

*SAE./No. 218/November 2022*

---

# ***Studies in Applied Economics***

---

**A Bibliography on the Economic, Social, and Political  
Costs of Lockdowns**

---

***Zhenhan Hān, Aryan Anand, Feng Lu***

Johns Hopkins Institute for Applied Economics,  
Global Health, and the Study of Business Enterprise



# **A Bibliography on the Economic, Social, and Political Costs of Lockdowns**

By Zhenhan Gan, Aryan Anand, Feng Lu

## **About the Series**

The *Studies in Applied Economics* series is under the general direction of Professor Steve H. Hanke, Founder and Co-Director of the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise ([hanke@jhu.edu](mailto:hanke@jhu.edu)). The authors are students at the Johns Hopkins University in Baltimore. The views expressed in each working paper are those of the authors and not necessarily those of the institutions that the authors are affiliated with.

## **About the Author**

Zhenhan Gan ([zgan4@jhu.edu](mailto:zgan4@jhu.edu)) is a student in the Whiting School of Engineering at the Johns Hopkins University in Baltimore, pursuing a triple major in applied mathematics and statistics, computer science, and economics. He wrote this paper as an undergraduate research assistant of the Monetary Analysis team at the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise. On campus, Zhenhan is a member of the Baseball Scheduling Optimization Research Group.

Aryan Anand ([aanand18@jhu.edu](mailto:aanand18@jhu.edu)) is a student in the Whiting School of Engineering at the Johns Hopkins University in Baltimore, pursuing a major in chemical and biomolecular engineering with a minor in financial economics. He wrote this paper as an undergraduate research assistant of the Supply-Side Economics team at the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise. On campus, Aryan is a managing partner of Emerald Consulting Group and an assistant leader of alumni relations in the Economics Club.

Feng Lu ([flu17@jhu.edu](mailto:flu17@jhu.edu)) is a student in the Whiting School of Engineering at the Johns Hopkins University in Baltimore, pursuing a double major in applied mathematics and statistics and economics. He wrote this paper as an undergraduate research assistant of the Supply-Side Economics team at the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise. On campus, Feng is the captain of the Chinese Basketball Team.

## **Abstract**

We provide an annotated bibliography of major and minor scholarly writings up to mid-2022 on the economic, social, and political costs of lockdowns due to the Covid-19 pandemic. The bibliography is separated into three sections, the first focusing on economic costs, the second on social costs, and the third on political costs.

## **Acknowledgements**

I thank Prof. Steve H. Hanke and the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise for the opportunity to write this paper. I also thank Dr. Lars Jonung for his suggestions and comments.

**Keywords:** Bibliography, Lockdowns

**JEL Codes:** I10, I11, I18

## Table of Contents

About the Series.....	1
About the Author.....	1
Abstract.....	2
Acknowledgements.....	2
1. Introduction.....	4
2. Bibliography on the Economic Costs of the Lockdowns.....	5
3. Bibliography on the Social Costs of the Lockdowns.....	17
4. Bibliography on the Political Costs of the Lockdowns.....	27

## 1. Introduction

### Economic Costs

The bibliography includes four sections on the economic costs of lockdowns — general analysis on the topic, ways of cost measurement and determinants, macroeconomic analysis, and microeconomic factors. The bibliography then includes papers that discuss economic costs, such as unemployment, effects on public finance, and effects on income distribution. The scholarly literature generally suggests that lockdowns negatively impact the employment and public finance sector, and they widen the income inequality gap.

### Social Costs

The bibliography includes four separate sections to examine the social costs of lockdowns — effects on public health, the number of suicides, murder and crime, and quality of life. Due to limited social interactions and participation in everyday activities, our sources mainly suggest a negative correlation between lockdowns and societal wellbeing. Themes discovered in the investigation included a widening wealth gap, educational losses, and higher levels of depression/loneliness.

### Political Costs

The bibliography includes two separate sections to examine the political costs of lockdowns — loss of freedom and rise in threats to democracy. Governments imposed minor to severe restrictions during lockdowns, such as mask-wearing or limitations on public gatherings, which in some cases induced negative sentiment among citizens towards domestic and international authorities and general social unrest. Themes discovered in the investigation included riots/protests and declining approval ratings.

The following databases were examined:

- Google Scholar, a free search engine from Google that includes books and articles across a wide range of disciplines ([www.scholar.google.com](http://www.scholar.google.com)).
- JSTOR, a digital library providing access to primary sources, such as books and journals, in a variety of academic fields (<https://www.jstor.org/>)
- ProQuest, a collection of several online databases for access to journals, dissertations, newspapers, and other scholarly writings (<https://www.proquest.com/>)

## 2. Bibliography on the Economic Costs of the Lockdowns

### General Analysis of the Economics of Lockdowns

Aghion, P., Artus, P., Orlu-Barton, M., & Pradelski, B. (2021, March 31). *Aiming for Zero covid-19 to ensure economic growth*. CEPR. Retrieved August 15, 2022, from <https://voxeu.org/article/aiming-zero-covid-19-ensure-economic-growth>

A fast elimination strategy was the best option during the Covid-19 lockdown. Countries that implemented the strategy quickly gained control over the virus by reducing casualties and uncertainty and were able to kickstart the process of rebuilding their respective economies. Economies that follow a “stop-and-go logic” were more prone to a damaged economy as a result of the lockdowns. According to research done by Aghion and Artus, as of 2021, the GDP in countries following zero-Covid policies will be 6.2 points higher than their 2019 level based on an annual average. In contrast, GDP will be 3.4 points lower in Europe. Overall, nations with zero-Covid policies were ten percentage points of GDP ahead of Europe.

Besley, T. and Stern, N. (2020), *The Economics of Lockdown*. *Fiscal Studies*, 41: 493-513.  
<https://doi.org/10.1111/1475-5890.12246>

This paper contextualizes lockdowns and suggests approaches to analyzing policies related to lockdowns during the pandemic. The paper defines lockdown as “a catchall for a range of measures – encouraging working from home, limiting public gatherings, keeping people off public transport, and curbing casual social interactions.” The paper also suggests a trade-off between income protection and lives saved.

Lakemann, T., Lay, J., & Tafese, T. (2020). *Africa after the Covid-19 Lockdowns: Economic Impacts and Prospects*. German Institute of Global and Area Studies (GIGA).  
<http://www.jstor.org/stable/resrep27042>

The paper reports that “South Africa’s gross domestic product (GDP) fell by 51 percent from the first to the second quarter of 2020 ... an additional 26 to 40 million sub-Saharan Africans could fall into poverty due to the pandemic.” Also, the paper highlights some lockdown measures in Africa: “In June 2020, virtually all of Africa’s 54 countries had suspended international flights, 38 countries had announced the closure of land borders, and 17 countries had closed their maritime borders.” There is also a sharp decline in trade, but not all products. African exports in 2020 declined by 5 percent in February, 16 percent in March, and 32 percent in April, following a drastic short-term drop in FDI (UNECA 2020b).

Mandel, A., Veetil, V. The Economic Cost of COVID Lockdowns: An Out-of-Equilibrium Analysis. *EconDisCliCha* 4, 431–451 (2020).

<https://doi.org/10.1007/s41885-020-00066-z>

This paper estimates the cost of the lockdowns of 44 countries and 56 industries with input-output data in a multisector disequilibrium model. The paper finds that “world output falls by 7% at the early stage of the crisis when only China is under lockdown and by 23% at the peak of the crisis when many countries are under lockdown.” The model explains both the direct impacts of the lockdowns and their propagation through the global supply chain. The paper finds that an estimate of the total impact amounts to 9% of global GDP.

Yanovskiy, M., & Socol, Y. (2022). Are Lockdowns Effective in Managing Pandemics? *International Journal of Environmental Research and Public Health*, 19(15), 9295. MDPI AG. Retrieved from

<http://dx.doi.org/10.3390/ijerph19159295>

The paper estimates that lockdowns may claim 20 times more life years than they save by assuming that “lost income means lost lives.” The paper cited a quantitative estimate of human life lost, a value of about 150% GDP per capita per quality-adjusted life-year (QALY). In Israel, the total cost of lockdown was around US\$ 30 billion. Dividing it by 1.5 times Israel’s GDP per capita of US \$ 40000 we get an estimation of 500,000 QALY lost to lockdowns, which is equivalent to roughly 100,000 COVID-19 deaths in Israel, given that 1 death brings 5 QALY loss. Comparing it to about an estimation of 500 lives saved in Israel, lockdowns result in 20 times more deaths.

