CHAPTER 12

Trust Issues and Value Co-Creation in the Post-COVID Period

Aleksandr E. Bukharov, Nina Yu. Makukhina, Yulia A. Malygina, and Alexandr V. Chernov

Introduction

The world faced an unprecedented event—the coronavirus pandemic in 2020. The previous pandemic occurred more than 100 years ago, and it would be incorrect to compare it with the current one since globalization has led to global economic integration. Today, one can see how financial events taking place in one country can instantly affect the stock exchanges of other countries. Many relationships were disrupted, the usual way of life changed when the pandemic began. But life does not stand still: humanity has learned to adapt to changes throughout its history. Even though the acute phase ended in 2021, several countries still observe a strict isolation regime. The world is in a transition that may last several years, and this will largely depend on the vaccine's availability and effectiveness, as well as on how fast the sustainable herd immunity develops.

A. E. Bukharov · N. Yu. Makukhina (✉) · Y. A. Malygina · A. V. Chernov
MGIMO University, Moscow, Russia
e-mail: Makuhinanina@icloud.com

V. S. Osipov (eds.), *Post-COVID Economic Revival, Volume I*,
https://doi.org/10.1007/978-3-030-83561-3_12

Many countries are adopting some measures to support businesses and stimulate the economy, which should help both developed and developing countries to recover and boost their economies.

When the pandemic began, scientific and technological progress in many areas, especially in the field of digital communications, had significantly outstripped the willingness and capacity of economic actors to accept and implement their achievements. Humanity as a whole is conservative, so it usually takes many years to transform the usual processes, even when the economic feasibility of changes is proven (e.g., the so-called QWERTY effect (David, 1985)). The pandemic has catalyzed lifestyle changes and disruptions in global value chains. We had to create new ways of subject interaction, build new supply chains, and change both internal and external communications of economic subjects. When COVID-19 spread, humanity quickly moved to the digital format of communication. Human-Centered Design Machines (HCDM) using such software platforms as Zoom, TrueConf has become a new tool for collaborative value creation with the consumer. Today, one can take part in foreign investment projects in another country, buy various assets, means of production and consumer goods, as well as make financial services more convenient, including the global ones. That is, the collapse of trust, differentiated by territorial and sectoral characteristics, was transformed into trust in the emerging new institutions and the changing old ones. Of course, these processes differ from country to country and require in-depth study, but it cannot be denied that trust plays a crucial role in economic processes and their transformation during the pandemic.

Methodology

Various scientific methods were used in the study. For example, we used economic and statistical methods to analyze several financial markets and characteristic periods of decline associated with the economic crisis caused by the coronavirus pandemic have been identified (Imerman & Fabozzi, 2020). The institutional analysis allowed us to show the structural and logical connections between economic actors in the transforming reproductive process, where consumers have become full-fledged participants in the joint value creation (Osipov, 2020).

The problem of trust between economic actors has been the focus of the following authors' attention (Contractor & Reuer, 2014; Nefedov & Panibratov, 2017; Osipov, 2020).

The following authors considered the problems of financial services transitioning to the digital format: Inozemtsev (2021a, b), Osipov (2020), Ponamorenko (2020), and Stepnoff (2020).

Gambetta (1998) and Locke (2001) made important contributions to the theories of trust and institutional environment formation.

We used data from Refinitiv Eikon, WorldBank, OECD, and EuroStat,
Association of Mutual Funds in India, https://www.amfiindia.com/.
Association of Mutual Funds in Chile (Associacion de Administradoras de Fondos Mutuos de Chile A.G.), https://www.aafm.cl/.
The Investment Fund Institute of Canada, https://www.ific.ca/.
Korea Financial Investment Association (KOFIA), http://www.kofia.or.kr/.
The Central Bank of the Russian Federation, http://www.cbr.ru.
Investment Company Institute (ICI), https://www.ici.org/.
Morningstar, https://www.morningstar.com/.

Results

The economic situation since the global pandemic began has created new serious challenges for most states, including those related to the decline of trust, which was particularly pronounced in the financial sector.

