FOCUSING COVID-19 BAILOUT AND RECOVERY

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Abstract

The novel coronavirus SARS-CoV-2 imposes the most unexpected external economic shock to modern humankind, triggering abrupt consumption and behavior pattern shifts around the world with widespread socio-economic impacts. In order to alleviate unexpected negative fallouts from the crisis, attention to governmental bailouts and recovery packages gained unprecedented momentum. In confronting the crisis, economic bailout and rescue packages should be targeted with attention to three peculiar aspects of our COVID-19 shock era: (1) Abruptly changed economic demand patterns have resulted in economically gaining and losing industries, which widened an unexpected economic performance gap between the finance sector and the real economy. (2) Systemically differing liquidity in the finance sector and the real economy during the crisis implies sector-specific affective fallout propensities. Currently experienced longest-ever low interest rate regimes foster capital flow for innovation in the finance world, while disincentivizing household savings decreases private consumers' resiliency, which exacerbate negative emotional consequences in the real economy with households facing a narrowing of liquidity constraints. (3) Industry-specific inflation patterns as well as urban-versus-rural disposable income differences should be considered in the wake of ambitious bailout and recovery plans when choosing bailout and recovery beneficiaries and targets. The potential focus of bailouts and recovery ranges from urban-local and national to even global and future-oriented beneficiaries, as pursued in public investments on climate stabilization in the Green New Deal or European Green Deal Sustainable Finance Taxonomy.

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I. INTRODUCTION

The novel coronavirus SARS-CoV-2 accounts for the most unexpected widespread external economic shock to modern humankind that shifted consumption and behavior pattern around the world dramatically.[1] So far over 200 million recorded infected people have caused over four million documented deaths related to the disease in over 220 countries and territories around the globe.[2] Early on scientific estimations accounted for about eighty percent of the world population to get infected with the virus in dense areas in one form or another at a point in life.[3] Scientists, governance leaders and policy makers therefore urge people around the world to take preventive measures ranging from social distancing and social contact tracking, collective and individual hygiene, preventive healthcare and foresighted nutrition as well as vaccination and medication to ease the spread of the deadly and debilitating virus.[4] With about ten percent up to over thirty percent of previously infected to develop long-term impacts of the disease, we can say that COVID-19 will be the most prevailing external change factor of our current generation.[5] From the history of humankind and the knowledge about previ-

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[1] *See* RICHARD BALDWIN & BEATRICE WEDER DI MAURO, ECONOMICS IN THE TIME OF COVID-19 (2021) (ebook).

[2] *See Coronavirus Cases*, WORLDOMETER, https://www.worldometers.info/coronavirus/ [https://perma.cc/SB3A-6ZRQ] (last visited Sept. 25, 2021).

[3] *'50-80% of population' could be affected by coronavirus*, BBC NEWS SCOTLAND (Mar. 2, 2020), https://www.bbc.com/news/av/uk-scotland-51711747 [https://perma.cc/5CU7-FAM7].

[4] *See How Scientists Predict How Many People Will Get COVID-19*, WEBMD (Apr. 1, 2020), https://www.webmd.com/lung/news/20200401/how-scientists-predict-how-many-people-will-get-covid-19#1 [https://perma.cc/SE8Y-TK2L]; Arielle Harrison, *70% of COVID long haulers have impaired organs up to 4 months after infection, study finds*, KUTV (Apr. 27, 2021), https://kutv.com/news/local/70-of-long-haulers-have-impaired-organs-up-to-4-months-after-covid-19-infection [https://perma.cc/PAE4-J9XL]; Robert Roy Britt, *New Survey Identifies 98 Long-Lasting COVID Symptoms: Early research helps quantify coronavirus long-haulers' experiences,* ELEMENTAL (Aug. 14, 2020), https://elemental.medium.com/new-survey-identifies-98-long-lasting-covid-symptoms-87935b258a3e [https://perma.cc/3XA2-Q5C8]; Julia Margarete Puaschunder, *Generation COVID-19 Long Haulers*, 2021 SCIENTIA MORALITAS CONF. PROC. 99 (Apr. 18–19, 2021); Rita Rubin, *As Their Numbers Grow, COVID-19 "Long Haulers" Stump Experts*, 14 J. OF THE AM. MED. ASS'N (JAMA) 1381 (2020).

[5] Justine Coleman, *CDC study on COVID-19 long-haulers: Two-thirds of non-hos pitalized patients receive new diagnoses*, THE HILL (Apr. 23, 2021, 12:07 PM), https://thehill.com/policy/healthcare/549950-cdc-study-on-covid-19-long-haulers-two-thirds-of-non-hospitalized-patients [https://perma.cc/VX7D-GTDE]; *Post-COVID Syndrome: Researchers are closing in on long covid*, THE ECONOMIST (Apr. 29, 2021), https://www.economist.com/science-and-technol

ous plagues, we can draw inferences that crises and external shocks have always been turning points and ultimate spring feathers of lasting change.[6]

Never in the history of modern humanity has the world seen such unexpected widescale economic changes and policy adjustments as during the novel coronavirus crisis starting in 2020. The COVID-19 global recession is estimated to be the deepest since World War Two.[7] With the largest fraction of economies experiencing declines in per capita output since pre-industrial levels, there is also the fear that the COVID-19 shock will revert globalization and international exchange in the sharpest sense ever experienced in the history of humankind.[8] In confronting the crisis, governments around the world have taken drastic steps to meet public health, humanitarian, social and economic needs of the populace.[9] In a record speed, governmental economic bailout and recovery packages gained worldwide unprecedented momentum to alleviate the negative socio-economic consequences.[10] The amount of financial aid being funded by bonds in order to be allocated towards alleviation

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ogy/2021/04/29/researchers-are-closing-in-on-long-covid [https://perma.cc/Q2XE-2D4G].

[6] *See* Paul Schmelzing, *Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018* (Bank of Eng. Staff Working Paper No. 845, 2020), https://www.bankofengland.co.uk/working-paper/2020/eight-centuries-of-global-real-interest-rates-r-g-and-the-suprasecular-decline-1311-2018 [https://perma.cc/Z3T8-KWPJ].

[7] *The pandemic has caused the world's economies to diverge*, THE ECONOMIST (Oct. 8, 2020), https://www.economist.com/leaders/2020/10/08/the-pandemic-has-caused-the-worlds-economies-to-diverge [https://perma.cc/Z3T8-KWPJ].

[8] M. Ayhan Kose & Naotaka Sugawara, *Understanding the Depth of the 2020 Global Recession in 5 Charts*, WORLD BANK (June 15, 2020), https://blogs.worldbank.org/opendata/understanding-depth-2020-global-recession-5-charts [https://perma.cc/QMU4-V23H]; Press Release, World Bank, World Bank Predicts Sharpest Decline of Remittances in Recent History (Apr. 22, 2020), https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history [https://perma.cc/CN6H-JNYG].

