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Trust and stock market volatility during the COVID-19 crisis

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ABSTRACT

We investigate if trust affects global stock market volatility during the COVID-19 pandemic. Using a sample of 47 national stock markets, we find the stock markets' volatility to be significantly lower in high-trust countries (in reaction to COVID-19 case announcements). Both trust in fellow citizens as well as in the countries' governments are of significant importance.

1. Introduction

The outbreak of the COVID-19 pandemic hit the world's economy unprepared and led to uncertainty on global stock markets. While the increasing number of infections caused some governments to impose significant countermeasures, other governments such as the Swedish and the South Korean preferred a more relaxed policy without a lockdown. These different political reactions were heavily discussed in the public leading to the question whether governments took the right path. In this respect, Francis Fukuyama states in a recent article that the crucial determinant in overcoming the crisis is trust, and more specifically trust in the country's government. As he puts it, "[...] trust is the single most important commodity that will determine the fate of a society. In a democracy no less than in a dictatorship, citizens have to believe that the executive knows what it is doing" (Fukuyama, 2020). But trust in governments might only be one side of the coin as trust in fellow citizens obeying the government's orders might also be of significant importance (Goldstein and Wiedemann, 2020; Mehari, 2020).

In this paper, we therefore analyze whether societal trust (i.e. trust in anonymous others) and trust in the country's government among citizens affect stock market volatility during the COVID-19 pandemic. The rationale behind being that societal trust and trust in a country's government significantly reduce uncertainty among investors and therefore affect a stock market's volatility. Using data from the World Values Survey to proxy for trust in a country and a sample of 47 national stock markets, we find stock markets' volatility (in reaction to confirmed COVID-19 case announcements) to be significantly lower in high-trust countries. The results hold in univariate and multivariate tests as well as when using different proxies for trust.

Our paper contributes significantly to the existing literature. While most of the studies focus on the effects of the COVID-19 pandemic on specific stock markets (e.g. Al-Awadhi et al., 2020; Albulescu, 2020b; Ramelli and Wagner, 2020; Takahashi and Yamada, 2020), there are only a few studies analyzing the impact on global stock markets (e.g. Albulescu, 2020a; Engelhardt et al., 2020). In particular, Zhang et al. (2020) show volatility to be significantly larger in global markets due to the outbreak. Zaremba et al.

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(2020) find the increase in return volatility to be related to policy responses. Our paper deepens the understanding by showing that trust affects a stock market's volatility during the pandemic. Our study is also strongly related to Erdem (2020) who analyzes whether freedom in a country affects the stock market's reaction to the announcement of infection numbers. He shows stock market returns in freer countries to be less negative and volatility to be lower in reaction to announcements of infection numbers. Finally, our study also relates to the impact of societal trust on financial markets in general. There are a few studies showing a relation between societal trust and an investor's behavior (e.g. Adams, 2020; Georgarakos and Pasini, 2011; Lesmeister et al., 2018; Limbach et al., 2020).

The remainder of this paper is structured as follows: Section 2 describes the data and methodology. Section 3 presents the results of our empirical analysis. Section 4 provides robustness checks and Section 5 concludes.

2. Data & Methodology

We obtain daily data on confirmed COVID-19 cases per country from 22 January 2020 to 29 July 2020 from Johns Hopkins University and the closing prices of the corresponding lead stock market indices from Trading Economics and Yahoo Finance.[1] This leaves us with an unbalanced panel since there were no officially reported cases in some countries until the beginning of March, 2020. Table A1 in the Appendix holds a list of countries covered. Following the existing economics literature (e.g. Guiso et al., 2010; Johnson and Mislin, 2012; Knack and Keefer, 1997; Sapienza et al., 2013), we obtain data on a country's societal trust from the World Values Survey's (WVS) latest wave (i.e. wave 7, 2017-2020). In line with Sapienza et al. (2013) and Lesmeister et al. (2018), we particularly focus on general trust within a society using the response to the question "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" We use the proportion of respondents answering with "most people can be trusted" as a score for societal trust. To account for trust in a country's government among citizens, we use the response to the question "Could you tell me how much confidence you have in the government: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?" We construct a score for trust in the country's government by adding the proportion of respondents answering with "a great deal of confidence" and the proportion of those answering with "quite a lot of confidence". For both trust scores, we also construct a dummy variable indicating whether a country is a high-trust country. We define a country as a high-trust country if the country's trust score is equal or larger than the 50^{th} percentile of all trust scores.

