Market Bulletin

14 April 2020

Monitoring the global impact of COVID-19

The spread of the coronavirus and its impact on global economic activity has materially changed the investment outlook for 2020. Trying to predict the precise outcome for the global economy is a fool's errand. Instead, in this piece we provide a framework for tracking infection rates globally and monitoring the impact on economic activity, using high frequency or daily data. We consider how government and central bank interventions might support the households and firms affected and facilitate an economic recovery, and then review the market reaction to date.

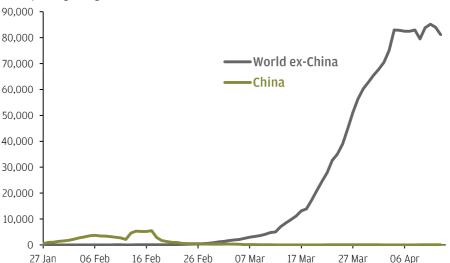
The clear investment implication is that, even more than usual, a well-diversified portfolio is essential. This includes diversification by region but also by asset class. Core government bonds have performed strongly. However, further upside for US Treasuries and UK Gilts will be more limited from here unless these central banks shift their guidance that they do not intend to take interest rates into negative territory. Investors may wish to consider alternative diversifiers such as macro funds, or real assets if liquidity is not a requirement.

What are the latest virus statistics?

Exhibits 1-3 provide the latest data on the spread of the coronavirus. China and South Korea have made substantial progress in controlling new infections, following the significant restrictions on activity. Whether a loosening of lockdown measures leads to a resurgence is yet to be seen. Of clear concern is the speed with which infections have increased outside of Asia, with the number of cases in the US, Italy and Spain now having overtaken those in China.

EXHIBIT 1: COVID-19 DAILY INCREASE IN CONFIRMED CASES

Five-day moving average



Source: Johns Hopkins CSSE, J.P. Morgan Asset Management. Data as of 13 April 2020.

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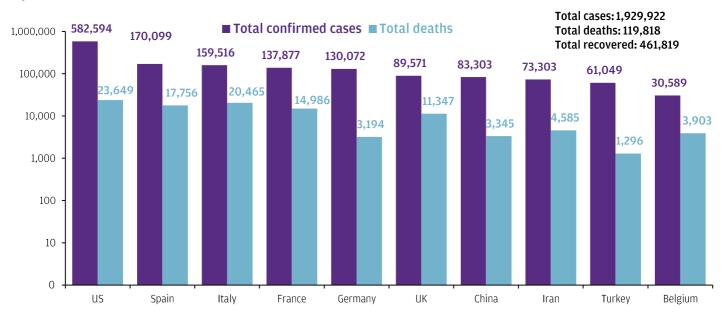


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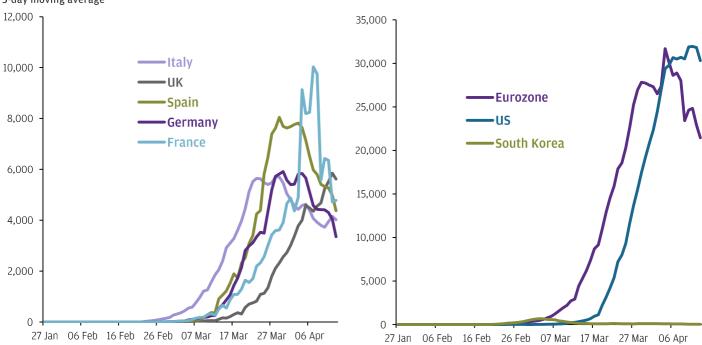
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EXHIBIT 2: COVID-19 CONFIRMED CASES AND DEATHS BY COUNTRY Log scale



Source: Johns Hopkins CSSE, J.P. Morgan Asset Management. Data as of 14 April 2020.





Source: Johns Hopkins CSSE, J.P. Morgan Asset Management. Data as of 13 April 2020.

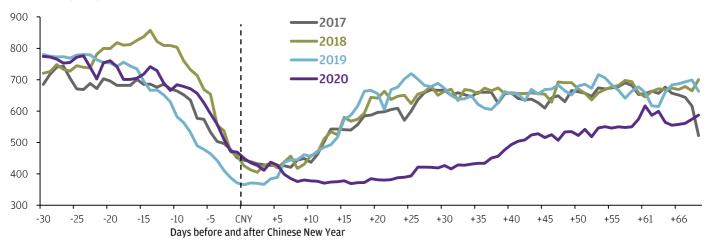
How is current production being affected?