[9] *See, e.g.*, *Policy Responses to COVID-19*, INT'L MONETARY FUND, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19; Press Release, UNICEF, 150 Million Additional Children Plunged into Poverty Due to COVID-19, UNICEF, Save the Children Say, (Sept. 16, 2020), https://www.unicef.org/press-releases/150-million-additional-children-plunged-poverty-due-covid-19-unicef-save-children [https://perma.cc/X59Y-KCB4]; Gabe Alpert, *International COVID-19 Stimulus and Relief: International fiscal and monetary stimulus and relief efforts*, INVESTOPEDIA (May 26, 2021), https://www.investopedia.com/government-stimulus-and-relief-efforts-to-fight-the-covid-19-crisis-5113980 [https://perma.cc/54SW-H7CU].

[10] Alpert, *supra* note 9.

of the crisis in the decades to come for curbing harmful external shock outfalls has never been as high and diversified before.[11] The current macroeconomic discourse agrees on the need for fast action and long-term aid and recovery support.[12] The effect of governmental financial aid to multiply in societal welfare improvement is a proven fact in economics.[13] But while the macroeconomists are still debating about the largess of aid packages in the United States required to rescue the corporate sector and economic well-being of millions, the ongoing discussion has also addressed the need for well-directed economic stimulus.[14] The speed and size of governmental rescue packages having been rolled out and promised in the decades to come may overinflate currencies and thereby degrade the overall purchasing power and hence quality of life of the overall population but also put inflationary pressure on US-dollar and Eurozone dependent territories around the world.[15] In the developing world, where often larger ratios of income have to be used for access to healthcare, nutrition and ensuring a decent standard of living, inflationary pressure of lead currencies would mean a disproportionate heavy burden on the most vulnerable populations. Access to quality healthcare and healthy nutrition are also problematically contested areas that are connected to most harmful social stratification patterns around the world and even in the U.S.[16] The unprecedented size, scope and dimensions of COVID-19 rescue and recovery plans thus have also sparked discourse about the potential negative consequences of inflation and urge to reflect on the disparate negative impacts on marginalized groups.

This paper aims to address three major trends and developments that are unique features of the COVID-19 crisis in order to highlight their relevance in the determination of the allocation of well-targeted rescue and recovery

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[11] Alpert, *supra* note 9; Press Release, Eur. Central Bank, Coordinated central bank action to enhance the provision of global US dollar liquidity (Mar. 15, 2020), https://www.ecb.eropa.eu/press/pr/date/2020/html/ecb.pr200315~1fab6a9f1f.sv.html [https://perma.cc/PE8A-LUUW]; Press Release, Fed. Res. of U.S., Fed. Res. Announces the establishment of temporary U.S. dollar liquidity arrangements with other central banks (Mar. 19, 2020), https://www.federalreserve.gov/newsevents/pressreleases/monetary20200319b.htm [https://perma.cc/L3NE-ABY3].

[12] *See* Peter Coy, *Summers and Krugman Debate Stimulus. Here's a Blow-by-Blow Account*, BLOOMBERG BUSINESSWEEK (Feb. 12, 2021), https://www.bloomberg.com/news/articles/2021-02-12/summers-and-krugman-debate-stimulus-here-s-a-blow-by-blow-account [https://perma.cc/TWQ5-ZRYS]; Princeton Bendheim Center for Finance, *A Conversation with Lawrence H. Summers and Paul Krugman*, YOUTUBE (Feb. 12, 2021), https://www.youtube.com/watch?v=EbZ3_LZxs54 [https://perma.cc/G7RZ-Z8FZ].

[13] *See* JOHN MAYNARD KEYNES, THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY (1936).

[14] Princeton Bendheim Center for Finance, *supra* note 12.

[15] *Id*.

[16] *See* LAUREN G. BERLANT, CRUEL OPTIMISM (2011); *see generally* ANNE CASE & ANGUS DEATON, DEATHS OF DESPAIR AND THE FUTURE OF CAPITALISM (2020).

funds.[17] First, the external shock induced by COVID-19 led to drastic changes in large-scale demand and consumption patterns around the world. The economic external shock seems to end globalization and international exchange if considering the World Bank expects the sharpest decline in remittances in recent world history.[18] All these measures resemble the onset of a lasting crisis[19] with fundamental changes for society.[20] Governments around the globe have therefore set out on a course to avert the negative impetus of the COVID-19 pandemic economic shock.[21]

The often unexpected and abrupt consumption shifts have resulted in economically gaining and losing industries in the real economy. In relation to stability in the finance world, real economy slumps have widened an unexpected economic performance gap between the finance sector and the real economy performance during and in the aftermath of the crisis. The finance world benefits from the opportunities to exchange losing industries for winning ones in indices or diversification in funds and shorting and hedging options to bet on a falling price, which allows for turning market losses into gains from financial executives. While the finance sector can remain mentally distanced and economically flourish in times of crises due to hedging potential, the real economy appears to be more financially constrained and bounded with long-term obligations that are less flexible and interchangeable. Especially the working class is directly affected in their everyday consumption patterns. Employees have a higher propensity to face tighter budget constraints with salary dependence on employment.

Second, systemically differing liquidity in the finance world versus the real economy imply sector-specific affective fallout propensities that result

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[17] Princeton Bendheim Center for Finance, *supra* note 12.

[18] WORLD BANK, *supra* note 8.

[19] *A Crisis Like No Other, An Uncertain Recovery*, INT'L MONETARY FUND (June 2020), https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020.

[20] Julia M. Puaschunder & Dirk Beerbaum, Healthcare Inequality in the Digital 21st Century: The Case for a Mandate for Equal Access to Quality Medicine for All (Sept. 28, 2020) (unpublished manuscript) (on file with author).

[21] *E.g.*, Ziyad Cassim, Borko Handjiski, Jörg Schubert, & Yassir Zouaoui, *The $10 Trillion Rescue: How Governments Can Deliver Impact*, MCKINSEY & COMPANY, Public Sector Practice report (June 2020), https://www.mckinsey.com/~/media/McKinsey/Industries/Public%20Sector/Our%20Insights/The%2010%20trillion%20dollar%20rescue%20How%20governments%20can%20deliver%20impact/The-10-trillion-dollar-rescue-How-governments-can-deliver-impact-vF.pdf [https://perma.cc/9EJL-M7XM]; *Briefing Room: President Biden Announces American Rescue Plan*, THE WHITE HOUSE (Jan. 20, 2021), https://www.whitehouse.gov/briefing-room/legislation/2021/01/20/president-biden-announces-american-rescue-plan/ [https://perma.cc/WP7A-D2DF].

in a higher likelihood of real economy agents to suffer from unhealthy behavioral patterns.[22] For instance, self-destructive behavior, such as alcoholism and drug intake, have been rising since the onset of the crisis.[23] Mental health problems resulting in suicide rose in already vulnerable groups of society.[24] A socio-economic inequality impact of COVID-19 is thus alarmingly given.

