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# Pandemic panic or opportunity?

## Finding the opportunity in a global crisis

Eoin Treacy, Investment Director



Dear Reader,

Between when I penned my last issue and now, the novel coronavirus

has become front-page news. Everything I am seeing is pointing towards a global pandemic. That represents both risks and opportunities for our positions.

Some people may be uncomfortable with the idea of profiting from an outbreak like this. But this is a situation that *will* (and is) impacting the markets. Your choice, ultimately, is to be someone who recognises the opportunities being created and take a run at them... or become a victim of circumstance.

As of 4 February we are still very early in this breakout's cycle and it is quite likely news is going to get worse before it gets better. The most important point is that epidemics on this scale create short-term angst, but also create wonderful buying opportunities. It's important to understand what the normal cycle of investing is during such an event so we can profit from it.

My primary purpose here is to provide subscribers with an awareness of what is going on, to point out the facts such as they are but also to highlight what we do not know and how that is likely to impact the market. Of course, this also creates an urgent investment recommendation because the virus is going to create a business opportunity for

one company in particular that could really see it soar.

### Just how *bad* is this outbreak?

Global pandemics are inevitable but always appear as the proverbial "black swan" when they crop up in our lives. Every year there is a global flu surge. It quickly jumps around the world, infects millions of people and kills anywhere from 200,000-600,000 people per annum.

It's a predictable event and those with foresight get a vaccine. Those who don't, take part in a lottery which will either put them out of commission for a week or leave them unscathed. Personally, I don't have the time to get sick. In fact, I haven't had a sick day in



more than 20 years, but I still get the vaccine.

*So, what is the difference between the global seasonal flu pandemic and what we have right now?*

The flu is a good example because it is a virus that everyone is familiar with. Almost everyone has had a run-in with the flu and knows what it feels like to have it. On the contagious scale, every infected individual infects a little more than one other person so while it is contagious, there are also well-understood practices that can be taken to avoid infection.

Measles is the most highly contagious disease we know about. Each infected individual generally goes on to infect almost 15 additional individuals. I remember as a child being crowded into a room, along with all my friends, so we would all get measles and get the illness out of the way while we were young. It was the late 1970s version of a vaccine.

The reason there is such a furore about wanting everyone to take the measles vaccine is because it is more deadly than season flu and much more contagious. Every at-risk individual who gets it is in danger even though the vast, vast majority of people who get measles recover with no ill effects.

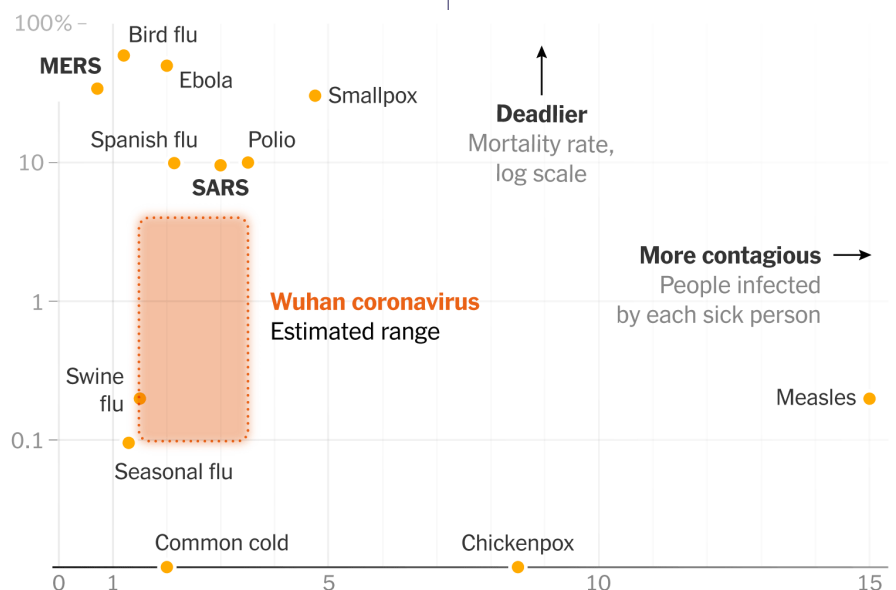
At the other end of the scale is Middle East respiratory syndrome (MERS). It has a low communicability score so has a re-infection rate of less than 1. However, it has a high mortality

