How to Recognize a Black Swan

The term black swan often evokes negative connotations. Still, black swan or a black swan event is something that gathers attention and is something that happens unexpectedly.

So what is a black swan event after all?

A black swan event is metaphorically used to explain an event that occurs unexpectedly. Even the observers tend to miss the potential signs. By the time a black swan event occurs, it is too late to realize. Some of the famous examples of black swan events include the 2008 U.S. sub-prime mortgage crisis and the currency inflation that hit the Pacific countries in 1998.

What Can Be Impacted By a Black Swan?

Due to the devastating effects of a black swan event, it affects almost all walks of life. It is not only the financial markets but also world events that fall under the purview of a black swan event. The event ranges from unexpected political coups, crises and natural disasters that come out of the blue to financial events.

The term *black swan* was made famous by Nassim Taleb. Taleb, a finance professor published his book at the turn of 2008 financial crisis. Taleb published his book, "*The Black Swan – The impact of the highly improbable*" in 2007. In his book, Taleb argues about the impossible to predict but devastating effects of a black swan event.

The book instantly pushed Taleb to become an overnight celebrity.

One of the crucial aspects of a black swan event is its relativity. For example, a Turkey on a butcher's chopping

block may be a black swan event for the Turkey. However, from a butcher's perspective it isn't a surprise.

Taleb's book, "*The Black Swan – The impact of the highly improbable*" wasn't a one off book. Having spent over 21 years as a quant trader, Taleb also wrote other books. The common underlying theme was the concept of randomness, chaos and disorder. However, it was his book "The Black Swan – The impact of the highly improbable" that gained prominence due to the timing of its release.

Taleb first introduced the concept of black swan in the book "Fooled by randomness."

The term black swan was derived from the observation that all swans are white. This came from the early European explorers who discovered a black swan in Australia. In essence, the black swan theory urges us to expect the impossible.

Some of the famous examples of a black swan event include the 9/11 terror attacks in New York, the 2008 global financial crisis or even the dot com bubble.

Characteristics of a black swan event

There are three main factors that are unique in describing a black swan event. These are:

- Rational explanations are given after a black swan event occurs
- A black swan event always has an extreme impact
- A black swan event is always unexpected and is generally deemed "improbable"

The first characteristic is that of retrospective explanations. This is based on the fact that humans are able to explain and justify unexpected phenomena. But in reality it

is impossible to predict when a black swan event could occur.

After a black swan event occurs, analysts often sift through the data to come up with a plausible explanation. However, it is impossible to predict a black swan event ahead of time.

The black swan event often has extreme implications. The impact could be either positive or negative. A black swan event which has a positive impact. Examples for this include the evolution of the internet or the mobile phone industry.

The common factor is that these events seemed unthinkable a decade before.

Similar to a positive black swan event, negative black swans also have an extreme impact.

Lastly, one quality that qualifies a black swan event is the improbability for it to occur. This comes largely due to the perception of humans. The inability to predict the occurence or something that is “unthinkable.”

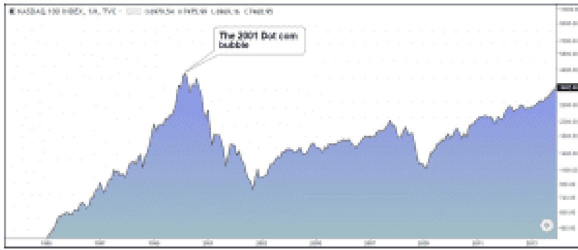
Another distinct character of a Black swan event is that the same event does not repeat again.

Examples of a black swan event

History has offered numerous examples of black swan events that makes for a good study. The past black swan events can help the reader to understand the black swan theory. It also offers insights on how investors and speculators in the financial markets can use the past experiences to better protect themselves.

The 2001 Dot com crash

The 2001 dot com crash spanned two years. During the period, the Nasdaq composite index shed close to 78% of its value. The dot com era emerged after the emergence of the Internet.



The 2000 Dot com bubble – NASDAQ

Boasting of nearly 18 million users at the time, the Internet caught on commercially. This led to an influx of capital which turned many small companies into overnight publicly listed stocks. Interestingly, some of the companies that emerged during the dot com boom were the likes of Amazon Inc. (AMZN) and eBay Inc. (EBAY) to name a few which survived the crash.

The most famous example of the dot com bubble was pet.com. An online store that allowed customers to purchase pet supplies. The company debuted in February of 2000 and went bust in under a year.

The Unthinkable

During the height of the dot com boom, anyone with an idea to build something online quickly became an overnight sensation. The optimism was fueled by banks also actively participating as underwriters.

For the banks, profits came mostly from underwriting and investment fees rather than investing in the stocks. Online retailing was the “in thing” at the time. Before the bubble burst, a market crash was unthinkable.

The rationalization

Cracks started to emerge by early 2000. The Nasdaq which surged strongly lost over a trillion in market valuation within a month. This came as companies began to report losses. The losses came as basic logic was shown the door as investors grew exuberant.

