

**Today's Notes:**

1. **Wash Your Hands**
2. **Here Comes the Sun**

**1. WASH YOUR HANDS**

Wash your hands. Be certain to wash your hands frequently. Hands, according to the CDC in Atlanta, are the most common transmitter of flu virus. This is perhaps the most important tip from the CDC. Obtain an alcohol or silver based gel or liquid to wipe your hands frequently. Use silver solution or other alcohol based cleaners to kill the flu bug. Personally when I travel by air I use a silver spray to disinfect. I rinse with ionic silver and I inhale it in my nostrils.

The acting head of the CDC, Dr. Richard Besser suggests that when you sneeze you do so on your elbow or shoulder, not into your hands. That's right you heard it here.

The CD also suggests that you must plan for your children's schools to close for a time period. Also if you think you have a fever or strange aches or pains or worse vomiting or diarrhea stay home. If you are only mildly ill plan to work at home – a great advantage of Internet access.

Finally if you have a range of symptoms including fever, headache, nausea or diarrhea, contact your doctor to determine if you need to be seen. Please go to the website [www.CDC.gov](http://www.CDC.gov) to check out the status of the current pandemic

This is now classified as a pandemic. It is not yet known how severe this outbreak of H1N1 flu (a mixture of avian, human and swine viruses) will become. What is known, and is very different from the most recent concern with H5N1 in 2003 is that this virus and mutated (see below) and is easily communicable from human to human and it is spreading worldwide.

This virus has started, according to Mexican authorities at a pig farm in a small village in Veracruz, Mexico. Mexico to date has borne the brunt of the pandemic which began on March 9<sup>th</sup>. Thus it has been "cooking" for almost two months. As of this AM 159 have died in Mexico and 2,495 cases have been identified. This is a mortality rate of the flu bug in Mexico is high at over 6%. However no one knows for sure how many have actually been affected by the flu bug. As of this AM 69 cases have been identified in the US. The first US death was reported this AM by the BBC. Nevertheless, a mortality rate of 6% is staggering based on 2,498 reported cases in Mexico. Most epidemiologists think the death rate is much lower. On the other hand this new flu virus is rapidly spreading worldwide. No public health official wants to chance it.

**In general keep your hands washed and away from your face. Call your health care provider at the first sign of symptoms described above.**

There is no vaccine for the virus. Nevertheless the US has stockpiled 50 million doses of Tamiflu. This is enough for about 16% of the US population. Tamiflu is the treatment used after the flu has been contracted. It has bits and pieces of H1N1 in it and health authorities say that it shortens the duration and lessens the effect of this new and nasty little critter.

I wish to point out the difference between today and the last episode, a flu virus called H5N1. That virus was not able to be passed from human to human. However the H5N1 mortality rate was over 60% and the anti viral drug Tamiflu did not appear to work well. Fortunately only a relative few were infected with this Avian flu virus. Nevertheless it had health officials worried that bits and pieces of several viruses might come together in a human (a process called reassortment) to make that virus transmittable between humans.

We have often written on infectious disease discovery companies here at Morning Notes. It is an area long neglected by Big Pharma. Infectious diseases may not be popular with analysts and investors but this is a little reminder that discovery in this space (ID) will be increasingly important in the years ahead. We had written on **Immtech Pharma** (now focused on Hep C) and **Novavax** (focused on anti viral compounds). Both are discovery companies of merit.

It may be worthwhile to do a little education on the process of reassortment. Wikipedia tells us that it is the mixing of the genetic material of two similar viruses that are infecting the same cell. It occurs among influenza viruses, whose genomes consist of eight distinct segments of RNA. These segments act like mini-chromosomes, and each time a flu virus is assembled, it requires one copy of each segment.

If a single host (**a human, a chicken, or other animal**) is infected by two different strains of the influenza virus, then it is possible that new assembled viral particles will be created from segments whose origin is mixed, some coming from one strain and some coming from another. The new reassortant strain will share properties of both of its parental lineages.

Reassortment is responsible for some of the major genetic shifts in the history of the influenza virus. The 1957 and 1968 pandemic flu strains were caused by reassortment between an avian virus and a human virus, whereas the H1N1 virus responsible for the swine flu has an unusual mix of swine, avian and human influenza genetic sequences.

