

What happened to stock markets during previous pandemics?

As cases of bird flu spread further across the world, we examine the effects of previous pandemics upon stock-market returns.

A pandemic is defined as an epidemic occurring over a very wide area, crossing international boundaries, and usually affecting a large number of people. A pandemic is a global epidemic in which millions of people die.

History suggests that influenza pandemics have probably occurred during at least the last four centuries. Since 1900, three pandemics and several "pandemic threats" have taken place. In the twentieth century, three flu outbreaks – in 1918, 1957, and 1968 – were labelled as pandemics. The spread of the AIDS virus is, by definition, also classed as a pandemic.

Three further flu outbreaks threatened to become pandemics but did not become global. These took place in 1976 (swine flu), 1977 (Russian flu), and 1997 (avian flu). Controls such as quarantine, inoculation, and limits on travel helped to keep these outbreaks from spreading. Meanwhile, the SARS virus spread across South East Asia and Canada during 2002, but was not classified as a pandemic. According to the World Health Organisation, SARS was first recognised on 26 February 2003 in Hanoi, Viet Nam.

Stock-market history shows that investors do react to epidemics and pandemics. However, other issues also affect markets and, in common with victims of the diseases, market performance will also depend on the strength or weakness of prevailing conditions. For example, the avian flu epidemic of 1997 coincided with the Asian crisis, and preceded the Russian debt and LTCM crises of 1998.

To date, the most significant outbreak was the Spanish influenza pandemic of 1918, which is the catastrophe against which all modern pandemics are measured. It is estimated that approximately 20 to 40 percent of the worldwide population became ill, and that over 20 million people died. The US alone suffered approximately 500,000 deaths from flu between September 1918 and April 1919.

Stock-market returns for 1918 are hard to obtain, and would have been affected by the end of the First World War, which took place between 1914 and 1918. The S&P 500 Index can be tracked back to 1871 (1); it fell by 24.7% in 1918, and rose by 8.9% in 1919. The performance of the UK equity market can be tracked back to 1900 (2); it rose by 25.4% in 1918 and by 27.0% in 1919.

The 1957 Asian flu pandemic was the second most significant outbreak in recent history. This pandemic was first identified in the Far East in February 1957. Immunity to this strain was rare in people under 65 years of age, and a pandemic was predicted. In preparation, vaccine production began in late May 1957, and health officials increased surveillance of flu outbreaks. Unlike the virus that caused the 1918 pandemic, the 1957 pandemic virus was quickly identified due to advances in scientific technology. Vaccine was available in limited supply by August 1957. The virus came to the US quietly, with a series of small outbreaks over the summer of 1957.

The S&P 500 Index rose by 24.0% in 1957 and by 2.9% in 1958. In nominal terms, the UK equity market fell by 5.8% in 1957, and rose by 40.0% in 1958.

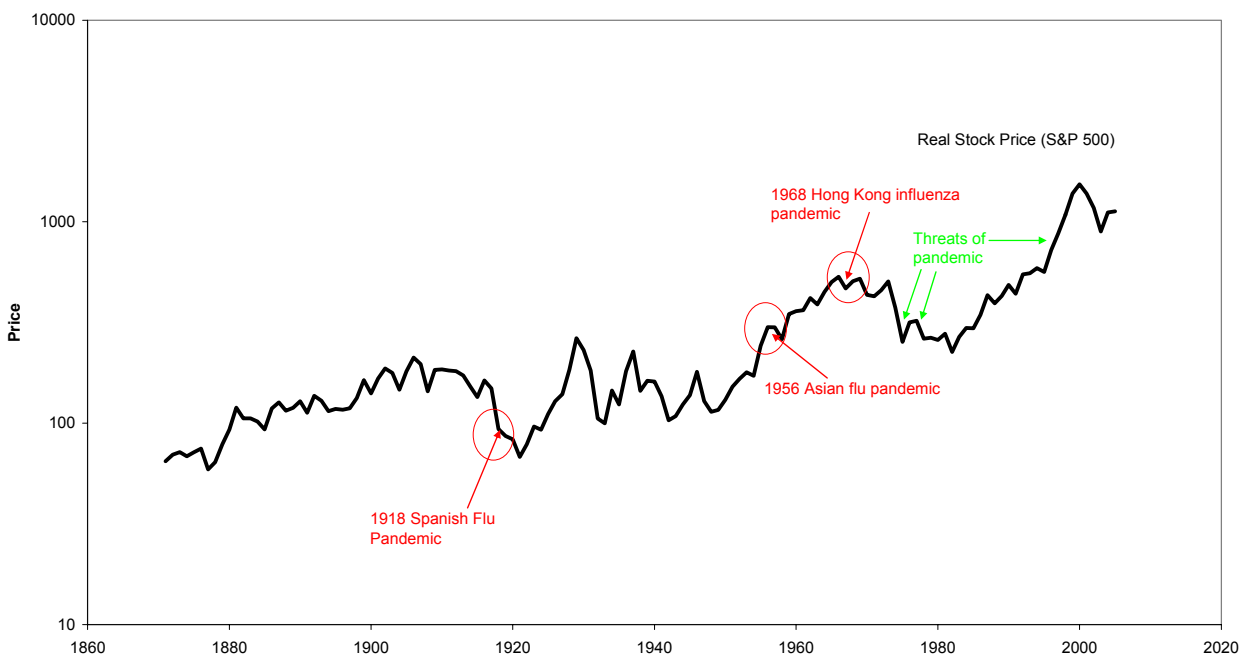
In early 1968, the Hong Kong influenza pandemic was first detected in Hong Kong. Deaths from this virus peaked in December 1968 and January 1969.

The S&P 500 Index rose by 12.5% in 1968 and by 7.4% in 1969. In nominal terms, the UK equity market rose by 57.5% in 1968, and fell by -15.6% in 1969.

In 2003 – the year that the SARS epidemic was first reported – the MSCI Pacific ex Japan Index (3) fell by 12.8% from 14 January to 13 March. However, markets subsequently rallied strongly and, for the year as a whole, the index returned 42.5%.

We cannot draw any fixed conclusions about the effects of pandemics upon stock-market performance. Equity markets react unpredictably to the unknown; nevertheless, such events should not be examined in isolation, but viewed in common with other prevailing market conditions. In investment terms, it is hard to mitigate the effects of events such as pandemics or war. At such times, investors should remember the benefits of long-term investing, as demonstrated in the following chart of the S&P 500 Index:

Chart 1: S&P500 Actual Real Stock Price



Source: S&P 500: US Data <http://www.econ.yale.edu/~shiller/data.htm>

Sources: <http://www.pandemicflu.gov> - An official U.S. Government Web site managed by the U.S. Department of Health & Human Services. (1) : S&P 500 : US Data <http://www.econ.yale.edu/~shiller/data.htm>. (2) : UK Equity Market: Global Investment Returns Yearbook 2005 - Profs. Elroy Dimson, Paul Marsh and Mike Staunton of London Business School and Rolf Elgeti of ABN AMRO