#### Measurements and Determinants of Costs

Benmelech, E., & Tzur-Ilan, N. (2020). The determinants of fiscal and monetary policies during the COVID-19 crisis (No. w27461). National Bureau of Economic Research.

<https://www.nber.org/papers/w27461>

The report focuses on the impacts of issuing fiscal and monetary policies during Covid-19 lockdowns. Nations with higher income levels enacted larger fiscal protocols than those with lower income levels. Also, a nation’s credit rating is the biggest determining factor for its implementation of fiscal spending during the Covid-19 pandemic. Nations having extremely low-interest rates at the beginning of the pandemic were more probable to utilize monetary policy resources deviating from the norm.

Brodeur, A., Gray, D., Islam, A., & Bhuiyan, S. (2021). A literature review of the economics of COVID-19. *Journal of economic surveys*, 10.1111/joes.12423. Advance online publication. <https://doi.org/10.1111/joes.12423>

This paper reviews papers on the socio-economic effects of COVID-19. It was to survey and summarize the findings of the literature on the economics of COVID-19, serving as a source to find more papers about COVID-19. It also reviews the socioeconomic consequences of social distancing measures using different perspectives (labor, health, gender, etc.) The conclusion of this paper includes: the stay-at-home orders have very adverse effects on supply chains as well as on employment, which in turn causes drastic declines in consumer spending for many goods and services; Social distancing measures have led to serious deteriorations in the levels of mental health, family stress, and domestic violence.

Caselli, F., Grigoli, F., Lian, W., & Sandri, D. (2020, October). *The great lockdown: Dissecting The economic effects*. IMF. Retrieved August 5, 2022, from <https://www.imf.org/en/videos/view?vid=6198779261001>

A stringent lockdown (at least 2 weeks) leads to a reduction in accumulated infections of about 40 percent after 30 days. More stringent lockdowns have a marginally weaker impact on mobility but stronger effects on infections. Policymakers may want to opt for stringent lockdowns over a shorter period rather than prolonged mild lockdowns. Based on past experience, tighter lockdowns appear indeed to entail only modest additional economic costs while leading to a considerably stronger decline in infections.

Chen, X., Gong, W., Wu, X., & Zhao, W. (2021). Estimating Economic Losses Caused by COVID-19 under Multiple Control Measure Scenarios with a Coupled Infectious Disease-Economic Model: A Case Study in Wuhan, China. *International journal of environmental research and public health*, 18(22), 11753. <https://doi.org/10.3390/ijerph182211753>

The paper uses the SEIR infectious disease model and some economic models to quantify the relationship between different control measures and economic losses in Wuhan, China. The control measures were parameterized into two factors: the effective number of daily contacts (people) ( $r$ ); the average waiting time for quarantined patients (day) ( $g$ ). The paper finds that “if  $r$  is less than 5 (people), the number of COVID-19 infected patients is very close to 0, and a lower value of parameter  $g$  is beneficial to stop COVID-19 spread with a lower economic cost.” The paper concludes that “implementing strict control measures as early as possible can stop the spread of COVID-19 with a minimal economic impact.”

Furceri, D., Ganslmeier, M., Ostry, J. D., & Yang, N. (2021). Initial Output Losses from the Covid-19 Pandemic: Robust Determinants.

<https://www.imf.org/en/Publications/WP/Issues/2021/01/29/Initial-Output-Losses-from-the-Covid-19-Pandemic-Robust-Determinants-50025>

The paper finds that “output losses are experienced by countries with lower GDP per capita, more stringent containment, higher deaths per capita, a larger tourism share, more liberalized credit markets, higher pre-crisis growth, and more democratic regimes” As related to lockdowns, the paper defines stringency measures into eight categories: “ (i) school closures; (ii) workplace closures; (iii) cancellation of public events; (iv) restrictions on the size of gatherings; (v) closures of public transport; (vi) stay-at-home orders; (vii) restrictions on internal movement; (viii) restrictions on international travel.” It finds a positive correlation between the stringency index and the measure of output loss.

Ma, L. (2021, May 27). *The intergenerational mortality tradeoff of COVID-19 lockdown policies*.

World Bank. Retrieved November 23, 2022, from

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/990621622121589737/the-intergenerational-mortality-tradeoff-of-covid-19-lockdown-policies>

This working paper tries to formalize and quantify the increase in child mortality rate in low income countries in lockdowns. The findings show that “a lockdown can potentially lead to 1.76 children's lives lost due to the economic contraction per COVID-19 fatality averted. The ratio stands at 0.59 and 0.06 in lower-middle and upper-middle income countries.” Thus, the optimal duration of lockdown to maximize social welfare is shorter in poorer countries than in rich ones.

### Macroeconomic factors

Andersen, T. M., Honkapohja, S., & Holden, S. (2022). *Economic consequences of the pandemic - The Nordic countries*. coronakommissionen. Retrieved August 15, 2022, from

<https://coronakommissionen.com/wp-content/uploads/2022/02/underlagsrapport-economic-consequences-of-the-pandemic-the-nordic-countries.pdf>

This report is done by the Swedish government on Sweden, Denmark, Finland, and Norway, on the impact of COVID-19. All four countries had policy packages that helped the economy to recover, despite differences in detail. Sweden experienced the same economic damage, but their health damage is smaller than in the other three countries. The paper examined the different policies, including health developments and containment policies, relief packages, employment support schemes, monetary policies, etc.

Arenas, G. C. (2022, January 26). *The impacts of lockdown policies on International Trade in the Philippines*. World Bank. Retrieved November 23, 2022, from <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/412431643226839658/the-impacts-of-lockdown-policies-on-international-trade-in-the-philippines>

The working paper found that imports were more affected than exports during lockdowns in the Philippines. It stated that “The introduction of lockdown measures by trading partners affected imports more than exports, leading to 7 and 56 percent monthly average drops in export and import values, respectively. Restrictions on internal movements and international travel controls in partner countries were responsible for the drop in exports.”

Baqae, D., Farhi, E. 2020. Supply and demand in disaggregated Keynesian economies with an application to the covid-19 crisis. NBER Working Paper 27152, National Bureau of Economic Research, Cambridge, MA. <https://www.nber.org/papers/w27152>

The research shows that negative sectoral supply shocks result in stagflation while negative demand shocks result in deflation. In the U.S. each supply and demand shock caused a 50% reduction in real GDP from February 2020 to May 2020 while certain markets suffered from 7% Keynesian unemployment. Thus, total demand stimulus is 25% successful in a normal recession when labor markets are slack.

Eichenbaum, M.S., Rebelo, S., Trabandt, M. 2020. The Macroeconomics of epidemics. NBER Working Paper 26882, National Bureau of Economic Research, Cambridge, MA. <https://www.nber.org/papers/w26882>

The model in the paper implies that people cut back on consumption and work to reduce the chances of being infected. But this competitive equilibrium is not socially optimal because infected people do not fully internalize the effect of their economic decisions on the spread of the virus. The paper finds that “it is optimal to introduce large-scale containment measures that result in a sharp, sustained drop in aggregate output. In our benchmark model, containment policy saves roughly half a million lives in the United States.” Their model also finds that “abandoning containment produces a temporary rise in consumption but no long-lasting economic benefits. The longer policymakers pursue the optimal containment policy, the better.”

Guerrieri, V., Lorenzoni, G., Straub, L., Werning, I. 2020. Macroeconomic implications of covid-19: can negative supply shocks cause demand shortages? NBER Working Paper 26918, National Bureau of Economic Research, Cambridge, MA.

<https://www.nber.org/papers/w26918>

This paper used the theory of Keynesian supply shocks to view the effects of policies: “Standard fiscal stimulus can be less effective than usual because the fact that some sectors are shut down mutes the Keynesian multiplier feedback. Monetary policy, as long as it is unimpeded by the zero lower bound, can have magnified effects, by preventing firm exits. Turning to optimal policy, closing down contact-intensive sectors and providing full insurance payments to affected workers can achieve the first-best allocation, despite the lower per-dollar potency of fiscal policy.”

Ma, L., Shapira, G., Walque, D., & Do, Q.-T. (2021, July 19). The COVID-19 lockdown trade-off in low- and middle-income countries. VOX, CEPR Policy Portal. Retrieved August 5, 2022, from

<https://voxeu.org/article/covid-19-lockdown-trade-low-and-middle-income-countries>

Lockdown policies are less effective and more costly in poor countries. Economic contractions increase child mortality in poorer countries, but not in rich ones. And since poorer countries tend to have more young children than old people, a lockdown in lower-income countries could lead to more recession-induced deaths. Low healthcare capacity in poorer countries lowers the benefits from ‘flattening the curve’ with lockdowns as hospitals are quickly overwhelmed. In low-income countries, a percent decrease in GDP increases child mortality by 0.15 deaths in 1000.

