IMPACT OF COVID-19 ON VALUATION OF SLOVAK COMPANIES

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Abstract. At the end of 2019, the first case of a virus, named SARS-CoV-2 (COVID), was confirmed in Wuhan, China. Over the next few months, the virus spread around the world and began to affect all areas of our life. An important role in the fight against the disease is played by the restriction of social contacts, which the governments of most states implement in the form of restrictions at various levels. Restricting the international and domestic market significantly affect the current development of foreign and domestic production and transport, which has a negative impact on the global economy and specific impacts on the economy of the vast majority of countries, including the EU and the Slovak Republic. As a result of the COVID pandemic, countries all around the globe have taken some kinds of measures that have resulted in limiting the self-employed and business in their economic and financial operations. If they do not have sufficient financial reserves and their main source of income is limited due to different anti-pandemic measures, sooner or later they will be forced to decide what will happen with their business. The aim of the article is to point out the impacts of a COVID pandemic on the Slovak economy and the changes it brought within the perception of valuation of companies in Slovakia.

Keywords: COVID-19, valuation, capital structure.

JEL classification: *O44*

1 Impact of COVID-19

At the end of 2019, the first case of a then-new and unknown virus, named SARS-CoV-2, was confirmed in Wuhan, China. At that time, no one knew what the consequences

of this virus would be for the whole world. Over the next few months, the virus spread around the world and began to affect daily life.

Most countries are trying to combat the ongoing pandemic, both together and through their own measures, to a greater or lesser extent within countries. An important role in the fight against the disease is played by the restriction of social contacts, which the governments of most states implement in the form of restrictions at various levels, especially in the areas of trade and services, education and training, cultural and leisure activities. Governments ordered the wearing of veils and respirators, closed shops, disrupted cultural events, and ordered many other measures. This restriction of everyday life has led to economic decline. Restricting the international and domestic market significantly affect the current development of foreign and domestic production and transport, which has a negative impact on the global economy and specific impacts on the economy of the vast majority of countries, including the EU and the Slovak Republic.

The financial and capital markets are also closely related to the economy. They also experienced the biggest slump since the financial crisis in 2008 last March. For this reason, governments and central banks have begun to intervene to restart the economy.

For more than a year, the Slovak Republic has been struggling to fight several waves of pandemics, where different perspectives on crisis management can be beneficial for Slovak and multinational companies, especially if they include more comprehensive approaches and the implementation of effective measures. Currently, companies are trying to respond to government regulations, which does not always lead to an optimal response. Most companies face new experiences and situations that are unknown to them and the outcome of which is difficult to predict. Thus, in each economic sector and sector, a different change in the behavior of companies can be expected depending on their specific conditions.

2 Literature review- effect of coronavirus pandemic on financial markets

A coronavirus pandemic has affected the lives of people around the world for more than a year. During this time, many academic papers have been created dealing with the effects of coronavirus on many aspects of our lives, such as leisure, finances, etc. financial markets.

Most of the studies dealt with the impact of the spread of the disease on the financial markets. This primarily means an increase in the number of infected and the number of deaths. [4] examined how the spread of COVID-19 affects financial markets in China and the United States. COVID-19 had a positive effect on the markets.

[5] also confirmed the positive influence, which surveyed the behavior of the volatility of the US dollar exchange rate against three foreign currencies under the influence of rising diseases and deaths on COVID-19. During the observed period, the coronavirus had a positive effect on volatility.

However, most of the work confirmed that the pandemic had a rather negative effect. [6] examined the effect of the number of infected on the volatility of financial markets and exchange rates within the Visegrad Group Countries. The work confirmed that the currencies of the Visegrad Group Countries depreciated and volatility in financial markets increased.

[7] examined whether the increase in COVID-19 deaths affects financial markets. Indeed, the growth in deaths increased volatility and reduced the profitability of the markets examined.

[8] examined how the growth of those infected affects the financial markets of developing countries (emerging markets). Coronavirus has had a negative effect on these markets. The impact was stronger if the governments of these countries did not implement fiscal stimulus.

The study by [9] tested how the number of infected affected global financial markets. Coronavirus has had a predominantly negative effect on markets.

[10] examined a link between the spread of coronavirus and volatility in oil markets with US stock markets and the political and economic situation in the US. Their results showed a correlation between COVID-19 disease and uncertainty in US markets.

[11] examined the effects of a pandemic in the form of growth infected on the US stock and oil markets. The results show that the coronavirus had a positive effect on the profitability of these US markets.