Further, currently-experienced longest-ever low interest rate regimes foster capital flow for innovation in the finance world, while disincentivizing household savings decreases private consumers' resiliency. When it comes to the discussion of inflation induced in the economy by quantitative easing to pay for the rescue of the economy and uphold decent living conditions and social standards for everyone in an inclusive society, we have to acknowledge the differentiated effect of inflation on different social strata and subsequently following propensities of different social groups in order to alleviate the disproportionately heavy burden on marginalized groups.[25]

While standard economic cycle theories primarily focus on describing economic correlates of booms and busts, such as tight labor markets, investment trends and the uneven development throughout the world causing advantages and disadvantages in the economic impact of booms and busts around the world, less attention is paid to socio-economic correlates and collective fallouts of inflation expectations and interest rate pressures. Inflation has progressively entered yet the prevailing narrative among people of our times.[26] Natural resource supply constraints and labor shortage in combination with excessive governmental large-scale investment spending is creating reflexivity dynamics that feed a longer-lasting inflationary pressure within society, corporations and consumers with a disproportionately heavy impact on the most vulnerable populations.[27]

Studying the multi-faceted influence factors on consumption propensities and investment decisions may offer invaluable insights on how bubbles start and economic fluctuations emerge and negative impacts on marginal-

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[22] BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16.
[23] BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16.
[24] Adrianna Rodriguez, *Overall suicide rates fell during COVID-19 but increased among young and people of color, study finds,* USA TODAY (Nov. 4, 2021), https://www.usatoday.com/story/news/health/2021/11/04/covid-despite-mental-health-crisis-study-shows-suicide-rate-declined/6248176001/ [https://perma.cc/A6P4-AVQD].
[25] Jacob Passy, *An inflation storm is coming for the U.S. housing market*, MAR KETWATCH (June 11, 2021), https://www.msn.com/en-us/money/realestate/an-inf lation-storm-is-coming-for-the-u-s-housing-market/ar-AAKWtdx?ocid=msedgntp [https://perma.cc/RK9A-QYN3]; Cassim et al., *supra* note 21; THE WHITE HOUSE, *supra* note 21.
[26] *May Research Letter: The 3 Pillars of Inflation*, CRESCAT CAPITAL (May 19, 2021), https://www.crescat.net/may-research-letter/ [https://perma.cc/9F6F-PK2B].
[27] *Id.*

ized groups can be averted or smoothed. The role of socio-economic correlates and socio-psychological fallouts of economic cycles, however, has been – so far – overlooked, although this information is fundamental to understand the collective moods in markets and the individual well-being adjacent to it. A collective narrative building within the social compound and specific to certain societal work classes is widely neglected in a wealth of writings on Federal Reserve and Central Bank interventions ranging from fiscal and monetary policies, including interest rates to direct monetary stimulus such as quantitative easing. Studying the effect of economic correlates to shape decisions about one's own lifestyle may offer novel and invaluable insights on how bubbles start and economic fluctuations can be controlled but also humane responses can be adjusted to improve the overall and holistic well-being in society.

Taking this net of diverse effects together, the paper ends with public policy recommendations and implementation guidance paying attention to industry-specific inflation propensity patterns as well as urban-versus-rural disposable income differences. In the wake of ambitious bailout and recovery plans, the obvious and unnoticed disparate impact facets of economic fallouts to a common crisis should be considered when choosing capital transfer targets. The potential focus of bailouts and recovery ranges from urban-local or national to even global and future-oriented beneficiaries, as pursued in public investments on climate stabilization in the currently-rolled out Green New Deal or European Green Deal and the Sustainable Finance Taxonomy.[28]

This paper proceeds as follows. Part II describes the impact of the external shock of COVID-19 on humankind and the world economy. Part III discusses global governance and governmental responses to the crisis around the globe. Part IV highlights deep social problems exacerbated by the pandemic. COVID-19 has resulted in an increasing divide between the finance

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[28] Recognizing the duty of the Federal Government to create a Green New Deal, H.R. 109, 116th Cong. (2019); Edward Barbier, *A Global Green New Deal*. Report prepared for the Green Economy Initiative of UNEP, United Nations Environment, https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=670&menu=1515) [https://perma.cc/M9DN-BM3E] (accessed Jan. 11, 2021); *see also* Mariana Pargendler, *The Rise of International Corporate Law* 24–32 (ECGI Law Working Paper No. 555/2020, 2020), https://ssrn.com/abstract=3728650 [https://perma.cc/7GQF-VK8V] (providing a historical overview of UN initiatives relating to ESG, particularly climate change); *Group letter to Congress urging Green New Deal passage,* EARTHWORKS (Jan. 10, 2019), https://www.earthworks.org/publications/group-letter-to-congress-urging-green-new-deal-passage/ [https://perma.cc/6E9L-Y83V]; Julia M. Puaschunder, *The Green New Deal: Historical foundations, economic fundamentals and implementation strategies*, GLOBAL FIN. MKTS. CTR., DUKE UNIV. SCH. OF LAW: THE FINREG BLOG (Oct. 30, 2020), https://sites.law.duke.edu/thefinregblog/2020/10/30/the-green-new-deal-historical-foundations-economic-fundamentals-and-implementation-strategies/ [https://perma.cc/H2R4-C8SW].

and real economies, in which vastly differing gain and loss prospects have diverse emotional and socio-psychological consequences. Relying on an analysis of a differential impact of interest rates and low inflation rate regimes on different professional groups, Part IV employs affect theory to show that the impact on those reliant on the real economy for their living has been far more substantially eliciting negative emotions with harmful behavioral consequences than the finance world that benefits from opportunities to turn market downturns to their favors. This novel inequality will likely result in serious individual, emotional but also social problems. As a remedy for increasing inequality between finance market actors and real economy proponents, Part V argues that policymakers should pay particular attention to the disparate effect of inflation and low interest rate regimes on diverse groups within society as a basis of focused bailout and recovery aid packages. Rather than discussing the size of monetary aid, the focused scope should become the center of attention in order to alleviate newly forming inequalities based on socio-psychological and affective propensities. Rescue and recovery can range from local, regional and national to more global and future-oriented beneficiaries, which will be covered in Part V. Part VI summarizes and concludes.