### Microeconomic Factors

Food and Agriculture Organization of the United Nations. Migrant workers and the COVID-19 Pandemic. Rome (2020).

<https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1270461/>

The article identifies some main issues migrant workers face during a pandemic: business closure and restriction limit their access to enough health and social protection. These workers may lose their jobs and their family, dependent on remittances, will face financial difficulties. Current measures are carried out to assist migrant workers. For example, in China, the government has issued a notice to ensure that the contracts of migrant workers are not terminated in the case of illness or containment measures. As of 13 March, temporary assistance supported 5,839 people with a transfer of RMB 16,100 million (about USD 2,400,000 million).

Covid-19 and the retail sector: Impact and policy responses. OECD. (2020, June 16). Retrieved August 5, 2022, from <https://www.oecd.org/coronavirus/policy-responses/covid-19-and-the-retail-sector-impact-and-policy-responses-371d7599/>

The effect of lockdowns on retail depends on whether consumption is essential. For example, the sales of clothing retailers dropped by 89.3% in April 2020 year-on-year, and the sales of grocery stores increased by 13.2% in the US. Also, lockdowns and social distancing measures affect retailers with physical stores more than online retailers. The proportion of retail expenses spent online increased from 19.1% in April 2019 to 30.7% in April 2020 in the UK.

Gil-Ureta, M., & Undurraga, E. (2020). "COVID-19 Has Exposed How 'The Other Half' (Still) Lives." *Bulletin of Latin American Research*, 39, 28-34.  
[https://www.researchgate.net/publication/348014421\\_COVID-19\\_Has\\_Exposed\\_How\\_'The\\_Other\\_Half'\\_Still\\_Lives](https://www.researchgate.net/publication/348014421_COVID-19_Has_Exposed_How_'The_Other_Half'_Still_Lives)

The paper analyzes the effects of the total lockdown in Santiago on human mobility based on cell phone data. It finds that "the higher the rate of multidimensional poverty, the less effective the lockdown in reducing mobility" Even though people in Chile are willing to comply with quarantine measures, their abilities to comply might vary because of social-economic constraints.

Rawal, V., Kumar, M., Verma, A., & Pais, J. (2020). COVID-19 Lockdown: Impact on Agriculture and Rural Economy. *Social Scientist*, 48(3/6 (562-565)), 67–82.  
<https://www.jstor.org/stable/26979098>

The paper suggests that farmers in India have trouble bringing their produce to the market during lockdowns because of the poor government procurement process, so they are forced to sell them at a low price. It also suggests a fall in the demand for fruits, vegetables, and animal products because of the lockdown and the consequent loss of employment and income. For example, the demand for milk fell 20 to 30 percent and the price of milk fell by Rs 5 to 9 per liter in India. People's fear of the spread of the virus among meat and eggs also exacerbates the situation. Informal workers are also affected during lockdowns.

Sarwan, J., Sharma, H., Narang, J., Uddin, N., & Chandra Bose K, J. (2021). Microeconomics Impacts of COVID-19 Pandemic: Media Analysis. *Asian Microeconomic Review*, 1(1), 3-15.  
<https://mpa.ub.uni-muenchen.de/110399/>

The report shows that the Covid-19 pandemic had a negative impact on a microeconomic level, as firms and individuals incurred significant losses during the two years in which Covid-19 was at its peak. In 2020, the global economy was expected to decrease by 2.4% in 2020, and 2.5% of the “third tier daily wage earners” globally would face economic depression. Also, the study shows that if economic recovery did not occur, the global unemployment rate would increase by 4.8% from 2019 to 10% in 2020 and 2021. Another study presents that five to six hundred thousand laborers in India had difficulty going to their villages because of issues, such as unemployability, lack of transportation, and scarcity of food. In sub-Saharan Africa, an African Union report showed that a blockade caused high poverty amongst wage workers during the lockdowns. Brazil and Argentina also had much poverty amongst its population despite government support.

### Loss in Employment

Brusevich, M., Dabla-Norris, M. E., & Khalid, S. (2020). Who will bear the brunt of lockdown policies? Evidence from tele-workability measures across countries. International Monetary Fund. <https://www.imf.org/en/Publications/WP/Issues/2020/06/12/Who-will-Bear-the-Brunt-of-Lockdown-Policies-Evidence-from-Tele-workability-Measures-Across-49479>

This paper presents a new index of the feasibility to work from home, named “tele-workability”, to investigate what types of jobs are most at risk. The paper estimates that “over 97.3 million workers, equivalent to about 15 percent of the workforce, are at high risk of layoffs and furlough across the 35 advanced and emerging countries.” Those job sectors include accommodation and food services, transportation, and retail and wholesale sectors. Young and low-income workers also face a greater risk of losing their jobs.

Dey M, Loewenstein M. (2020). How many workers are employed in sectors directly affected by COVID-19 shutdowns, where do they work, and how much do they earn? Monthly Labor Rev. <https://www.bls.gov/opub/mlr/2020/article/covid-19-shutdowns.htm>

The authors of this paper calculate the number of workers/jobs in sectors affected by shutdowns. They find that “In all, 20.4 percent of all workers are employed in industries most immediately affected by the COVID-19 shutdowns, and wage earnings in exposed sectors make up 12.2 percent of total wage earnings.” In conclusion, firms in the most exposed sectors tend to be smaller than firms in all other sectors, and they tend to pay less.

Dutta, J., Mitra, A., Zaman, S., & Mitra, A. (2020). Lockdown and Beyond: Impact of COVID-19 pandemic on global employment sector with special reference to India. *NUJS Journal of Regulatory Studies*, 1(5), 10-21.

[https://www.researchgate.net/publication/341408999\\_COVID-19\\_and\\_Employment\\_sector](https://www.researchgate.net/publication/341408999_COVID-19_and_Employment_sector)

The article highlights how India is not well equipped for self-quarantine due to urban and rural poverty. Other problems include the lack of comprehensive testing for the entire population and the lack of subsidies for unemployed workers. The article cites a “loss of more than 40 crores of jobs in India”, and in the US, it cites that “Goldman Sachs predicted COVID-19 would cut US GDP by 34% in the second quarter of 2020 and by 6.2% for all of 2020.”

Heemann, M. (2022, March 9). The labor market implications of restricted mobility during the COVID-19 pandemic in Kenya: Evidence from Nationally Representative Phone Surveys. World Bank. Retrieved November 23, 2022, from

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/776821646839663297/the-labor-market-implications-of-restricted-mobility-during-the-covid-19-pandemic-in-kenya-evidence-from-nationally-representative-phone-surveys>

The working paper examined the impact of recovering mobility on the labor market in Kenya. In a national phone survey, it was found that “a 10 percent recovery of mobility led to a 12 percentage points increase in labor force participation and a 9 percent points increase in household members being employed, and an increase of 11 wage hours per week.” Trust in the government’s ability to deal with the pandemic also impacted mobility-reducing behavior.

Hoehn-Velasco, L., Silverio-Murillo, A., & de la Miyar, J. R. B. (2021). The long downturn: The impact of the great lockdown on formal employment. *Journal of Economics and Business*, 115, 105983.

<https://www.sciencedirect.com/science/article/pii/S0148619521000011>

The study estimates the effect of the COVID-19 pandemic on Mexico’s formal employment during the lockdown. The study finds that Mexico's job market declined by 5.4 % over the first nine months of the Great Lockdown. Youngest, oldest, and low-income workers were the most impacted. Bigger firms recover faster than smaller firms, and the male job sectors recover faster than female jobs.

Effects on Public Finance

Adam, C., Henstridge, M., & Lee, S. (2020). After the lockdown: macroeconomic adjustment to the COVID-19 pandemic in sub-Saharan Africa. *Oxford Review of Economic Policy*, 36(Supplement\_1), S338-S358.

[https://academic.oup.com/oxrep/article/36/Supplement\\_1/S338/5899011?login=true](https://academic.oup.com/oxrep/article/36/Supplement_1/S338/5899011?login=true)

In Africa, there were only 140,000 confirmed cases for Covid-19 in a population of over a billion people as of June 2020. The response remained very similar throughout with many African countries turning to lockdowns starting the second week in March. But for whatever lockdown policies imposed, they unsuccessfully contained the epidemic. This paper combines epidemiological and macroeconomics models to demonstrate macroeconomic challenges confronting domestic policymakers and international donors under different policy options.

