

Market Flash

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POTENTIAL IMPLICATIONS OF THE SWINE FLU PANDEMIC

By Allison Emmert, Vice President, Economic Strategy Group

How Severe Is the Continuing Crisis?

The number of cases of influenza H1N109 (“Swine Flu”) now exceeds 100,000 across more than 120 countries, which has led to more than 450 deaths worldwide.¹ Scant attention has been paid to the Swine Flu pandemic at least in the Northern Hemisphere, where influenza is traditionally scarce during the summer months. However, it appears that by September this particular strain of the virus will have posed a greater threat than the seasonal flu or any other outbreak in the last 40 years.

Although it is commonly believed that the seasonal flu is more deadly than H1N109 in its existing form, that reasoning appears flawed. As of early July 2009, the morbidity level of the virus hovered around 0.45%, based on reported cases, which appears to be higher than that of seasonal influenza’s rate of between 0.06% and 0.24%.

While the level of virulence of H1N109 first appeared to be relatively low, it has spread quite rapidly. For approximately 10 weeks, the World Health Organization was actively tracking and reporting the number of confirmed cases and deaths per country. During that period, the number of confirmed cases rose from 854 to nearly 95,000 cases, while the number of deaths rose from 54 to 429.

On July 6, the WHO advised national health officials to stop testing to merely confirm the H1N109 virus. This indicated that the illness has been spreading so rapidly that medical labs around the world were becoming over-burdened with the costly, time-consuming H1N109 tests.

Inherent in the WHO’s recommendation was that H1N109 tests should be reserved for questionable cases, where the strain shows signs of mutation or for more severe cases. These have been prevalent among patients with underlying health problems, as well as pregnant women and obese individuals.

A final but important risk factor seems to be the patient’s age. It appears that older citizens have greater immunity to this strain, perhaps because of exposure early in life to a derivative of the strain that caused the 1918 flu outbreak. This was considered the most deadly pandemic to date, causing as many as 100 million deaths. It also appears that children are among the most vulnerable in the population. For example in Chile, a country that at last count had the highest per-capita level of outbreak, 66% of those hospitalized were 19 years old or younger.

Also particularly concerning is the fact the number of cases in both the Northern and Southern Hemispheres has been steadily rising since the outbreak surfaced in March, at a time when one would otherwise believe that the rate of spread would be low, at least in the Northern Hemisphere.

As of this writing, nearly 36% of total cases have been reported in the United States, and the number of cases in the UK had doubled on a weekly basis throughout June. The number of reported cases from China managed to triple in just the week between July 1 and July 6.¹

This supports the fact that Swine Flu is extremely virulent. The fact that it is still spreading at a time of year when the flu is practically non-existent in the Northern Hemisphere, poses serious questions about what can be expected over the coming months.

Not surprisingly, on June 11, the World Health Organization (WHO) characterized this outbreak as an official pandemic, raising the alert level to “Phase 6,” which acknowledges the human-to-human spread of the virus in several countries and more than one region around the globe. This marked the organization’s first declaration of a pandemic in four decades. This is important because, while the Avian Flu and SARS had higher mortality rates than H1N109, they were never transmitted easily from person-to-person.

Key Concerns Going Forward

Some prevailing concerns were highlighted at the time the WHO upgraded the Alert Level to 6. These included:

- Mutation into a more severe strain. The “Spanish Flu” of 1918 began as a relatively mild flu in March/April, then re-emerged in August as a much more lethal strain of the virus.
- Emerging Markets will be disproportionately harmed by any outbreak, due to reduced access to resources. UN Secretary General Ban Ki Moon has mobilized financial donors in an attempt to raise US \$1 billion in order to buy vaccines and antibiotics for affected nations.
- Officials have been particularly focused on Asia, due to its concentrated population of humans as well as birds and pigs, which are common carriers of influenza-virus strains. This population density could lead to greater logistical challenges in terms of containment/treatment, as well as more rapid transmission of the virus.

¹World Health Organization, as of July 6, 2009

The overwhelming majority of cases of Swine Flu are mild, and most individuals recover within five days. However, it is clear that global resources will become more strained in response to the pandemic, even in more privileged economies. Additionally, since the WHO is no longer confirming the number of cases by country, it is no longer possible for the public to track how quickly the illness is spreading and the number of deaths it is causing. Health officials worldwide have acknowledged that it is too late to contain the spread of the virus, so they have turned their focus to treating those infected

While there has been considerable talk about creating Swine Flu vaccine programs, a vaccine has not yet been made available or passed clinical trials. Once an adequate vaccine is manufactured, questions remain about the cost, quantity and logistical challenges in distributing the vaccine. It is also unlikely there will be enough vaccine to meet demand. In fact, one US-based pharmaceutical company has stopped accepting orders for the vaccine because they cannot meet all of the demand. However, many governments are taking the spread seriously and are devoting resources to creating a vaccine.

