

# The double whammy of COVID-19 and oil price collapse: Spillover effects on inflation and exchange rates

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## Abstract

The paper addresses two main issues. What is the response of the Algerian exchange rate (REER) to the double whammy of COVID-19 and oil price collapse? To what extent can the previous combination spill over into the inflation rate? For this purpose, we use monthly data covering the period January 2010 to June 2021, and we run both ARDL and NARDL models. The results show that the oil price and its shocks have a clear effect on inflation in both linear and non-linear modeling, especially in the short term. While there seems to be some inconsistencies concerning the influence of oil prices on REER and REER on inflation, owing mainly to the dinar devaluation policy, lower import bills, and the phase-out of basic commodities subsidies. The evidence also clearly reveals that the COVID-19 pandemic has a substantial negative effect on the REER and a positive effect on the inflation rate in the short term linear estimation.

## 1. Introduction

Late in 2019, coronavirus disease, 19 (COVID-19)<sup>1</sup> was just seen as a China shock, before spreading abroad in January and February. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic. Thus, social distancing policies have become the best way to confront the contagion through a number of measures, including home confinement, travel and business restrictions, the closure of schools and public transportation networks, the suspension of sporting events, and so on. Furthermore, given the high level of economic uncertainty, individual and corporate economic activity was characterized by panic and irrationality.

The COVID-19 pandemic has had far-reaching implications that go far beyond catastrophic health concerns; it has also been obvious for a while that the global economy has been brought to its knees. In a sufficiently large sample (64 countries), Ashraf (2020) finds that as the number of confirmed cases rises, so do stock markets, and business sectors in G7 countries have suffered during the COVID-19 pandemic period (Izzeldin, Muradoglu, Pappas, and Sivaprasad 2021). Therefore, the world has been struck by a magical wand, which has wreaked havoc on health and the economy, as well as creating a crucial dilemma over whether to safeguard livelihoods or lives. However, the impact of this pandemic on individuals and the economy has already surpassed what the 2007-8 global recession did (Georgieva, 2020).

Algeria is a mono-export economy that depends entirely on hydrocarbon revenues (oil and gas accounted for more than 95 per cent of total exports, two thirds of state revenues, and one third of GDP), and largely on food imports. Even after several decades, it has been unable to diversify its economy. Thus, in early 2020, it has faced a dual shock from the coronavirus pandemic and a collapse in oil prices. It was expected to be short-lived at

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<sup>1</sup>. On 11 February 2020, WHO officially renamed “2019-nCoV” as “COVID-19”, with ‘CO’ meaning ‘corona’.