Almeida, V., Barrios Cobos, S., Christl, M., De Poli, S., Tumino, A., & Van Der Wielen, W. (2020). Households' income and the cushioning effect of fiscal policy measures during the Great Lockdown (No. 06/2020). JRC Working Papers on Taxation and Structural Reforms.

<https://www.econstor.eu/handle/10419/248819>

This paper analyzes the impact of Covid-19 on EU households' income and on government policies adopted by EU nations. Results show that the poorest households are the most severely hit. Policy interventions are therefore seen as instrumental in cushioning against the impact of the crisis on inequality and poverty, but discretionary policy measures result in a quite homogeneous impact along the income distribution, and the social impact of the Great Lockdown is likely to be much larger than the one experienced during the 2008/2009 financial crisis.

Bui, D., Dräger, L., Hayo, B., & Nghiem, G. (2022). The effects of fiscal policy on households during the COVID-19 pandemic: Evidence from Thailand and Vietnam. *World Development*, 153, 105828.

<https://www.sciencedirect.com/science/article/pii/S0305750X22000183>

This paper studies government financial support in Vietnam and Thailand through consumer surveys. It finds that financial support to households has positive effects, which are "related to more positive consumer sentiment and increases in actual and planned durable spending, while also being correlated with a more optimistic macroeconomic outlook, higher trust in the government, and higher personal well-being."

Cantó, O., Figari, F., Fiorio, C. V., Kuypers, S., Marchal, S., Romaguera-de-la-Cruz, M., ... & Verbist, G. (2021). Welfare Resilience at the Onset of the COVID-19 Pandemic in a Selection of European Countries: Impact on Public Finance and Household Incomes. *Review of Income and Wealth*.  
<https://onlinelibrary.wiley.com/doi/full/10.1111/roiw.12530>

This paper assesses the impact of Covid and government policies on household incomes of Belgium, Italy, Spain, and the UK. The paper found that income poverty increased in all countries due to the pandemic while inequality remained broadly the same.

### Effects on the Distribution of Income

Bonaccorsi, G., Pierri, F., Cinelli, M., Porcelli, F., Galeazzi, A., Flori, A., ... & Pammolli, F. (2020). Evidence of economic segregation from mobility lockdown during COVID-19 epidemic. arXiv preprint arXiv:2004.05455.  
<https://arxiv.org/abs/2004.05455>

This paper studies the effects of lockdowns on mobility. It concludes that lockdowns are unevenly affecting the poorer fraction of the population; the reduction in mobility caused by the lockdown is more pronounced for municipalities with stronger fiscal capacity or municipalities where inequality is greater. "In the absence of targeted lines of intervention, the lockdown would induce a further increase in poverty and inequality."

Bonacini, L., Gallo, G., & Scicchitano, S. (2021). Working from home and income inequality: risks of a 'new normal' with COVID-19. *Journal of population economics*, 34(1), 303-360.  
<https://link.springer.com/article/10.1007/s00148-020-00800-7>

Based on influence function regression methods, this paper explores the potential consequences in the labor income distribution related to a long-lasting increase in working from home feasibility among Italian employees. Results show that a positive shift in WFH feasibility would be associated with an increase in average labor income, but this potential benefit would not be equally distributed among employees. an increase in the opportunity to WFH would favor male, older, high-educated, and high-paid employees. It concludes that intervention should play a more important compensating role in the future.

Clark, A. E., d'Ambrosio, C., & Lepinteur, A. (2021). The fall in income inequality during COVID-19 in four European countries. *The Journal of Economic Inequality*, 19(3), 489-507.  
<https://link.springer.com/article/10.1007/s10888-021-09499-2>

This paper used surveys from four European countries to track income inequalities during Covid-19. The result shows that on average income, differences decreased as government compensation schemes were targeted toward the poorest.

Wildman, J. (2021). COVID-19 and income inequality in OECD countries. *The European Journal of Health Economics*, 22(3), 455-462.

<https://link.springer.com/article/10.1007/s10198-021-01266-4>

This paper studies the inequalities in OECD countries. The result shows that countries with high levels of income inequality have performed significantly worse when dealing with the Covid-19 outbreak in terms of cases and deaths. Income inequality is a proxy for many elements of socioeconomic disadvantage that may contribute to the spread of, and deaths from, Covid-19. Also, countries with more resources suffered more cases as they are likely to be more international, but this does not increase the number of death cases.

World Bank Group. (2021, December 6). *Learning losses from covid-19 could cost this generation of students close to \$17 trillion in lifetime earnings*. World Bank. Retrieved November 22, 2022, from <https://www.worldbank.org/en/news/press-release/2021/12/06/learning-losses-from-covid-19-could-cost-this-generation-of-students-close-to-17-trillion-in-lifetime-earnings>

The World Bank projects that this generation's students will lose an estimated \$17 trillion in lifetime earnings, which amounts to 14% of the current world GDP, due to school closures from lockdowns. In countries, such as Brazil, Pakistan, India, South Africa, and Mexico, students displayed learning losses in math and reading. The extent of the losses directly correlated with the closure length. Moreover, the losses in math surpassed those in reading and had the most impact on younger children, low-income students, and girls.

Goudeau, S., Sanrey, C., Stanczak, A., Manstead, A., & Darnon, C. (2021). Why lockdown and distance learning during the COVID-19 pandemic are likely to increase the social class achievement gap. *Nature human behaviour*, 5(10), 1273-1281.

<https://www.nature.com/articles/s41562-021-01212-7>

This paper analyzes the extent and effects of digital learning during the COVID-19 pandemic. The onset of the pandemic caused about 900 million learners to switch to a digital modality. The paper finds that "By making school learning less dependent on teachers and more dependent on families and digital tools and resources, school closures are likely to greatly amplify social class inequalities." For example, "a survey of approximately 4,000 parents in the United Kingdom confirmed that during the lockdown, more than half of primary school

children from the poorest families did not have access to their own study space and were less well equipped for distance learning than higher-income families.”

Zhou, M., Hertog, E., Kolpashnikova, K., & Kan, M. Y. (2020). Gender inequalities: Changes in income, time use and well-being before and during the UK COVID-19 lockdown.

<https://osf.io/preprints/socarxiv/u8ytc/>

This paper examines gender inequality during the COVID-19 pandemic in the UK. The result shows that women, especially mothers, experienced a more dramatic decline in well-being amid the COVID pandemic, and single mothers were hurt the most in all aspects.

Raphael, L., Julien, M. & Isabelle M. (2022) .Supply Shocks in Supply Chains: Evidence from the Early Lockdown in China

<https://link.springer.com/article/10.1057/s41308-022-00166-8>

This paper examined the supply shocks of companies in China during the COVID-19 lockdowns. Sales of the company would decrease due to the lockdowns: “firms exposed to the Chinese early lockdown experienced a 5.5% drop in domestic sales and a 5% drop in exports.” Meanwhile, companies with better innovation are less affected by the supply shocks.

### **3. Bibliography on the Social Costs of the Lockdowns**

#### Effects on Public Health

Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. (2021, April 27). *Lockdowns widen the gender gap in Mental Health*. CEPR. Retrieved August 11, 2022, from

<https://cepr.org/voxeu/columns/lockdowns-widen-gender-gap-mental-health>

The paper surveyed over 10000 respondents from 40 states that issued stay-at-home orders. It finds “a large negative impact on the mental health of 0.08 standard deviations in states that had stay-at-home orders in place.” The negative impact was entirely driven by women, and “the gender gap in mental health increased from 0.21 standard deviations to 0.34 standard deviations – an increase of almost two-thirds of the pre-lockdown gap.”

Agarwal, A., Sharma, S., Kumar, V., & Kaur, M. (2021). Effect of E-learning on public health and environment during COVID-19 lockdown. *Big Data Mining and Analytics*, 4(2), 104-115.

<https://ieeexplore.ieee.org/abstract/document/9343920>

This paper studies the efficiency and acceptability of e-learning tools among Indian students during the COVID-19 lockdown. It also studies the impact of e-learning on the environment and public health. It found that e-learning reduces carbon emissions. However, it is also leading to self-isolation, reducing academic achievement which may lead to anxiety and mental depression, and cause eyes and neck muscle strain that will affect physical health.

Ayanlade, A., & Radeny, M. (2020, September 14). Covid-19 and food security in Sub-Saharan africa: Implications of lockdown during agricultural planting seasons. Nature News. Retrieved November 23, 2022, from

<https://www.nature.com/articles/s41538-020-00073-0#citeas>

The paper reported on the implications of Covid movement restrictions on rice and maize production, labor availability, and pest challenges in Sub-Saharan Africa. It stated that the rice and maize planting periods in March and April overlapped with lockdowns, and with many countries closing borders during these periods, agricultural productions faced a shortage of labor supply. The invasion of desert locusts also overlapped with the periods of restriction, which further hindered economic growth.