To examine the impact of trust on stock market volatility during the COVID-19 crisis, we consider the following straightforward panel regression model, which is similar to the one in Erdem (2020):

$$Market\ Volatility_{i,t} = \beta_0 + \beta_1 \times Cases\ growth\ rate_{i,t} + \beta_2 \times Trust\ dummy_{i,t} \times Cases\ growth\ rate_{i,t} + \varepsilon_{i,t} \quad (1)$$

where i is the country and t denotes the trading day, and $\varepsilon_{i,t}$ denotes the error term. $Market\ Volatility_{i,t}$ is the 5-day moving average volatility calculated as $Market\ Volatility_{i,t} = \sqrt{\sum_{t=1}^{5}(R_{i,t} - \overline{R})^2/4}$ and the COVID-19 growth rate is calculated as $Cases\ growth\ rate_{i,t} = \ln(Cases_{i,t}/Cases_{i,t-1})$ where *Cases* is the number of confirmed COVID-19 cases in country i per million inhabitants at time t. We define the variable *Trust dummy* as mentioned above.

Table 1 provides descriptive statistics for our sample consisting of 47 countries. In Panel A, we report descriptive statistics for the entire sample period ranging from 22 January 2020 to 28 July 2020. Mean volatility with a standard deviation of 1.48% is 1.78% and the mean growth rate of confirmed COVID-19 cases is 5.11%. The mean societal trust score is 31.09, while the mean trust in government score is 39.31. 64.04% of observations are classified as high-trust countries considering societal trust and 50.85% of observations are classified as high-trust countries considering trust in government. In Panel B, we report descriptive statistics for a subsample, where we specifically focus on a shorter time period where stock markets reacted strongly to the COVID-19 pandemic (Ramelli and Wagner, 2020; Erdem, 2020). As expected, volatility is slightly higher amounting to 2.43% with a standard deviation of 1.81%. The mean growth rate of confirmed COVID-19 cases is also significantly higher reaching 9.63%. The statistics for the remaining variables are almost identical to those reported in Panel A.

3. Results

The main empirical question we aim to answer is whether trust affects stock market volatility (in reaction to case announcements) during the COVID-19 pandemic. The rationale behind this being that trust in a government's actions during the pandemic as well as trust in fellow citizens obeying the government's orders significantly reduces uncertainty among investors. Before turning to the formal regression specifications investigating this hypothesis, we consider simple univariate statistics first. Table 2 presents the results from these tests.

In Panel A, we report the results for the full sample period where we consider societal trust first. While the difference in mean volatility between high and low-trust countries is not statistically significant, we find the growth rate of confirmed COVID-19 cases to be significantly lower in high-trust countries compared to low-trust countries. In Panel B, we again consider societal trust using our subsample. The results show that stock market volatility is significantly lower in high-trust countries during the time period where stock markets reacted severely. We also find the growth rate of confirmed COVID-19 cases to be significantly lower in high-trust countries. In Panel C and Panel D, where we replicate the tests using our *Trust in Government dummy*, we also find support for our

[1] We obtain the data on the closing prices of the stock market indices for Argentina and New Zealand from Yahoo Finance to enlarge our sample since we cannot obtain these from Trading Economics.

Table 1
This table reports descriptive statistics. In Panel A, we report descriptive statistics for our full sample consisting of 47 countries for the time period from 22 January 2020 to 28 July 2020. In Panel B, we report descriptive statistics for a subsample consisting of the same 47 countries for the time period from 22 January 2020 to 3 May 2020. The stock market data come from Trading Economics and Yahoo Finance. COVID-19 data come from Johns Hopkins University. Data on trust come from the World Values Survey's (WVS) latest wave (i.e. wave 7).