[12] examined the effect of the spread of the COVID-19 pandemic on market volatility. He investigated whether the VIX index was affected by infections and mortality on COVID-19 in China, outside China, and overall. The author also examined whether the number of infected countries also affected the implied volatility in the markets. The VIX index was not affected by any new additions infected in China or together, only those outside China. The VIX Index responded to mortality from COVID-19 in China, including overall mortality. The development of the number of infected states also played a role in the development of the VIX index.

[13] observed differences in the volatility of US financial markets and commodity markets before and during a pandemic. Increases in volatility were measured during the pandemic.

[14] compared the impact of current pandemics and past pandemics on financial market volatility. According to their results, the current pandemic has a strong and negative effect on volatility, while previous pandemics have had almost no effect.

[15] followed the change in volatility in financial markets before and during the pandemic. The result is increased market volatility.

[16] looked at profitability and volatility in the US. Companies operating in the healthcare, food and technical stocks recorded growth in profitability, while shares of companies in the entertainment industry or the real estate market saw a decline in profitability and increased volatility.

[17] monitored the profitability of world markets. COVID-19 had a negative effect on their profitability.

[18] examined profitability in the US, Europe and Asia markets. Markets worldwide have fallen, most in the US. They recovered the fastest in Asia, the slowest in Europe.

Studies have also been carried out to examine whether certain state interventions affect financial markets.

[19] examined whether the increase in the number of new cases of COVID-19 and the number of deaths from this disease affects the profitability of global financial markets. During this period, the financial markets reacted negatively to the growth of new cases of COVID-19 and to death.

This study was followed by [20], which examined whether the profitability of financial markets was affected not only by the growth in the number of new daily cases but also by government regulations divided into three groups. The first group included regulations related to the observance of social distances, such as school closures, shops, restrictions on gatherings, etc. The second group of regulations related to tracing, testing citizens, and awareness-raising campaigns about the virus. The last group concentrated economic regulation to help with wage shortages and household debt forgiveness. All these groups have still been tested to see if they have an indirect impact on the markets despite the change in the growth in the number of new daily cases of COVID-19. Regulations on social divergence have a twofold effect on markets, the direct effect is negative (due to the artificial reduction of economic activity) and the indirect effect is positive, as they reduce the number of daily increments. Regulations related to testing, tracing, and awareness-raising campaigns had only a positive direct effect, they did not indirectly affect the profitability of markets. Economic regulations had no significant effect on financial markets.

[21] examined whether government regulations such as travel incentives or bans and ordered lockdowns affect stock markets. The results show that these regulations have helped global stock markets.

[22] examined whether government interventions affect the realized volatility of financial markets. As interventions, they used interventions such as closing schools and shops, canceling cultural events, checks on international travel, etc. The study showed that the observed volatility in the markets over the observed period reacted negatively (increased) to government interventions. The disruption of public events and the information campaign on the coronavirus pandemic had the strongest effect.

There are also works that have examined people's fears of a pandemic by searching for certain phrases or the influence of the media.

[23] examined whether the intensity of Google word searches and phrases related to the new COVID-19 disease (corona, pandemic, symptom, lockdown,…) affects the realized volatility of financial markets. Ten countries were selected for the survey, in which both volatility and search intensity were examined. It was examined whether the intensity of the search has an effect on a specific state and other selected states. The result of their work is that the intensity of searching for phrases related to the COVID-19 pandemic in a particular state and in other states affects the realized volatility of financial markets. Volatility increased due to this effect, which caused more uncertainty in the markets.

[24] examined the effect of coronavirus searches on Google on financial market volatility. Their results say that increased search intensity has also increased volatility in markets in Europe, Asia, the United States and Australia. At the same time, the negative effect of coronavirus on the economy reinforced this effect.

[25] compared the effect of the spread of the disease and the fear of searching for coronavirus on Google on the profitability of markets. The search had a stronger negative impact on the markets, which was amplified by the growth in the number of infected.

[26] tested whether US financial market volatility is affected by media and news related to coronavirus. News from coronavirus has resulted in increased market volatility.

There are also studies that have examined whether the size of trust in the state institutions and other fellow citizens during the pandemic also affects the financial markets. For example, [27] in their study examined whether people's trust in government during the COVID-19 pandemic affects volatility in financial markets. In their work, they found out whether citizens trust the government and fellow citizens. Subsequently, these states were divided into two halves according to the level of trust. They observed a relationship of trust and volatility for the period from 22 January to 28 July and for a shortened period when the pandemic intensified, from 22 January to 3 May. First, they examined the differences between countries with the higher trust in government and countries with the lower trust in government. tests showed that in countries with higher trust in government and trust in fellow citizens during the shortened period, volatility was indeed on average lower than in countries with lower trust in government.