Basu, S., Karmakar, A., Bidhan, V., Kumar, H., Brar, K., Pandit, M., & Latha, N. (2020). Impact of lockdown due to COVID-19 outbreak: lifestyle changes and public health concerns in India. *Int. J. Indian Psychol*, 8, 1385-1411.

[https://www.researchgate.net/publication/343577246\\_Impact\\_of\\_lockdown\\_due\\_to\\_COVID-19\\_outbreak\\_lifestyle\\_changes\\_and\\_public\\_health\\_concerns\\_in\\_India](https://www.researchgate.net/publication/343577246_Impact_of_lockdown_due_to_COVID-19_outbreak_lifestyle_changes_and_public_health_concerns_in_India)

This paper attempts to highlight the impact of imposed nationwide lockdown on society and the environment alike along with an analysis of lifestyle changes based on an online survey. The result is only based on the survey, the important outcome is that the survey shows an increase in anxiety among participants during the lockdown.

Bavli, I., Sutton, B., & Galea, S. (2020). Harms of public health interventions against covid-19 must not be ignored. *Bmj*, 371.

<https://www.bmj.com/content/371/bmj.m4074>

The paper examined the potential consequences of imposing public health interventions during Covid-19 lockdowns. Mass social distancing during lockdowns brought an unexpected rise in unemployment levels across various industrial sectors. In terms of health effects, studies show that lockdowns led to a worse psychological state in the short term. Brooks and colleagues demonstrate that lockdowns instigated anger, confusion, and

symptoms of post-traumatic stress disorder. School closures also negatively affected health in the short term, as many parents stayed home. In the long term, lockdowns led to negative health effects from delayed treatment of serious illnesses. Finally, vulnerable low-income societies and individuals suffering from mental health/addiction problems were more likely to be negatively affected by social distancing during lockdowns.

Bloom, N., Mizen, P., & Taneja, S. (2022, January 4). *Comparing online to in-person meetings*. CEPR. Retrieved August 15, 2022, from <https://voxeu.org/article/comparing-online-person-meetings>

As a result of Covid-19 lockdowns, many citizens in the U.K. have transitioned to working from home. A survey of more than 2,000 employed adults suggests that online arrangements are best for gatherings of 2 to 4 members, but physical meetings are best for ten or more member meetings. Demographics affect the quality of remote working, as women and people with educational experience say online meetings prove more effective. Also, individuals with better internet access have better effectiveness during online meetings.

Dwivedi, L. K., Rai, B., Shukla, A., Dey, T., Ram, U., Shekhar, C., ... & Unisa, S. (2020). Assessing the impact of complete lockdown on COVID-19 Infections in India and its burden on public health facilities. International Institute for Population Sciences, Mumbai, 25. [http://www.esocialsciences.org/Articles/ShowPDF/A202057122557\\_20.pdf](http://www.esocialsciences.org/Articles/ShowPDF/A202057122557_20.pdf)

In India, a fully-enforced lockdown has successfully lowered the number of confirmed cases. The number of Covid-19 patients in Indian government hospitals would average 8 to 15 cases for one hospital per May 3, 2020, if increasing exponentially, but has decreased to 0.82 until April 23, 2020. Also, the number of confirmed cases was estimated at 23,039 on April 23, 2020, compared to 86,373 if Covid-19 cases grew exponentially.

Hupkau, C., & Petrongolo, B. (2020, November 23). *Work, care, and gender across UK Lockdowns*. CEPR. Retrieved August 15, 2022, from <https://cepr.org/voxeu/columns/work-care-and-gender-across-uk-lockdowns>

At the start of the Covid-19 pandemic, men were more likely than women to be furloughed and lose earnings by a slight margin. But, the genders switched roles by the end of the summer. Precisely, 4.41% of males and 4.13% of females experienced job loss, 30.14% of males and 27.1% of females were ever furloughed, 48.87% of males and 50.35% of females suffered from reduced hours, and 38.6% of males and 34.24% of females had reduced earnings. During April and May 2020, mothers' hours of childcare increased to 26.5 and

fathers' hours increased to 14.8. Meanwhile, in 2014-15, mothers spent on average 17 hours of childcare while fathers spent below 8.

Prasad, V., Sri, B. S., & Gaitonde, R. (2020). Bridging a false dichotomy in the COVID-19 response: a public health approach to the 'lockdown' debate. *BMJ Global Health*, 5(6), e002909.  
<https://gh.bmj.com/content/5/6/e002909>

The study provides a new framework of lockdown that takes into consideration the reality of the poor and the marginalized minorities. The paper also reports on the drawbacks of current measures. For example, migrants and daily wage earners experienced extreme anxiety in the first 4 hours when the Indian government announced lockdowns. There is also "a significant lack of accommodation of the issues of non-COVID-19-related medical emergencies." It finds "a 53% and a 30% decrease in the numbers of eclampsia and acute cardiac emergencies handled in March compared with the previous month."

#### Number of Suicides

Ahmed, S., Khaium, M. O., & Tazmeem, F. (2020). COVID-19 lockdown in India triggers a rapid rise in suicides due to the alcohol withdrawal symptoms: Evidence from media reports. *International journal of social psychiatry*, 66(8), 827-829.  
<https://journals.sagepub.com/doi/full/10.1177/0020764020938809>

The Indian government announced a total lockdown, and since liquor shops were closed, many addicts dealt with alcohol withdrawal symptoms (AWS). In just three months, at least 23 people committed suicide, and many attempted suicides due to AWS-related problems. 15 men committed suicide in the first week of the lockdown. Also, patients going to hospitals for AWS-related assistance surged four times during the COVID-19 lockdown. All of them were from south India (Kerala, Tamil Nadu, and Karnataka). All the suicide cases were men, and the age range was 28 to 70 yrs.

Caballero-Domínguez, C. C., Jiménez-Villamizar, M. P., & Campo-Arias, A. (2020). Suicide risk during the lockdown due to coronavirus disease (COVID-19) in Colombia. *Death studies*, 1-6.  
<https://www.tandfonline.com/doi/full/10.1080/07481187.2020.1784312>

This paper studies adults in Colombia with questionnaires on suicide risks. High suicide risk was associated with high perceived stress related to Covid-19, risk of depressive episodes, and insomnia. Previous studies show that physical isolation increases suicide risks significantly (during the SARS in 2003, China). The result shows that the suicide risk

increases significantly. But the result shows that during the pandemic, the suicide risk was 7.6%, which is high, it is less than the number in a study in 2018.

Carlin, G. L., Baumgartner, J. S., Moftakhar, T., König, D., & Negrin, L. L. (2021). Impact of COVID-19 lockdown on suicide attempts. *Wiener Klinische Wochenschrift*, 133(17), 915-922.

<https://link.springer.com/article/10.1007/s00508-021-01839-6>

The Austrian government enacted a lockdown from March 16, 2020, to May 15, 2020, and this study aims to prove that economic and emotional downfall inflicts the psychological state of citizens, which causes an increased number of suicide attempts. Patients who attempted suicide during the Covid-19 lockdown admitted to the Medical University of Vienna were the study group, while treated individuals for suicide were the control group. Results showed a surge in attempted suicides during the Covid-19 lockdown, regardless of patient origin.

Olié, E., Nogue, E., Picot, M., & Courtet, P. (2021). Hospitalizations for suicide attempt during the first COVID-19 lockdown in France. *Acta Psychiatrica Scandinavica*, 143(6), 535.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8250776/>

In France, lockdown increased the risk of suicide, as loneliness became more prevalent globally. In Japan, the monthly suicide rate declined 15% in the first five months but surged 16% during the second term. France enacted its lockdown from March 16, 2020, to May 11, 2020, during which 10,400 patients were hospitalized for suicide attempts, according to the French national hospital discharge database. 78.96% of the cases were non-violent (self-poisoning, self-cutting, etc.). The lockdown also caused the highest death rate during hospitalization. There were 187 deaths during lockdown versus 142 deaths between March 16, 2022, and May 11, 2019, and 177 deaths between January 18, 2020, and March 15, 2020.