Activity in China is normalising steadily (**Exhibit 4**). But the implications of shutdowns and social distancing are still yet to be fully realised in the developed world. The impact on the global economy will be large and broad. The manufacturing sector will be affected by lasting supply chain disruptions but the effect is likely to be most strongly felt in the services sector (**Exhibit 5**). Airlines, hotels, restaurants, cinemas and concert venues are amongst those most likely to be affected.

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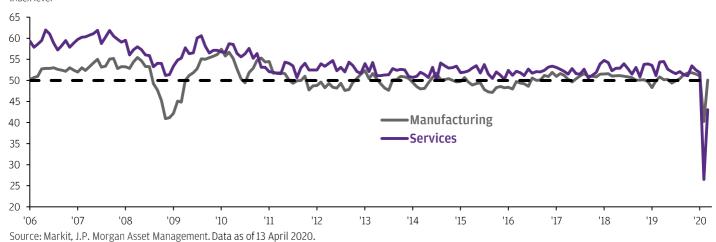
EXHIBIT 4: COAL CONSUMPTION IN CHINA





Source: Wind, J.P. Morgan Asset Management. CNY = Chinese New Year. Data as of 2 April 2020.

EXHIBIT 5: CHINA MANUFACTURING AND SERVICES PURCHASING MANAGERS' INDICES Index level



How long the restrictions on activity last depends on the spread of the virus, and the scale and duration of preventative measures required to reduce the rate of infection. This is something we cannot predict. What we can assess are the measures policymakers are deploying to support businesses during the period of production shutdowns and weak revenues. If the measures are effective they will reduce the likelihood of a vicious cycle whereby firms make lasting cuts to staff, business investment, inventory orders and so forth. If firms are given this near-term support they will be well placed to return to business as usual when the infection rates peak. A recovery by year-end would be feasible.

What might effective stimulus look like?

In our view, the answer lies with targeted fiscal measures. This can happen via subsidies - helping a firm meet rent and wage costs. Similarly tax breaks (such as temporary relief from business rates) can allow firms to cope with a period of weak profitability. The commercial banks may also have a role to play in allowing a period of forbearance and short-term relief on debt and interest repayments.

The German short shift programme, established in the global financial crisis, was an excellent example of a policy designed to limit the medium-term fallout of a demand shock. 1.5 million German workers were moved to a short shift. But companies were subsidised by the Federal government so that the net wage loss to the end employee was reduced with no burden on the company's balance sheet. The end result was a very limited rise in overall unemployment. These short-shift regimes are being rolled out increasingly across Europe (Exhibit 6).