The need of the company for external resources is increasing due to the lack of cash flows resulting from the COVID pandemic. This is due to the fact that all business activities are forced to stop in order to constrain further spreading of the virus. This resulted in a number of companies that are negatively affected by the pandemic, that are seeking additional financial resources to cope with their lack of liquidity.

A result from a study [42] shows that from the beginning of the COVID pandemic the bond market has become more active.

[43] and [44] further document that during the pandemic is increased the drawdown of bank loans and the drawdown of credit lines.

The ability of companies to borrow either on the capital markets or from banks is influenced by their debt capacity, If the company applied a conservative debt policy that protects financial flexibility, they can finance new investments with new debt issues [45].

Keeping financial leverage low therefore provides greater debt capacity and financial flexibility, which gives the companies concrete benefits during a market downturn.

[46] present that firms with high financial flexibility show a lesser decrease in their market value due to COVID-19 than firms with low financial flexibility. In this case, the company has more debt, so it is exposed to higher risk than the company with less debt because the financial leverage effect is significantly positively correlated with the volatility of stock returns.

3 Impacts of a pandemic on the Slovak economy

The economic impact of the pandemic on EU industries is addressed in a study that provides estimates of the global costs of a pandemic crisis on projected GDP growth in 30 different countries according to different scenarios. The author assumes that the economic impacts of the Covid-19 pandemic are currently underestimated compared to the impact of the SARS epidemic or financial crisis in 2008/2009 [1].

Of the European countries, the pandemic has negatively affected mainly the economies of service-oriented countries, which were also endangered in terms of jobs. Tourism-dependent countries such as Greece, Portugal, and Spain have been hardest hit by the pandemic crisis. The current economic crisis is also affecting supply chains. Therefore, the economies of countries more dependent on foreign trade are more affected. The study shows that the current pandemic crisis costs an average of 2.5-3% of global GDP each month.

According to [2] there was a gradual slowdown of the economy in the EU countries as early as 2019. Germany in particular, affected by the decline in global demand for cars, could not recover from the gradual decline in production. Structurally the weakest economy in the euro area was Italy, whose growth potential was close to zero. The hope for 2020 was to ease tensions in international trade.

For many years, Slovakia has served as an example of an economy with minimal macroeconomic imbalances and strong financial stability. The trade balance maintained a solid surplus and the current account of the balance of payments ended in a slight deficit in 2019 only due to high dividends paid abroad. The debt of Slovakia in relation to GDP was relatively low until 2020. The financial sector was relatively strong in terms of capital. Slovak GDP in 2020 fell by 5.2 percent [3]. Towards the end of the year, the economy was helped by exports and reducing the downturn in some sectors.

The economic downturn in the fourth quarter was the second mildest last year, reaching 2.7 percent (Fig.1). The growth of value added in several sectors, especially in industry in the last months of the year, was dampened by the unfavorable trend from the first half of the year.

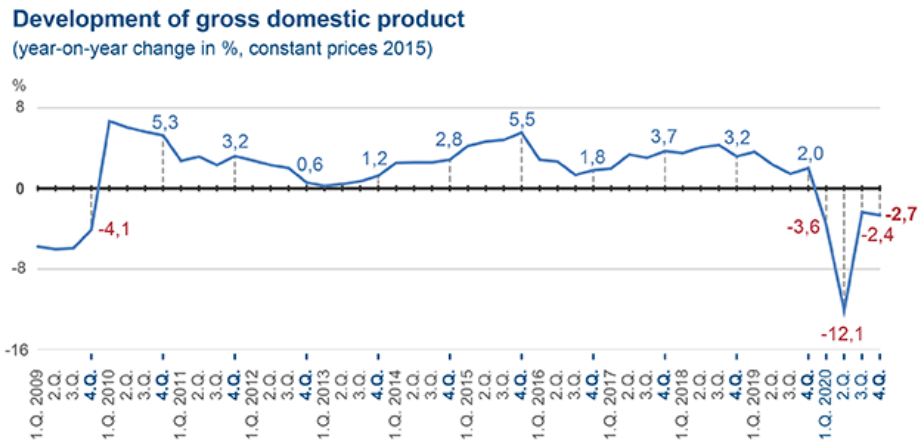

Fig. 1 Development of gross domestic product of the Slovak Republic [3]

Compared to the third quarter, the gross domestic product in Slovakia was seasonally adjusted by 0.2 percent higher in real terms. At current prices, it reached 24.1 billion euros, which is 0.4 percent lower than in the fourth quarter of 2019 [3].