Ribeiro, E. (2020, August 12). *Fighting suicide during COVID-19: Lessons from past pandemics and recessions*. CEPR. Retrieved August 15, 2022, from <https://voxeu.org/article/fighting-suicide-during-covid-19>

Fear and isolation during Covid-19 lockdowns increased concerns about mental health. An expected recession and factors, such as unemployment and indebtedness, increased the risk of suicide substantially. Kawohl and Nordt (2020) estimate that rises in unemployment will lead to higher suicide rates. On the higher end, an unemployment rate of 4.9% to 5.6% will lead to 9,570 suicides a year, while on the lower end, an unemployment rate of 5.1% will lead to 2,135 suicides a year.

Syed, N. K., & Griffiths, M. D. (2020). Nationwide suicides due to alcohol withdrawal symptoms during COVID-19 pandemic: A review of cases from media reports. *Journal of psychiatric research*, 130, 289.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7438040/>

This paper examined reports of alcohol-related suicides from India that were extracted from media reports. It shows that fears and anxiety are the fundamental reasons people commit suicide. The movement restrictions associated with the nationwide lockdown in India have had serious repercussions for individuals with addiction problems.

### Murder and Crime

Cheung, L., & Gunby, P. (2022). Crime and mobility during the COVID-19 lockdown: A preliminary empirical exploration. *New Zealand Economic Papers*, 56(1), 106-113.

<https://www.tandfonline.com/doi/full/10.1080/00779954.2020.1870535>

This paper studies New Zealand victimization rates during the COVID-19 lockdown with data from 2014 to 2020. The result shows that the lockdown is associated with falls in the rate of non-residential property crime by 1.4 crimes per 1000 people (about a 50% fall), of residential property crime by 0.368 crimes per 1000 people (about a 30% fall) and of crimes against a person in a non-residential setting of 0.123 per 1000 people (about a 30% fall).

Henrico, I., Mayoyo, N., & Mtshawu, B. (2022). Crime in the context of COVID-19: The case of Saldanha Bay Municipality. *SA Crime Quarterly*, (71), 1-26.

[http://www.scielo.org.za/scielo.php?pid=S1991-38772022000100001&script=sci\\_arttext&tIng=es](http://www.scielo.org.za/scielo.php?pid=S1991-38772022000100001&script=sci_arttext&tIng=es)

This paper studies the change in crimes in Saldanha Bay Municipality, South Africa during Covid. This paper simply demonstrates the exchange in crime numbers. The result shows that crimes of different types all decreased during the lockdown.

Imalka, D. D. D., & Wijewardhana, B. V. N. (2022). A Criminological Study on Crimes in the Western Province of Sri Lanka, During the covid 19 Lockdown Period. *Vidyodaya Journal of Humanities and Social Sciences*, 7(01).

<http://journals.sjp.ac.lk/index.php/vjhss/article/view/5657>

The study studies the relationship between crimes and lockdowns during the Covid-19 pandemic in Sri Lanka. Researchers conducted questionnaires and interviews with 64 police

officers in Western Sri Lanka, and also used tools to examine criminal inclinations. Property crimes fell by 44%, sexual crimes fell 0.99% and violent crimes fell 50% drop but organized crime increased 11% in 2020 compared to 2019. Also, 63% of property crimes, and half of all crimes in 2020 occurred in the initial six months of 2020. Lockdowns led to economic corruption causing property crimes, but drug-related crimes did not have a correlation with the lockdowns.

Nilsen, A. G. (2022). India's pandemic: spectacle, social murder and authoritarian politics in a lockdown nation. *Globalizations*, 19(3), 466-486.

<https://www.tandfonline.com/doi/abs/10.1080/14747731.2021.1935019>

The report first argues that India's Bharatiya Janata Party and Prime Minister Narendra Modi utilized lockdowns primarily for political incentives instead of using them to mitigate Covid-19 cases. Then, two already existing catastrophes in the Indian economy and political state deepened social conflict and political suppression during lockdowns. The author finally focuses on the political results of the pandemic, the effect of the second Covid-19 wave, and the treatment of India's rising socio-political groups.

Wolff, K. T., Intravia, J., Baglivio, M. T., & Piquero, A. R. (2022). Violence in the Big Apple throughout the COVID-19 pandemic: A borough-specific analysis. *Journal of criminal justice*, 81, 101929.

<https://www.sciencedirect.com/science/article/pii/S0047235222000496>

The paper examines the relationship between violent offenses (assaults and shootings) and the effects of COVID-19 and the associated lockdown measures in NYC. It finds that "the first stay-at-home order was negatively associated with both shootings and assaults, the restrictions on indoor dining and dining capacity restrictions that occurred in late 2020 were associated with fewer shootings, but unrelated to assaults."

### Quality of Life Losses

Aqeel, M., Rehna, T., Shuja, K. H., & Abbas, J. (2022). Comparison of Students' Mental Wellbeing, Anxiety, Depression, and Quality of Life During COVID-19's Full and Partial (Smart) Lockdowns: A Follow-Up Study at a 5-Month Interval. *Frontiers in Psychiatry*, 13.

<https://www.frontiersin.org/articles/10.3389/fpsyt.2022.835585/full>

The study examines the effects of the Covid-19 lockdowns on the psychological state of Pakistani students. Researchers conducted a web-based survey using 40 Pakistani students from March 23, 2020, to August 23, 2020. Both full and partial lockdowns enhance the

participants' mental state of being and thus their quality of life, reducing anxiety and depression. But, the study also suggests that Pakistani students can face mental health and quality of life problems during lockdowns and may need the support of outside resources.

Agostinelli, F., Doepke, M., Sorrenti, G., & Zilibotti, F. (2022, January 21). The triple impact of school closures on educational inequality. VOX, CEPR Policy Portal. Retrieved August 5, 2022, from <https://voxeu.org/article/triple-impact-school-closures-educational-inequality>

The study shows that 9th graders from low-income neighborhoods in the US are predicted to suffer a learning loss equivalent to half a point on a 4.0 GPA scale, while students from high-income neighborhoods are unaffected. The article also predicts that school closures cause an average 25% pay reduction when the poorest student enters the labor market.

Basterfield, L., Burn, N. L., Galna, B., Batten, H., Goffe, L., Karoblyte, G., ... & Weston, K. L. (2022). Changes in children's physical fitness, BMI and health-related quality of life after the first 2020 COVID-19 lockdown in England: A longitudinal study. *Journal of Sports Sciences*, 1-9. <https://www.tandfonline.com/doi/full/10.1080/02640414.2022.2047504>

This paper uses data collected from 178 8-10-year-olds in England to assess one-year changes in physical fitness and quality of life under lockdown. The paper finds that "Children's sports performance and BMI changed adversely over one year", and therefore more programs are needed to encourage physical activities in and after lockdown.

Borusyak, K., Schoenberg, U., & Bismarck-Osten, C. von. (2021, May 8). School closures did not contain the spread of the coronavirus in Germany. CEPR. Retrieved August 11, 2022, from <https://cepr.org/voxeu/columns/school-closures-did-not-contain-spread-coronavirus-germany>

The paper says evidence from Germany that school closures did not contain infections among young people or adults in the summer of 2020, both during summer when Covid was not severe, or in Autumn when the cases surged. The study finds that "infections appear to have increased in the last weeks of the summer holidays and declined in the days after reopening."

Colucci, E., Nadeau, S., Higgins, J., Kehayia, E., Poldma, T., Saj, A., & De Guise, E. (2022). COVID-19 lockdowns' effects on the quality of life, perceived health and well-being of healthy elderly individuals: A longitudinal comparison of pre-lockdown and lockdown states of well-being. *Archives of gerontology and geriatrics*, 99, 104606. <https://www.sciencedirect.com/science/article/pii/S0167494321002697>

The study examined the quality of life and well-being of 104 healthy elderly persons before, during, and after lockdowns. The study finds that the quality of life, perception of health, and well-being of the participants all decreased over time “between the period before lockdown (T1) and after three months of the first confinement (T2 = June 2020), as well as before and during the second confinement (T3 = January 2021; one year after T1).” However, there is no statistical difference between T2 and T3, which might suggest that the elderly have adapted to the situation.

Eertink, L. C. (2020, August 24). Netherlands: International students more vulnerable to landlord exploitation during COVID-19 lockdown. European Website on Integration. Retrieved November 22, 2022, from [https://ec.europa.eu/migrant-integration/node/18452\\_de?lang=de](https://ec.europa.eu/migrant-integration/node/18452_de?lang=de)

The article examined the increasing number of problems between international students in the Netherlands and their landlords. It reported that the number of complaints to the housing center increased to 480 times from 180 times a year ago. Specifically, some landlords might impose unfair clauses on students' contracts and international students especially faced more difficulties because they didn't speak Dutch and some lost their jobs during Covid.

