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Trust and the stock market reaction to lockdown and reopening announcements: A cross-country evidence

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\textbf{ARTICLE INFO}

\textbf{JEL Classification:}
G01
G21
G29
G3

\textbf{Keywords:}
COVID-19
Stock market reactions
Generalized social trust

\textbf{ABSTRACT}

We conduct a country-level analysis with a sample of 44 countries to examine whether generalized social trust has an impact on the stock market reaction to government announcements of lockdown and reopening during the COVID-19 pandemic. We first conduct an event study to measure the global stock markets' reaction to government announcements of lockdown and reopening, which is measured by each stock market's cumulative abnormal return. We then employ regression analysis to investigate the relationship between generalized social trust and the stock markets' reaction to government announcements of lockdown and reopening. The results show that government announcement of lockdown had a significant negative influence on most of the stock markets, whereas the magnitude of the stock markets' reaction to government announcement of reopening is relatively marginal, indicating a possible negative bias. Moreover, we find that generalized social trust is positively related to the stock markets' reaction to government announcement of lockdown and negatively related to the stock markets' reaction to government announcement of reopening.

\textbf{Abbreviations}

AR Abnormal returns

1. Introduction

In late 2019, the COVID-19 pandemic broke out in Wuhan, China, and spread rapidly to other countries worldwide. Thus, governments worldwide have taken various measures to prevent the spread of COVID-19. Although the types and stringency of the containment measures vary from country to country, some of the commonly adopted policies are land border controls, suspension of public transportation, closure of educational institutions, closure of non-essential businesses, restrictions on movement and a partial or complete lockdown. The COVID-19 pandemic, along with the corresponding prevention and containment measures, has had a tremendous impact on people's lives and economic activities.

The economic effects of the COVID-19 pandemic and government containment measures have impacted global stock markets (Foglia and Dai, 2021). The existing literature shows that the COVID-19 pandemic and news about it have greatly impacted global...
stock markets (Baek et al., 2020; Baker et al., 2020; Just and Echaust, 2020; Liu et al., 2020; Schell et al., 2020). Although the COVID-19 pandemic and government policies have influenced global stock markets, the extent of the influence is different across countries (Fernandez-Perez et al., 2021). Thus, this study explores potential country-level characteristics that contribute to the differences in the global stock markets’ reaction to government lockdown and reopening policies. We consider generalised social trust as the subject of our study because it is an important country characteristic that is related to the stock markets’ reaction (Pevzner et al., 2015). The literature shows that generalised social trust positively affects economic performance (Fukuyama, 1995; Knack and Keefer, 1999; Whiteley, 2000) and promotes collective action (Rotthstein, 2000; Sanderskov, 2008). Therefore, we investigate whether generalised social trust, which is trust towards people, even to strangers (Newton and Zmerli, 2011), affects the stock markets’ reaction to governments’ lockdown and reopening policies during the COVID-19 pandemic. The country-level data about generalised social trust are from the World Values Survey Wave 7 and are presented in Section 2.

This study contributes to the cultural finance literature about the impact of trust on stock markets during the COVID-19 pandemic. Only a few studies have investigated the stock markets’ reaction to the COVID-19 pandemic from a cultural perspective. Fernandez-Perez et al. (2021) found that higher uncertainty avoidance, lower individualism and higher disease prevalence lead to strong negative stock markets’ reaction after the first confirmed case is announced. Ashraf (2020) showed that countries with a higher level of uncertainty avoidance react more negatively to an increase in the number of confirmed cases. A state-level empirical study indicated that social trust is positively related to the firms’ performance, which was measured by abnormal returns (ARs) (Mazumder, 2020). However, how generalised social trust affects the stock markets’ reaction to government announcements of lockdown and reopening has not been explored. This is a novel study to conduct a country-level analysis and explore the relationship between generalised social trust and the stock markets’ reaction to government announcements of lockdown and reopening during the COVID-19 pandemic. Because previous literature shows that generalised social trust plays a role in stabilising society and promoting economic development (Georgarakos and Pasini, 2011), we expect stock markets in countries with a high level of generalised social trust to react less negatively to government announcements of lockdown. After market distress, the market becomes normal with higher generalised social trust, which affects market expectations (Lins et al., 2017). Therefore, we expect generalised social trust to affect the stock markets’ reaction to government announcement of reopening during the COVID-19 pandemic.

We find that the stock markets’ reaction to lockdown and reopening news are heterogeneous across countries. In addition, generalised social trust can better predict reactions to lockdown news but has a weak effect on predicting reactions to reopening news. Our study has some policy implications about the role of generalised social trust in substituting for formal institutions, especially during the COVID-19 pandemic. Financial markets are sensitive to not only official government announcements but also informal beliefs. Therefore, better communication in societies, especially during a pandemic, is an important strategy to mitigate the bias perception of the trustworthiness of the stock market. The remainder of this paper is structured as follows. Section 2 describes the data and methodology. Next, Section 3 presents our findings, and Section 4 concludes.

