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Market Commentary

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The disease Covid-19 has spread to the point of constituting a pandemic. Such an event has not happened since 1919. It promises to broadly impact political and economic life with consequences which are presently indicated but not yet measured.

Major Developments

The dominant development worldwide in March 2020 was the pandemic of COVID-19, a new viral disease for which there is presently no cure, vaccine or native resistance from prior infections. The disease is similar to the flu in its contagiousness, method of transmission and typical clinical course. Unfortunately, it is far more deadly than the flu. Mortality rates for Covid-19 exhibit a strong agebased effect:

Age	Mortality Rate (%)		
Group	Covid-19	Flu	Ratio
0-4	0.0026	0.0013	2
20-29	0.06	0.0018	33
50-59	1.3	0.009	144
Over 79	13.4	0.0487	275

Source: Likelihood of Survival of Coronavirus Disease 2019

The Lancet, March 30, 2020

Shigui Ruan

As a result, quoted mortality rates on a population basis vary quite a bit from population to population, raising confusion about how dangerous the disease actually is. For instance, the mortality rate among confirmed cases in Germany is currently about 0.9% while in neighboring Italy it is about 11%. There are probably multiple drivers of this discrepancy, but one factor seems to be a greater success in sheltering Germany's older cohort from infection.

Policy responses also have varied. Asian countries (China, India, Taiwan, Singapore, Hong Kong, South Korea) all moved early to institute strong public health measures. Except for China, all have managed to limit caseloads to manageable numbers so far. Even within China, after an initial failed cover-up of the Wuhan outbreak by local officials, a draconian lock down followed to ensure that infection was largely contained within Hubei province. By contrast, West European countries responded slowly. Their hospital systems have in part been overwhelmed and casualty figures are high. The US response has been the least effective worldwide. It compares poorly with rival great powers (China and Russia), with small Asian countries (Singapore, Taiwan, Hong Kong), and with peer rich countries (the EU and Japan.) In particular, at each stage in the unfolding of this crisis, the US has formed an overly optimistic appraisal of the situation and in consequence failed to prepare adequately. This dynamic appears to remain underway.

The response required of a country to control Covid-19 is by now well known. The disease has, like many viral diseases, an asymptomatic carrier phase in which apparently well persons can infect others with the full-blown disease. Once the disease is at large in the community, the only effective control measure is to lock the population down in their homes. This limits transmission to family members and institutionalized populations. After about 6 weeks these chains of transmission are halted by the lockdown and residual rates of infection drop back to very low levels. At this point the lockdown can be released, but intense testing of suspect cases and tracing of their contacts is required on an ongoing basis to prevent local reignition of the epidemic. If that occurs a further lock down, hopefully on a local level, will be required. Slip ups in disease surveillance may well result in subsequent waves of regional infection until an effective vaccine is developed and broadly deployed.

The economic consequences of lockdown are massive. Nonessential economic activity (about half of GNP) basically halts, except where it can be conducted remotely on-line by workers from their homes. Retail shifts online wherever possible. While product companies may suffer only temporary deferral of sales until normalcy returns, service businesses may suffer permanent losses. To prevent structural damage and alleviate hardship, governments must declare debt moratoriums and provide basic living expenses to the non-working population. These costs dwarf the cost of caring for the sick. Given the extent of likely economic damage, even Congress' recent \$2 trillion relief bill may prove inadequate relief.

Once lock down is released, however, economies can be expected to spring back to life driven by pent up demand, newly created needs and cheap money provided by central banks. Recovery will be faster in countries which do a better job of limiting structural damage. The US, with its worst in class public health performance, may suffer the largest economic hit.

Longer Term Assessments

Longer term consequences of this event will slowly reveal themselves but are likely to be substantial. Politically, electorates in democratic countries typically do not reelect administrations which preside over disasters. They leave it to historians to separate the unlucky from the incompetent and move directly to trying someone new in the hopes it will make a favorable difference. President Trump is a likely casualty of this electoral swing. Given the close alignment between him and the senate Republicans demonstrated in the recent impeachment trial, negative sentiment towards him could also prove problematic for those Republican senators who are facing reelection. The probability is that a moderate Democratic administration will be elected with control of Congress. Currently power is ebbing from Trump towards the state governors. This trend will likely continue.

The new US administration, of whatever political complexion, will be forced to confront a stark fact. This crisis is the third in a sequence which began with the 9-11 attack and was continued by the banking crisis of 2008/09. While each crisis has had multiple sources, poor governance has played a critical role in each. The US is not rich enough to endure a multi-trillion-dollar crisis brought on every 5-10 years by a weak government. It will have to fix that problem. Doing so will require greater investments in government IT, increasing the salaries of civil servants to recruit greater talent, and enacting stronger protections of senior civil servants so they can speak the truth to power and blow the whistle on policy officials without any fear of reprisal. Such a program of reform is unpalatable to both parties. The Democrats would prefer to spend money on expanding

entitlements and the Republicans would prefer a smaller more focused Federal government. We believe neither party will be able to follow its natural bent as the urgent voice of a scared electorate insists on reform.

The other clear political casualty of these events is China, which, despite its efforts to disguise the fact, has lost enormous political face. The Chinese central government will diagnose the problem as the misdeeds of local officials and seek to ratchet up its surveillance operations. But in-fact China's food sector has been acting as an enormous Petri dish for breeding new diseases for years if not generations. China's trade partners will realize that the central government's expanded police powers will not be deployed to protect them and that continuing Chinese access to their countries is pregnant with the possibility of worse epidemics to come. They will be right to press China for fundamental reforms and to restrict Chinese access as necessary until the underlying problem is dealt with. On its side, China is abruptly confronted with a uniquely dangerous situation – a world community which could spontaneously act to isolate China long term. To navigate this difficult environment China will probably choose to temporarily dial back its ambitions along a whole host of dimensions to avoid pushing things to a tipping point.