EXHIBIT 6: FISCAL AND MONETARY POLICY RESPONSES BY COUNTRY*

Country	Fiscal response	Monetary response
US	 USD 1 bn in loan subsidies, enabling USD 7 bn in low-interest loans to be provided to small businesses USD ~100bn (~0.5% of GDP) of stimulus that includes paid sick leave, unemployment insurance, funding for food stamps and waivers to allow coronavirus testing to be covered by insurance and federal government programmes USD ~2trn (approx. 9% of US GDP) including: USD 500 bn fund to help hard-hit industries USD 500 bn for direct payments to U.S. families USD 350 bn for small-business loans USD 250 bn for expanded unemployment aid USD 220 bn in business tax breaks USD 150 bn in direct aid to state and municipal governments 	 Federal Funds Rate cut to a target range of 0.0 - 0.25%. Restarted asset purchase programme Treasury and agency MBS purchases are now unlimited Expanded the programme to include agency CMBS Launched a Primary (PMCCF) and Secondary Corporate Credit Facility (SMCCF), and restarted Term Asset-backed securities Loan Facility (TALF) Six major central banks agreed to lower the pricing on standing USD liquidity swap arrangements and to increase the frequency of operations to ensure there is sufficient U.S. dollar funding available New Foreign and International Monetary Authority (FIMA) repofacility, which lends US dollars overnight against Treasury holdings of foreign central banks New Paycheck Protection Program Liquidity Facility (PPPLF) and Main Street Lending Program to support funding to small businesses Municipal Liquidity Facility to be established to purchase short-term notes directly from U.S. states
Europe	 Pandemic Crisis Support credit line from the European Stability Mechanism EUR 100bn of loans from the European Commission to boost finance schemes to support jobs EUR 25bn credit guarantee fund from the European Investment Bank to support SMEs Recovery Fund being worked on, but unclear whether this will be backed by mutual debt 	Launched the Pandemic Emergency Purchase Programme
France	 EUR 93 bn stimulus package (~4% of GDP) to fund reduced social security contributions, wage subsidies and a solidarity fund for small companies EUR 300bn guarantee for bank loans to companies, and housing and utility payments suspended 	 Greek bonds are eligible for purchase Expanded existing Asset Purchase Programme (APP) by €120bn Expanded eligibility of non-financial commercial paper for the
Germany	 Ministers have suspended the "debt brake" that previously limited govt borrowing to 0.35% of GDP EUR 156bn supplementary budget passed (~4.5% of GDP) EUR 600bn bailout fund to provide guarantees for struggling companies Government has committed to provide unlimited credit and liquidity support for all businesses in need "Kurzarbeit" programme providing wage subsidies to businesses 	Corporate Sector Purchase Programme (CSPP) • Enhanced Targeted Longer-Term Refinancing Operations (TLTROs)
Italy	 EUR 25bn (~1.4% of GDP) aid package including subsidies to workers, tax suspensions and special measures for companies that lose 25% of revenues Public guarantees for up to EUR 750bn of loans with a six-year duration to boost corporate liquidity 	
Spain	 EUR 17bn (~1.4% of GDP) to fund unemployment benefits and to support the vulnerable EUR 100bn of state loan guarantees for businesses 	
uĸ	 GBP ~90 bn (~4% of GDP) of measures to support households and small businesses, including government subsidies for workers who have lost their jobs due to the virus and the self-employed, and cash grants of up to GBP 25k for eligible businesses GBP 330bn made available for government loan guarantee and credit scheme, with more if needed 	 Cut interest rates to 0.1% Restarted asset purchase program GBP 200bn of purchases to be made "as soon as operationally possible" Commitment to expand purchases further if necessary Launched a COVID Corporate Financing Facility (CCFF) to purchase commercial paper Launched a Term Funding Scheme for SMEs (TFSME) Cut the countercyclical capital buffer from 1% to 0%
China	 Various government fees and charges waived or delayed (contributions to social security, medical insurance) Value-added tax (VAT) waiver for small business inside Hubei Province, and rate cut from 3% to 1% for small businesses outside Hubei during March 1 to May 31 Purchase tax exemption for new energy vehicles were extended by two years to end-2022 Budget deficit to be raised, supported by issuance of special central government bonds. Quota for special local government bonds will also be raised 	 (MLF) rate, Loan Prime Rate (LPR), 7-day reverse repo rate and excess reserve rate Non-performing loan recognition temporarily relaxed Targeted RRR cuts of 50bps to 200bps for qualified banks, releasing RMB 550bn. Targeted RRR cut of 100bps for nearly 4,000 small banks, releasing RMB 400bn. RMB 1.8trn re-lending loans to SMEs
Hong Kong	 HKD 288bn stimulus package (~10% of GDP), that includes: HKD 10,000 (~1,300 USD) to be given to each permanent resident aged 18 and over Wage subsidies for up to 50% of workers' salaries for six months 	Base interest rates cut by 114 bps in total to 0.86% to maintain currency stability under the USD-HKD currency peg
Japan	 JPY 108trn (~20% of GDP) stimulus package announced, split into two phases: First phase measures include cash payments to lower income households and business subsidies Second phase measures will aim to boost spending in worst hit sectors to strengthen the recovery berg, J.P. Morgan Asset Management.*Note that this table does not include governn 	 One year, zero-rate repo operation against corporate debt Outright buying of commercial paper and corporate bonds Doubling of annual purchase limits of equity ETFs and REITs

Source: Bloomberg, J.P. Morgan Asset Management.*Note that this table does not include government spending to support health services, but focuses on measures to support private sector activity. Fiscal measures are those announced to date. Data as of 13 April 2020.