2. Data and methodology

In this paper, we first conduct an event study to examine the effect of government announcements of lockdown and reopening on stock markets in 44 countries. We select these 44 countries because they had the highest number of COVID-19 cases at the time this study was conducted. The selection is also based on the availability of relevant data, including stock market indices, dates of government announcements of lockdown and reopening and the level of social trust reported by the World Values Survey. The list of the 44 countries, including the major stock market index and dates of government announcements of lockdown and reopening, is presented in Appendix 1. On the basis of the results of the event study, we investigate whether and the extent that generalised social trust plays a role in the global stock markets’ reaction to government announcements of lockdown and reopening.

By employing the event study methodology, we capture the AR attributable to a specific event (Liu et al., 2020; Schell et al., 2020; Pevzner et al., 2015). In this study, we examine the impact of government announcement of lockdown or reopening on the stock market by calculating the stock markets’ cumulative ARs (CARS) during the period that the government announced either a lockdown or reopening. The first step in conducting an event study is to define the event of interest, which in this study is government announcements of lockdown and reopening, and identify the event date. The event date is the first trading day following the announcement if the announcement was not on a trading day. In this study, government announcement of lockdown is defined as the first announcement of a complete or partial lockdown, state of emergency or the closure of educational institutions as a containment measure. Media news and websites are the major sources used to identify the date of government announcement of lockdown or pre-lockdown actions. Government announcement of reopening is defined as the announcement of easing or lifting of lockdown restrictions. The International Monetary Fund’s policy tracker contains primary data about government announcement of reopening. Media news and websites are additional sources to help verify the date of government announcement of easing or lifting of lockdown restrictions. Following the approach of Kim Heyden and Thomas (2020) and Schell et al. (2020), we used the last 200 trading days before the event day (lockdown or reopening) of each country as the estimation window. The event study methodology is based on the efficient market hypothesis. Thus, the stock markets’ reaction to government announcement of reopening would not be affected by the previous announcement of lockdown because that announcement has already been reflected in stock prices. When examining the stock markets’ reaction to government announcements of lockdown and reopening, we considered different event windows—[0, 1], [0, 2] and [0, 5]. An immediate effect of government announcements on various stock markets can be observed in event windows [0, 1] and [0, 2]. With a longer event window, [0, 5], the existence of momentum can be examined. The market model is employed in an event study (Mackinlay, 1997). Our study employs the approaches that Nerger et al. (2021) and Schell et al. (2020) used when conducting event studies in financial markets. The dataset of stock market prices used in this event study is from Thomson Reuters Eikon. We use
the capital asset pricing model to calculate the expected stock market return. We extract the daily prices of the major stock market indices of the 44 countries to calculate the logarithmic stock returns of each stock market index. The Refinitiv Global Equity index is used as the benchmark for the global stock market performance. Then, the AR of each stock market is calculated as the difference between the real and expected returns. The CAR of a specified event window is the sum of all ARs in the event window. A t-test was conducted to examine whether the ARs and CARs are significantly different from zero. Following Guiso and Sapienza (2008), we conducted an empirical analysis to investigate whether generalised social trust plays a role in the stock markets’ reaction to government announcements of lockdown and reopening. Our model is as follows:

\[ \text{Market Reaction}_{\text{Lockdown}} = \beta_0 + \beta_1 \text{Generalised Social Trust}_i + \beta_2 \text{COVID19}_i + \sum_{k=3}^k \beta_k \text{Control Variable}_i + \epsilon_i \] (Model 1),

where \( \text{Market Reaction}_{\text{Lockdown}} \) represents a national stock market’s reaction to government announcement of lockdown, which is measured using CARs of the stock market during a specified event window after government announcement of lockdown. The data on the level of Generalised Social Trust of different countries are from the World Values Survey. An example of the survey items is Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? (1) Most people can be trusted (2) Need to be very careful. The value of Generalised Social Trust is constructed as the proportion of the answer (1) Most people can be trusted. COVID19 controls for the severity of the COVID-19 pandemic in each country (Al-Awadhi et al., 2020; Ashraf, 2020), which is