The first wave of the Covid-19 pandemic caused historical declines in key indicators in the second quarter, but at the end of the year the economy was able to start despite the second wave of the pandemic and showed the second slightest decline in 2020. Growing external demand again played a key role in the result.

The activity of individual sectors in the 4th quarter was affected to a different extent by the pandemic. The most significant year-on-year decrease in value added was in construction by 13.8 percent. The double-digit decline was still reflected in wholesale, retail trade, transport and storage, accommodation and food services, as well as in financial and insurance activities [3].

Value added growth was mainly in industry by 2.7 percent, in public administration, education, health and social work by 2.5 percent and in real estate activities by 1.9 percent.

At the beginning of the pandemic, the negative effects on the economy hit mainly the countries where the disease spread the fastest, such as Italy and Spain. In 2020, a number of sectors in EU countries were gradually paralyzed, such as retail, sports, culture, education, libraries, air transport, catering, and accommodation, or travel agencies, which account for around 10 percent of GDP. However, other sectors of the economy are linked to these sectors. It is currently very difficult to quantify the effects of a pandemic, as evidenced by the economic recession of 2012 and 2013.

Last but not least, the disruption of global value chains needs to be mentioned.

Slovak companies are largely involved in complex chains with a high specialization of articles. Slovak companies make intensive use of imported intermediate products in their production.

Strong involvement in international trade brings with it higher revenues, but also greater shocks in the global economy. The spread of the pandemic across Europe and dramatic preventive measures were a significant intervention in the economy of Slovak companies. It was mainly a cessation of production in the automotive industry, as it is connected to a wide chain of suppliers from other industries.

In recent history, an unknown, in many respects unprecedented situation, which first affected the health system and then the entire economy of all affected countries. The historical view of the greatest economic crisis of modern times knows no such case in which a considerable part of economic activity has been practically stopped or minimally limited. This crisis is unique to individual economies in that it combines an internal shock associated with the closure of some service outlets, retail and production interruptions, with an external shock associated with supply chain disruptions and a slump in external demand. Although this type of crisis is more or less unknown, most experts agree on how to defend against a pandemic crisis.

The defense should be the fiscal policy response, which must be as fast as possible, strong enough, targeted, and, above all, should bring a sufficient degree of confidence to the economy.

[31] further states that in the short term it should be aid mainly to support small and medium-sized enterprises and employment. A specific form of assistance for small and medium-sized enterprises should be, for example, in the form of the supply of the necessary liquidity, the shift, reduction or remission of taxes and social security payments. Employment should be supported by at least partial payment of the salaries of employees who are unable to work due to the pandemic. Further support for households could be a targeted one-off financial contribution to help them overcome the problems of paying rents, loans, and common needs. Further important assistance should go to the financial system, which is most likely to face a higher level of non-performing loans, thus preventing the crisis from entering the financial system. The timing of aid is very important, which must be urgent and without unnecessary bureaucratic obstacles. This is the only way to prevent a catastrophic scenario that may occur shortly after the pandemic.

Central banks, governments and supervisors reacted strongly to the situation. Central banks promptly adopted a package of stabilization measures, the scope and especially the intensity of which are unprecedented in the past. Thanks to them, the price falls stopped at the end of March 2020 and the markets saw a partial correction. Supportive measures by national governments, aimed in particular at maintaining employment and improving the situation in the business environment, have made a significant contribution to mitigating the impact on the real economy. In several countries, already two months after the outbreak of the pandemic, the amount of promised state aid exceeds the amount used during the previous financial crisis [32].

Even prompt fiscal and monetary stimulus does not change the fact that the world will almost certainly plunge into a severe economic recession in the near future. One of the main problems is the uncertainty regarding its depth, duration and possible

consequences of a more permanent nature. A separate problem for the economic recovery is perhaps the wave of a coronavirus pandemic.

The most significant risk are losses from non-performing loans. The profitability of financial institutions, especially banks, will fall sharply. Despite the significant risks that financial institutions will face in the coming period, the resilience of the banking and insurance sectors as a whole is at a high level.