II. COVID-19 AND ITS ECONOMIC IMPACT

2.1. *COVID-19*

The new coronavirus (SARS-CoV-2, COVID-19) is an infectious disease that was first diagnosed in Wuhan, China, in December 2019.[29] In January 2020, the World Health Organization declared a state of emergency with international relevance over COVID-19, and in March 2020 the outbreak of a global pandemic.[30] As of the fall of 2021, over 200 million infected cases are known and over four and a half million COVID-19 induced deaths have been recorded in over 220 countries and national entities in all World Health Organization territories.[31] Actual infection rates may be higher, adding from 5–30% more infected to the reported infection numbers.[32]

COVID-19 causes blood vessel changes that affect people in different ways ranging from no symptoms to mild cases up to severe illness and

[29] *Timeline: WHO's COVID-19 Response*, WHO, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline [https://perma.cc/8LHA-XYAR] (last visited Sep. 28, 2021).
[30] Rubin, *supra* note 4.
[31] WORLDOMETER, *supra* note 2 (note: number does not control for re-infected individuals).
[32] Ben G. Ephrem et al., *Severe undercounting of COVID-19 cases in U.S., other countries estimated via model,* SCIENCEDAILY (Feb. 8, 2021), https://www.sciencedaily.com/releases/2021/02/210208142434.htm [https://perma.cc/5CK9-XBEN].

death.[33] Symptoms may appear at different times, either immediately or – as most infected report – an onset of symptoms after a while.[34] The most common incubation time interval ranges from two to fourteen days (with the Delta variant appearing to be on the shorter edge of the spectrum) up to months after revealing symptoms coming in lurking so-called COVID-19 Long Hauler cases, who often experience recurrent waves of symptoms.[35]

COVID symptoms are widespread and diffuse. To this day, the United States Centers for Disease Control and Prevention (CDC) continues to update the list of COVID-19 induced symptoms and related health complications as well as psychological impairments.[36] The most common signs of a COVID-19 infection are fever, dry cough and tiredness. Other COVID-induced body changes include shortness of breath or difficulty breathing, muscle aches, chills, sore throat, running nose, headaches and chest pain.[37] Additional COVID-19 impairments are loss of taste or smell, congestion, nausea, vomiting diarrhea, confusion, sleepiness, insomnia, skin, gum and tongue outbreaks.[38] Depending on age and existing preconditions, COVID-19 can lead to acute complications such as organ failure, cytokine loads, blood clots, and septic shock.[39]

Of the over 200 million COVID-19 reported infected, 99.4% appeared to have only mild conditions and only 0.6% are/were considered as serious and/or critically ill.[40] Of the closed reported COVID-19 infection cases so far, in two percent the COVID-19 disease led to death, 98% of the infected are considered to have recovered from acute concurrent symptoms.[41] The COVID-19 fatality rate varies by 2.8% fatality rate for male and 1.7% of female.[42] Who falls into what group of immune responses to COVID-19 is yet unclear but certain disease trajectory propensities seem to depend on gender, age, pre-existing conditions and viral load received at exposure to the

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33 *Symptoms of Coronavirus*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 22, 2021), https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html [https://perma.cc/2WLR-2G2D].
34 *Id.*
35 *COVID-19 (coronavirus): Long-term effects,* MAYO CLINIC (Dec. 8, 2021), https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-long-term-effects/art-20490351 [https://perma.cc/4WKM-72M8].
36 *Post-COVID Conditions: Information for Healthcare Providers*, CTRS. FOR DISEASE CONTROL & PREVENTION (July 9, 2021), https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/post-covid-conditions.html [https://perma.cc/DU5L-V84P].
37 CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 33.
38 *Id.*
39 *Id.*
40 WORLDOMETER, *supra* note 2.
41 *Id.*
42 *Id.*

virus and infection alongside a range of genetic predispositions and environmental pre-COVID episodes.[43]

As for the COVID-19 fatality rate by comorbidity, pre-existing conditions make a difference by 10.5% death rate for all cases for cardiovascular diseases, 7.3% for diabetes, 6.3% for chronic respiratory diseases, 6% for hypertension and 5.6% for cancer.[44] Underlying conditions and pre-existing health impairments such as, for instance, diabetes, lung disease, cancer, immunodeficiency, heart diseases, hypertension, asthma, kidney disease, and GI/liver diseases appear to play a major role in determining the outcome likelihoods of a COVID-19 infection.[45] Nutrition and prevention but also precaution to vaccinate against COVID-19 and not get exposed to a high viral load substantially improve the disease turnout and symptom trajectory.[46]

Previously infected often report either constant impairment or recurrent waves of symptoms after their infection – even after having been tested negative for COVID-19.[47] This so-called Long COVID affects 10-30% of previously symptomatic or asymptomatic Sars-CoV-2 infected, who face impairment lasting longer than twelve weeks. The range of Long COVID symptoms is wide and diffuse but early on a social media Facebook Long Hauler group survey consisting of 1567 long-term strugglers after a COVID infection identified almost 100 long-haul effects that include fatigue (100% previously infected survey takers reported it as recurrent symptom), muscle or body aches (66.8%), shortness of breath or difficulty breathing (65.1%), difficulty concentrating or focusing (59%), inability to exercises or be active (58.5%), headache (57.6%), difficulty sleeping (49.9%), anxiety (47.6%), memory problems (45.6%) and dizziness (41.9%) among the top long haul symptoms.[48] Follow up studies revealed a cluster of symptoms ranging from chest pain and cough, dyspnea and cough, anxiety and tachycardia, abdominal pain and nausea and low back pain or joint pain.[49] The list of symptoms is still updating and CDC guidelines have just been issued advocating for empathy with Long Haul patients.[50]

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[43] Abdul Mannan Baig, *Chronic COVID syndrome: Need for an appropriate medi cal terminology for long-COVID and COVID long-haulers*, 93 J. MED. VIROLOGY 2555 (2020).
[44] REINHARDT S. TOMEK ET AL., SALZBURG DEKLARATION (Sept. 20, 2020), https://europepmc.org/article/ppr/ppr242581 [https://perma.cc/9N23-CHXG].
[45] WORLDOMETER, *supra* note 2.
[46] *Id.*
[47] Harrison, *supra* note 4.
[48] Britt, *supra* note 4.
[49] Aislinn Antrim, *Study: Many Long-Haul COVID-19 Patients Were Asympto matic During Initial Infection*, PHARMACY TIMES (Mar. 12, 2021), https://www.pharmacytimes.com/view/study-many-long-haul-covid-19-patients-were-asymptomatic-during-initial-infection [https://perma.cc/38AM-QEHM].
[50] CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 33; CTRS. FOR DIS EASE CONTROL & PREVENTION, *supra* note 36.

