have dropped significantly – down just over 50% from their peak in early January.
- Worries of lower global demand have been a key factor, as travel is curtailed around the world.
- Supply factors are also playing a part after talks between OPEC and Russia broke down. Pledges for production cuts which featured over 2019 have been abandoned. Top oil producer Saudi Arabia responded by announcing on March 7 an increase in oil production in order to gain market share.
- Australian consumers can expect lower petrol prices at the petrol pump as a result, which will help deliver more money in the hip pocket.

HARD ECONOMIC DATA



- There is not a lot of hard economic data yet available on the impact of the coronavirus, as data is published with a lag and the ramp-up in global cases outside of China is relatively recent.
- Even in China, there is still a dearth of hard economic data measuring the impact.
- However, there have been some releases in China and they suggest the impact has been significant.
- The purchasing manager's index (PMI) for China in February fell to an all-time low, indicating a severe decline likely in industrial production and Chinese economic growth numbers when they are later published. Exports data for the two months to February in China also fell sharply.

WHAT TO LOOK FOR?



- Uncertainty will remain very elevated and confidence fragile until we see a decline in the daily run rate of global cases and deaths.
- Indeed, we suggest that this is one of the key signs to look for – any evidence of an easing in the growth of new daily global cases – or vaccines / anti-viral medication.
- This evidence or vaccine would help restore confidence and uncertainty and would eventually lead to a containment of the virus and relaxation of travel restrictions.
- The restoration of confidence and uncertainty is what is also required for businesses and consumers to lift spending, helping economic activity recover.
- There is some hope that as the Northern Hemisphere summer returns, the virus may be able to be contained. However, we warn that there could be another wave when winter approaches again – similar to what occurred with the flu pandemic in 1918.

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