Ferrara, M., Langiano, E., Falese, L., De Marco, A., & De Vito, E. (2022). Quality of Life and Psychosocial Impact of the Lockdown Due to the COVID-19 Pandemic on Patients with Cancer: Results of a Preliminary Analysis. In *Medical Sciences Forum* (Vol. 4, No. 1, p. 32). Multidisciplinary Digital Publishing Institute. <https://www.mdpi.com/2673-9992/4/1/32/htm>

The paper assessed the quality of life and the psychosocial impact of the lockdown on 376 cancer patients in Italy using an online survey. The paper finds that "the majority of the sample (73.8%) was worried about becoming infected", and the paper concludes that lockdowns are a serious threat to the psychological and social health and well-being of those who already had preexisting health conditions for the development of depressive symptoms, anxiety, and stress.

Harris, R. J., Downey, L., Smith, T. R., Cummings, J. F., Felwick, R., & Gwiggner, M. (2020). Life in lockdown: experiences of patients with IBD during COVID-19. *BMJ open gastroenterology*, 7(1), e000541. <https://bmjopengastro.bmj.com/content/7/1/e000541>

The paper analyzed changes in the quality of life of patients with inflammatory bowel disease (IBD) in the United Kingdom during Covid-19 lockdowns. The target population group examined was the British Society of Gastroenterology (BSG) defined high and moderate-risk IBD population: researchers collected 685 responses of which 76% of respondents included themselves in the BSG-defined moderate or high-risk groups. Overall, 10.2% (70/685) of participants reported a very negative, or 42.8% (293/685) reported a negative impact of lockdowns on their quality of life.

Motton, S., Vergriete, K., VanPhi, L. N., Lambaudie, E., Berthoumieu, A., Pous, J., ... & Pillard, F. (2022). Evaluation of the impact of the COVID-19 lockdown on the quality of life of patients monitored for cancer who practice an adapted physical activity: Rugby for health. *Journal of cancer research and clinical oncology*, 148(2), 425-439.

<https://link.springer.com/article/10.1007/s00432-021-03621-7>

The study measures the effects of Covid-19 lockdowns on the quality of life and the psychological state of patients who took on a physical activity like rugby. In 20% of the 105 participants who responded to the rapid post-lockdown survey reported much “anxiety, pain, a decline in fitness and a significant impact on the tolerability of cancer treatments”. People responding to the individual analysis stated decreased vigor in physical activity. Surveys reported no change in the quality of life and in psychological anguish. But, much correlation existed between the sum of energy spent against the quality of life ( $p = 0.03$ ;  $\rho = 0.2248$ ) during Covid-19 lockdowns and the amount of mental suffering after lockdown ( $p = 0.05$ ;  $\rho = - 0.3772$ ).

Siette, J., Dodds, L., Seaman, K., Wuthrich, V., Johnco, C., Earl, J., ... & Westbrook, J. I. (2021). The impact of COVID-19 on the quality of life of older adults receiving community-based aged care. *Australasian journal on ageing*, 40(1), 84-89.

<https://doi.org/10.1111/ajag.12924>

The study examined the effects of Covid-19 lockdowns on the quality of life and social networks of elderly individuals in community care services. Researchers conducted questionnaires to the sample group during 2018, 2019, and the initial Australian COVID-19 lockdown in 2020. The results of the study showed that the quality of life considerably decreased for elderly individuals when compared to the previous year. During lockdowns, 90.5% of individuals utilized technology to communicate with family and friends, while social networks remained the same. Only 14.3% embraced new technology for communication purposes.

Someshwar, H., Sarvaiya, P., Desai, S., Gogri, P., Someshwar, J., Mehendale, P., & Bhatt, G. (2020). Does social distancing during the lock down due to COVID-19 outbreak in Mumbai affect quality of life?. *International Journal of Clinical and Biomedical Research*, 1-4.

[https://www.academia.edu/72688737/Does\\_Social\\_Distancing\\_During\\_The\\_Lock\\_Down\\_Due\\_To\\_Covid\\_19\\_Outbreak\\_In\\_Mumbai\\_Affect\\_Quality\\_Of\\_Life?from=cover\\_page?](https://www.academia.edu/72688737/Does_Social_Distancing_During_The_Lock_Down_Due_To_Covid_19_Outbreak_In_Mumbai_Affect_Quality_Of_Life?from=cover_page?)

In Mumbai, social distancing during lockdowns spawned a negative effect on the quality of life of the overall population. Researchers conducted a cross-sectional survey with 26 questions and distributed it to the general population, of which 832 complete responses were examined in depth. The most affected domains during lockdowns were the physical and psychological ones. The lowest quality of life responses revolved around financial, transportation, and sleep-related questions.

#### **4. Bibliography on the Political Costs of the Lockdown**

##### Loss in Freedom

Bratich, J. (2021). 'Give me liberty or give me Covid!': Anti-lockdown protests as necropopulist downsurgency. *Cultural Studies*, 35(2-3), 257-265.

<https://www.tandfonline.com/doi/abs/10.1080/09502386.2021.1898016>

Examining the “anti-lockdown” protests in the US beginning in April 2020, the paper defines these protests as a new form of necropopulism. The paper finds these civil unrests to be people with “microfascism infused with homi-suicidal aesthetics,” and it is important for society to identify and prevent this fascist social body from being fully activated.

Bricongne , J.-C., & Meunier, B. (2021, August 10). *The best policies to fight pandemics: Five lessons from the literature so far*. Vox EU CEPR. Retrieved from <https://cepr.org/voxeu/columns/best-policies-fight-pandemics-five-lessons-literature-so-far>

Research in this paper suggests five distinct points to best deal with the Covid-19 pandemic. First, an immediate lockdown seems the most efficient way to mitigate cases. A study by the IMF (2020) demonstrates that the quantity of infections has been much lower for nations with early lockdowns. Alvarez et al. stress that the best time to implement a strict lockdown is only two weeks after initial Covid-19 contact. Second, terminating public events is a solid way to fight the rise of Covid-19 cases. Third, many models insist on targeting the restrictions on age and the type of jobs. Fourth, voluntary social distancing impacts a

nation's economic activity, even if a lockdown is not imposed. Fifth, lightening a lockdown needs to be done gradually since completely avoiding cases calls for extreme sanitary procedures.

Burlig, F., Sudarshan, A., & Schlauch, G. (2021, June 27). *Examining covid-19 travel restrictions in developing countries*. VOX, CEPR Policy Portal. Retrieved August 5, 2022, from <https://voxeu.org/article/examining-covid-19-travel-restrictions-developing-countries>

A travel ban actually increases the spread of the virus and increases the economic burden. When the poor and undocumented migrants are in lockdown, COVID-19 cases will quickly spread within this population. While a travel ban is in place, the spread of the disease in their rural home is temporarily stopped. But when travel is finally permitted, migrants will still go home. When they do so, they may carry many more infections than if they had been allowed to leave early. The study finds that the increase of excess Covid cases after a travel ban depends on the duration of the ban. When the ban is around 10 weeks, there would be an increase of 400 cases per 1000 Mumbai migrants after the ban is lifted. But when the ban is longer, there would be no significant increase in cases.

Chen, C. C., Frey, C. B., & Presidente, G. (2020, May 20). *Covid-19 and the future of democracy*. CEPR. Retrieved August 11, 2022, from <https://cepr.org/voxeu/columns/covid-19-and-future-democracy>

The paper examines the institutional and cultural underpinnings of governments' responses to the Covid-19 pandemic. It finds that "more autocratic regimes have indeed introduced stricter lockdowns, and greater freedom comes with greater reductions in movement and travel." It explains China's success not only as an authoritarian regime but also as a strong state and a collective culture.

Giordano, C. (2021). Freedom or money? The dilemma of migrant live-in elderly carers in times of COVID-19. *Gender, Work & Organization*, 28, 137-150. <https://onlinelibrary.wiley.com/doi/full/10.1111/gwao.12509>

The paper examines the lives of migrant live-in elderly carers concerning those with a special status, such as being migrants, elderly care workers, household breadwinners, or quasi-family members, and how based on their needs, they need to consider defending their jobs at the risk of their health or protecting their personal freedoms at the expense of economic gain. The paper found that migrant live-in elderly carers described intensification with little appreciation during lockdowns. One live-in caregiver even stated not having access to public health services when contracting Covid-19 just for being an elderly carer.

Kishi, R., Wolfson, A., Lim, M.-G., Stall, H., & Jones, S. (2021). *A NATIONAL EMERGENCY: HOW COVID-19 IS FUELING UNREST IN THE US*. Armed Conflict Location & Event Data Project.