Panel A: 22 Jan - 28 July 2020 (Full Sample)

	Observations	Minimum	Maximum	Mean	Median	Std.
Market Volatility	5479	0.0000	0.1312	0.0178	0.0138	0.0148
Cases growth rate	5479	- 11.1132	2.0794	0.0511	0.0125	0.3310
Trust	5479	4.2000	73.9000	31.0891	26.6000	19.7591
Trust in Government	5479	9.6000	94.6000	39.3122	37.6000	20.8197
Trust dummy	5479	0.0000	1.0000	0.6404	1.0000	0.4799
Trust in Government dummy	5479	0.0000	1.0000	0.5085	1.0000	0.5000

Panel B: 22 Jan - 3 May 2020 (Corona Crash)

	Observations	Minimum	Maximum	Mean	Median	Std.
Market Volatility	2543	0.0000	0.1312	0.0243	0.0193	0.0181
Cases growth rate	2543	- 11.1132	2.0794	0.0963	0.0508	0.4817
Trust	2543	4.2000	73.9000	31.8052	27.7000	19.4749
Trust in Government	2543	9.6000	94.6000	40.4252	38.4000	21.0611
Trust dummy	2543	0.0000	1.0000	0.6685	1.0000	0.4708
Trust in Government dummy	2543	0.0000	1.0000	0.5305	1.0000	0.4992

Table 2
This table shows the univariate analysis for the full sample consisting of 47 countries over the time period from 22 January 2020 to 28 July 2020 and the subsample consisting of the same 47 countries over the time period from 22 January 2020 to 3 May 2020. In Panel A (full sample) and Panel B (subsample), we consider societal trust. We classify a country as a high-trust (low-trust) country if the *Trust dummy* equals one (zero). In Panel C (full sample) and Panel D (subsample), we consider trust in a country's government. We classify a country as a high-trust (low-trust) country if the *Trust in Government dummy* equals one (zero). To test for statistical significance, we perform a *t*-test. *, **, *** denote statistical significance at the 10%, 5% and 1% level.

Variable: *Trust dummy*

Panel A: 22 Jan - 28 July 2020 (Full Sample)

	High-Trust Country		Low-Trust Country		
	Observations	Mean	Observations	Mean	Difference
Market Volatility	3509	0.0179	1970	0.0176	0.0003
Cases growth rate	3509	0.0420	1970	0.0674	− 0.0254***
Trust	3509	41.9518	1970	11.7403	30.2115***
Trust in Government	3509	44.3401	1970	30.3564	13.9836***

Panel B: 22 Jan - 3 May 2020 (Corona Crash)

	High-Trust Country		Low-Trust Country		
	Observations	Mean	Observations	Mean	Difference
Market Volatility	1700	0.0235	843	0.0260	- 0.0024***
Cases growth rate	1700	0.0801	843	0.1291	- 0.0490***
Trust	1700	41.7295	843	11.7919	29.9375***
Trust in Government	1700	44.8345	843	31.5335	13.3011***

Variable: *Trust in Government dummy*

Panel C: 22 Jan - 28 July 2020 (Full Sample)

	High-Trust Country		Low-Trust Country		
	Observations	Mean	Observations	Mean	Difference
Market Volatility	2786	0.0169	2693	0.0187	- 0.0019***
Cases growth rate	2786	0.0366	2693	0.0662	- 0.0296***
Trust	2786	39.4231	2693	22.4674	16.9557***
Trust in Government	2786	54.9146	2693	23.1709	31.7437***

Panel D: 22 Jan - 3 May 2020 (Corona Crash)

	High-Trust Country		Low-Trust Country		
	Observations	Mean	Observations	Mean	Difference
Market Volatility	1349	0.0226	1194	0.0264	- 0.0038***
Cases growth rate	1349	0.0661	1194	0.1305	- 0.0645***
Trust	1349	39.1374	1194	23.5213	15.6161***
Trust in Government	1349	55.3517	1194	23.5611	31.7905***

hypothesis as the difference in mean volatility between high and low-trust countries is negative and statistically significant using both the full sample as well as the subsample. Also, the mean growth rate of confirmed COVID-19 cases is found to be significantly lower in high-trust countries in both samples. Overall, this first set of results suggests societal trust as well as trust in a country's government to be associated with lower stock market volatility during the COVID-19 pandemic. However, we caution that the results are only univariate.