Economic Impact

Given this extensive pandemic, disruptions in trade or commodity demand are likely and could have a strong impact on the already challenged global economy. With that thought, the Brookings Institute recently revisited “scenario tests” they ran in 2006, where they estimated that “a mild scenario would cost the global economy about US \$360 billion and an “ultra scenario [would cost] up to US \$4 trillion within the year of the outbreak. Clearly, this is not good news for a global economy trying to emerge from a severe economic contraction caused by the global financial crisis.”²

Earlier this year, the World Economic Forum estimated that the adverse economic impact of, what was then, a hypothetical influenza pandemic would be in the range of US \$500 billion, which is approximately 1.25% of global GDP.³

David Cutler, professor of economics at Harvard University, estimated that the ordinary flu costs the U.S. economy somewhere between US \$13 to \$15 billion annually, due to both direct medical costs and lost productivity.⁴ We might expect the cost of H1N109 to be substantially higher, since its effectiveness will likely be lower, requiring people to be vaccinated more than once.⁵

Even without an increase in severity, we should expect greater employee absenteeism and reduced productivity as a result of the current outbreak. In addition, any disruptions of ports, airports or borders may lead to widespread reduced inventories and supply shortages.

Trade restrictions can also harm the larger global economy. We have already seen some level of trade restrictions, with both China and Russia placing restrictions on pork imports from the United States, as well as several other countries, due to the perceived connection to swine.

Finally, four cases of drug-resistant strains of Swine Flu have been found to date (two in Asia, one in Europe and one in the United States) and if mortality rates from these drug-resistant strains increase, a flight to quality may lead investors to move back into gold, Treasuries and the U.S. dollar until the threat dies down.

Investment Strategy

While we remain deeply concerned about the human toll of this outbreak, as an investment firm we also have a responsibility to focus on the economic and investment implications of this and other risk events. A global health outbreak of any kind will undoubtedly have consequences on our investment portfolios. When WHO raised the Swine Flu alert to the pandemic level, we polled our analysts on their thoughts regarding the impact on investment strategies by both region and sector.

Japan had one of the most dramatic regional responses to the realization that the H1N109 outbreak had reached their shores – a rapid progression of a mild social “panic,” followed by a market sell-off capped by a decisive governmental response.

We asked our Tokyo portfolio management team what they witnessed in April, and our colleagues confirmed that the markets initially went into a state of mild panic and investments involving airlines, railroads, department stores and restaurants were all immediately sold off. On the other hand, companies in the health care sector, including pharmaceutical companies that produced anti-virals, and consumer product makers that produced protective goods such as masks, all performed strongly.

Fortunately, the market stabilized rapidly after the Japanese government quickly communicated that they were well-prepared to manage the crisis. This helped curb fear and anxiety in a restive public that soon realized that the mortality rate was much lower than initially feared.

Outside of Japan, our analysts focused the discussion on the sector level.

Commodities

With commodity markets so dependent on an open trade dynamic centered on China, India, and many other emerging nations in the region, a runaway pandemic alert could have profound effects on commodity prices, including industrial metals and oil, and, depending on the length of the outbreak, even precious metals.

One could argue that the recent drop in pork belly future prices is due more to paranoia over Swine Flu than to the current recession. If one believes that argument, now may be an opportune time to purchase pork bellies or other cattle-based commodities.

Since the announcement of the outbreak in Mexico, pork belly futures dropped 29.4% through July 15 and have only recently begun to recover a few percentage points. Lean hog futures prices have dropped by 11% since March 20. Conversely, the overall S&P/Goldman Sachs Commodity Index has appreciated by over

²Brookings Institute, May 4, 2009.

³Mawani, Amin, “Fever, Chills...and Losses: More Companies Should Be Preparing for an Influenza Pandemic”; *The Wall Street Journal*, Jun 22, 2009

⁴Dr. Burns, Sherry, “An Investor’s Guide to Avian Flu”; BMO Nesbitt Burns

⁵Jack, Andrew, “Novartis in Warning on Swine Flu Vaccine”; *FT.com*, July 16th, 2009.