| Country               | CAR [0, 1]     | CAR [0, 2]     | CAR [0, 5]     |
|-----------------------|--------------|--------------|--------------|
| Argentina             | 0.007        | (0.059)      | 0.014        |
| Australia             | (0.028)***   | 0.018        | 0.044***     |
| Austria               | (0.062)***   | (0.088)***   | 0.098***     |
| Bangladesh            | (0.129)***   | (0.031)*     | (0.029)      |
| Bosnia and Herzegovina| 0.015        | (0.002)      | (0.018)      |
| Bulgaria              | (0.071)***   | (0.077)***   | (0.094)***   |
| China                 | (0.093)***   | (0.078)***   | (0.056)      |
| Colombia              | (0.123)***   | (0.204)***   | (0.193)***   |
| Croatia               | (0.015)***   | 0.001        | (0.014)      |
| Cyprus                | (0.075)***   | (0.078)***   | (0.161)***   |
| Czech Republic        | (0.026)***   | (0.067)***   | (0.159)***   |
| Denmark               | 0.002        | (0.022)*     | 0.038**      |
| Egypt                 | (0.167)***   | (0.203)***   | (0.101)***   |
| Estonia               | (0.100)***   | (0.099)***   | (0.007)      |
| Finland               | 0.027***     | 0.056***     | 0.105***     |
| France                | (0.054)***   | (0.099)      | 0.005        |
| Germany               | 0.008        | (0.004)      | 0.067***     |
| Greece                | (0.091)***   | (0.183)***   | (0.204)***   |
| Hungary               | (0.114)***   | (0.077)***   | (0.175)***   |
| Iceland               | (0.009)      | (0.013)      | 0.029        |
| Indonesia             | (0.078)***   | (0.091)***   | (0.160)***   |
| Italy                 | (0.011)      | 0.010        | (0.042)***   |
| Japan                 | (0.029)***   | (0.036)***   | (0.0348)*    |
| Lithuania             | (0.086)***   | (0.152)***   | (0.138)***   |
| Malaysia              | (0.060)***   | (0.068)***   | (0.046)***   |
| Mexico                | 0.004        | (0.007)      | (0.042)***   |
| Netherlands           | (0.061)***   | (0.006)      | 0.026**      |
| New Zealand           | (0.012)      | 0.002        | 0.040***     |
| Norway                | (0.003)      | 0.039***     | 0.121***     |
| Pakistan              | (0.057)***   | (0.093)***   | (0.144)***   |
| Peru                  | (0.074)***   | (0.058)***   | (0.087)***   |
| Philippines           | (0.060)***   | (0.049)***   | (0.199)***   |
| Poland                | (0.097)***   | (0.090)***   | 0.011        |
| Romania               | (0.067)***   | (0.097)***   | (0.220)***   |
| Russia                | (0.012)      | (0.040)***   | (0.043)***   |
| Serbia                | (0.086)***   | (0.093)***   | (0.168)***   |
| Slovenia              | (0.082)***   | (0.130)***   | (0.164)***   |
| Spain                 | (0.071)***   | (0.044)***   | (0.113)***   |
| Switzerland           | 0.031***     | 0.039***     | 0.103**      |
| Thailand              | 0.009        | 0.004        | (0.014)      |
| Turkey                | (0.017)      | (0.038)      | (0.054)      |
| UK                    | 0.014**      | 0.034***     | 0.065***     |
| US                    | 0.023***     | 0.041***     | 0.031***     |
| Vietnam               | (0.004)      | (0.010)      | (0.004)      |

Notes: CAR[0, 1], CAR[0, 2], and CAR[0, 5] represent the cumulative abnormal returns over the event window [0, 1], [0, 2], and [0, 5], respectively. Negative cumulative abnormal returns are marked in parenthesis “()” and red. *, **, *** denote significance at 10%, 5%, and 1% level, respectively.
represented by either the lagged value of the sum of cumulative confirmed cases plus one or the lagged value of the sum of cumulative confirmed deaths plus one; both take the form of natural logarithm. We conducted the regressions and controls separately for the lagged values of cumulative confirmed cases and deaths to avoid strong multicollinearity between these two variables. Following prior literature, Control Variable controls for other country-level characteristics, which include the unemployment rate (Unemployment) and growth rate of GDP per capita (Growth GDP per capita) of 2019 (e.g. Mazumder, 2020; Ashraf, 2020). Both data are from the World Bank. The coefficient \( \beta_3 \) is expected to be positive (negative) if generalised social trust is positively (negatively) related to the stock market’s reaction to government announcement of lockdown. Our second regression model can be written as follows:

\[
\text{Market Reaction}_{\text{Reopening},i} = \beta_0 + \beta_1 \text{Generalised Social Trust}_i + \beta_2 \text{COVID19}_i + \sum_{k=3}^{k} \beta_k \text{Control Variable}_i + \epsilon_i \quad \text{(Model 2)},
\]

where Market Reaction_{Reopening} represents a stock market’s reaction to government announcement of reopening, which is measured as CARs during a specified event window after the announcement of reopening. \( \beta_1 \) is expected to be positive (negative) if the level of generalised social trust is positively (negatively) related to the stock market’s reaction to government announcement of reopening. Table Appendix 2 provides more detail.