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Overall our assessment is that the governments are so far responding with appropriate fiscal policies. The magnitude still needs to increase in some countries, particularly in Europe, for us to feel confident that the necessary support for the economy is in place. Yet with few remaining doubts about governments' willingness to spend, our focus is shifting towards monitoring the effective implementation of the announced measures.

Much larger fiscal deficits will of course lead to much larger bond issuance. This is where the central banks have been required to show willing to buy government debt to ensure the market can absorb this additional issuance without undue stress. Again we're encouraged by the speed with which the central bank community has reacted and the magnitude of the asset purchases and liquidity schemes that have been announced. In many cases including the Fed, ECB and BoJ the packages that have been announced exceed those delivered during the financial crisis. The Fed's commitment to buy an unlimited amount of US Treasuries and mortgage-backed securities is particularly striking.

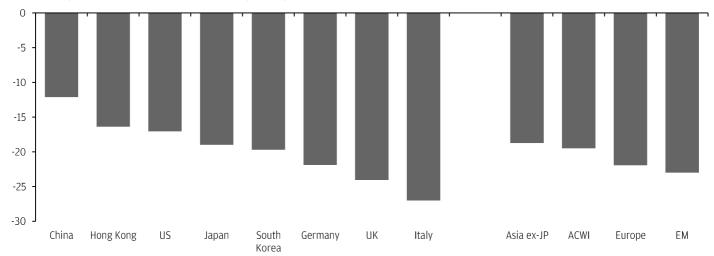
In summary, policymakers have acted decisively. The economic data in the developed world in the coming months will be truly dreadful. The market is largely priced for this near-term shock. What will be critical are signs that the policy response is working to facilitate a bounceback later in the year once the disease is contained. Chief amongst the indicators to follow are those of hiring intentions to assess whether policies are serving to shore up the labour market.

How have the markets reacted?

Markets have rapidly repriced given the deterioration in the outlook. Indeed this sell-off is not remarkable in its magnitude but it is in terms of speed. Energy heavy benchmarks including the UK market - have been hit especially heavily, given the collapse in oil prices. Some markets are showing tentative signs of recovery but it is too early to confidently call the bottom while the duration of the hit to activity remains so uncertain.

EXHIBIT 7: MARKET REACTION EQUITY MARKETS

% stock market price returns since 17 Jan 2020, local currency unless specified



GOVERNMENT BOND MARKETS

Basis point change in yield since 17 Jan 2020 75 50 25 0 -25 -50 -75 -100 ■ Change in 2-year yield ■ Change in 10-year yield -125 -150 South Korea ИK China Japan Germany

Source: (Top) Bloomberg, DAX, FTSE, Hang Seng, MSCI, Standard and Poor's, TOPIX, J.P. Morgan Asset Management. MSCI indices are used for China, S. Korea, Europe (EUR), ACWI (USD), Asia ex-JP (USD), EM (USD). Other indices used: Germany: DAX; Hong Kong: Hang Seng; Italy: FTSE MIB; Japan; TOPIX; UK: FTSE-All Share; US: S&P 500. (Bottom) Bloomberg, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. Data as of 13 April 2020.

MARKET INSIGHTS

Conclusion

It is still too early to accurately predict the ultimate impact of the coronavirus on economic activity and corporate earnings. The sooner the virus is confidently contained, the quicker the recovery in economic activity will be, particularly given governments and central banks are acting decisively to shore up the economy and support the prospects for recovery. However, the longer the period for which social distancing measures are required, and the longer the period of reduced travel to restrict the transfer of the infection, the greater will be the impact on corporate earnings. For now, investors should maintain a balanced approach to asset allocation, and may consider modest underweights to equities on a very short-term horizon.

Within both equities and credit, we favour an "up-inquality approach", focusing on those companies with robust balance sheets who have the financial flexibility to survive this shock.

Core government bonds have performed strongly. However, significant further upside for US Treasuries and UK gilts will be more limited from here unless these central banks shift their guidance that they do not intend to take interest rates into negative territory. Investors may wish to consider alternative diversifiers such as macro funds, or real assets if liquidity is not a requirement.

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