First of all, trust refers to the feeling toward those with whom a person interacts, which is formed in early childhood and changes over time (Belyanin & Zinchenko, 2010). The economic effect of trust between citizens, businesses, and the state has become the subject of many scientific studies, according to which trust can be divided into several types: interpersonal (to each other)—also called horizontal trust, political (public trust in the state), institutional (to organizations—public, private, non-profit, media), and international (to other countries) (Gambetta, 1998; Locke, 2001).

If we take the economy, trust is necessary for all transactions between sellers and buyers, employees and employers, customers and contractors. The lower level of trust leads to higher transaction costs and the less one free interaction. The greater the need for protective mechanisms in the work of economic actors, but the higher the share of unproductive labor in the economy, the less effective it is.

It should be noted that it is not just about transaction costs. It is very important that an economic actor can predict the reactions of society and the state to their actions so that there is trust at this level. If there is no trust, but some actor feels danger and threat, then all the efforts, any creative activity, will rest on the need to protect at all costs what one already has. The level of trust and economic activity (i.e., realizing the potential inherent in a person) are directly proportional: if we believe that others will not do us any harm, and institutions will represent our interests, we are inclined to try something new: invest money in a business, change jobs, build a corporation, etc. The higher the level of trust, the more the economic actor seeks to create, acquire, and the less afraid of losing. The correlation between life quality and the level of trust can be seen in the following figures: the leaders in the level of trust are those countries where respondents are more likely to say that most people can be trusted. These countries are leaders in both per capita GDP and economic growth (Algan & Cahuc, 2010). First of all, these are the Scandinavian countries: Denmark, Finland, Norway, and Sweden are absolute leaders in social, institutional, and political trust, which is reflected in their indicator of social well-being.

There may not be enough research on the topic of trust in the context of the COVID-19 pandemic, but the first results are already available. A study by two French authors from the University of Bordeaux, Olivier Bargen and Ulugbek Aminzhonov, titled "Trust and Compliance to Public Health Policies in Times of COVID-19" is based on Google mobility data and data on trust from the European Social Survey (ESS) report in European countries. The authors used regional differences in political trust across Europe to test whether trust in authorities before the crisis affected compliance with isolation policies, as measured by changes in people's mobility. As a result, it was found that European regions with a higher level of political confidence witnessed a greater decline in mobility. The same is true within countries: the authors compared the regions where trust is high, above the national average, with the regions where the level of trust is below the average—and found that the mobility declined 14–16% greater in the regions with high trust. If people believe that the restrictions are imposed by trustworthy politicians, then they are willing to comply with even tougher restrictions (Bargain & Aminjonov, 2021).

The work of the Italian authors "Asocial Capital: Civic Culture and Social Distancing during COVID-19" analyzed the compliance with the movement restrictions introduced in March 2020 on the Italian example. Regions with high and low social capital (civic capital), an indicator that includes trust, were compared. They concluded that if all Italian provinces had the same high social capital as those in the top 25, the COVID mortality rate would be 10 times lower (Durante et al., 2020).

The change in the global level of trust during the pandemic is shown by the example of the following countries. The graphs show that there was a sharp drop in consumer and producer confidence indices and their recovery in the post-COVID period in all countries in March 2020 (Fig. 12.1).

Moving the focus from trusting the person to trusting the system, we can note the following. Economic actors have had to trust and at the same time not trust people for centuries. On the one hand, a human being, as a social animal, tends to dualism and cannot trust them, and otherwise, our costs will exceed any economic feasibility, but on the other hand, the human being also tends to doubt. Society is in search of balance, both at the level of individuals and at the level of institutional interaction. The developing digital technologies allow one to move to "doubt," as the verification cost is minimized. At the same time, it is dangerous to find oneself in a situation of falling into autocracy, or "digital totalitarianism" (Nefedov & Panibratov, 2017; Osipov, 2020), which means that it is very important to develop trust at all levels using various tools, such as checks and balances.