### Table 2

Cumulative abnormal returns around the government announcement of reopening

| Country             | CAR [0, 1] | CAR [0, 2] | CAR [0, 5] |
|---------------------|------------|------------|------------|
| Argentina           | 0.048      | 0.085      | 0.113      |
| Australia           | 0.007      | 0.016      | 0.007      |
| Austria             | 0.016**    | (0.009)    | (0.050)**  |
| Bangladesh          | (0.015)    | (0.017)    | (0.014)    |
| Bosnia and Herzegovina | 0.001      | (0.002)    | 0.025      |
| Bulgaria            | 0.004      | 0.001      | 0.012      |
| China               | (0.027)    | (0.066)*** | (0.065)**  |
| Colombia            | (0.029)*** | (0.038)*** | (0.071)*** |
| Croatia             | 0.010*     | 0.014*     | (0.007)    |
| Cyprus              | 0.004      | (0.007)    | (0.026)    |
| Czech Republic      | 0.031***   | 0.031***   | 0.025*     |
| Denmark             | (0.025)*** | (0.048)*** | (0.033)**  |
| Egypt               | 0.050***   | 0.053**    | 0.024      |
| Estonia             | 0.006      | 0.012**    | 0.029**    |
| Finland             | (0.013)    | (0.012)    | (0.018)    |
| France              | 0.006      | (0.006)    | (0.011)    |
| Germany             | (0.012)    | (0.010)    | (0.005)    |
| Greece              | 0.003      | (0.013)    | (0.045)    |
| Hungary             | 0.009      | 0.006      | 0.003      |
| Iceland             | 0.012      | 0.023*     | 0.005      |
| Indonesia           | (0.003)    | 0.017      | (0.008)    |
| Italy               | 0.022**    | 0.017      | 0.009      |
| Japan               | (0.013)    | (0.026)*** | (0.010)    |
| Lithuania           | 0.001      | 0.014**    | 0.0158**   |
| Malaysia            | (0.010)    | (0.018)**  | (0.002)    |
| Mexico              | (0.026)*** | (0.039)*** | (0.054)*** |
| Netherlands         | 0.007      | 0.000      | 0.0109     |
| New Zealand         | 0.020**    | 0.006      | (0.000)    |
| Norway              | (0.026)*** | (0.025)*** | (0.034)**  |
| Pakistan            | 0.008      | 0.011      | 0.049*     |
| Peru                | 0.019**    | 0.025***   | 0.033**    |
| Philippines         | 0.054***   | 0.068***   | 0.157**    |
| Poland              | (0.002)    | 0.011      | 0.015      |
| Romania             | 0.007      | 0.017      | 0.037*     |
| Russia              | (0.010)    | (0.015)    | (0.029)    |
| Serbia              | (0.010)    | (0.015)    | (0.050)*** |
| Slovenia            | 0.018***   | 0.0074     | 0.011      |
| Spain               | (0.027)*** | (0.0383)*** | (0.045)*** |
| Switzerland         | 0.010      | 0.0363***  | 0.025**    |
| Thailand            | (0.004)    | 0.0140     | 0.008      |
| Turkey              | (0.014)    | (0.013)    | (0.040)    |
| UK                  | 0.008      | 0.005      | 0.004      |
| US                  | (0.001)    | (0.005)    | (0.003)    |
| Vietnam             | 0.003      | 0.0059     | (0.015)    |

**Notes:** CAR[0, 1], CAR[0, 2], and CAR[0, 5] represent the cumulative abnormal returns over the event window [0, 1], [0, 2], and [0, 5] respectively. Negative cumulative abnormal returns are marked in parenthesis “()” and red. *, **, *** denote significance at 10%, 5%, and 1% level, respectively.
3. Findings

3.1. How global equity markets react to lockdown and reopening announcements

We first employ an event study methodology to explore the stock markets’ reaction to government announcements of lockdown and reopening. The aim is to investigate how government announcements of lockdown and reopening affect global stock markets and whether there is a negative bias between the stock markets’ reaction to government announcements of lockdown and reopening. To calculate the CARs during government announcement of either lockdown or reopening, we employ three event windows—[0, 1], [0, 2] and [0, 5]. An immediate effect of government announcements on stock markets can be observed in event windows [0, 1] and [0, 2]. In a longer event window [0, 5], the existence of momentum can be examined. Table 1 presents the results of the CARs during the government announcement of lockdown. The CARs of 27 and 25 countries were statistically significant and negative during government announcements of lockdown in event windows [0, 1] and [0, 2], respectively. Generally, most of the stock markets reacted negatively to government announcement of lockdown, which is reflected by statistically significant and negative ARs. The Latin American countries (Argentina and Mexico) had insignificant stock market reaction to lockdown news, which is consistent with that of the late infection. Our findings are consistent with those of the previous literature (Schell et al., 2020) about the financial markets’ reaction to the Public Health Risk Emergency of International Concern announcements. The reaction of the stock markets of the European countries is similar, with negative CARs, except the Nordic countries.