Longer lasting COVID-19 symptoms appear to come in waves and can be wide-ranging including by now over 200 different symptoms, such as cognitive dysfunction, numbness or tingling, loss of taste, smell and other senses such as hearing and vision, muscle pain, tinnitus, heart rate and blood pressure issues, inflammation, joint pain, gastrointestinal discomfort, insomnia, depression and anxiety but also dermatological anomalies mainly in gums, hands, fingers, feet and toes.[51]

The etiology of COVID-19 Long Haulers currently appears to fall in three major groups: (1) those with strong infection cases and long-term organ impairment, (2) those with initially mild cases that develop waves of obscure symptoms that either resemble inflammatory diseases and/or (3) neurological impairments that bleed into psychological traumatized states.[52]

The demographics of COVID Long Haulers appear to fall disproportionally heavy on thirty to fifty years young females (peak at around early forties) at the time of their initial infection.[53] Females in their late thirties and early forties make up over an estimated 70% of all Long Haulers.[54] Most recently, studies have emerged that report multi-organ functioning debilitation after COVID-19 can also be prevalent in children and young, previously fully healthy and active adults.[55]

As of July 2021, the United States Biden-Harris administration decided to recognize long haul COVID as disability.[56] In July 2021, U.S. President

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[51] Alicia Ault, *Are there COVID-19-related 'long-haul' skin issues?*, DERMA TOLOGY NEWS (Jan. 28, 2021), https://www.mdedge.com/dermatology/arti cle/235153/coronavirus-updates/are-there-covid-19-related-long-haul-skin-issues [https://perma.cc/JBS4-SR3W]; Kathleen Doheny, *Neurological Symptoms fre quent in COVID Long-Haulers,* WEBMD HEALTH NEWS (Mar. 23, 2021), https://www.webmd.com/lung/news/20210323/neurologic-symptoms-frequent-covid-long-haul-partients [https://perma.cc/PV25-A3TX].

[52] Julia M. Puaschunder, *Generation Post-COVID-19: The Time for Anti-Eco nomics Has Come: Health, Minimalism and Rest*, SCIENT. MORAL. CONF. PROC. 5 (2021), http://scientiamoralitas.education/wp-content/uploads/2021/05/01230.pdf [https://perma.cc/H3UR-AR3X].

[53] Rubin, *supra* note 4.

[54] *Id*.

[55] Harrison*, supra* note 4.50

[56] Rubin, *supra* note 4; *Fact Sheet: Biden-Harris Administration Marks Anni versary of Americans with Disabilities Act and Announces Resources to Support In dividuals with Long COVID*, THE WHITE HOUSE (July 26, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/26/fact-sheet-biden-harris-administration-marks-anniversary-of-americans-with-disabili ties-act-and-announces-resources-to-support-individuals-with-long-covid/ [https://perma.cc/48H4-TFCT]; Chelsea Cirruzzo, *Long COVID Can Be a Disabil ity, White House Says: The Biden administration has released guidance and re sources on long COVID and disability*, U.S. NEWS (July 26, 2021), https://www.us news.com/news/health-news/articles/2021-07-26/long-covid-can-be-a-disability-biden-administration-says [https://perma.cc/K2PE-EGVH].

Joseph Biden and Vice President Kamala Harris announced the recognition of impaired Long Haulers as disabled.[57] In light of the rise of long COVID as a persistent and significant health issue, the United States Office for Civil Rights of the Department of Health and Human Services and the Civil Rights Division of the Department of Justice have put forward guidance on this emerging awareness of disability in Long Haulers.[58] Long COVID can be recognized as a disability under Titles II (state and local government) and III (public accommodations) of the Americans with Disabilities Act (ADA),[59] Section 504 of the Rehabilitation Act of 1973 (Section 504),[60] and Section 1557 of the Patient Protection and Affordable Care Act (Section 1557).[61] Each of these federal laws protects people with disabilities from discrimination.[62] These civil rights protections and responsibilities of these federal laws cannot be waived and apply even during emergencies.[63] The United States Department of Health & Human Services (HHS) provides guidance and resources for additional information and best practices.[64]

A recent study of 6,500 COVID Long Haulers estimates that 10-30% of all infected have the potential to become Long Haulers, who experience lasting effects of a previous COVID infection with waves of recurrent symptoms of fatigue, headaches, and breathing problems as well as a set of debilitating memory fog and emotional distress.[65] With research estimating from about 10 up to more than 30% of COVID-19 patients become Long Haulers and estimations accounting for the potential of over 600 million to more than 1.9 billion Long Haulers worldwide in the decades to come, the newly emerging Generation COVID-19 Long Haulers will change our world lastingly.

The socio-economic impetus of a Long-Haul wave on the general healthcare, workforce and the overall societal socio-economic system in the decades to come will likely boost real-time self-monitoring of the personal healthcare status, flourish eco-wellness nutrition lifestyle change trends and economic appreciation of deurbanization, rest and calm in corporate conduct. Legal aspects of COVID-19 Long Haulers point at liability class actions against employers or those responsible for 'superspreader' events, disability status claims as well as healthcare and pension reform needs in light of the

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[57] THE WHITE HOUSE, *supra* note 56.

[58] *Guidance on "Long COVID" as a Disability Under the ADA, Section 504, and Section 1557*, U.S. DEP'T OF HEALTH & HUM. SERVICES (July 26, 2021), https://www.hhs.gov/civil-rights/for-providers/civil-rights-covid19/guidance-long-covid-disability/index.html [https://perma.cc/TM2W-TS78].

[59] *Id.*; 42 U.S.C. §§ 12101–12103, 12131–12189 (2018). Although the ADA's definition of disability applies to all parts of the ADA, this guidance only addresses examples that may arise under Titles II and III of the ADA.

[60] 29 U.S.C. § 794 (2018).

[61] 42 U.S.C. § 18116.

[62] U.S. DEP'T OF HEALTH & HUM. SERVICES, *supra* note 58.

[63] *Id.*

[64] *Id.*

[65] Rubin, *supra* note 4.

relatively young age of Long Haulers being focused on recovery and rest rather than economic productivity, which may change productivity and tax revenue substantially. Artificial intelligence, robotics but also big data insights to fill memory gaps and cognitive impairment that comes and goes in waves are likely to be positive advancements to aid and integrate Long Haulers in society whole-roundedly. The estimation that already by February 2021 the COVID-19 pandemic having caused a loss of over 20.5 million human live years globally coupled with the potential for a growing body of long-term debilitation in COVID-19, the lack of a complete cure or protection against COVID-19 so far, vaccination rates currently indicating over one third of the world population has received at least one dose of a COVID-19 vaccine but only 1.6% of people in low-income countries, and breakthrough infection cases being reported after vaccinations project that the coronavirus 2019 crisis will have lasting socio-economic impacts on the contemporary humankind.[66]