While in hindsight it would have been easy to see the crash, the optimism in the build up to the crash certainly blinded many.

The 2008 Mortgage Crisis

The 2008 mortgage crisis or the “Subprime meltdown” shook the markets and had wide and far reaching implications. The black swan event plunged some of the world’s top economies into a recession.

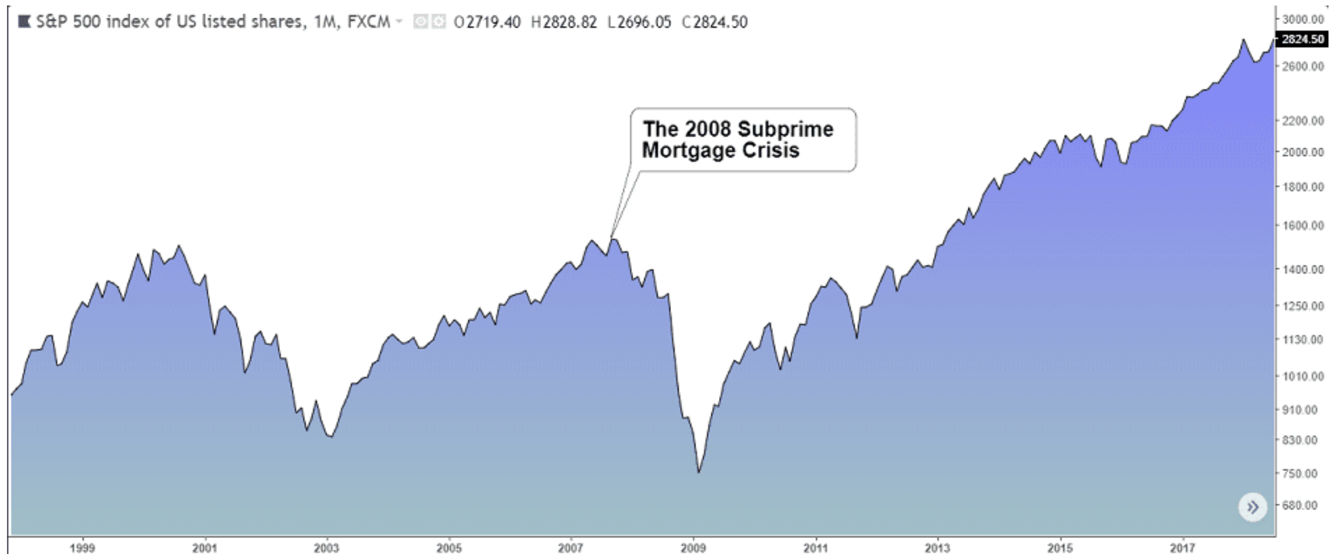
The 2008 mortgage crisis started in 2007 and was the aftermath of the housing market boom. The U.S. housing market grew by leaps and bounds, just a few years after the 2001 dot com bubble. The mortgage crisis emerged after the U.S. Federal Reserve cut interest rates to historically low levels.

This came after the dot com bubble and the terror attacks of 9/11.

The Unthinkable

Fueled by cheap credit, lenders began to extend mortgages even to those with weak credit histories. Dubbed the NINJA loan (*No Income, No Job, No Asset*), the average American now had access to credit.

Sentiment in the economy was high, rather clouded and at one point a mass default was deemed improbable.



The S&P500 Index during the 2008 Global Financial Crisis

The S&P500 index had shed close to 50% by early 2009. The black swan event of 2008 wiped out billions in valuation, left many people without a job and caused some leading financial institutions to bankruptcy.

The rationalization

Within no time, as the mortgage rates started to rise, the number of defaults started to grow. The default on mortgages hit a peak in 2009. The U.S. economy was indeed still struggling to get on its feet.

As job losses started to grow it was difficult for the average home owner to refinance their mortgages. This led to a meltdown in the financial markets.

Financial institutions on their part also played a major role. The development of mortgage related securities became famous and every other bank started to trade with them.

In the final stages of the meltdown, many financial institutions were left holding empty bags.