<http://www.jstor.org/stable/resrep30039>

COVID-19 caused many protests on different issues, from health workers, people suffering from the eviction crisis, schools, Covid restrictions, etc. Those demonstrations were also on the opposite political point of view. People may go to demonstrations protesting that they have to go to school, or they would go due to the school closure.

Papadopoulou, L., & Maniou, T. A. (2021). 'Lockdown' on Digital Journalism? Mapping Threats to Press Freedom during the COVID-19 Pandemic Crisis. *Digital Journalism*, 9(9), 1344-1366.

<https://www.tandfonline.com/doi/full/10.1080/21670811.2021.1945472>

As governments impose lockdowns to mitigate the spread of Covid-19, governments have used the excuse of the pandemic to justify restrictions imposed on essential journalism. Even more, the pandemic has worsened the condition of press freedom in both western democracies and authoritarian nations. Also, documented threats point to quieting digital journalism, a medium that has gained popularity during lockdowns.

Repucci, S., & Slipowitz, A. (2020). Democracy under lockdown: the impact of COVID-19 on the global struggle for freedom.

<https://apo.org.au/node/308628>

Because of Covid-19 lockdowns, democracy and human rights have weakened in 80 countries based on a report from 398 journalists, civil society workers, activists, etc., and Freedom House's research on 192 countries. Government officials have abused their power by silencing critics and have weakened public or governmental institutions, which has led to issues in protecting public health in numerous countries.

Simoni, A. (2020). Limiting Freedom During the Covid-19 Emergency in Italy: Short Notes on the New "Populist Rule of Law". *Global Jurist*, 20(3).

<https://www.degruyter.com/document/doi/10.1515/gj-2020-0023/html>

The lockdowns imposed as a result of the Covid-19 pandemic in Italy have led the government to enact a more populist approach, as seen from media reporting. Any risk of democracy has not been identified in Italy since no one is willing to exploit the problems

coming from the lockdowns. But, one can note that Italy's government has expanded its hidden discretionary powers during lockdowns, revealed primarily by the media pressures.

Telles, L. E., Valenca, A. M., Barros, A. J., & da Silva, A. G. (2020). Domestic violence in the COVID-19 pandemic: a forensic psychiatric perspective. *Brazilian Journal of Psychiatry*, 43, 233-234.  
<https://www.scielo.br/j/rbp/a/tGxK5pywFsc4sXRdwxtxNLm/>

Lockdowns during the Covid-19 pandemic have led to a surge in domestic violence in several countries, especially among females, minors, pets, and elders. A report from *The Guardian* displayed how cases regarding domestic violence aged 40% to 50% in Brazil during lockdowns. Moreover, domestic violence-led police complaints and helpline outreaches have soared “in Argentina, Canada, China, Cyprus, France, Germany, Italy, Spain, the UK, and the USA.” Discharging prisoners from jail to reduce viral spread is another cause for concern, as domestic violence instigators would be free. Also, drug and alcohol use can heighten the likelihood of one using domestic violence: 938 women in Vitória, Espírito Santo, Brazil, reported that when their partners relied on alcohol or other drugs, they had a higher probability of turning to domestic violence.

### Rise in Threats to Democracy

Arceneaux, K., Bakker, B. N., Hobolt, S., & De Vries, C. E. (2020). Is covid-19 a threat to liberal democracy?.  
<https://psyarxiv.com/8e4pa/>

Liberal democratic norms can erode during times of crisis, such as the maintenance of civil liberties. The study conducted in the US and the UK during the first Covid-19 lockdown investigates whether citizens are likely to accept such intrusions. Results show that people are susceptible to changing their views on laws against civil liberties when endorsed by reputable professionals or sources. However, it also reveals that the government has more freedom to push illiberal policies, such as banning protests and postponing elections. Therefore, the conclusion that liberal democratic norms exist during lockdown is valid.

Armed Conflict Location & Event Data Project. (2020). *COVID-19 and Political Unrest in Northeast India*. Armed Conflict Location & Event Data Project.  
<http://www.jstor.org/stable/resrep26621>

The pandemic triggers more state repression of its people in India. Between March to September 2020, there have been 41 against civilians compared to 9 recorded cases pre-

pandemic. In addition, the article finds that there was a 40% decrease in demonstration activity during the nationwide lockdown in India. 1,060 demonstration events were recorded in 2020 compared to more than 1,760 demonstrations in the same period in 2019.

Awolich, A. A. (2021). COVID-19 and the Political Transition in South Sudan. Sudd Institute. <http://www.jstor.org/stable/resrep29137>

Covid-19 lockdowns have inflicted a blow to South Sudan's political transition after six years of a civil war. The Agreement on the Resolution of Conflict in South Sudan (R-ARCSS) is at a standstill, negatively affecting the parties' ability to negotiate. R-ARCSS will allow South Sudan residents to effectively fight the pandemic while reducing domestic violence and cattle stealing. The Covid-19 lockdowns restrict democracy in the country. Failure to hold national elections because of the parties' inability to agree on R-ARCSS can lead South Sudan to return to war.

Bloem, J. R., & Salemi, C. (2021). COVID-19 and conflict. *World development*, 140, 105294. <https://www.sciencedirect.com/science/article/pii/S0305750X20304216>

The paper examines trends in conflict during times of Covid-19 lockdowns. There was a short-term decline in inter-group conflict in all ACLED nations as protests decreased. But, by October 2020, cases of inter-group conflict globally came back to levels seen before the pandemic. The inter-group conflict exhibited much heterogeneity: some countries, such as India displayed a U-shaped protest curve during the first months of lockdown, while countries facing economic crises, such as Syria and Libya, reported decreased protests. The correlation between policy responses and inter-group violence was difficult to navigate, as the paper's findings contradict the validity of quasi-experimental studies.

Mueller, R. (2021). Impact of covid on riots and associated behaviors in the united states. *European Psychiatry*, 64(S1), S298-S299. <https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1357245>

The paper investigates the effects of immigration on cultural tension and racial equality during the Covid-19 pandemic. Results show that throughout time, international relations regarding immigration declined. Also, Covid-19 lockdowns surged racial tensions in the US, especially after the death of George Floyd, and as a result, the US government has been unsuccessful in creating equality.

Mukherji, R. (2020). Covid vs. democracy: India's illiberal remedy. *Journal of Democracy*, 31(4), 91-105.

<https://muse.jhu.edu/article/766187/summary>

Prime Minister Narendra Modi's Bharatiya Janata Party (BJP) government imposed a harsh lockdown in India to combat cases of Covid-19, which allows his regime to move a step forward towards authoritarianism. The action not only damages the economy but limits the power of the opposition party and the governing power of states. The discrepancies in the judicial system followed by BJP's repeated attacks on the media threaten the world's largest democracy to function democratically.

Seekings, J., & Nattrass, N. (2020). Covid vs. Democracy: South Africa's Lockdown Misfire. *Journal of Democracy*, 31(4), 106-121.

<https://muse.jhu.edu/article/766188/summary>

South Africa enacted a strict lockdown to combat the Covid-19 pandemic in March 2020. State institutions no longer functioned to provide essential services to citizens. The predominant government became even more corrupt, as the opposition party had no viable power and the Parliament acted immorally. For these actions, no courts or civil societies could take action on the injustices.

Wood, R., Reinhardt, G. Y., RezaeeDaryakenari, B., & Windsor, L. C. (2022). Resisting lockdown: The influence of COVID-19 restrictions on social unrest. *International Studies Quarterly*, 66(2), sqac015.

<https://academic.oup.com/isq/article/66/2/sqac015/6581936>

The paper investigates the extent to which COVID-19 policies lead to cases of civil unrest. Policies like workplace or school closures increase the number of dissent activities as they increase resentment and decrease the opportunity cost to participate in mobilization. But policies that restrict mobilization, like restrictions on public transport, decrease the number of dissent activities. Economic support policies increase public morale to alleviate the effect of workplace shutdowns.

Yalaman, A., Basbug, G., Elgin, C. et al. Cross-country evidence on the association between contact tracing and COVID-19 case fatality rates. *Sci Rep* 11, 2145 (2021). <https://doi.org/10.1038/s41598-020-78760-x>

The study finds that countries that implement comprehensive contact tracing, including early detection and isolation of secondary cases, have significantly lower case fatality rates

in 138 countries study. Specifically, the paper examines “the association between contact tracing policy in a 2-weeks period (T1) on case fatality rates in the following two weeks (T2).”