Banks currently have enough capital and liquidity to continue lending. On the other hand, some households and companies already had a relatively tense financial situation with a low level of savings when entering the crisis, which the NBS has repeatedly pointed out in the past. Due to the high uncertainty about the impact of future economic developments on the financial situation of clients, banks will be significantly more cautious in providing loans. This can be particularly problematic for businesses that need to bridge the temporary loss of income through short-term bank loans [32].

From the point of view of financial stability, it is important to what extent the financial sector will be able to provide financial services, including economic lending, during the economic shock. It depends on whether the financial sector will support the early recovery of the economy or, conversely, the problems associated with the spread of coronavirus will exacerbate.

This will be particularly important from the point of view of companies that need additional funding to bridge the temporary loss of income. The main impact will be the banks' fears of an increase in non-performing loans.

For corporate loans, banks have tightened lending standards to the greatest extent since the financial crisis in 2008, and even more significant tightening is expected in the coming period. However, the conditions for providing retail loans have also been tightened, especially for self-employed persons and employees in the most affected economic sectors. On the other hand, sufficient capital and liquidity do not currently represent a significant constraint. Banks have enough capital to maintain them in the coming years credit growth rate of 2019.

4 Forms of valuation of companies in Slovakia

Valuation of a company is a specific process in which various experts from different fields are involved. The question is what are the purposes of determining company value?

The company should know how it will develop and what the future brings. This may lead to a situation when the company owner should determine whether to sell, liquidate or merge the company. If a business owner opts for a merger of his company, he should know its value in order to evaluate if the merger is advantageous or not. To determine this value, the authors recommend analyzing the internal environment of the company, which is consequently affected by the fluctuations in its macroeconomic and microeconomic surroundings [33].

We can show this with an example of the influence that the current COVID pandemic situation, has on the global economic market.

As a result of the COVID pandemic, countries all around the globe have taken some kinds of measures that have resulted in limiting the self-employed and business in their economic and financial operations. If they do not have sufficient financial reserves and their main source of income is limited due to different anti-pandemic measures, sooner or later they will be forced to decide what will happen with their business [34].

Simulating the value of a company and its capital structure under the influence of taxes, risk, and possibilities to grow shows that there are unique optimal levers for each combination of the above-mentioned factors. In order to determine the value of the company in the period when the decision for the future of the company is needed, we must understand the factors that affect the company value [35].

A company's financial valuation is a complex process in which professionals from different fields are involved in expressing the company's value using a monetary amount. It can be valuated as a whole, or only some parts of the company can be evaluated [36].

There are different methods of determining the firm value, which is interesting for various stakeholders (investors, owners, and creditors). The main point of interest is the market price of the company – referred to as the market value [37]

A company cannot afford to be freely driven by external influences and events alone, so planning is a very important activity, in order to withstand a turbulent environment.

Companies that plan ahead, are better prepared for various situations and the uncertainty of the future threats, and thus can easier respond to them [38]

According to [39] in the period of the COVID pandemic, there are two most common valuation methods. One of the methods is based on economic value added (EVA), linked with the stock prices.

The second method [39] is the discounted cash flow (DCF) method. The preference of the DFC method of valuation during the COVID pandemics is confirmed by [40] and is the most widely used method used in practice, as confirmed by [41].

Valuation is mainly based on one of the three main approaches: the income, market and cost (or asset). Although each of these approaches has its pros and cons, valuation experts place much more emphasis (based on the impact of Covid-19 on economy) to the discounted cash flow (DCF) method, a variation of the income approach, given its direct significance to the entity being valued [30].

As one of the basic problems in the valuation of companies in Slovakia, are the challenges of choosing the right method of valuing the company. It is useless to be able to work with one method, to be able to apply it perfectly, to compare it, and on the other hand to apply it to a company that is unsuitable for this method. For example, to use the discounted dividend method to value a company that does not pay dividends, or pays them irregularly, exceptionally, and at different amounts, if we are talking about a very simple example. We have managed to find several divisions and forms of valuation in the literature, related to the conditions in Slovak economy:

a) Five valuation methods according to the Decree of the Ministry of Justice of the Slovak Republic [28]:

- Asset method in which an expert determines the general value of an enterprise and parts of an enterprise by summing the general values of the various components of the enterprise's assets minus the general value of borrowings at the current date.