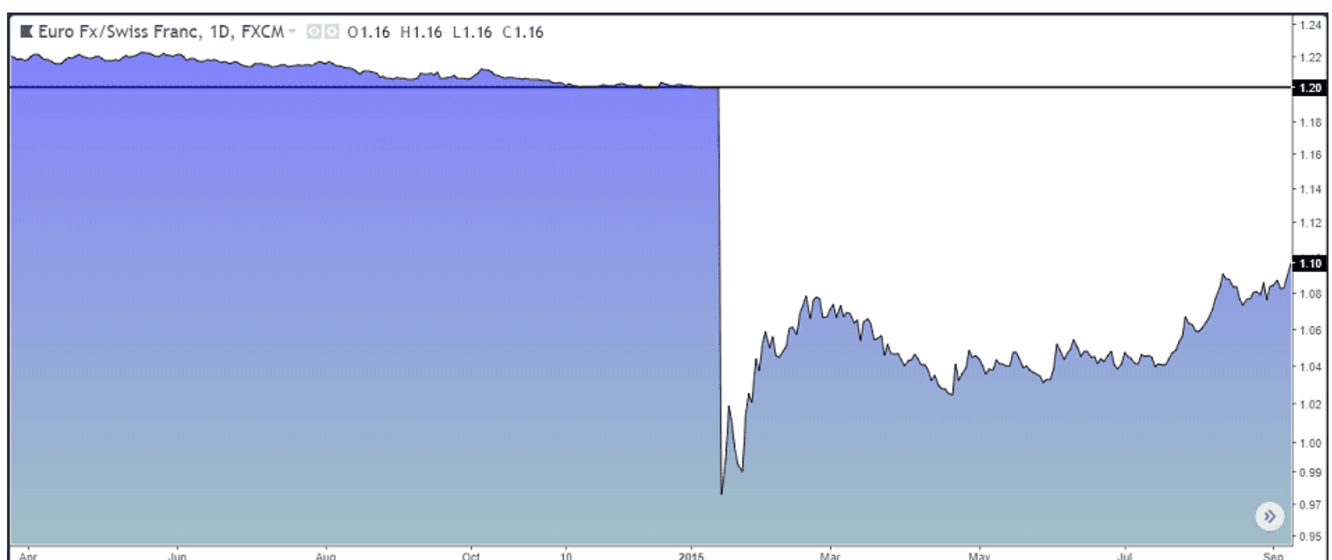
Swiss national bank de-pegging the EURCHF

On January 15, 2015, the Swiss National Bank took the markets

by surprise.

The central bank of Switzerland announced that it was going to terminate the cap on the Swiss franc. The SNB had a program in place to keep the euro from falling below 1.20 against the Swiss franc.

Following the announcement, the euro fell 30% on the day as the Swiss franc strengthened. This event had far reaching implications in the spot forex markets as some online retail forex brokerages went bankrupt. Even day traders were not spared.



Black swan event example: SNB and the EURCHF

As the SNB gave up the floor, losses mounted with day traders' positions quickly turning into negative.

Even the large and well established forex brokerages were not spared. FXCM Inc. for example, the biggest spot forex broker saw losses of up to $225 million on a single day.

The Unthinkable

Prior to the SNB giving up the floor, market participants considered it to be unthinkable. The central bank announced its currency peg in 2011. Despite retail and institutional trades repeatedly testing the floor of 1.20, the Swiss

national bank vigorously defended the floor.

Over a period of time, the retail investing community took it for granted. It quickly became the norm that no matter what, the Swiss national bank would continue defending the floor.

It was due to this complacency that traders started to feel at ease. Every time the Swiss franc increased in value, the central bank would purchase foreign exchange to weaken the franc.

The Rationalization

As with a black swan event, the rationalization that came after the event tried to explain the central bank actions. Reasons given included the Swiss citizens ire against the central bank amassing huge forex reserves to defend the currency peg.

With the central bank printing more currency, fears of hyperinflation also made the rounds as a rational explanation.

The removal of the peg came at a time when the European Central Bank was starting to increase its bond purchases under the quantitative easing program. The ECB's policy was to weaken the euro and thus indirectly it also required the SNB to defend the EUR/CHF currency peg.

Combined, the above factors explained the reasons making the currency de-peg as a black swan event.

How to protect against a Black swan?

One of the common misconception is that a black swan event is always disastrous. However, you can be insulated from a black swan event. Taleb explains this using the illustration of the butcher and a turkey.

A turkey is fed for 1000 days, which leads the turkey to become complacent. On the 1001th day, the butcher shows up. While this may be a surprise for the turkey, it isn't a surprise for the butcher.

Likewise, a herd of chickens next door are completely insulated from the event.

The truth is that there is no way to really protect yourself against a black swan event. At best, studying the past examples, investors can look to ways on how to minimize the damage.

Still, the very concept of a black swan event stems from the fact that it is a one time occurrence. If the same crisis rears its ugly ahead again, it does not qualify as a black swan event.

Here are some ways you can minimize the effects of such an unforeseen event.

Diversification

Diversifying your portfolio is the best way to start. Although this does not guarantee your protection against a black swan, it will help to minimize the risks. Diversifying across high momentum/growth stocks against tried and tested sectors can help to offset the risks.

Diversification also means that investors should look across different asset classes such as equities, fixed income and derivatives in order to prepare for the worst.

Safe have assets

Gold and other assets have remained the go-to assets when it comes to protecting against uncertainty. Still, simply because you invest in such safe haven assets does not guarantee safety.

There are numerous instances where a safe haven asset such as gold also declined in valued, contrary to the prevailing notion.

The trade off

One of the things to consider when protecting against a black swan event is the trade off. While it is one thing to have a balanced portfolio, preparing for a black swan event can diminish the returns to a certain extent.

In such circumstances investors need to understand how much of a risk they are willing to take.

In conclusion, a black swan event is something that doesn’t occur very frequently. However, it would be prudent to assume that the market trends and general sentiment will continue unabated.