rate, killing 36% of infected people. The first instance cropped up in Saudi Arabia and just under 2,000 cases have been found so far. It is deadly but difficult to transmit with the result that most infections occur where people are in close quarters, like hospitals or at home.

The disease with the highest contagion factor combined with the highest mortality factor is smallpox. Before it was eradicated, every infected individual passed it on to almost five additional people and the mortality rate was about one in three.

That's a deadly combination and I believe if we are looking for a major contributing factor in why populations exploded and the Industrial Revolution took off, it can be linked back to the initial introduction of the first smallpox vaccine in Gloucestershire in 1796. The removal of such a lethal pathogen from the threat list resulted in a growing population at just the right time for the UK's factories to find workers.

Every virus depends on its host



for replication and transmission. If the host is dead, then transmission falls to almost zero and the virus dies. Therefore, the most successful viruses don't kill their hosts, which allows them to replicate more aggressively or they kill slowly which allows for greater transmission. That is why smallpox was so successful but it is an anomaly in the broader sphere of communicable diseases.

So in that spectrum of communicability versus mortality where does the Wuhan coronavirus sit? That's the big unknown. It is simply too new to have a concrete idea of what its unique characteristics are.

The range of possibilities are that it is slightly more contagious than the seasonal flu but could be as contagious as polio. It could be as deadly as the seasonal flu but could also have a mortality rate approaching that of severe acute respiratory syndrome (SARS) or the Spanish flu.

This graphic from The New York Times does a good job

Source: The New York Times



of highlighting the range of possibilities. Please note the vertical mortality measure is in log scale. That means the seasonal flu kills about 1 in 1,000 people that contract it, whereas SARS, Spanish flu and Polio kill about 100 in 1,000.

This is a very wide range of possibilities, ranging from the possibility of a major and expensive killer to a modestly more difficult to treat flu. So can we use what we know already to narrow the range of options so we can come up with what the investment implications are likely to be?

The first we know is that the incubation period can be as high as 14 days. That's a long time but it is also a worst-case scenario.

The quarantine of Wuhan and surrounding cities that began ahead of the Chinese New Year celebration represents a realisation that the only way to quickly find out who has the virus is to lock everyone down and wait it out.

It's an extreme measure which is likely to have an economic impact the longer it persists, not least because of its effect on public sentiment and the fear people have of going outside at all. By the end of this week, we will have clearer information about whether the quarantine succeeded in limiting the spread of the disease.

**Nevertheless, that is unlikely to represent an end to the outbreak because it is estimated that 5 million**

### **people left the city before the quarantine was introduced.**

That knowledge has led to villages and towns all over China rigorously enforcing curfews and monitoring all people entering while turning back anyone who wants to leave. The rise in the number of international cases is at least in part as a result of this mass exodus from Wuhan.

What evidence do we have of the mortality rate? The number of official deaths is climbing every day, which is what we expect during the ramp-up phase of any outbreak. The number of official deaths is a bit of a moveable beast with the official figure of cases around 14,500 while the Lancet opined last week it was north of 75,000. Figuring out the mortality rate necessarily depends on accurate diagnosis.

The problem international observers have is China has a very poor record of reporting accurate statistics. The problem with gaining an accurate figure is that China is deliberately understating the number of deaths to keep public sentiment in check. Crematoriums are running 24/7 and cause of death is not being recorded for anyone who dies in hospital which is ensuring we do not have accurate data to deal with.