9.7% during this same period, while the livestock sub-component of that index has remained mostly flat, with a 1.4% return since March 20.

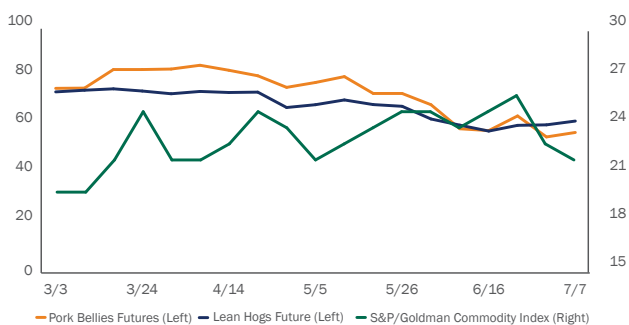
U.S. pork exports dropped 21% in April after Russia and China blocked some U.S. exports of pork. The USDA has estimated that pork exports will decline by at least 12% this year.⁶

Economists like Dr. Sherry Cooper, Chief Economist of BMO Capital Markets, have underscored that vegetables are substitute goods to meats, especially during a community health crisis such as a flu outbreak. The idea is that consumers would switch their diet to favor fresh produce over meats, in an effort to stay healthy.

Some anecdotal evidence available through Bloomberg seems to confirm this thesis with reports that street vendors in Malaysia have seen sharp increases in the sale of fruits and vegetables, as individuals “seek to be healthier in light of this outbreak.”

However, we believe this shift is a short-term phenomenon. Experts have repeatedly stated that H1N109 is not contracted by eating cooked meat, and so the downward trend in pork and hog prices is likely to reverse as the markets behave more rationally. There is already evidence of this shift, as pork and hog prices have outperformed other agricultural commodities since June 29.

Reversing Trend of Commodity Prices



Source: Bloomberg. S&P Goldman Sachs Commodity Index vs. Pork Belly Future Contracts and Lean Hog Contracts.

Healthcare

Managed care providers and hospitals will likely see an increase in costs and claims as utilization of services increases. Whether accessed by the legitimately ill, or by the “scared sick,” we would expect an impact will have occurred during the second quarter. But unless the virus mutates to a more virulent form or we see a drastic increase in contagion, we do not expect this outbreak to have a material impact through the rest of the year.

While one might assume this could be initially positive for revenues, hospital emergency rooms and affiliated healthcare clinics tend to be the first point of contact for the uninsured. As such, we believe that a viral outbreak is more likely to add to costs, due to increased utilization, than to increase revenues for managed care providers and hospitals. Our analysts did point out that a number of managed care providers noted a slight increase in costs during 2008, due simply to a more severe flu season.

Life Insurance

Our Life and Property and Casualty (P&C) Insurance credit analyst, Ken Weliczka believes the H1N109 outbreak will not be prevalent (in the Northern Hemisphere) over the summer months and that the virus is likely to return in the fall, when a more severe outbreak is possible. Therefore, we believe claims for life insurers with large healthcare operations are likely to be higher than anticipated.

There is also the possibility that Property & Casualty insurers could be subject to material business-interruption claims, depending on the response of governments and businesses to a wider outbreak. Elevated disability and workers compensation claims are also possible in a more severe outbreak, and we are likely to become more cautious around the insurance space as we move closer to the fourth quarter.

Pharmaceuticals

Next season’s traditional flu vaccine production is nearly complete as pharmaceutical companies sped up production in light of the Swine Flu outbreak. Now, producers have shifted their focus to creating a second vaccine, specifically targeting H1N109. Estimates for the U.S. indicate that 600 million vaccines will be needed for the H1N109 virus this year, which is over five times the number of vaccines typically administered during a typical flu season. It is not yet clear whether the healthcare system has the capacity to administer all of these vaccines in a controlled fashion and how effective they will be against the virus.

We believe this is the one sector where there are clear-cut short-term investment opportunities as providers rush to create capacity, due to the sharp increase in demand for vaccines. One small-cap pharmaceutical company’s share price increased by over 300% in the nine weeks leading up to the announcement that their vaccine technology would be used to create a nationwide inoculation program in Spain.⁷

In addition to the Pharmaceutical sector, sellers of medical supplies and test equipment stand to gain from this outbreak. Both Asia and Latin America reported sharp rises in the sale of surgical masks and hand sanitizer at the beginning of this outbreak, as they did during the spread of SARS in 2002/2003 and Avian flu in 2003/2004.