- The business method, where the expert determines the general value of the company and parts of the company by capitalizing the extractable resources for the evaluated period of the business.
- A combined method, where the expert determines the general value of the enterprise and parts of the enterprise as a weighted average of the general values of the enterprise determined by the asset and business method.
- Liquidation method, where the expert determines the general value of the company and the part of the company at the dissolution of the legal entity associated with liquidation, as the sum of general values of assets of the company taking into account the general value of foreign resources and liquidation values of the components of the company's assets objectified by the coefficient of monetization.
- A comparative method where the expert determines the general value of the enterprise and the parts of the enterprise taking into account selected common criteria of a set of comparable enterprises using the transactional approach, the model approach, or the stock exchange approach.

b) Three basic forms of valuation proposed by [29], who says that it is good to use different valuation methods according to what the investor is most interested in or to combine methods from all three areas in order to achieve the widest possible view of the company.

The areas and methods contained in them are as follows:
- Valuation based on revenue analysis
a. Discounted cash flow method (DCFM)
b. Capitalized net income method
c. Combined (corrected) yield methods
d. Economic value added method

- Valuation based on market analysis
a. Valuation based on market capitalization
b. Valuation based on comparable companies
c. Valuation based on data on listed companies
d. Valuation based on comparable transactions
e. Valuation based on industry multipliers

- Valuation based on asset analysis
a. Determining the value of equity on the principle of historical prices
b. Substantive value on the principle of reproduction prices
c. Substantial value based on the principle of cost savings
d. Liquidation value
e. Property valuation on the principle of market values

In the current economic environment, the valuation of companies under the influence of the pandemic must take into account certain facts that did not exist in the period before the COVID pandemic.

Those factors are:

The date of valuation. When valuing a company, the time of the coronavirus outbreak in Slovakia is crucial. Experts agree that very little was known about COVID-19 by the end of 2019, and we believe that the impact of the pandemic on the value of companies in Slovakia was evidenced by reports that began in January 2020 and the first cases of COVID in Slovakia in early March 2020.

Subsequent events. The valuator must take into account the following events that arose from the outbreak of the pandemic. These are, for example, quarantine measures, the cessation of the operation of large enterprises (eg car manufacturers, which are the driving force of the Slovak economy), restrictions of the international and domestic market, that significantly affect the current development of foreign and domestic production and transport.

Recommended valuation method. Because COVID caused economic disruptions, "the method of choice" should be an income method - Discounted cash flow method (DCFM). DCFM analyzes the future results of the company until the company is not affected by COVID, ie until the end of the pandemic. Some experts recommend two-to-three-year DCF models; others prefer to use a longer time frame.

Cash flow. Valuators look at cash flow to see if enough money is being circulating in and out of the company to keep the company running smoothly. The role of the valuator is to predict the time horizon within which the company will be able to operate under uncertain conditions caused by a pandemic.

5 Conclusion

The COVID-19 pandemic has affected all aspects of business worldwide, intervening in customer demand, supply chain, commodity price shocks, and macroeconomic policies. Although a pandemic presents a new challenge in the field of business valuation, valuators can find a solution to the new challenges in the basic principles of valuation. The article provides a literary review of the effects of coronavirus pandemic on financial markets, insights on the Impacts of a pandemic on the Slovak economy, and ideas for applicable methods of valuation of companies in Slovakia.

The valuation of a company varies significantly at different points in time, especially if there have occurred significant changes in the economic, industrial, and business factors.

Due to the ubiquitous influence of the covid-19 pandemic, on the economic, industrial, and business factors that potentially can impact company value; it must be emphasized that each case must be assessed individually, the choice of different valuation dates (before, during, or after a pandemic) can have a significant effect on firm value.

To determine whether the impact of a pandemic at the valuation date was known, it is necessary to understand the timeline of the pandemic in both the global and geographical regions of the valuated company.

If we take under consideration valuation date in the first months of 2020, a period when the uncertainty of a pandemic and government action has changed rapidly: increased attention should be paid to determining what was known or expected on a particular date. In addition, each industry participant has faced different circumstances, which should be assessed on a case-by-case basis, and would add an additional layer of complexity of valuation.

Although more difficult to apply, the basic principles of firm valuation during the COVID pandemics are generally the same. A valuator should always be aware of the context of valuation; as far as possible, they should carry out independent analyzes and research into relevant factors for the case. The need for these practices has not changed in the current circumstances, as these have always been essential elements of valuation.