2.2. *Economic Impetus of COVID-19*

The COVID-19 crisis represents the most unforeseen external shock for modern economies. Starting from the beginning of 2020, the novel coronavirus caused a dramatic downturn for trade, human mobility and international service industries.[67] From April 2020, more than half of the world's population faced some sort of lockdown and/or consumption constraints and economic shortages, which disrupted economic productivity substantially.[68] These lockdowns led to a slump in general consumption and reduced trade by an estimated 10%.[69] In the first half of 2020, global foreign direct invest-

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[66] *UN Response to COVID-19*, UNITED NATIONS, https://www.un.org/en/coronavirus/UN-response [https://perma.cc/6Y5D-FCXJ]; Héctor Pifarré i Arolas et al., *Years of life lost to COVID-19 in 81 countries*, 11 NATURE: SCIENTIFIC REPORTS 3504 (Feb. 18, 2021), https://www.nature.com/articles/s41598-021-83040-3 [https://perma.cc/79XM-MGV3]; *Coronavirus (COVID-19) Vaccinations*, OUR WORLD IN DATA, https://ourworldindata.org/covid-vaccinations [https://perma.cc/4RHS-MCGG] (last visited Aug. 29, 2021).

[67] Julia Margarete Puaschunder et al., *COVID-19 Shock: Considerations on Socio-Technological, Legal, Corporate, Economic and Governance Changes and Trends*, RES. ASS'N INTERDISC. STUD. CONF. PROC.: 8TH INT'L RES. ASS'N INTERDISC. STUD. CONF. ON SOC. SCI. & HUMANITIES 5 (Aug. 22, 2020), http://rais.education/wp-content/uploads/2020/08/011JPB.pdf [https://perma.cc/3L3B-HTGH]; *see generally* Stefan Gössling et al., *Pandemics, tourism and global change: a rapid assessment of COVID-19*, 29 J. SUSTAINABLE TOURISM 1 (Apr. 27, 2020), https://www.tandfonline.com/doi/epub/10.1080/09669582.2020.1758708?needAccess=true [https://perma.cc/4K3E-WJRY].

[68] INT'L MONETARY FUND, *supra* note 9.

[69] *Changing Places*, THE ECONOMIST (Oct. 8, 2020), https://www.economist.com/special-report/2020/10/08/changing-places [https://perma.cc/MF88-9EJJ].

ments plummeted by 49% and were even around 75% suppressed in the developed world.[70] All the human social interaction constraints in all major world economies coupled with a halt of human transport and trade shortages around the globe spilled over into an unprecedented international economic decline.[71] The global economy is estimated to have contracted by an estimated 3–5% of general world economic output in 2020, which is six times the economic magnitude of the 2008-09 world recession.[72] The International Monetary Fund (IMF) measured that the world economy, as measured by real Gross Domestic Product (GDP) shrank by as much as 3.5% in 2020.[73] Rising poverty levels put an additional 150 million children at risk worldwide.[74]

The COVID-19 global recession is the deepest since World War II, with the largest fraction of economies experiencing declines in per capita output since 1870.[75] The economic external shock seems to end globalization and international exchange if considering the World Bank expecting the sharpest decline in remittances in recent world history.[76] All these measures resemble the onset of a lasting economic crisis[77] with fundamental changes for society.[78] Global governance institutions and governments around the globe have set out on a course to avert the negative impetus of the COVID-19 pandemic economic shock.[79]

III. INTERNATIONAL AND GOVERNMENTAL RESPONSE IN RESCUE AND RELIEF PACKAGES

In the international arena, central banks of all major world economies – such as Australia, Brazil, Canada, Denmark, Japan, New Zealand, Singapore,

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70 United Nations Conf. on Trade & Dev., *Investment Trends Monitor*, UNCTAD/DIAE/IA/INF/2020/4 (Oct. 27, 2020), https://unctad.org/system/files/official-document/diaeiainf2020d4_en.pdf [https://perma.cc/F5QX-K6LX].
71 Jeffrey D. Sachs et al., *The Lancet COVID-19 Commission*, 396 THE LANCET 454, 455 (2020); *see also How COVID-19 Is Changing the World: A Statistical Perspective*, UNITED NATIONS COMM. FOR COORDINATION OF STAT. ACTIVITIES 14–31 (2020), https://unstats.un.org/unsd/ccsa/documents/covid19-report-ccsa.pdf [https://perma.cc/WKJ5-XXXQ] (demonstrating the economic decline in various industries).
72 *Global Outlook,* WORLD BANK (Jan. 2021), https://openknowledge.worldbank.org/bitstream/handle/10986/34710/9781464816123-Ch01.pdf [https://perma.cc/4UBC-3LSF]; The International Monetary Fund (IMF) downgraded the decline in global gross domestic product from -3% in April, 2020, to -4.9% in June 2020. INT'L MONETARY FUND, *supra* note 9.
73 Alpert, *supra* note 9.
74 UNICEF, *supra* note 9.
75 Kose & Sugawara, *supra* note 8.
76 WORLD BANK, *supra* note 8.
77 INT'L MONETARY FUND, *supra* note 19.
78 Puaschunder & Beerbaum, *supra* note 20.
79 Cassim et al., *supra* note 21; THE WHITE HOUSE, *supra* note 21.

South Korea, Sweden, Switzerland, United Kingdom, United States – and the European Central Bank coordinated to lower the price of USD liquidity swap line arrangements in order to foster the provision of global liquidity.[80] The International Monetary Fund (IMF) and the World Bank[81] issued economic stimulus and relief efforts in the range of around 260 billion USD with the majority of relief aid being distributed in the developing world.[82]

As of May 2021, all major economies responded to the economic fallout of COVID-19. In response to the ongoing COVID-19 crisis, all major economies around the world have rolled out economic-assistance packages or recovery releases that by mid-2020 already are summing up to over 10 trillion USD and with continuous prospects of renewal and further development.[83]

Across countries, economic-stimulus responses to the COVID-19 crisis outsize those to the 2008 financial crisis.[84] The qualitative and quantitative stimulus, rescue and recovery aid have surpassed any other similar attempt in human history.[85] Economic COVID-19 stimulus and relief efforts mainly comprise of international fiscal and monetary stimulus and relief efforts but also direct rescue bailout packages.[86]

COVID-19 response, rescue, and long-term monetary aid started in China. In the early days of the detection and outbreak of the novel coronavirus, the China Monetary Response was first a 506 billion USD stimulus package short-term aid, followed by 732 billion USD in discretionary fiscal measure and 198 billion USD additional support and long-term monetary interest rate lowering.[87] Hong Kong adopted three major fiscal stimulus and

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[80] Alpert, *supra* note 9; EUROPEAN CENTRAL BANK, *supra* note 11; FED. RES. OF THE U.S., *supra* note 11.