But do not forget that a person is characterized by a sensual approach and the habit of trusting is deeply embedded in our minds. In times of crisis, this is observed both at the household level and at the level of state institutions. Today, many areas of human life are changing because of the COVID-19 pandemic, and trust is transformed, but it does not decrease or disappear. Society is looking for and selecting new objects of the trust. The level of trust in digital systems increased due to the forced transition to their widespread use, which allowed us to see how convenient and secure they were.

The COVID-19 pandemic has changed all areas of life. We can trace the example of disrupted ties and the pandemic's impact on the financial market, the reaction of private and institutional investors around the world and their actions in the spring of 2020.

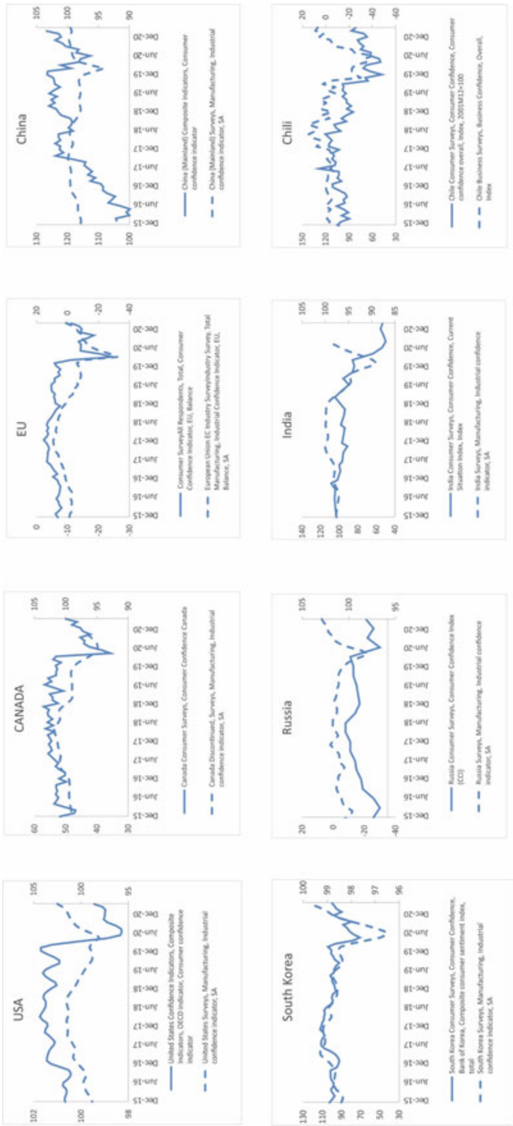

Fig. 12.1 Consumer and industrial confidence indexes of several economies (*Source* Created by authors)

The reason for studying the reaction of investors is that one of the consequences of the relationships' breakdown and loss of trust should be the outflow of funds from financial managers' clients since high uncertainty in the markets increased volatility and lowered indices, while investors prefer to withdraw assets in cash or transfer investments to more reliable assets. To confirm this hypothesis, we analyzed the situation in the investment fund market in different countries in the context of investment inflows/outflows.

Europe and the UK

In March 2020, when the epidemic swept through European countries, the stock market experienced a sharp increase in volatility, investors panicked and began to convert securities into cash, gold, and other highly liquid assets. This trend also affected investment funds. The EU is considered the world's second-largest investment fund industry with net assets of more than 10 trillion euros (according to Morningstar). According to the report of the Investment Company Institute,[1] UCITS lost about 6.2% of net assets in March. At the same time, the outflow from funds with low volatility net asset value (LVNAV) was 28%, while the one from the funds with variable net asset value (VNAV) was 16%.

When the ECB and the Bank of England intervened by providing funds, the value of corporate bonds was maintained, confidence in long-term markets was restored and capital outflows from UCITS was reduced, and growth rates were restored after April 2020.