### **The misinformation contagion**

Into that void steps conspiracy theorists. I have seen everything from reports that the Wuhan virus has HIV components, that it was designed by the Chinese

government as a bioweapon, to it being designed to target the elderly in a form of mass euthanasia and that it is killing 50% of people. I've also seen rumours to the effect that a secret cure exists and it is being held back by the Chinese government, in that gargling salt water or drinking alcohol kills it.

The problem with all of these theories is it is difficult to combat these arguments because each has some basis in fact. Unfortunately, the error in the logical leap from the fact to the conclusion is difficult to articulate in a Twitter feed.

As Jonathan Swift wrote: "Falsehood flies, and the Truth comes limping after it; so that when Men come to be undeceiv'd, it is too late; the Jest is over, and the Tale has had its Effect..."

Here are some of the facts that can be reshaped to fit a disastrous narrative for the markets. China has a long-term programme to acquire all forms of technology and industrial espionage is central to that objective. That includes subverting researchers in labs and universities and paying or extorting them to ship intellectual property and biological assets back to China.

In July 2019, two Chinese nationals were fired from a level 4 biological research facility in Canada for engaging in espionage. Just last week the head of chemistry at Harvard was indicted for his role in selling research. China's only publicly declared viral research site is in Wuhan and is suspected of



furthering the country’s secret biological weapons programme.

I don’t know to what extent any of the underlying facts do in fact link up with the conspiracy theories but in many respects that doesn’t matter. The message here is that a level of disquiet is evolving among the global population, which has been provoked by the lack of information, the size of the response despite the lack of information and the daily increases in the number of official infected and dead.

If we cannot trust information coming out of China, we have to then look at other locations. One of the best write-ups I’ve seen is the case of the four infections in Munich. The most important information we have from this example is the infection was mild and was limited to mild symptoms.

The next big takeaway is the first patient has contact with a person from Wuhan

who came over on a business trip. The second patient had direct contact with the Wuhan resident, but the third and fourth only had contact with the first patient. Symptoms in all four patients were mild. The next important point is the virus was transmitted in its incubation phase.

There have been hundreds of confirmed cases outside of China but all have been directly linked back to someone in Wuhan. The spread of the disease is not simply a factor of international travel, which has grown since the SARS outbreak 17 years ago.

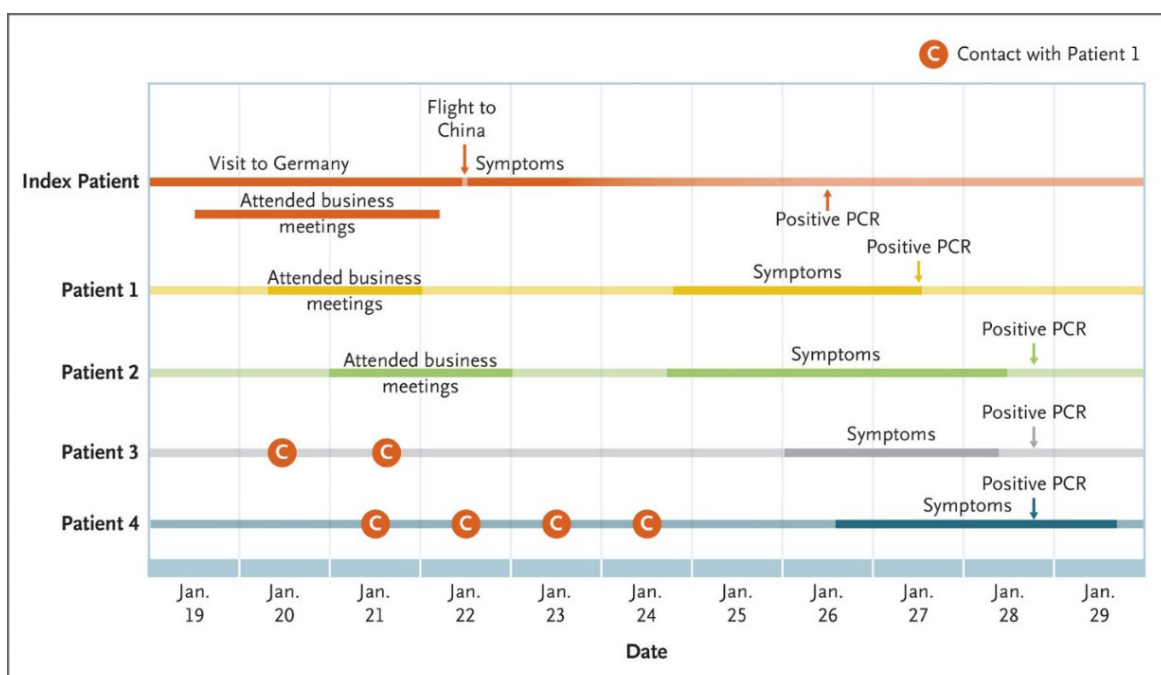
Wuhan is a city with an official population of 11 million and a floating population of migrant workers that adds a couple of million more to that total. If the disease did indeed spread from the seafood market in Wuhan, it is unlikely large numbers of the population visited the site over the course of December