Although most of the countries reacted negatively to the announcement of lockdown, Finland, Switzerland, the UK and the US reacted positively to the announcement of lockdown, which is reflected by significantly positive CARs during event windows [0, 1] and [0, 2]. During event window [0, 5], 21 stock markets had significantly negative CARs and 12 had significantly positive CARs. A possible short-term momentum may exist in several stock markets, such as those of Bulgaria, Cyprus, the Czech Republic, Greece, Indonesia, Pakistan, Romania, Serbia and Slovenia, as the CARs of these stock markets worsened over five trading days. Table 2 presents the results of CARs during government announcement of reopening. During event window [0, 1], the reaction of nine stock markets (Austria, Croatia, the Czech Republic, Egypt, Italy, New Zealand, Peru, the Philippines and Slovenia) to government announcement of reopening was statistically significant and positive and the reaction of five (Colombia, Denmark, Mexico, Norway and Spain) was significantly negative. During event window [0, 2], stock markets in nine countries had significantly positive CARs (Croatia, the Czech Republic, Egypt, Estonia, Iceland, Lithuania, Peru, the Philippines and Switzerland) and stock markets in eight countries had significantly negative CARs (China, Colombia, Denmark, Japan, Malaysia, Mexico, Norway and Spain). During event window [0, 5], the CARs of stock markets in eight countries were statistically significant and positive, whereas those of stock markets in another eight countries were statistically significant and negative. Therefore, it is hard to conclude that there is a generally consistent trend of the stock market reaction to government announcement of reopening. There is more variation in various countries’ stock market reaction to government announcement of reopening than to government announcement of lockdown. Moreover, compared with those of government announcement of lockdown, fewer stock markets reacted significantly (either positive or negative) to government announcement of reopening, indicating that government announcement of lockdown attracted greater attention and had a greater impact on global stock markets. Furthermore, on average, the magnitude of CARs of government announcement of reopening is smaller than that of government announcement of lockdown. A negative bias may exist, where investors react more strongly and negatively to negative news, i.e. government announcement of lockdown.

3.2. The role of trust in the stock market reaction

We test the first model to examine the impact of generalised social trust on the stock market reaction to government announcement of lockdown. The results are presented in Table 3. We use the CARs of three event windows—[0, 1], [0, 2] and [0, 5]—to draw a robust conclusion about the relationship between generalised social trust and the stock market reaction to government announcement of lockdown. When the cumulative confirmed cases are controlled, we find that a unit increase in generalised social trust increases the CAR by 0.071, 0.106 and 0.248 during event windows [0, 1], [0, 2] and [0, 5], respectively. When the cumulative confirmed deaths are controlled, a unit increase in generalised social trust increases CAR by 0.066, 0.112 and 0.282 during event windows [0, 1], [0, 2] and [0, 5], respectively.

We find that whether we control for the number of cumulative confirmed cases or cumulative confirmed deaths, the results show that stock markets in countries with a high level of generalised social trust had higher CARs and thus reacted more positively to government announcement of lockdown. This positive relationship is statistically significant in all the three event windows.

The results of the second model are presented in Table 4 and reveal the relationship between generalised social trust and the stock markets’ reaction to government announcement of reopening. We find that when cumulative confirmed cases are controlled, a unit increase in generalised social trust decreases the CAR by 0.034, 0.0572 and 0.071 during event windows [0, 1], [0, 2] and [0, 5], respectively, and decreases the CAR by 0.034, 0.058 and 0.071, respectively, when the cumulative confirmed deaths are controlled.

Moreover, whether we control for the number of cumulative confirmed cases or cumulative confirmed deaths, generalised social trust is negatively related to the stock markets’ reaction to government announcement of reopening. Stock markets in countries with a
higher level of generalised social trust reacted more negatively to government announcement of reopening. The results are statistically significant in the three event windows. However, after controlling the ranking time for the reopening of the economy, the effects of generalised social trust on the stock markets’ reaction are insignificant, whereas the robust findings remain the same for a lockdown announcement. It implies that trust did not matter in countries that had earlier reopening during the COVID-19 pandemic.