And what about the world economy? The epic 1918 pandemic lasted 6 months. It killed upwards of 100 million worldwide. Obviously such mortality would have drastic impacts on the world's economy. As I have written it killed the healthy young adults and not the elderly and very young. The reason is that some of these viruses thrive when they attack young people is that they cause a cytokine storm. The healthy immune system seems to overreact. Often a process called septic shock occurs when this happens and the apparently young and healthy patient's system cannot handle the shock.

Based on early reports of deaths in Mexico we are seeing that sort of mortality.

World health officials and politicians must now grasp quickly with the seriousness of this pandemic. If mortality rates are eventually found to be high, it will be a body blow to an already staggering global contraction. This indeed may become the perfect storm for economies. It will be particularly hard felt in developing countries (Mexico for example)

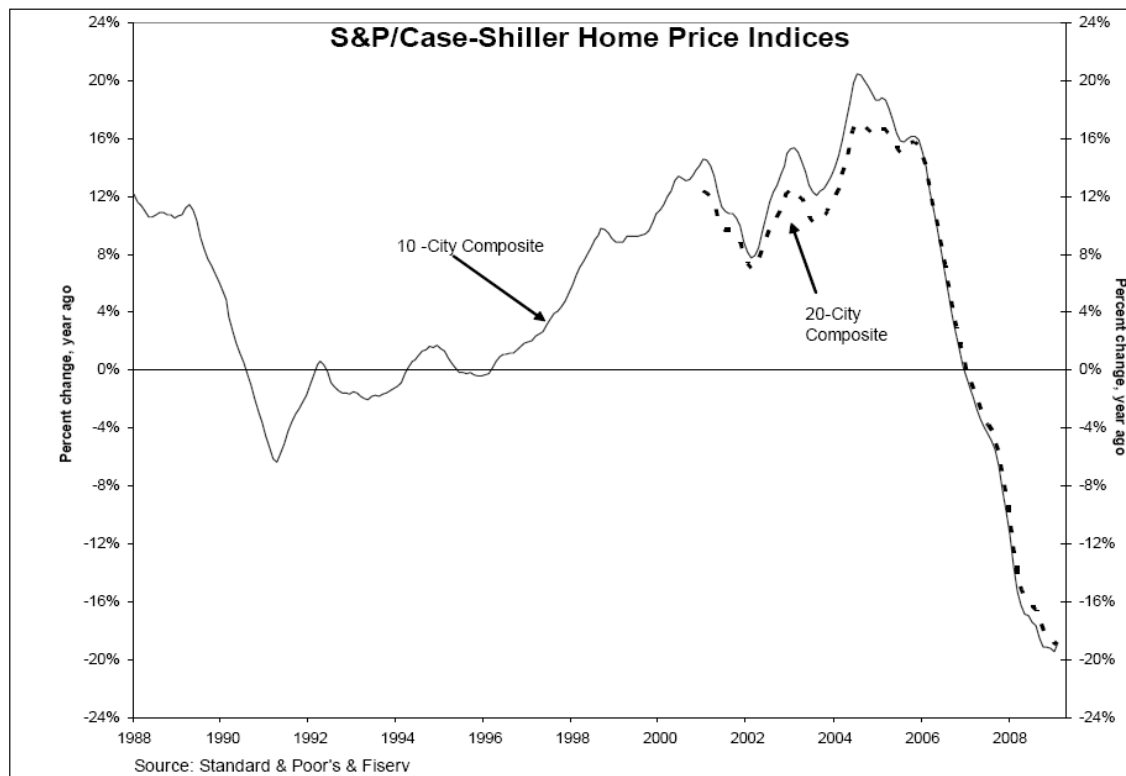
where population concentrations are dense and health care systems rudimentary. Should this turn out to be severe the world economy must turn down – just as green shoots were beginning to appear oin the world economy.

At present we do not know how serious this pandemic will be. The good news appears to be that many have a mild form of the flu. This was not the case with the 1918 pandemic. It is however for real. Please wash your hands.

## 2. HERE COMES THE SUN

Yesterday the S&P Case Shiller indices were published for the month of February. The news is good. While the housing indexes fell in all 20 cities, they fell more slowly that last month (year on year). We shall see a GDP report out this AM and that will be very important in this regard.

Here is a chart of interest. Average housing prices in both 10 city and 20 city indexes have fallen 20.2% since the housing price peak in June 2006. They are still falling but we think they are falling more slowly – perhaps a sign of price stabilization.