when the virus was spreading. That suggests it is probably more communicable than the seasonal flu.

Chinese officials estimate each carrier spreads the virus to 5.5 other people while the UK’s Imperial College estimates a re-infection rate of 2.6. That’s a very wide spread which is likely to contract as we learn more about the disease. However, it represents an uncertainty around which many people will attempt to trade in the financial markets.

The only real data we have on mortality rates is from a Lancet study of 99 cases in Jinyintan Hospital in Wuhan. 49% of the patients visited or worked at the seafood market and were admitted to the hospital between 1 and 20 January. By the 25 January, 31 people had been discharged, 11 had died and the remaining 57 were still under care.

That’s an 11% mortality rate but



Source: The New England Journal of Medicine



it is also reasonable to conclude these were the sickest people at the epicentre of the breakout. It is also reasonable to expect that mortality rate to fall as more mild cases are identified. It is just too soon to draw a firm conclusion.

The one comforting factor is the first cases outside of China were reported more than a week ago and so far, the spread has been contained. That suggests this virus is not as communicable as feared but it is likely to continue to spread in countries without well-established medical systems.

Therefore, what we are looking at is a virus that is at least as communicable as the flu, probably more so, and which has a mortality rate at least double that of the flu and potentially more so.

## Let's talk solutions

The response by the Chinese government has been epic in scale since it made awareness of the outbreak a public affair. The Communist Party has taken flak internally because initial cases were both suppressed and misdiagnosed in early December, but since then it has adopted a more adroit policy of attempting to contain the outbreak even if official statistics are still being misrepresented.

Shutting air routes, quarantining anyone who has been to China and raising public awareness will slow the advance of the virus. The economic effect of the quarantine occurring around the New Year holiday is the Chinese equivalent

## China cannot afford for this virus to derail economic growth and it is likely to pull out all the stops in its attempts to stimulate activity.

of cancelling Christmas.

On the one hand, the travel plans of millions of people to visit family ahead of the holiday probably spread the virus. Meanwhile, the fact most factories were due to be shut anyway will have moderated the impact. Since the quarantine was first announced, the shutdown has been increased by an additional week, which is obviously raising fears among buyers that their orders will not be fulfilled.

The effect on consumer sentiment is even more important. China's service sector has grown to be an important part of the economy over the last decade and it is understandably suffering because consumers are either delaying or cancelling purchases as a result of their fear of going outside.

That means economic growth in the first quarter is due for a significant downgrade. The first estimates, which came out a week ago, were for growth to drop below 5%. That's a massive hit that would drive the majority of developed economies into contraction and it is probably out of date by now.