Worldwide, corporations are being forced to carry on their existence with home bound staff. They are being forced to learn how to function with physical dispersed staffs connected by information technology. Once these skills are acquired they will be retained. A parallel may be drawn to just-intime inventory management. In the early 1980s sky high interest rates forced corporations to conserve working capital and they learned how to operate with much-reduced inventories. After interest rates came down, they continued to operate that way because it remained more cost effective than the old style of inventory management. Here, the cost saving in dispersed staff comes in reduced need for office space centrally located in expensive metropolises. Immediately the saving is in rent and facility charges. Longer term there is a large saving in staff salaries as the staff is relocated to urban centers with lower costs of living. These changes are largely welcomed by staff, who shed a burdensome and often expensive commute. For over a century, economic opportunity has been ever more concentrated in the world's megalopolises at the expense of its secondary cities. In the US context think of New York and Los Angeles versus the largest city in each of the other 48 states. A breaking of a century long trend is a significant event. While it is too soon to know that this is occurring, the very possibility of such a shift forces the reexamination of many operating and investment assumptions.

Economic shocks are being felt first in the commodity sector and more specifically in energy. In any scenario other than a quick economic rebound, commodity producers and their supporting banks will inevitably sustain damage.

The industry most directly effected by the epidemic is, of course, the medical sector. Doctors and nurses had been gradually ceding power to administrators of public and private health plans. Similarly, pharmaceutical companies were a favorite whipping boy of politicians focused on the cost of medical care. The world is now being forcefully reminded why it values dedicated health professionals and smart pharmaceutical companies. Health administrators and politicians, by contrast, are not coming off well. Too often they foresaw the possibility of a pandemic such as the present one, but they failed to prepare for it. It is too soon, however, to say if this shift in the balance of prestige will be result in a shift in economic trends.

Thus far the financial sector has weathered the storm well. Markets have remained open and no major firms have been bankrupted. With New York and London heavily impacted by the epidemic, however, it is possible that operational constraints could appear in either financial center and temporarily effect operations in the rest of the system. Smaller financial centers in Zurich, Dubai and Singapore are unlikely to suffer operational disruption from the epidemic.

Market Performance

Even though we have seen warning signs of impending recession (such as an inverted yield curve) from fall 2018, the economic and market meltdown was jarring. In part this was due to its speed. Markets plunged into bear market territory (defined as 20% or more) within a month of reaching all-time highs. Volatility (as measured by the CBOE Volatility index, or VIX) spiked from the mid-teens in late February - a level it had held for over a year - to above 80 in a month.

Investors experienced sizable market losses as depicted in the below table. These losses are larger than anything experienced since 2009 and are broadly in keeping with the bad health news over the same period. Shockingly unemployment shot above 3 million in one week time and then doubled again. By contrast initial jobless claims have seldom crossed 500,000, and generally been between 100,000 and 300,000 for the past 50 years. This fact alone left no doubt that the US economy is suddenly in recession.

Market Index	March 2020	Jan-Mar 2020
S&P 500 (US Large Cap Equity)	-12.4%	-19.6%
Russell 2000 (US Small Cap Equity)		-30.6%
MSCI EAFE (Developed International Equity)		-22.8%
MSCI Emerging Markets (Emerging International Equity)		-23.6%
Bloomberg Barclays US Aggregate (Core US Bonds)		+3.1%
Bloomberg Barclays US High Yield (Junk US Bonds)		-13.7%

Losses did abate slightly following announcements of government stimulus to businesses and households, at levels never before seen in peacetime. This created partial recoveries that were themselves historic (e. g. +15.5% on the S&P 500 in the last 6 trading days of March) without which all above numbers would be substantially worse. Some of this is surely attributable to quarter-end institutional rebalancing, and with VIX ending the quarter above 50, markets remain highly volatile.

Outlook

Volatile markets are always a concern for investors. A common viewpoint holds that financial market prices integrate the thinking of participants and somehow reveal a conclusion that is wiser and more insightful than any single investor's. Were this the case, volatile markets would then indicate a moment pregnant with opportunity. In fact, the presumed wisdom and insight of the market is a myth. During crisis periods such as the present, markets are heavily driven by technical factors – the need to adjust hedges, liquidity events, announcement calendars and so forth. This technical noise by far drowns out any longer-term signal and markets at this time reveal even less about the future than they normally do. What is true about volatile markets is that it is possible to

lose a good deal of money quickly through rushed portfolio decisions, poor trade implementation and unforeseen operational glitches. Serious investors generally seek to avoid trading at such times. The correct response to major events such as the present epidemic is neither to react to them nor to ignore them. Instead long-term plans should be reviewed, fine tuned as necessary and portfolio consequences implemented gradually. Generally, neither large nor sudden moves should be called for. A period of lock down is well spent on making sure one's long-term plan is in place and up to date.

Guidance

In particular we would caution investors against reactive responses to security volatility. When assets lose value across the board a natural instinct is to join the sell off. This instinct produces poor selling prices and considerable frustration when prices rebound - as they often do. If we are correct in just a few of our long-term assessments, substantial intermarket shifts in valuation lie in the future. But it will take months for these changes to come sufficiently into view for investors to start building positions. The present pandemic is a massive highly unusual event which invites a thoughtful rather than programmed response.