[81] Alpert, *supra* note 9; *The IMF's Response to COVID-19*, INT'L MONETARY FUND, https://www.imf.org/en/About/FAQ/imf-response-to-covid-19 [https://perma.cc/5HYX-Y8YF] (last updated Apr. 8, 2021); *World Bank Group Announces Up to $12 Billion Immediate Support for COVID-19 Country Response*, WORLD BANK (Mar. 3, 2020), https://www.worldbank.org/en/news/press-release/2020/03/03/world-bank-group-announces-up-to-12-billion-immediate-support-for-covid-19-country-response [https://perma.cc/TE2X-94AF]; *World Bank Group Increases COVID-19 Response to $14 Billion To Help Sustain Economies, Protect Jobs*, WORLD BANK (Mar. 17, 2020), https://www.worldbank.org/en/news/press-release/2020/03/17/world-bank-group-increases-covid-19-response-to-14-billion-to-help-sustain-economies-protect-jobs [https://perma.cc/HK9X-6XAQ].

[82] Alpert, *supra* note 9; *World Bank Group: 100 Countries Get Support in Re sponse to COVID-19 (Coronavirus)*, WORLD BANK (May 19, 2020), https://www.worldbank.org/en/news/press-release/2020/05/19/world-bank-group-100-countries-get-support-in-response-to-covid-19-coronavirus [https://perma.cc/5UE5-NWQ6].

[83] Cassim et al., *supra* note 21; THE WHITE HOUSE, *supra* note 21.

[84] Cassim et al., *supra* note 21; THE WHITE HOUSE, *supra* note 21.

[85] Alpert, *supra* note 9.

[86] *Id.*

[87] *Id.*

relief packages totaling over 30 billion USD with additional smaller stimulus measures following.[88] Three stimulus packages were launched in Japan with the highest share of GDP and additional plans to boost liquidity totaling up to 1 trillion USD in liquidity plus fiscal spending bills increased for business loans.[89] India started with interest rate lowering[90] and an injection of almost 100 billion USD into the financial system and facilitated market loans loosening bank lending restrictions.[91] The ongoing COVID pandemic in India triggered additional monetary stimulus packages of 266 billion USD and fiscal spending of 27 billion USD.[92] Additional relief spending was promised in the range of 50–100 billion USD and is on its way to boost consumption by direct payments and tax incentives.[93] South Korea cut interest rates,[94]

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[88] *Id.*
[89] Alpert, *supra* note 9; *BOJ's Measures in Response to COVID-19*, BANK OF JAPAN (June 16, 2020), https://www.boj.or.jp/en/announcements/re lease_2020/k200616b.pdf [https://perma.cc/D5J3-T6AQ]; Magdalena Szmigiera, *Value of COVID-19 stimulus packages in the G20, as share of GDP 2021*, STA TISTA (May, 2021), https://www.statista.com/statistics/1107572/covid-19-value-g20-stimulus-packages-share-gdp/ [https://perma.cc/5G9X-LF2L].
90 Alpert, *supra* note 9; Press Release, Reserve Bank of India, Monetary Policy Statement, 2020–21: Resolution of the Monetary Policy Committee (MPC) May 20 to 22, 2020 (May 22, 2020), https://www.rbi.org.in/Scripts/BS_PressReleaseDis play.aspx?prid=49843 [https://perma.cc/U2JH-H966].
[91] Alpert, *supra* note 9; Press Release, Reserve Bank of India, Statement on De velopmental and Regulatory Policies (Feb. 5, 2021), https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=51078 [https://perma.cc/VU2H-M9CG].
[92] Alpert, *supra* note 9; Manojit Saha, *Stimulus to cost only about 1% of GDP*, THE HINDU (May 18, 2020, 23:10 IST), https://www.thehindu.com/business/stimu lus-to-cost-only-about-1-of-gdp/article31617629.ece [https://perma.cc/BDJ9-RBCV].
[93] Alpert, *supra* note 9; *PM extends free foodgrains scheme till November*, THE HINDU (June 30, 2020, 17:23 IST), https://www.thehindu.com/news/national/coro navirus-lockdown-prime-minister-narendra-modi-addresses-nation-on-june-30-2020/article31953944.ece [https://perma.cc/Y2RM-UH5Z]; Amy Kazmin, *India unveils 'underwhelming' $10bn stimulus for pandemic-hit economy*, FIN. TIMES (Oct. 12, 2020), https://www.ft.com/content/c0d23498-e91f-4f58-bebb-4237ed2d5398 [https://perma.cc/5E53-XFH7].
[94] Alpert, *supra* note 9; Press Release, Bank of Kor., Bank of Korea announces 50bp Base Rate cut and measures to stabilize economic and financial conditions (Mar. 16, 2020), https://www.bok.or.kr/eng/bbs/E0000627/view.do?nttId=10057024&menuNo=400 022&pageIndex=1 [https://perma.cc/VC5Q-D2PC]; Press Release, Bank of Kor., Monetary Policy Decision (May 28, 2020), http://www.bok.or.kr/eng/bbs/E0000634/view.do?nttId=10058434&menuNo=4000 69 [https://perma.cc/X8WL-ZJ89].

enacted financial stability and liquidity packages[95] in the range up to 10 billion USD,[96] also operated via bonds[97] and fiscal stimulus, recovery and relief packages of over 100 billion USD.[98] Australia entering a recession for the first time in almost thirty years subsequently lowered its interest rate broad-based[99] and launched three relief packages worth a total of around 300 billion USD.[100] Brazil tackled the COVID-19 economic fallout with statutory limitations on its fiscal spending, lowered the benchmark interest rate and added

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95 Alpert, *supra* note 9; Press Release, Bank of Kor., Bank of Korea Implements Financial Stability Measures Including Adoption of Unlimited Liquidity Support Facility (Mar. 26, 2020), http://www.bok.or.kr/eng/bbs/B0000308/view.do?nttId=10057418&menuNo=400380&pageIndex=1 [https://perma.cc/F964-D7UC]; Press Release, Bank of Kor., Bank of Korea Broadens Securities Eligible for Open Market Operations (Apr. 9, 2020), http://www.bok.or.kr/eng/bbs/B0000308/view.do?nttld=10057612&menuNo=400380&pageIndex=1 [https://perma.cc/6YKR-BWPY].

96 Alpert, *supra* note 9; Press Release, Bank of Kor., Ceiling on the Bank Inter mediated Lending Support Facility Raised by 5 Trillion Won to Provide Financial Support to SMEs Affected by COVID-19 (Feb. 7, 2020), https://www.bok.or.kr/eng/bbs/B0000308/view.do?nttId=10057411&menuNo=400380&pageIndex=2 [https://perma.cc/9ZL6-SBBS].

97 Alpert, *supra* note 9; Press Release, Bank of Kor., BOK to Launch Corporate Bond-Backed Lending Facility (Apr. 16, 2020), https://www.bok.or.kr/eng/bbs/E0000634/view.do?nttId=10057756&menuNo=400069 [https://perma.cc/2XYG-QH2S].