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References

1. Fernandes, N.: Economic Effects of Coronavirus Outbreak (COVID-19) on the World. IESE Business School Working Paper, No. WP-120-E, 33.(2020)
2. Marek, D. et al.: COVID-19: Ekonomické dopady: Ekonomika v době epidemie, https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/about-deloitte/COVID-19-ekonomicke_dopady.pdf, last accessed 2021/08/24
3. Statistical Office of the SR: Gross domestic product in the 4th quarter of 2020, https://slovak.statistics.sk/wps/portal/ext/products/informationmessages/inf_sprava_detail/f03b3675-c757-402d-bdd5-19e53269d831/!ut/p/z1/tVJNU8IwFPwtHHpM82haUrwFRvkQnEEGobk4_Qi0tk1KG1v59wbHizOieDCXl8zb3ezLBnO8w1yGbXYIdaZkWJhzwAfPKzrzR6M-AxgtCMzm9-uH6fjOmWw8_IQ55rHUlU5xoKImTFGTo0zuUZhrC8xG1aVRa6VATVWH7cmCthE6N3UPJCID6qGYehS54CQoShIP9YfCI85gmPikf5av4izBwVXo7W9-uWnDhcXA8PkHZDxhU5cuAPzFxIMZm24ehytCgJFPwA8agfFAL3roU7xtM9HhjTy_TIHXfxxxCniOeRaVdheXNtjUp0Ao9V3HHQ48Qs6ZZS_HI2cmGCW1eNN49x_JmHucejleHoz9UKdnaYV311KZjIhvqLXYi1rU9mttfluqddXcWGBB13X2QalDIexYlRZ8R0lVY0b7isRVWfrkhPL98pa4PDqRol0w1uu9AxG86mg!/dz/d5/L2dBISEvZ0FBIS9nQSEh/, last accessed 2021/08/24
4. Sansa, N. A.: The Impact of the COVID - 19 on the Financial Markets: Evidence from China and USA. Journal of Social Sciences and Humanities, 2(2) (2020).
5. Benzid, L., Chebbi, K.: *A New Form of Financial Contagion: COVID-19 and Stock Market Responses* (2020).

6. Czech, K, et al.: Shaking Stability: COVID-19 Impact on the Visegrad Group Countries' Financial Markets. Sustainability, 12(15) (2020)
7. Ali, M., et al.: Coronavirus (COVID-19) — An epidemic or pandemic for financial markets. In: Journal of Behavioral and Experimental Finance, (27)(2020)
8. Topcu, M., Gull, O. S.: The impact of COVID-19 on emerging stock markets. In:Finance Research Letters. (36) (2020)
9. Liu, H. Y.,et al.: The COVID-19 Outbreak and Affected Countries Stock Markets Response. In: International Journal of Enviromental Research and Public Health, 17(8) (2020)
10. Sharif, A., et al.: COVID-19 pandemic, oil prices, stock market, geopolitical risk and policy uncertainty nexus in the US economy: Fresh evidence from the wavelet-based approach. In: International Review of Financial Analysis, (70) (2020)
11. Liu, L., et al.:. Impact of the COVID-19 Pandemic on the Crude Oil and Stock Markets in the US: A Time-Varying Analysis. In: Energy RESEARCH LETTERS, 1(1) (2020)
12. Albulescu, T. C.: Coronavirus and financial volatility: 40 days of fasting and fear. https://hal.archives-ouvertes.fr/hal-02501814/document, last accessed 2021/08/24
13. Farid, S., et al.:. Intra-day volatility transmission among precious metals, energy and stocks during the COVID-19 pandemic. In: Resources Policy (72) (2021)
14. Baker, S. R., et al.: THE UNPRECEDENTED STOCK MARKET IMPACT OF COVID-19, https://www.nber.org/sys-tem/files/working_papers/w26945/w26945.pdf., last accessed 2021/08/24
15. Gunay, S.: A New Form of Financial Contagion: COVID-19 and Stock Market Responses (2020)
16. Mazur, M., et al.: COVID-19 and the march 2020 stock market crash. Evidence from S&P1500. In: Finance Research Letters, (38) (2020)
17. Ammy-Driss, A., Garcin, M. Efficiency of the financial markets during the COVID-19 crisis: time-varying parameters of fractional stable dynamics (2021)
18. Garcin, M., et al.: Estimation of time-varying kernel densities and chronology of the impact of COVID-19 on financial markets (2020)
19. Ashraf, B. N.: Economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets.In: Journal of Behavioral and Experimental Finance, (27) (2020)
20. Ashraf, B. N.: Stock markets' reaction to COVID-19: Cases or fatalities? In: International Business and Finance (54)(2020)
21. Phan, D. H. B., Narayan, P. K.: Country Responses and the Reaction of the Stock Market to COVID-19—a Preliminary Exposition. In: The Review of Corporate Finance Studies, 56 (10) (2020)
22. Zaremba, A., et al:. Infected Markets: Novel Coronavirus, Government Interventions, and Stock Return Volatility around the Globe. In: Finance Research Letters, (35) (2020)
23. Lyócsa, Š. et al.: Fear of the coronavirus and the stock markets.In: Finance Research Letters, (36) (2020)
24. Papadamou, S., et al.: Direct and Indirect Effects of COVID-19 Pandemic on Implied Stock Market Volatility: Evidence from Panel Data Analysis https://mpra.ub.uni-muenchen.de/100020/1/MPRA_pa-per_100020.pdf, last accessed 2021/08/24
25. Engelhardt, N., et al.: What Drives Stocks during the Corona-Crash? In: News Attention vs. Rational Expectation. Sustainability, 12 (12)(2020)
26. Haroon, O., Rizvi, S. A. R :. COVID-19: Media coverage and financial markets behavior—A sectoral inquiry. In: Journal of Behavioral and Experimental Finance (27) (2020)
27. Engelhardt, N.,et al.: Trust and stock market volatility during the COVID-19 crisis.In: Finance Research Letters, (38)(2021)