India

Calculations based on data from the Association of Mutual Funds in India show that the outflow from all types of funds was about 4%[2] for the period January–March 2020. At the same time, the outflow from closed-end investment funds was less than 0.5%. As markets recovered since April 2020, open-end funds experienced inflows while closed-end funds continued to experience outflows (second quarter −10.8%; third

[1] https://www.ici.org/covid19/covid_working_group.

[2] Calculated by authors based on Association of Mutual Funds in India, https://www.amfiindia.com/research-information/amfi-quarterlydata.

quarter −7%; fourth quarter −5.5%). The continued outflow of capital from closed-end funds can be attributed to the high transaction costs of exiting this type of fund, as well as the extended terms for dealing with investment units compared to open-end funds. We suppose that the current trend indicates the flow of investments from long-term funds to short-term ones.

Chile

Analyzing the data disclosed by the Association of Mutual Funds in Chile (Associacion de Administradoras de Fondos Mutuos de Chile A. G.), we can note a sharp decrease in the inflow of capital in all categories of funds in March 2020 compared to February 2020. At the same time, the inflow of funds in March 2020 was registered only in short-term debt funds (Deuda < 90) + 137%[3] compared to the net inflow in February 2020. At the same time, the remaining types of funds showed a huge outflow in March compared to February: long-term debt funds (Deuda > 365): −308%, Equity funds (Accionario): −545%, Structured Product Funds (Estructurado): −223%; Balanced Strategy funds (Balanceado): −223%; Funds for Institutional Investors (Inversionista): −280%.

It should also be noted that Equity Funds experienced negative outflows in March–July, Structured Product Funds in March–July, Balanced Funds in March–July, while funds for Qualified Investors and Long-term Debt Funds showed outflows until the end of 2020.

The main and for the most part the only positive inflow of funds was in Debt Funds with a short investment period of up to 90 days.

Canada

According to the Investment Fund Institute of Canada,[4] the COVID-19 pandemic provoked the following trends. At the beginning of 2020, the net asset value of all types of funds was CAD 1.63 trillion. By the end of the first quarter, the value of net assets fell to CAD 1.53 trillion. The net investment flow in all fund categories in March 2020 was

[3] Calculated by authors on the basis of Associacion de Administradoras de Fondos Mutuos de Chile A.G., https://www.aafm.cl/que-son-los-fondos-mutuos/.

[4] https://www.ific.ca/en/pg/industry-statistics/.

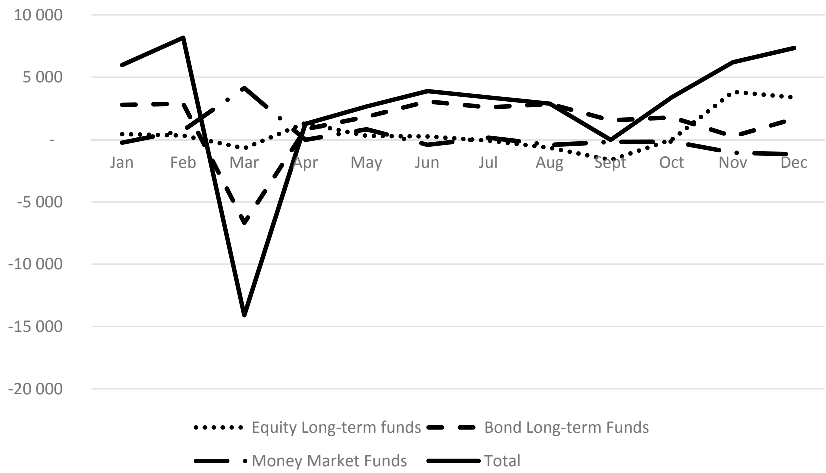

Fig. 12.2 Mutual fund net sales/net redemptions in Canada, 2020 ($ Mln.) (*Source* Constructed by authors based on The Investment Fund Institute of Canada)

CAD -14,095 million, which was, according to the authors' calculations, −273%[5] compared to the net investment flow in February 2020. At the same time, the outflow of investments from long-term funds in March amounted to CAD −18,255 million, while over the same period, money market funds experienced a whopping investment gain of CAD 4,130 million, which is twice the total investment in this type of funds for the whole of 2019. If we take the Canadian investment fund market, equity investment funds were extremely sensitive to the pandemic. The volatility of these funds repeated the peaks of the COVID exacerbation, investments outflowed (May, July–October) and there were periods when the disease rate stopped growing and one could see a reverse, positive movement of investments in these funds (April–June; November–December) (Fig. 12.2).