Meanwhile I like to highlight Phoenix, Arizona. I lived in Phoenix for 8 years. I have seen a tremendous expansion of housing there. In the February 2008 to February 2009 period average housing prices fell 35.2% in Phoenix. **However since the price peak average Phoenix house price have declined 50.2%.** This is the highest decline rate of any city in the nation.

Metropolitan Area	February 2009 Level	February/January Change (%)	January/December Change (%)	1-Year Change (%)
Atlanta	106.65	-2.5%	-3.2%	-15.3%
Boston	148.77	-1.3%	-1.5%	-7.2%
Charlotte	118.94	-1.6%	-1.2%	-9.4%
Chicago	126.30	-3.4%	-4.6%	-17.6%
Cleveland	97.76	-5.0%	-2.2%	-8.5%
Dallas	112.39	-0.3%	-2.5%	-4.5%
Denver	120.22	-1.7%	-2.7%	-5.7%
Detroit	74.60	-3.8%	-4.2%	-23.6%
Las Vegas	121.06	-3.6%	-4.4%	-31.7%
Los Angeles	163.16	-2.0%	-2.8%	-24.1%
Miami	154.28	-3.0%	-3.6%	-29.5%
Minneapolis	116.39	-3.1%	-4.8%	-20.3%
New York	178.16	-1.6%	-1.4%	-10.2%
Phoenix	111.89	-4.5%	-5.5%	-35.2%
Portland	150.88	-1.9%	-3.0%	-14.4%
San Diego	146.82	-1.0%	-2.6%	-22.9%
San Francisco	120.39	-3.3%	-4.4%	-31.0%
Seattle	152.12	-1.5%	-3.6%	-15.4%
Tampa	145.25	-2.7%	-4.4%	-23.0%
Washington	168.02	-2.3%	-2.0%	-19.2%
Composite-10	154.70	-2.1%	-2.6%	-18.8%
Composite-20	143.17	-2.2%	-2.8%	-18.6%

Source: Standard & Poor's and Fiserv  
Data through February 2009

Still, the rate of decline in Phoenix appears to be slowing from -5.5% in January to -4.4% in February. All 20 housing indices declined in February. The good news is that of the 20 cities shown above 17 showed a lower average price decline. I call this second moment analysis. It is a small but important beginning; the end of the beginning. Perhaps house prices declines are decelerating.

I have often written that housing, the space in which this crisis started must be the place where stability is restored. We do not think that the current Obama "cram down" mortgage legislation is yet workable. As long as housing prices decline and defaults and foreclosures and "walk aways" ensue the US banks will be under pressure.

We shall be watching the foreclosure data with much interest as well. As of March 31<sup>st</sup> foreclosures had not begun to abate. Please stay tuned.

## A Picture is Worth ... US Home Foreclosures Increase



*The material herein is for informational purposes only and is not intended to and does not constitute the rendering of investment advice or the solicitation of an offer to buy securities. The foregoing discussion contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (The Act). In particular when used in the preceding discussion the words “plan,” confident that, believe, scheduled, expect, or intend to, and similar conditional expressions are intended to identify forward-looking statements subject to the safe harbor created by the ACT. Such statements are subject to certain risks and uncertainties and actual results could differ materially from those expressed in any of the forward looking statements. Such risks and uncertainties include, but are not limited to future events and financial performance of the company which are inherently uncertain and actual events and / or results may differ materially. In addition Dr. Berry may review investments that are not registered in the U.S. Dr. Berry has been awarded 10,000 stock options exercisable at \$7.50 from Senesco Technologies. He has been awarded 100,000 options of Derek Oil and Gas exercisable at C\$.47, Valcent Products (300,000 options), Global Green Solutions (400,000 options) and War Eagle Mining. He owns shares and in Goldcorp, Senesco Technologies, **DataMeg**, Immtech International, Horseshoe Gold, Derek Oil and Gas, Terraco Gold, US Silver, Neuralstem, Piedmont Mining, MegaWest Energy, Valcent Products, CGX Energy, MacMillan Gold and Quaterra Resources. He has been awarded 250,000 options on Terraco Gold exercisable at C\$.50 for 5 years, for services as a financial advisor. In his role as advisor he has been awarded 75,000 options from Polymet which strike at C\$2.76. We cannot attest to nor certify the correctness of any information in this note. Please consult your financial advisor and perform your own due diligence before considering any companies mentioned in this informational bulletin.*