China cannot afford for this virus to derail economic growth and it is likely to pull out all the stops in its attempts to stimulate activity. \$22 billion in stimulus was announced over the weekend and ahead of

the opening of trading in Shanghai and Shenzhen on Monday.

The benchmark CSI 300 Index opened down 9.1% but it is important to remember the Chinese government is not about to allow the stockmarket to crash because of this event. The index traded higher off the open throughout the session.

We are likely to see additional rounds of stimulus put in place to support growth. Already we have seen measures such as support for companies who cannot make deadlines, commitments not to call in loan payments and easier loan conditions for individuals and small businesses.

Over the last few years China has been attempting to squeeze leverage out of the financial system. That policy is now dead. Share pledge contracts are being extended, there is also some relaxation of asset-management rules. We are back on a massive stimulus route for at least as long as the virus remains a threat to economic growth.

The most important thing to remember about the investment cycle is that capital is both mobile and global. Money printing in China, when combined with the money printing and deficit spending practised in the US, UK, eurozone and Japan represents a fundamental support for asset



prices. The medium-term impact of the coronavirus will be to ensure the market is flooded with even more liquidity and we are now even more likely to see blow-off rallies.

In the short term, as in the next couple of months, we are likely to continue to see additional volatility in the stockmarket, until we eventually see the peak in the infection rate. That is because of the scale of the problem and the potential for it to spread internationally, and particularly in highly populated emerging markets like India and Bangladesh.

However, once the infection rate peaks, we are likely to see a swift recovery of any losses and a sustained move to new highs, driven by the new liquidity now being added.

### **The investment case - what is the real opportunity here?**

Right now, there is a run on face masks but I am not recommending you buy into the extraordinary advance in Kawamoto shares. The simple fact is most face masks do nothing to stop you getting a disease. They do help stop infected individuals from spreading it but that is not why people are wearing and stockpiling them.

Additionally, the majority are produced in China and once people get back to work, the supply will increase and the shortage will be over. In fact, my best guess is the run-up in mask manufacturer shares is already over.

Another alternative I played with was looking at testing kits because in effect they would shorten the 14-day quarantine. This is one of the most significant of all cost factors in tackling the coronavirus.

The most glaring difference between SARS and the Wuhan coronavirus is it is possible to transmit the latter without exhibiting symptoms. SARS was only transmissible by infected individuals so it was easier to control. The more I looked into it however, the more it became apparent that testing kits are going to quickly become commoditised.

Instead, I am recommending a company that specialises in streamlining online work flow. The simple fact of the matter is anyone is more at risk of infection from proximity to other individuals regardless of what other protective measures are taken.

The transmission rate, increased death toll and lack of a cure all suggest that we are going to be dealing with a fear of infection for a while. That is likely to lead to a lot more requests to work from home and that should create the catalyst for demand growth Slack Technologies has been waiting for.

### **This month's *Frontier Tech Investor* recommendation: buy Slack Technologies**

The company describes itself as a collaboration hub. What that means is it has brought a product to market that enables collective management of a

team's inbox, the easy sharing of tasks and management of workflow. It allows for seamless brainstorming and communication in real time and enhances productivity by connecting workers, clients and prospects in a steady flow of manageable graphics, messages and columns of information.

Email has been with us for more than 25 years and I'm sure your inbox is as bloated as mine. I receive several thousand emails a day and let's be honest, most don't get opened.

The problem I have is I outgrew the filter system on Microsoft Outlook a long time ago. Whenever I set up a new filter today, I get a message that I have reached the limit of what Microsoft Exchange has room for. That just means my inbox fills up and it is time consuming to even delete everything not to mind read it.

As my roles have become diverse, I now find myself monitoring three separate email inboxes and they are all full. Personally, I am getting to the point where I need an alternative and I'm strongly leaning towards Slack to fill that need.