[5] Calculated by authors based on The Investment Fund Institute of Canada, https://www.ific.ca/en/pg/industry-statistics/.

South Korea

According to the Korea Financial Investment Association (KOFIA),[6] the total investment flow in investment funds remained positive in 2020, but according to the authors' calculations, the decline in investment funds compared to 2019 was −61%. At the same time, one can clearly distinguish three periods of 2020 when the total volume of investments in all types of funds was negative: March (−31,078,400 million won or −258%[7] compared to February investments); June (−14,447,300 million won or −174% compared to May investments); September (−9,287,600 million won or −4512% compared to August values). It is worth noting that the largest outflow in March 2020, in absolute terms, could be seen in short-term asset funds: −23,831,000 million won. However, this type of fund showed not only a positive increase in investment at the end of 2020 but also the volume of investments increased by 45%[8] compared to 2019, which corresponds to the previously highlighted trend of investments' outflow in money market funds with high liquidity. It is also worth highlighting the funds that invest in the debt market, the capital market, and real estate. According to the authors' calculations, debt market funds lost about 66% of all inflows in 2019 in March 2020 alone. Although, in the next six months, funds of this type had a positive inflow of investment, the fall in March could not be compensated: −128% at the end of 2020 in comparison with the net flow of 2019. Equity funds have been in the "red zone" for more than six months of 2020, with the highest outflows in July and August. Real estate funds, although they showed negative net flow only in March 2020, throughout the year, the net flow was on average more than 50% lower than the same values in 2019 (Fig. 12.3).

Russia

The investment funds of the Russian Federation did not feel the impact of the pandemic as strongly as the ones of the countries discussed above.

[6] http://www.kofia.or.kr/wpge/redirecteng.do.

[7] Calculated by authors based on Financial Investment Association (KOFIA), https://www.ific.ca/en/pg/industry-statistics/.

[8] Calculated by authors based on Financial Investment Association (KOFIA), https://www.ific.ca/en/pg/industry-statistics/.

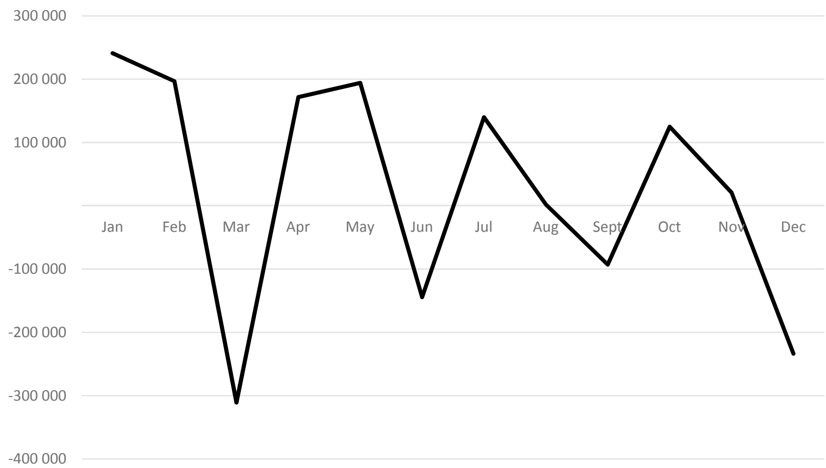

Fig. 12.3 Total funds change in South Korea, 2020 (100 mln Won) (*Source* Created by authors)

According to the Russian Central Bank,[9] the total volume of mutual fund portfolios decreased by −6.5%[10] in the first quarter of 2020. At the same time, there was a 37% increase in the volume of portfolios of exchange-traded investment funds in the first quarter of 2020. According to the National Association of Stock Market Participants,[11] a net increase in investments in open-ended mutual funds was recorded for the first quarter of 2020 in the amount of 50.52 billion rubles, which, according to the authors, is about 48.9%[12] of the total net flow to funds of this type for the year 2019. If we take the second quarter of 2020, the Central Bank of Russia said that the net investment flow was the following: +42.3 billion rubles or −27% compared to the same period in 2019 for closed-end mutual funds; +25.2 billion rubles or +340% compared to the same period in 2019 for open-ended mutual funds; and +6.1 billion rubles

[9] http://cbr.ru.