Residential Real Estate

Even this segment seems to feel the burden when individuals prefer staying home over going out in public. Peter Soo, Managing Director and Portfolio Manager in our Hong Kong office, believes both primary and secondary transactions would see a drop, as residents prefer to remain in the safety of their own homes should an outbreak take a more severe turn.

He notes that transaction volumes in Hong Kong did slow during the SARS outbreak and that any prolonged decrease in transaction volumes would put selling pressure on listed developers.

⁶“Feed Costs, Swine Flu Put Small Hog Farms in Peril”; High Plains/Midwest AG Journal; 6-27-09.

⁷Bloomberg, June 30, 2009 “Novavax Rises on Pact to License Vaccine in Spain”

Restaurants and Retailers

As was demonstrated during the first week of May in Mexico, in the case of an epidemic, retailers and restaurants are clearly vulnerable. Dining establishments are hurt in three key ways:

First, customers prefer to stay home and prepare their own food as they seem to prefer the sense of control over food preparation. Second, people in general may shy away from public gathering places. And finally, a drop in tourism would magnify the impact on the sector, since tourists make up a significant percentage of the overall customer base. Retail sales in Hong Kong fell between 10-50% (depending on the store) during the SARS outbreak.⁸

Tourism, Travel and Transit

Because of the possibility that travel restrictions, warnings or advisories may be imposed at various times, all segments of the Travel sector – especially airlines, railroads and hotels – face the highest risk. Related effects should be expected for casinos and gaming, sports and entertainment facilities, convention halls and any segment of the economy that depends on large groups of people congregating together.

Brazil's second-largest airline, announced that demand for flights to Argentina – among the top two hardest-hit countries in South America – had dropped by 50% from mid-June to early July. Argentina also announced they would suspend theatrical film showing for 10 days, after one ticket seller announced demand for tickets fell by 80%.⁹

As an example of how hard the Travel sector can be hit by a virus, Ontario's Tourism sector lost over CAD \$2 billion (US \$1.38 billion) in 2003 due to the SARS outbreak. With or without advisories, airlines stand to be the most effected by increased contagion. Transpacific travel, from the U.S., declined by 40% (year-on-year), during the peak of the SARS outbreak.¹⁰

Mr. Soo highlighted that during the same timeframe, one top luxury hotel chain in Asia underperformed the Hang Seng Index by 12% after the first case of SARS was reported in Hong Kong. At the same time, regional airline stocks sold off during both SARS and the avian flu scare. But, he points out, those were short-term sell-offs that turned out to be great buying opportunities, once it became evident the outbreaks were contained. The current pandemic, however, is not contained, and its effects are only beginning to be felt around the globe.

⁸Dr. Sherry Cooper, "An Investors Guide to Avian Flu", p. 35

⁹"Gol Says Demand for Flights to Argentina Fell 50% on Swine Flu," Bloomberg, July 8, 2009

¹⁰Dr. Sherry Cooper, "An Investors Guide to Avian Flu", p. 35

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It is too early to confidently state that the H1N109 virus will be somewhat worse than the traditional flu. But we are in the early phases of the first pandemic we have seen in 40 years, and the high rate of transmission continues to be a concern. Our global inter-connectedness, combined with the current fragile state of the U.S. economy, makes the markets extremely vulnerable to a global risk that threatens to reduce trade, travel, consumption and productivity.

Bottom Line:

Although there are a number of issues that drive markets, in evaluating the H1N109 pandemic, we are concerned that, for the most part, the markets have not yet priced in the risk associated with a pandemic outbreak such as H1N109.

Short-term investors should be particularly aware of the potential volatility. A number of the sectors listed above will be strained, particularly Healthcare, Travel/Tourism, Insurance and Restaurants and Retail. On the other hand, Pharmaceuticals and medical supply manufacturers should fare well during a pandemic outbreak, as may gold, Treasuries and the U.S. dollar.

Medium-term investors may consider watching the potential pressure this places on specific pockets of the market and be aware that some attractive buying opportunities may emerge as a result of the volatility associated with a pandemic, some of which we have highlighted in this piece.

Contributions By:

Peter Soo

Managing Director, Portfolio Manager, Hong Kong

Ai Okino

Product Specialist, Portfolio Manager, Tokyo.

Jose Catan

Portfolio Manager, Latin American Equities, Santiago

Kelly Hubert

Vice President, Investment Grade Credit Analyst, Pharmaceutical Sector, New York

Ken Weliczka

Investment Grade Credit Analyst, Insurance Sector, New York

Duncan Vise, High Yield Credit Analyst