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## IS THERE A LINK BETWEEN A BLACK SWAN AND GLOBAL ECONOMY?

Six months ago no one would have even thought that today's world will be immersed in epidemic. More than 70 countries have been affected, more than 3000 people have died and that can only be the beginning. Coronavirus has a large impact not only on humans' health, but it also casts its shadow over the global economy. Many big companies have already stated they're undergoing some struggles due to the virus. For example, many auto plants have shut down in China because of the virus, including factories run by Tesla, Ford Motor and Nissan. Several hundred of the approximately 3,300 McDonald's restaurants in China have closed, while Starbucks has shut down more than half its 4,300 stores in China, with both restaurants expecting negative impact on their profits. Pandemic's outbreak was out of nowhere and has been already called a black swan of economy that scrambles all existing expectations for months or even years.

A black swan is an unpredictable event that is beyond what is normally expected of a situation and has potentially significant consequences. Black swan events are characterized by their extreme rarity, their severe impact on global economy and further attempts to explain them as if they could be predicted. The concept of black swan was popularized by the writer Nassim Nicholas Taleb in his book, *The Black Swan: The Impact Of The Highly Improbable*. It's quite difficult to classify «black swans». Even though these events have some common criteria, they may appear in different forms and, consequently, have different effects. Financial crises, epidemics, wars, scientific discoveries, terrorist attacks and political events are the main examples of «black swans». So, as far as you can tell, they can be both positive and negative.

Today we want to explain the phenomenon of «black swans» through the examples of 14th century plague, 9/11 terrorist attack and the invention of the Internet.

Black Death is a pandemic that ravaged Europe between 1347 and 1351, taking a proportionately greater toll of life than any other known epidemic or war up to that time. It killed more than 20 million people in Europe. This was one-third of its population. The plague began in Asia and then spread to Europe on trading ships. However, it was characterized not only by a large number of victims, but also by significant economic consequences. The effects of this violent catastrophe were many. A sudden slump in trade caused by the plague – was only the beginning. A more lasting and serious consequence was the drastic reduction of the amount of land under cultivation, due to the deaths of so many peasants. The economy underwent abrupt and extreme inflation. Since it was so difficult and dangerous to procure goods through trade and to produce them, the prices of both goods produced locally and those imported from afar skyrocketed.

Nevertheless, the plague had some positive features. For example, the demand for people to work the land was so high that it threatened the manorial holdings. Serfs were no longer tied to one master; if one left the land, another lord would instantly hire them. The lords had to make changes in order to make the situation more profitable for the peasants and so keep them on their land. That was a significant impetus to the destruction of established relations. And in general it had led to increase of wages and improvement of standards of living.

Another example of a black swan is 9/11 terrorist attack. The September 11 attacks were a series of four coordinated terrorist attacks by the Islamic terrorist group al-Qaeda against the United States in 2001. The attacks resulted in 3000 victim fatalities, over 25,000 injuries, and caused at least \$10 billion in infrastructure and property damage. This attack had both immediate and long-term economic impacts, some of which continue to this day. The attacks caused the Dow Index to drop almost 700 points, or 7.1%, a record-setting one-day point decline. The attack also deepened the 2001 recession. In international and domestic markets, stocks of companies in some sectors were hit particularly hard. Travel and entertainment stocks fell, while communications, pharmaceutical and military stocks rose. Online travel agencies particularly suffered, as they cater to leisure travel. Share prices of airlines and airplane manufacturers plummeted after the attacks. In New York City, approximately 430,000 jobs were lost and there were \$2.8 billion in lost wages over the three months following the 9/11 attacks. The economic effects were mainly focused on the city's export economy sectors. The GDP for New York City was estimated to have declined by \$ 30.3 billion over the last three months of 2001 and all of 2002.

Throughout our history there were a plenty of inventions such as steam engine, electricity, nuclear reactor that impacted global economy as much as in the XX century invention of the Internet did. The effects of the global network are undeniable. While it seems almost impossible to determine how much money the Internet brought to the world economy, we can clearly see how it affected different spheres. Thanks to the use of the Internet, firms are more competitive than ever, providing their customers with a

qualitative and, what's even more important, fast service, no matter where they are in the world. The Internet also provides companies with reduced transaction costs, related to the production and exchange of goods and services. It plays a leading role in addressing the problem of shortage of qualified personnel through online training and educational programs. Many online payment services started operating with the appearance of the Internet. PayPal, Maestro, WebMoney and many other services allow you to manage your non-cash money anywhere in the world where there is Internet access. This increases the companies' global presence, customer base, number of transactions and, consequently, their profit. All this has led to an increase in wealth and sustainable economic growth.

Predicting global economy can be done, but the accuracy of the predictions is as much a matter of luck and intuition as of skill and sophisticated modeling. Too many black swan events can happen, nullifying even the most complex modeling. This does not mean modeling and prognoses cannot or should not be done. But we also need to rely on intuition, common sense and simplicity. We need to maximize our efforts in order to be as prepared for these events as we can be. Nevertheless, black swans do not necessary affect economy in a negative way. They can also have a positive impact and become crucial not only in the sphere of economy but have a great importance on humans' lives.

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## ECONOMIC CHALLENGES TO EUROPEAN UNION

Brexit matters. And what is more, it matters not only for the United Kingdom that withdrew from the EU on January 31, 2020. It matters globally and it can be proven by a constant growth of Euroscepticism and right-wind forces in the European countries sticking to the idea that Brexit might be a starting point for the EU collapse. To our mind the probability of this scenario is an unlikely route of the development anticipated only by Eurosceptics and populists. Far more real threats for the EU today are economic challenges, both internal and external.

Proceeding from the presented overview, the aim of this research is to ground major economic challenges dividing them into those having Potential Negative Impact and those having Risk Probability. Thus, Potential Negative Impact Index and Risk Probability Index are the two instruments (the graph is the author's design) the research is based on.

The topicality of the research is determined by the urgent necessity for the EU to identify its major challenges for the nearest future so as not to let irreversible for the EU processes occur. Methodologically the research is based on the studies of analytical agencies and international financial institutions, as well as news media.