We now turn to the results from our multivariate specifications which are presented in Table 3. In column 1, we show the results from our baseline model where the dependent variable is the stock market's volatility. Independent variables include *Cases growth rate* and the interaction term between the variables *Cases growth rate* and *Trust dummy*. Additionally, we include country-fixed effects. Using the full sample, we find a positive and statistically significant coefficient on *Cases growth rate* implying that stock market volatility increases with an increase in the growth rate of confirmed COVID-19 cases. This is in line with Erdem (2020). However, more importantly, we find a negative and statistically significant coefficient on the interaction term between *Cases growth rate* and *Trust dummy*. This finding supports our hypothesis and implies stock market volatility in high-trust countries to exhibit significantly less increase when the growth rate of confirmed COVID-19 cases increases.

In column 2, we use the same model specification but additionally include time-fixed effects (based on months), while in column 3 we also include the interaction between country and time-fixed effects. In both columns, however, we find similar results as in column 1. Therefore, we can conclude that societal trust significantly dampens an increase in stock market volatility for an increase in the growth rate of confirmed COVID-19 cases by at least 0.70 percentage points.

In columns 4 to 6, we replicate the model specifications but use the interaction between the variables *Cases growth rate* and *Trust in Government dummy*. Same as in columns 1 to 3, we find positive and statistically significant coefficients on the variable *Cases growth rate* as well as negative and statistically significant coefficients on the interaction term. This implies that trust in a country's government among citizens also significantly dampens an increase in stock market volatility for an increase in the growth rate of confirmed COVID-19 cases by at least 0.55 percentage points.[2]

Moreover, it is noteworthy that in all specifications the increase in market volatility resulting from an increase in the growth rate of COVID-19 cases is almost completely offset in high-trust countries.[3] As suggested by Fukuyama (2020), societal trust and trust in a country's government might therefore be an important factor determining how investors expect countries to deal with the challenges resulting from the COVID-19 pandemic. Thus, trust has a significant impact on the level of uncertainty on financial markets.

Using the subsample period in unreported regressions we gain qualitatively similar results providing further support for the negative relationship between trust and stock market volatility during the COVID-19 pandemic.

4. Robustness

Although not reported for reasons of brevity, we perform several robustness tests to ensure the validity of our results. First, we perform Pooled OLS regressions, where we include the two main effects as well as the interaction term, and find qualitatively similar results. We also use the raw trust scores instead of our dummy variables and find similar results for both the full sample and the subsample, which indicates societal trust as well as trust in a country's government to be associated with lower stock market volatility (in reaction to COVID-19 case announcements). Further, we use alternative specifications to classify the countries as high or low-trust countries. Specifically, we use the 90^{th} percentile as a cut-off level for high-trust countries. Again, we find qualitatively similar results. Additionally, we use the scores provided by the OECD to proxy for trust in a country's government among citizens and find similar results when controlling for country and time-fixed effects and the respective interaction term. We also check whether the freedom scores used by Erdem (2020) are significantly positively correlated with our trust proxies. However, we find that the correlation between the two trust scores and the freedom scores is negative and rather weak. Therefore, freedom within a country and trust seem to be different channels influencing a stock market's volatility during the COVID-19 pandemic. Overall, our battery of robustness checks further supports our previous findings.

5. Conclusion

The outbreak of the COVID-19 pandemic led to uncertainty on global stock markets and to a consequential increase in volatility. In this study, we analyzed whether societal trust and trust in a country's government among citizens affect stock market volatility during the COVID-19 pandemic. Investigating a sample of 47 lead national stock market indices, we find the stock markets' volatility to be significantly lower in high-trust countries (in reaction to COVID-19 case announcements). Both trust in fellow citizens as well as in the countries' governments are of significant importance. The results hold in univariate and multivariate tests as well as when performing several robustness tests. As a possible explanation for this finding, we propose that trust in a government's actions during the pandemic as well as trust in fellow citizens obeying the government's orders significantly reduces uncertainty among investors. Therefore, the reaction to an increase in the number of COVID-19 cases is dampened.

[2] To compare our models, we also calculate the Akaike Information Criterion (AIC) and find that models (3) and (6) perform best.