[10] http://cbr.ru/analytics/RSCI/activity_uk_if/.

[11] http://naufor.ru/tree.asp?n=4333.

[12] Calculated by authors based on NAUFOR, http://naufor.ru/tree.asp?n=4333.

or +164% compared to the same period in 2019 for exchange-traded investment funds.

The described dynamics is atypical for the period of the COVID-19 pandemic, but the following factors that influenced the investment fund market in 2020 and significantly supported it can be identified. First, the key rate of the Bank of Russia at the end of 2019 and the beginning of 2020 was at a level close to the minimum values for the previous 5 years, which harmed the deposit rates in commercial banks. Second, since the beginning of the COVID-19 pandemic, the Russian Government has taken many measures to combat the pandemic and its consequences, including the financial ones—the taxation of personal income has been changed (an increased rate for income exceeding 5 million rubles and the taxation of income from bank deposits exceeding 1 million rubles have been introduced). These factors, on the one hand, provoked individuals to search for more profitable instruments, and on the other hand, contributed to an increase in the banking sector's interest in commission income from selling investment products to customers, in particular mutual funds (according to the Bank of Russia,[13] the commission fees in the banking sector in all areas increased by 10% in 2020). It is also worth noting that online distribution channels for financial instruments and the increasing financial literacy could have a positive impact on investments in mutual funds.

Discussions

Considering the situation on the investment funds market in various countries, we can highlight the following:

1. During the period of growing uncertainty and falling markets, investors tried to exit investment funds and obtain cash or highly liquid assets.
2. Investors of long-term investment funds continued to withdraw from this type of investment not only at the most critical moments (March) but also in the subsequent period. The authors attribute

[13] https://cbr.ru/Collection/Collection/File/32168/overview_2020.pdf.

this to two factors: the general uncertainty in the future movements of the market and the difference in transaction costs—exiting long-term funds can take up to six months.

3. The gradually returning investors with liquid short-term assets who could quickly exit in the second half of 2020 indicate a change in investor sentiment but generate additional expenses in the form of entry and exit costs.
4. In some cases, the endogenous characteristics of the financial market may have a stronger impact on investor behavior than the global pandemic and other external factors. On the one hand, one can point out the advantages of this situation, but on the other hand, such a behavior of the financial system can be a factor of uncertainty for external investors, which in the end will have rather negative consequences in the form of foreign capital's negative investment flow.

Summarizing the observations, it can be noted that the COVID-19 pandemic has again revealed the problem of confidence in financial markets. Investors doubted the fund managers' actions and wanted to manage their investments independently during a period of volatility. However, after a few months, when the market turned up, they realized that they had been mistaken and re-purchased investment units. As a result, there was a loss in the form of a commission on the repayment and acquisition of shares and a loss of market profitability at the time of the reversal. Increasing the level of trust in the market, as well as using automated decision-making systems in asset management, in our opinion, could increase the level of trust and improve the situation for the end-user and the market as a whole.

The consumer is no longer just a consumer, but an authorized participant in the reproduction process, especially if it is not a single consumer, but a group of consumers united by a social network, or any digital ecosystem, that is, a digital community of consumers. The modern production of goods and services is faced with the problem of creating a customized offer as it is very difficult to find the resources to involve each consumer in jointly creating value. One example of a customized offer is robo-advising.