The utility Slack brings to the workspace is that it streamlines workflow and prioritises collaborative messaging, spitballing and brainstorming that characterise many service sector jobs. The other reason I have sympathy for the Slack model is I hate meetings. There always seems to be someone who just wants to talk about



themselves and goes off topic. It's one of the primary reasons I prefer to work from home.

The coronavirus is something that is going to further legitimise the argument for working from home. Many people choose telecommuting as an option because they need to be closer to family, need to care for children, have quality of life and cost of living priorities or, like me, just feel they are more productive without distraction.

Once we add personal safety to that list, it becomes pretty compelling. Why put yourself in danger when you don't have to?

Slack has 12 million+ daily active users and has already been deployed by 600,000 organisations. The company continues to grow aggressively and is benefiting from the simple fact that software tools for productivity growth are what companies are now investing in.

A new desk, chair or faster computer has modest value but a software suite that can maximise your daily productivity and which can tap right into the cloud is a significant enhancement that ultimately helps to save money.

The big selling point rests with integration. People in the legal department use their own software suite to manage their accounts and issues. The IT department has a completely different set of requirements and will have dedicated tools to fulfil them. The sales team also has completely different requirements.

The more software these different tool users deploy, the less likely they are to have an effective communication array to prioritise collaboration and workflow. That is where Slack fits in because it is specifically designed as an add-on to other software services. In short, it is the email assistant of the 21st century you wish you had. It currently integrates with 2,000 apps.

The primary change it is selling is to deprioritise an individual's inbox for intracompany communication, in deference to a communal channel everyone has access to. Rather than simply being a replacement for a memo, which is effectively what an email is, Slack is providing a communal virtual workspace where people, applications and data can come together to work and be productive.

One of the primary reasons the company has been able to sustain growth is because of the engagement of users where people tend to have the app on all day and spend 90 minutes in active engagement daily. Importantly, the percentage of revenue from large companies continues to grow and currently sits at 43% but it is expected to grow to 47% by the 3rd quarter.

That means as customers grow, every new worker gets a new Slack account. When an old worker leaves, they have tended to proselytise at their new job.

3rd quarter billing (\$186 million) and revenue (\$169 million) came in above consensus. In fact, billings were up 47%. 4th quarter

guidance matched the market's expectations but guidance for the full year was increased.

Management also highlighted the fact that customers paying them more than \$100,000 a year increased 67% year over year to over 800 companies. That's strong traction. By increasing 2020 billing expectations, it predicted it will lose less money than originally expected.

When we look at the price action, the share is still trading well below its initial public offering (IPO) price of \$25.91. It surged higher immediately after that momentous event but gave up all of the advance by September and continued lower into October.

Since then it has been bobbing along above \$20. This has every appearance of an evolving base formation. Considering the potential for demand growth to emerge as a result of virus outbreak fears, this is a low-risk entry point in my opinion.

**I recommend buying Slack Technologies up to \$25. My 12-month target is \$40 and if the company continues to iterate on its growth strategy, I believe it will be trading at \$100 in three years.**

## Risks

The risks are that its business model depends both on the success of the companies it relies on for business. If there is an economic downturn, that represents a significant risk in the event it leads to job losses.

The primary risk, however, is competition. There is no doubt that Slack is providing a novel solution to a problem in the market but success breeds competition and that is always a risk for software companies.

The third consideration for an investor is that this is still a loss-making company. It will probably be a few years before it is reliably throwing off profits. The positive is that it is still growing quickly and needs the capital from the

IPO to fund that growth.

Cash on hand is currently \$774 million so it will not need to come to market for additional funds for a good long time but access to liquidity is always a concern for loss-making businesses at some stage.

**Action to take:**

Ticker:

Price as of 04.02.20:

Buy up to:

Market cap:

52-week high/low:

**Buy Slack Technologies Inc**

WORK US

\$23.06

\$25

\$11.54 billion

\$42.00/\$19.53

All the best,

Eoin Treacy

Investment Director, *Frontier Tech Investor*



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