# Chapter 2
# The Impact of COVID-19 on Volatility of Tourism Stocks:
## Evidence From BIST Tourism Index

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## ABSTRACT

*This chapter analyzes the economic impact of COVID-19 on the tourism sector in Turkey. Stock markets are a barometer for the economy and reflect the pandemic's direct financial impact on tourism companies. The BIST Tourism Index return volatility during 2020 is modelled considering the effects of global economic policy uncertainty, economic sentiment, daily new cases, and Turkey's containment and health index. The index return volatility is high during the pandemic. The results show a statistically significant interrelation between economic sentiment, new cases, and containment and health index, and the BIST Tourism index return volatility. Policies that slow down the virus spread and fiscal support may improve consumer and investor sentiment. The revival of confidence would strengthen the financial markets and decrease volatility.*

## INTRODUCTION

World Health Organization (WHO) has announced the Coronavirus disease (COVID-19) as a pandemic on March 11, 2020 (WHO, 2020) and reports that as of February 14, 2021, there have been 108,006,680 confirmed cases and 2,378,115 deaths. The COVID-19 pandemic has affected all aspects of life, from health to the economy around the world. Governments have imposed lockdowns and containment restrictions worldwide to stop the spread of the virus spread. Moreover, the loss of earnings and risk-avoidance have also contributed to drastic swings in the consumption patterns (Reinsdorf et al., 2020). The pandemic has been continuing for more than a year and creates significant uncertainty. Even though vaccinations have started, the near-term outlook is still uncertain with new virus mutations. When the pandemic ends, and life will be back to normal without social distancing, it is unknown.

DOI: 10.4018/978-1-7998-8231-2.ch002

The uncertainty on future social and economic conditions affects many industries and financial markets. Border closures, travel restrictions, and social distancing hit the tourism and hospitality sectors hard and put many jobs at risk. The World Travel and Tourism Council (WTTC) notes that the impact on the economy is significant since the tourism industry contributed 8.9 trillion dollars to the world's gross domestic product (GDP) in 2019 (WTTC, 2020). Tourism constitutes 10.3% of the global GDP and has created 330 million jobs or, in other terms, 1 in every ten jobs around the world. The United Nations World Tourism Organization (UNWTO) states that 2020 was a terrible year for global tourism, and international arrivals decreased by 74%. The toll of decline in demand and travel restrictions amount to an approximate loss of 1.3 trillion dollars in export revenues. Compared to the 2009 global economic crisis, the loss during the pandemic is 11 times more and has put 100 to 120 million tourism jobs directly at risk, according to the UNWTO World Tourism Barometer and Statistical Annex (2021). Recovery in the tourism sector does not seem to happen in the near-term with continuing international travel restrictions in 2021 and consumers afraid of contagion (OECD, 2020b).

The tourism sector in Turkey has also been hard-hit by the global demand shocks after the pandemic. This chapter analyzes the financial impact of the COVID-19 on the tourism sector via the BIST Tourism Index in Turkey. There appears a significant association between Turkey's containment and health index, and the number of new cases and economic sentiment in the USA and Europe, and the index's volatility. The results have implications for tourism businesses and policymakers to predict the financial impact and plan in terms of support programs and investment, especially for developing countries that depend on tourism.

This chapter contributes to the literature on three dimensions. First, it contributes to the literature on the effect of crises on stock markets, specifically tourism stocks. The second contribution is to the literature on the impact of sentiment and policy uncertainty on stock market volatility. Third, the chapter contributes to the evolving literature on the impact of COVID-19 on capital markets, including the effects of daily new cases and containment policies. The results have practical implications for hospitality managers and policymakers in planning during the pandemic. The rest of the chapter continues with background information followed by the chapter's main focus, including hypothesis development, data, and the methodology. After findings are discussed, solutions and recommendations are noted. The chapter ends with future research questions and the conclusion.

## BACKGROUND

The COVID-19 pandemic, the largest global health crisis in the last century, has caused health challenges and daunting socioeconomic problems (UNFPA, 2020). It has also created a severe economic crisis with substantial production halts, collapse in consumer confidence, and downturns in stock markets responding to uncertainties (OECD, 2020a). As seen in Figure 1, the stringency of containment measures and mobility restrictions positively correlate with GDP growth and private consumption across countries. The Oxford COVID-19 Government Response Tracker (OxCGRT) tracks and compares government/policy responses worldwide. Changes in the stringency of containment measures and mobility restrictions are measured by the Oxford Stringency Index and the Google Mobility Index, respectively, and shown in the vertical axes (Figure 1). The results show that when the Oxford Stringency Index is tightened by 10 points for a certain level of mobility, the quarterly GDP growth falls around one percentage point. When the Google Mobility Index decreases by 10 points, the quarterly GDP growth declines by around

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