28. Vyhláška č. 492/2004 Z. z. Vyhláška Ministerstva spravodlivosti Slovenskej republiky o stanovení všeobecnej hodnoty majetku (Decree 492/2004 of the Ministry of Justice of the Slovak Republic on determining the general value of property)
29. Marík, M.: Metody oceňovaní podniku: Proces oceňení – základní metody a postupy,(2007)
30. Crane, G.: Business Valuation Challenges For 2021, https://strategiccfo360.com/business-valuation-challenges-for-2021/, last accessed 2021/08/24
31. Baldwin, R., Di Mauro, B.: Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes https://voxeu.org/content/mitigating-COVID-economic-crisis-act-fast-and-do-whatever-it-takes, accessed 2021/08/25
32. NBS: Správa o finančnej stabilite, www.nbs.sk/sk/publikacie/sprava-o-financnej-stabilite, last accessed 2021/08/25
33. Rowland, Z., et al.:Determining the market value of the enterprise using the modified method of capitalized net incomes and Metfessel allocation of input data. Ad Alta: Journal of Interdisciplinary Research, **9**(2), 305-310 (2019)
34. Stehel, V., et al. : Prediction of institutional sector development and analysis of enterprises active in agriculture. E+M Ekonomie a Management, 22(4), 103-118 (2019)
35. Buus, T.: A general free cash flow theory of capital structure. Journal of Business Economics and Management, **16**, 675-695 (2015)
36. Kliestik,T., et al.: Remaining financially healthy and competitive: The role of financial predictors. Journal of Competitiveness, 12(1), 74-92 (2020)
37. Machova, V., Vrbka, J.: Value generators for businesses in agriculture. The 12th International Days of Statistics and Economics Conference Proceedings, 1123-1132 (2018)
38. Vochozka, M., Machova, V.: Enterprise value generators in the building industry. SHS Web of Conferences - Innovative Economic Symposium 2017: Strategic Partnership in International Trade (2017)
39. Behera, S.: Does the EVA valuation model explain the market value of equity better under changing required return than constant required return? Financial Innovation, **9** (2020)
40. Krulicky, T., Horak, J., Skulcova, K., Business valuation in times of crisis. SHS Web of Conferences 91, 01039 (2021)
41. Aljifri, K., Ahmad, H. I.: Choosing valuation models in the UAE. Lecture Notes in Information Systems and Organisation, 30, 191-203 (2019)
42. Halling, M., Y. et al., : How did COVID-19 affect firms' access to public capital markets?, Review of Corporate Finance Studies 9, 501–533 (2020)
43. Li, L., et al.: Banks as lenders of first resort: evidence from the COVID-19 crisis, Review of Corporate Finance Studies 9, 472–500 (2020)
44. Acharya, V. V., Steffen,S.: The risk of being a fallen angel and the corporate dash for cash in the midst of COVID, Review of Corporate Finance Studies 9, 430–471 (2020)
45. Machica, M., Mura, R. : Financial flexibility, investment ability, and firm value: evidence from firms with spare debt capacity, Financial Management 10, 1339–1365 (2010).
46. Fahlenbrach, R., et al., : How valuable is financial flexibility when revenue stops? Evidence from the COVID-19 crisis, NBER Working paper 27106. (2020).