By comparing the stock markets’ reaction to government announcements of lockdown and reopening, we examine whether a negative bias exists in the stock markets’ reaction. A negative bias indicates that people would react strongly (negative) to negative information and show little reactions to positive information. After an initial observation of the differences in various stock markets’ reaction to government announcements of lockdown and reopening, we explore whether generalised social trust has an impact on the stock markets’ reaction to government announcements of lockdown and reopening. We find weak evidence that there is a relationship between generalised social trust and government announcement of reopening. However, the effects tend to disappear when the ranking of the reopening of economies is controlled. This implies that generalised social trust does not really explain the reaction to

### Table 3
The predictive power of trust on stock market reactions regarding lockdown news

|                      | CAR_lockdown[0, 1] | CAR_lockdown[0, 2] | CAR_lockdown[0, 5] |
|----------------------|-------------------|-------------------|-------------------|
| **Control for cumulative confirmed cases** |                  |                   |                   |
| Generalized Social Trust | 0.071***          | 0.106***          | 0.248***          |
| Confirmed Cases       | -0.001            | 0.003             | 0.008             |
| Growth GDP per capita | -1.108***         | -0.627            | -0.852            |
| Unemployment          | -0.114            | -0.255            | -0.119            |
| Constant              | -0.032            | -0.069***         | -0.130***         |
| Observations          | 44                | 44                | 44                |
| R-squared             | 0.395             | 0.346             | 0.541             |
| **Control for cumulative confirmed deaths** |                  |                   |                   |
| Generalized Social Trust | 0.066***          | 0.112***          | 0.282***          |
| Confirmed Deaths      | 0.001             | 0.010*            | 0.006             |
| Growth GDP per capita | -1.086***         | -0.662            | -1.017*           |
| Unemployment          | -0.111            | -0.293            | -0.174            |
| Constant              | -0.035*           | -0.058**          | -0.101***         |
| Observations          | 44                | 44                | 44                |
| R-squared             | 0.395             | 0.375             | 0.530             |

**Notes:** CAR_lockdown[0, 1], CAR_lockdown[0, 2], and CAR_lockdown[0, 5] represent the cumulative abnormal returns over the event window [0, 1], [0, 2], and [0, 5], respectively. All variables are defined in the appendix. *, **, *** denote significance at 10%, 5%, and 1% level, respectively. Our results still hold robust after controlling the order of choosing “lockdown” of these countries, implying the transmission of the shock from one country to the others. In addition, we replaced “Generalized Social Trust” with Political trust; however, the coefficients are insignificant, implying that political trust does not matter to social market reactions during the COVID-19 pandemic.

### Table 4
The predictive power of trust on stock market reactions regarding re-opening news

|                      | CAR_reopen[0, 1] | CAR_reopen[0, 2] | CAR_reopen[0, 5] |
|----------------------|-----------------|-----------------|-----------------|
| **Control for cumulative confirmed cases** |                  |                 |                 |
| Generalized Social Trust | -0.034*         | -0.0572**       | -0.071*         |
| Confirmed Cases       | -0.002**         | -0.004**        | -0.003          |
| Growth GDP per capita | -0.220           | -0.391          | -0.363          |
| Unemployment          | -0.082           | -0.162*         | -0.330*         |
| Constant              | 0.047***         | 0.075***        | 0.079**         |
| Observations          | 44               | 44              | 44              |
| R-squared             | 0.169            | 0.227           | 0.167           |
| **Control for cumulative confirmed deaths** |                 |                 |                 |
| Generalized Social Trust | -0.034*         | -0.058**        | -0.071*         |
| Confirmed Deaths      | -0.001           | -0.002*         | -0.001          |
| Growth GDP per capita | -0.196           | -0.363          | -0.317          |
| Unemployment          | -0.074           | -0.149          | -0.322*         |
| Constant              | 0.030**          | 0.050**         | 0.054*          |
| Observations          | 44               | 44              | 44              |
| R-squared             | 0.139            | 0.203           | 0.151           |

**Notes:** CAR_reopen[0, 1], CAR_reopen[0, 2], and CAR_reopen[0, 5] represent the cumulative abnormal returns over the event window [0, 1], [0, 2], and [0, 5], respectively. All variables are defined in the appendix. *, **, *** denote significance at 10%, 5%, and 1% level, respectively. However, when we control the ranking for reopening date, the effects of generalized social trust on stock market reactions are insignificant. In addition, we used Uncentered Variance Inflation Factors (VIFs) to check the multi-collinearity.
positive news but can help mitigate the negative impacts of lockdown news. Therefore, it is cautious to interpret as well as use generalised social trust to encourage the recovery as well as stock market reactions to reopening news.