[3] For each regression, we perform a t-test indicating that the two regression coefficients β_1 and β_2 are significantly different from each other. Thus, we can conclude that the sum of the two coefficients is also significantly different from zero, indicating that the overall effect of the two coefficients is positive. This means that stock market volatility increased during the COVID-19 pandemic.

Table 3
This table presents the results from panel regressions on our full sample consisting of 47 countries over the time period from 22 January 2020 to 28 July 2020. The dependent variable is the 5-day moving volatility of the index returns. *Cases growth rate* is the log growth rate of the confirmed COVID-19 cases per million inhabitants. The trust dummies equal one if the trust score of a specific country is equal or larger than the 50th percentile of the entire trust sample, or zero otherwise. All regressions include country-fixed effects. In columns (2), (3), (5), and (6), we also include time-fixed effects (based on months). In columns (3) and (6), we additionally include the interaction between time and country-fixed effects. Standard errors corrected for heteroskedasticity and clustered at country level are reported in parentheses. *, **, *** denote statistical significance at the 10%, 5% and 1% level.

Dependent variable: Market Volatility	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	0.0166***	0.0175***	0.0000***	0.0163***	0.0175***	0.0000***
	(0.0002)	(0.0001)	(0.0000)	(0.0002)	(0.0001)	(0.0000)
Cases growth rate	0.0460***	0.0106**	0.0073**	0.0427***	0.0101**	0.0058**
	(0.0064)	(0.0056)	(0.0035)	(0.0059)	(0.0042)	(0.0025)
Cases growth rate × Trust dummy	- 0.0415***	- 0.0101**	- 0.0070**			
	(0.0066)	(0.0057)	(0.0035)			
Cases growth rate × Trust in Government dummy				- 0.0393**	- 0.0098**	- 0.0055**
				(0.0060)	(0.0043)	(0.0025)
Observations	5479	5479	5479	5479	5479	5479
Countries	47	47	47	47	47	47
Estimation method	OLS	OLS	OLS	OLS	OLS	OLS
Country FE	yes	yes	yes	yes	yes	yes
Time FE	no	yes	yes	no	yes	yes
Country FE × Time FE	no	no	yes	no	no	yes
R-Squared	0.0860	0.0071	0.0032	0.1043	0.0091	0.0030

CRediT authorship contribution statement

Nils Engelhardt: Conceptualization, Methodology, Software, Data curation, Writing - original draft. **Miguel Krause:** Conceptualization, Methodology, Software, Data curation, Writing - original draft. **Daniel Neukirchen:** Conceptualization, Methodology, Software, Data curation, Writing - original draft. **Peter N. Posch:** Conceptualization, Writing - original draft.

Appendix

Table A1
This table shows the global stock market indices used in this study. ISO codes for each country are reported. For each country, we select the closing prices of the stock market index which come from Trading Economics and Yahoo Finance, respectively. Our sample covers 47 countries of each economic region: East Asia and Pacific (11), Europe and Central Asia (26), Latin America and Carribean (6), Middle East and North Africa (1), North America (1), South Asia (1) and Sub-Saharan Africa (1).

ISO	Country	Market Index	ISO	Country	Market Index
ARG	Argentina	MERV	JPN	Japan	NIKKEI 225
AUS	Australia	ASX200	KOR	South Korea	KOSPI
AUT	Austria	ATX	MEX	Mexico	IPC
BGR	Bulgaria	SOFIX	MYS	Malaysia	FTSE KLCI
BRA	Brazil	BOVESPA	NGA	Nigeria	NSE 30
CHE	Switzerland	SMI	NOR	Norway	OSEAX
CHL	Chile	IGPA	NZL	New Zealand	NZX 50
CHN	China	SSE	NLD	Netherlands	AEX
COL	Colombia	IGBC	PAK	Pakistan	KSE100
CYP	Cyprus	CSE	PER	Peru	PEN
CZE	Czech Republic	SE PX	PHL	Philippines	PSEi
DEU	Germany	DAX	POL	Poland	WIG
DNK	Denmark	OMX20	ROU	Romania	BET
ESP	Spain	IBEX 35	RUS	Russia	MICEX
EST	Estonia	OMX Tallinn	SRB	Serbia	BELEX15
FIN	Finland	HEX25	SVK	Slovakia	SAX
FRA	France	CAC 40	SVN	Slovenia	SBITOP
GBR	United Kingdom	FTSE 100	SWE	Sweden	OMX30
GRC	Greece	ASE	THA	Thailand	SET50
HRV	Croatia	CROBEX	TUN	Tunisia	TUNINDEX
HUN	Hungary	BUX	TWN	Taiwan	TWSE
IDN	Indonesia	JCI	USA	United States	DJIA
ISL	Iceland	SE ICEX	VNM	Vietnam	VNINDEX
ITA	Italy	FTSE MIB			