Robo-advising has become widespread in the FinTech system, apparently for several reasons: modern people are digitally oriented; it can be used in mobile applications; the commissions are lower; one can independently make decisions based on the recommendations of an independent technical algorithm following individual goals and behavior, as well as the capabilities of robo-advisors: indicators of their trading algorithms' effectiveness, interactive and visual reporting (Sironi, 2016).

People distrust digital platforms as they collect, accumulate, and use detailed information, including personal one (Normey, 2020). This effect has increased when digital services began to be monetized. However, the pandemic has accelerated the spread of financial services, including among private investors.

Robo-advisors have firmly taken their place in the FinTech system since 2008. Robo-advisors are most widespread in the United States (if we take the number of companies offering services, customer base, and assets under management), followed by China. The largest companies in the robo-advising market include Betterment, Wealthfront, Personal Capital, Schwab Intelligent Portfolio, Acorns, SigFig, Vanguard, SoFi, Fidelity GO, and others. Business Insider Intelligence estimates that robo-advisors will manage $4.6 trillion in assets by 2022 (Meola, 2021).

With the improvement of robo-advising, robots will inspire more confidence than personal consultants as they will be improved, there will be no conflicts of interest, they will not disclose the entire amount of invested savings, and people will get satisfaction from self-balancing their savings and optimize tax paying. An important factor for increasing confidence in robo-advising is decision-making during price declines since decisions are made without emotion, automatically.

To increase trust in robo-advisors, conversational advisors based on artificial intelligence are being implemented into chatbots. They apply the fundamental principles of communication between people to increase the level of emotional trust between a person and a robot (Hildebrand & Bergner, 2020).

Another trend in robo-advising in the post-COVID period is re-profiling the degree of risk, taking into account the time of investment. The experience that robo-advisors have gained during the pandemic will certainly increase their resilience to short-term economic shocks.

However, it does not appear that investment advisors will be made a thing of the past. If robo-advising continues to use logical and mathematical intelligence, then the leading incentive for communication with investment consultants will be sensory intelligence, which will contribute to jointly creating values. In this case, communication with investment consultants will likely move to the luxury segment.

Conclusions

The COVID-19 pandemic has changed all areas of life. We can trace the example of disrupted ties and the pandemic's impact on the financial market, the reaction of investment fund investors around the world, and their actions in the spring of 2020.

A review of several countries' investment fund markets has allowed us to conclude that comparable trends have developed during the COVID-19 crisis. The volatility in financial markets caused by the pandemic has determined the trend for investors to take profits in high-risk assets and convert them into cash and other highly liquid assets.

However, it is worth noting that endogenous factors, in some cases, may have a greater impact on the market situation than exogenous ones, even of such a force as COVID-19.

The behavior of investors can be characterized on the one hand as an attempt to protect the assets: withdrawing investments from the financial sector, transitioning to cash and other generally accepted protective assets, but on the other hand, one cannot but note the great changes in the investors' attitude to the market correlated with the epidemiological situation. Such changes support the hypothesis that they lack trust and clearly demonstrate the economic costs caused by distrust—the transaction costs of withdrawing and returning investments. It is also worth noting that certain categories of investment funds do not allow for a quick withdrawal, which increases the outflow in conditions of uncertainty and high volatility.

The COVID-19 pandemic introduced fear into social communication: people were afraid to meet and afraid to communicate in person. The loss of social trust inevitably broke the value chains and there was no need to establish new types of communication via the Internet. The physical disruption of social communications has given birth to a new format of collaborative HCDM value creation through products such as TrueConf, Zoom, and others that have facilitated business dialogue on a global level.

Trust is the most important institutional factor in financial market development, so it is very important to restore trust between economic actors to make their interaction with consumers closer and create joint value. The post-COVID era shows that traditional financial market institutions have undergone a transformation. The pandemic has pushed for greater digitalization, and it has also given rise to robo-advising, which allows one to create value together with consumers using new HCDM platforms. Thus, in the post-COVID period, new opportunities for developing the financial market open up, so that one can use new platforms to create a mass-customized individualized product for consumers of financial services.