4. Conclusions

We conduct an event study on 44 countries to examine the impacts of government announcements of lockdown and reopening on global stock markets. The results show that most of the stock markets reacted significantly and negatively to government announcement of lockdown. Regarding government announcement of reopening, almost half of the stock markets reacted positively and another half reacted negatively. There is a greater variation in various stock markets’ reaction to government announcement of reopening than to government announcement of lockdown. Moreover, on average, the magnitude of the CARs of government announcement of reopening is smaller than that of government announcement of lockdown. Thus, there is a possible negative bias of the stock market reaction because global stock markets react more strongly and negatively to government announcement of lockdown. We explore whether generalised social trust plays a role in the stock markets’ reaction to government announcements of lockdown and reopening. The empirical results show that generalised social trust has a positive impact on the stock markets’ reaction to government announcement of lockdown and a negative impact on the stock markets’ reaction to government announcement of reopening.

Overall, this study contributes to the literature by investigating the impact of the COVID-19 pandemic on global stock markets and the reason for the difference in various stock markets’ reaction to government announcements about the COVID-19 pandemic from a cultural perspective. It also contributes to the literature by showing the impact of generalised social trust on the stock market reaction to government announcements of lockdown and reopening during the COVID-19 pandemic. By conducting a cross-national analysis, we determine the predictive power of the generalised social trust on how stock markets react to government announcements of lockdown and reopening during the COVID-19 pandemic, which may have an implication for government policies and the stock market reaction during a public health emergency, such as the COVID-19 pandemic.

This study has two main policy implications about the relationship between generalised social trust and the stock market reaction. First, identifying the role of generalised social trust on the stock market reaction plays an important role when formulating the channel driving capital market efficiency and informativeness during the COVID-19 pandemic. Therefore, investors and policymakers should focus on the effect of informal mechanisms, such as generalised social trust, on negative news (lockdown announcement). The transmission mechanism from social trust to the financial market through investors should be supervised during times of distress. Second, although this study also tested political trust, we find that the role of generalised social trust matters. It implies that policymakers should direct their regulations to society rather than promulgating official policies. However, future studies can consider vaccination news and the recovery of cases. This is a promising area for financial market study.

Funding

Toan Luu Duc Huynh was supported by the funding from University of Economics Ho Chi Minh City with the contract number 2021-07-05-0448.

Author Contribution

Lijuan Xie: Conceptualization, Methodology, Formal analysis, Writing - original draft, Writing - review & editing, Supervision, Project administration. Mei Wang: Conceptualization, Writing - original draft, Writing - review & editing, Supervision, Project administration. Toan Luu Duc Huynh: Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Additional analysis, Supervision, Project administration.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Acknowledgements

We are grateful to Prof. Jonathan Batten and five anonymous reviewers for their helpful questions and comments. Any errors and shortcomings remain the authors’ responsibility. This research is funded by University of Economics Ho Chi Minh City, Vietnam.

\footnote{2 We thank an anonymous referee for suggesting the insightful analysis, which substantially improves our manuscript.}