References

Adams, R.B., 2020. Trust in Finance: Values Matter. Working Paper. University of Oxford, Oxford.

Al-Awadhi, A.M., Al-Saifi, K., Al-Awadhi, A., Alhamadi, S., 2020. Death and contagious infectious diseases: Impact of the covid-19 virus on stock market returns. Journal of Behavioral and Experimental Finance 100326. https://doi.org/10.1016/j.jbef.2020.100326.

Albulescu, C.T., 2020. Coronavirus and financial volatility: 40 days of fasting and fear. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3550630.

Albulescu, C.T., 2020. Covid-19 and the united states financial markets' volatility. Finance Research Letters 101699. https://doi.org/10.1016/j.frl.2020.101699.

Engelhardt, N., Krause, M., Neukirchen, D., Posch, P., 2020. What drives stocks during the corona-crash? News attention vs. rational expectation. Sustainability 12 (12). https://doi.org/10.3390/su12125014.

Erdem, O., 2020. Freedom and stock market performance during Covid-19 outbreak. Finance Research Letters 101671. https://doi.org/10.1016/j.frl.2020.101671.

Fukuyama, F., 2020. The thing that determines a country's resistance to the coronavirus. Last checked on Aug 03, 2020.

Georgarakos, D., Pasini, G., 2011. Trust, sociability, and stock market participation. Review of Finance 15 (4), 693–725. https://doi.org/10.1093/rof/rfr028.

Goldstein, D., Wiedemann, J., 2020. Who Do You Trust? The Consequences of Partisanship and Trust in Government for Public Responsiveness to COVID-19. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3580547.

Guiso, L., Sapienza, P., Zingales, L., 2010. Civic capital as the missing link. NBER Working Paper Series. https://doi.org/10.1016/B978-0-444-53187-2.00010-3.

Johnson, N.D., Mislin, A., 2012. How much should we trust the world values survey trust question? Economics Letters 116, 210–212. https://doi.org/10.1016/j.econlet.2012.02.010.

Knack, S., Keefer, P., 1997. Does social capital have an economic payoff? A cross-country investigation. The Quarterly Journal of Economics 112 (4), 1251–1288. https://doi.org/10.1162/003355300555475.

Lesmeister, S., Limbach, P., Goergen, M., 2018. Trust and Shareholder Voting. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3216765.

Limbach, P., Rau, P.R., Schürmann, H., 2020. The Death of Trust Across the Finance Industry. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3559047.

Mehari, Y., 2020. The Role of Social Trust in Citizen Mobility During COVID-19. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3607668.

Ramelli, S., Wagner, A.F., 2020. Feverish Stock Price Reactions to COVID-19. The Review of Corporate Finance Studies 9 (3), 622–655. https://doi.org/10.1093/rcfs/cfaa012.

Sapienza, P., Toldra-Simats, A., Zingales, L., 2013. Understanding trust. The Economic Journal 123, 1313–1332. https://doi.org/10.1111/ecoj.12036.

Takahashi, H., Yamada, K., 2020. When japanese stock market meets covid-19: Impact of ownership, trading, esg, and liquidity channels. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3577424.

Zaremba, A., Kizys, R., Aharon, D.Y., Demir, E., 2020. Infected Markets: Novel Coronavirus, Government Interventions, and Stock Return Volatility around the Globe. Finance Research Letters 101597. https://doi.org/10.1016/j.frl.2020.101597.

Zhang, D., Hu, M., Ji, Q., 2020. Financial markets under the global pandemic of COVID-19. Finance Research Letters 101528. https://doi.org/10.1016/j.frl.2020.101528.