References

Algan, Y., & Cahuc, P. (2010). Inherited trust and growth. *American Economic Review, 100*(5), 2060–2092. https://doi.org/10.1257/aer.100.5.2060

Bargain, O., Aminjonov, (2021). Trust and compliance to public health policies in times of COVID-19. *Journal of Public Economics*. Article 104316. https://doi.org/10.1016/j.jpubeco.2020.104316

Belyanin, A. V., & Zinchenko, V. P. (2010). Doverie v economike i obschestvennoy jizni [The trust in the economy and public life]. *Moscow, Fond "Liberalnaya missiya"*.

David, P. A. (1985). Clio and economics of QWERTY. *American Economic Review, 75*(2), 332–337.

Durante, R., Guiso, L., & Gulino, G. (2020). *Asocial capital: Civic culture and social distancing during COVID-19*. Available at SSRN: https://ssrn.com/abstract=3611606

Gambetta, D. (1998). *Trust: Making and breaking cooperative relations*. Blackwell.

Gutbrod, M. (2020). Digital transformation in economy and law. *Digital Law Journal, 1*(1): 12–23. https://doi.org/10.38044/DLJ-2020-1-1-12-23

Hildebrand, C., & Bergner, A. (2020). Conversational robo-advisors as surrogates of trust: Onboarding experience, firm perception, and consumer financial decision making. *Journal of the Academy of Marketing Science*. https://doi.org/10.1007/s11747-020-00753-z

Imerman, M., & Fabozzi, F. (2020). Cashing in on innovation: A taxonomy of FinTech. *Journal of Asset Management, 21*, 167–177. https://doi.org/10.1057/s41260-020-00163-4

Inozemtsev, M. I. (2021a). Digital assets in the United States: Legal aspects. *Lecture Notes in Networks and Systems, 139*, 514–522. https://doi.org/10.1007/978-3-030-53277-2_14

Inozemtsev, M. I. (2021b). Taxonomy and typology of crypto-assets: Approaches of international organizations. *Lecture Notes in Networks and Systems, 139*, 122–133. https://doi.org/10.1007/978-3-030-53277-2_14

Locke, R. M. (2001). *Building trust*. Massachusetts Institute of Technology, Preprint.

Meola, A. (2021). *Top robo advisors in 2021: Performance reviews, returns, and comparisons*. https://www.businessinsider.com/best-robo-advisors

Nefedov, K. S., & Panibratov, A. Yu. (2017). Global value chain analysis: Main dimensions and further research agenda. *Vestnik of Saint Petersburg University Management, 16*(3), 364–397. https://doi.org/10.21638/11701/spbu08.2017.302

Normey, R. (2020). The rise of the digital robber barons: Is government up to the task at hand? *LawNow, 44*(6), 19.

Osipov, V. S. (2020). Yellow brick road to digital state. *Digital Law Journal, 1*(2), 28–40. https://doi.org/10.38044/2686-9136-2020-1-2-28-40

Ponamorenko, V. E. (2020). The concept of Fintech law in the context of modern requirements for the formation of lawyers' professional competencies. *Digital Law Journal, 1*(1), 59–68. https://doi.org/10.38044/DLJ-2020-1-1-59-70

Popova, N. V. (2020). Hightech as a platform for economic growth. *Digital Law Journal, 1*(3), 8–13. https://doi.org/10.38044/2686-9136-2020-1-3-8-13

Shashkova, A. V., Agranovskaya, M. A., & Kitsmarishvili, D. E. (2020). FinTech & new digital instruments. Post-crisis developments: Russia and Europe. *Digital Law Journal, 1*(4), 23–37. https://doi.org/10.38044/2686-9136-2020-1-4-23-37

Sironi, P. (2016). *Financial innovation: from robo-advisors to goals-based investing and gamification*. The Wiley Finance Series.

Stepnoff, I. M., & Kovalchuk, Ju.A. (2020). Digital challenges and tax equity. *Digital Law Journal, 1*(1): 39–58. https://doi.org/10.38044/DLJ-2020-1-1-39-58