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### Appendix 1

#### List of Countries and Stock Indices

| Country        | Stock Index                  | Date of government announcement of lockdown | Date of government announcement of reopening |
|----------------|------------------------------|---------------------------------------------|---------------------------------------------|
| Argentina      | S&P Merval                   | 15 Mar 2020                                 | 8 May 2020                                  |
| Australia      | S&P/ASX 200                   | 23 Mar 2020                                 | 26 Apr 2020                                 |
| Austria        | Austrian Traded              | 16 Mar 2020                                 | 6 Apr 2020                                  |
| Bangladesh     | Dhaka Stock Exchange 30      | 16 Mar 2020                                 | 28 May 2020                                 |
| Bosnia and Herzegovina | Sarajevo 10  | 10 Mar 2020                                 | 24 Apr 2020                                 |
| Bulgaria       | Bulgarian Stock Exchange SOFIX | 13 Mar 2020                         | 3 May 2020                                  |
| China          | Shanghai Shenzhen CSI 300    | 23 Jan 2020                                 | 24 Mar 2020                                 |
| Colombia       | Colombian Capitalization     | 16 Mar 2020                                 | 20 Apr 2020                                 |
| Croatia        | CROBEX                       | 13 Mar 2020                                 | 23 Apr 2020                                 |
| Cyprus         | CSE General                  | 11 Mar 2020                                 | 29 Apr 2020                                 |
| Czech Republic | PX Prague SE                 | 10 Mar 2020                                 | 6 Apr 2020                                  |
| Denmark        | OMXC 25 CAP                   | 11 Mar 2020                                 | 6 Apr 2020                                  |
| Egypt          | EGX 30                       | 14 Mar 2020                                 | 23 Apr 2020                                 |
| Estonia        | OMX Tallinn GI               | 13 Mar 2020                                 | 27 Apr 2020                                 |
| Finland        | OMX Helsinki 25              | 16 Mar 2020                                 | 4 May 2020                                  |
| France         | CAC 40                       | 12 Mar 2020                                 | 28 Apr 2020                                 |
| Germany        | Deutsche Boerse DAX          | 13 Mar 2020                                 | 15 Apr 2020                                 |
| Greece         | Athenx Composite Share Price | 5 Mar 2020                                  | 28 Apr 2020                                 |
| Hungary        | Budapest SE                  | 11 Mar 2020                                 | 30 Apr 2020                                 |
| Iceland        | OMX Iceland All-Share PI Equity | 13 Mar 2020                      | 14 Apr 2020                                 |
| Indonesia      | Jakarta SE Composite         | 14 Mar 2020                                 | 4 Jun 2020                                  |
| Italy          | FTSE MIB                     | 22 Feb 2020                                 | 26 Apr 2020                                 |
| Japan          | Nikkei 225 Index Close        | 27 Feb 2020                                 | 14 May 2020                                 |
| Lithuania      | OMX Vilnius GI               | 12 Mar 2020                                 | 15 Apr 2020                                 |
| Malaysia       | FTSE Bursa Malaysia KLCI     | 16 Mar 2020                                 | 1 May 2020                                  |
| Mexico         | S&P/Bmvi 1pc                  | 14 Mar 2020                                 | 13 May 2020                                 |
| Netherlands    | Amsterdam Exchanges          | 12 Mar 2020                                 | 6 May 2020                                  |
| New Zealand    | S&P/NZX 50                    | 23 Mar 2020                                 | 27 Apr 2020                                 |
| Norway         | Oslo Stock Exchange Equity   | 12 Mar 2020                                 | 7 Apr 2020                                  |
| Pakistan       | KSE 100                      | 13 Mar 2020                                 | 14 Apr 2020                                 |
| Peru           | S&P/BVL Peru General         | 11 Mar 2020                                 | 3 May 2020                                  |
| Philippines    | The Philippine Stock Exchange | 9 Mar 2020                          | 28 May 2020                                 |
| Poland         | Warsaw SE WIG Poland         | 11 Mar 2020                                 | 16 Apr 2020                                 |
| Romania        | Bucharest SE BET             | 9 Mar 2020                                  | 15 May 2020                                 |
| Russia         | MOEX Russia                  | 16 Mar 2020                                 | 6 May 2020                                  |
| Serbia         | Belex15S Belgrade            | 15 Mar 2020                                 | 18 Apr 2020                                 |
| Slovenia       | Ljubljana Stock Exchange SBI TOP | 12 Mar 2020                         | 29 Apr 2020                                 |
| Spain          | IBEX 35                      | 9 Mar 2020                                  | 13 Apr 2020                                 |
| Switzerland    | Swiss Market                 | 13 Mar 2020                                 | 16 Apr 2020                                 |
| Thailand       | SET                          | 17 Mar 2020                                 | 15 May 2020                                 |
| Turkey         | BIST 30                      | 12 Mar 2020                                 | 4 May 2020                                  |
| UK             | FTSE 100                     | 18 Mar 2020                                 | 10 May 2020                                 |
| US             | S&P 500                      | 13 Mar 2020                                 | 16 Apr 2020                                 |
| Vietnam        | Vietnam                      | 14 Feb 2020                                 | 22 Apr 2020                                 |
Appendix 2
Variable Definitions

| Market Reaction | CAR_lockdown[0, 1] | Market Reaction represents the stock market reaction to either the government announcement of lockdown or the government announcement of reopening. The stock market reaction to the government announcement of lockdown is proxied by the cumulative abnormal returns over three event windows [0, 1], [0, 2], and [0, 5]. The stock market reaction to the government announcement of reopening is proxied by the cumulative abnormal returns over three event windows [0, 1], [0, 2], and [0, 5]. |
| Generalized Social Trust | CAR_lockdown[0, 5] | The level of Generalized Social Trust for each country is derived from Question 57 of the World Values Survey Wave 7: Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? 1 Most people can be trusted 2 Need to be very careful | The value of Generalized Social Trust is constructed as the proportion of the answer 1 Most people can be trusted. | CAR_reopen[0, 1] | CAR_reopen[0, 2] | CAR_reopen[0, 5] |
| COVID19 | Confirmed Cases | COVID19 controls for the severity of the COVID-19 condition in each country. Confirmed Cases represents the lagged value of cumulative confirmed cases that are taken in the form of natural logarithm. We conduct regressions and controls for the number of cumulative confirmed cases and the number of cumulative confirmed deaths separately to avoid the strong multicollinearity between these two values. |
| | Confirmed Deaths | Confirmed Deaths represents the lagged value of cumulative confirmed deaths that are taken in the form of natural logarithm. |
| Unemployment | Unemployment | Unemployment captures the unemployment rate in 2019 of each country, which is obtained from the World Bank. |
| | Growth GDP per capita | Growth GDP per capita captures the growth rate of GDP per capita in 2019 of each country, which is obtained from the World Bank. |

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