98 Alpert, *supra* note 9; *South Korea unveils $13.7b stimulus package to fight coronavirus*, THE STRAITS TIMES (Mar. 4, 2020, 9:17 AM), https://www.straitstimes.com/business/economy/south-korea-unveils-137b-stimulus-package-to-fight-coronavirus [https://perma.cc/HMV7-E9QN]; Bae Hyunjung, *S. Korea un veils another massive stimulus package against coronavirus*, THE KOREA HERALD (Apr. 8, 2020, 5:07 PM), http://www.koreaherald.com/view.php?ud=20200408000825 [https://perma.cc/7YJX-7N6Q]; Lee Hana, *KRW 85T budget added to stabilize key sectors, employment*, KOREA CULTURE AND INFORMATION SERVICE (Apr. 23, 2020), https://m.korea.net/english/NewsFocus/policies/view?articleId=184852 [https://perma.cc/95SU-4DJ2]; Press Re lease, Ministry of Econ. And Fin., 3rd Supplementary Budget of 2020 Passed (July 3, 2020), https://english.moef.go.kr/pc/selectTbPressCenterDtl.do?boardCd=N0001&seq=4932 [https://perma.cc/P3E8-SQR8].

99 Alpert, *supra* note 9; Media Release, Res. Bank of Austl., Statement by Philip Lowe, Governor: Monetary Policy Decision (Mar. 2, 2021), https://www.rba.gov.au/media-releases/2021/mr-21-03.html [https://perma.cc/L5SK-NW7B].

100 Alpert, *supra* note 9; Sarah Martin, *What the Australian government's $17bn coronavirus stimulus package means for you*, THE GUARDIAN (Mar. 11, 2020, 9:58 PM), https://www.theguardian.com/business/2020/mar/12/what-australian-governments-coronavirus-stimulus-package-means-for-you-explainer [https://perma.cc/F32M-EH85]; Paul Karp, *Australian economic stimulus package:*

around 300 billion USD liquidity to credit markets, including a fiscal stimulus package.[101] Russia and the Gulf Region faced a drop in oil and gas exports revenues, which were answered in Russia by lowered interest rates.[102] The Bank of Russia allocated financial aid around 70 billion USD through direct aid plus additional lending programs to stimulate the economy.[103]

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how much governments have committed to coronavirus crisis, THE GUARDIAN (Mar. 30, 2020, 11:06 PM), https://www.theguardian.com/australia-news/2020/mar/31/australian-economic-stimulus-package-how-much-governments-have-committed-to-coronavirus-crisis [https://perma.cc/79K2-4PYB]; Katharine Murphy, *Scott Morrison to announce $66bn stimulus, including income support for workers*, THE GUARDIAN (Mar. 21, 2020, 3:00 PM), https://www.theguardian.com/business/2020/mar/22/scott-morrison-to-announce-66bn-stimulus-includeing-income-support-for-workers [https://perma.cc/6V8R-GWJS].

[101] Alpert, *supra* 9; *Central Bank of Brazil announces BRL 1.2 trillion in liquidity to support the economy*, CENT. BANK OF BRAZ. (Mar. 26, 2020, 5:45 PM), https://www.bcb.gov.br/en/pressdetail/2321/nota [https://perma.cc/9CYL-XMK8]; Marcela Ayres, *Brazil government to inject $30 billion into economy to combat coronavirus hit*, REUTERS (Mar. 16, 2020, 8:01 PM), https://www.reuters.com/article/us-brazil-economy-budget-idUSKBN213411 [https://perma.cc/KQ4W-C7GQ]; *Economic measures aimed at reducing the impacts of Covid-19 (Coronavirus) – timeline*, GOV'T. OF BRAZ. (June 2, 2020, 9:16 AM), https://www.gov.br/economia/pt-br/centrais-de-conteudo/publicacoes/boletins/covid-19/timeline [https://perma.cc/5LXW-E4V5]; Caroline Geist-Benitez et al., *COVID-19: Survey of Latin America's Regulatory Response to COVID-19*, JDSUPRA (June 25, 2020), https://www.jdsupra.com/legalnews/covid-19-survey-of-latin-america-s-53792/ [https://perma.cc/J74C-76QE].

[102] Alpert, *supra* note 9; Press Release, Bank of Russ., The Bank of Russia cuts the key rate by 50 bp to 5.50% p.a. (Apr. 24, 2020), http://www.cbr.ru/eng/press/pr/?file=24042020_133000Key-eng.htm [https://perma.cc/2WWX-482D]; Press Release, Bank of Russ., The Bank of Russia cuts the key rate by 100 bp to 4.50% p.a. (June 19, 2020), https://www.cbr.ru/eng/press/pr/?file=19062020_133000Key_eng.htm [https://perma.cc/G27W-9M84]; Press Release, Bank of Russ., The Bank of Russia cuts the key rate by 25 bp to 4.25% p.a. (July 24, 2020), http://www.cbr.ru/eng/press/PR/?file=24072020_133000Key_eng.htm [https://perma.cc/3FBU-A35C]; Press Release, Bank of Russ., Bank of Russia reduces key rate within SME lending support programme (Apr. 24, 2020), https://www.cbr.ru/eng/press/pr/?file=24042020_174619eng_dkp2020-04-24T17_45_47.htm [https://perma.cc/EM6X-W7LB].

[103] Alpert, *supra* note 9; Press Release, Bank of Russ., Additional measures to support lending to small and medium-sized enterprises (Mar. 27, 2020), http://www.cbr.ru/eng/press/PR/?file=27032020_204520eng2020-03-27T20_45_02.htm [https://perma.cc/G64V-RB2J]; Press Release, Bank of Russ., Bank of Russia approves additional measures to support lending and protect people's interests, (Apr. 3, 2020), https://www.cbr.ru/eng/press/pr/?file=06042020_193737eng2020-04-06T19_37_06.htm [https://perma.cc/UY8R-5TUE]; Press Release, Bank of Russ.,

Canada's dependence on dropping oil and gas prices but also raw material exports challenged the Canadian economy, which the Canadian government stabilized with a 75 billion USD relief package including unemployment insurance and wage subsidies.[104] Canadian Monetary Policy included three cuts of the Canadian benchmark interest rate[105] plus inflation targeting[106] and liquidity banking lending facilitation backed by bonds and mortgage backing.[107]

The European Union had a concerted Eurozone monetary policy administered by the European Central Bank that faced constraints due to an already low interest rate regime.[108] Recovery plans included the pandemic emergency longer-term refinancing operations, currency swaps, increased lending and Euro-denominated liquidity for central banks outside the Eurozone to provide market stability and financial liquidity partially enacted via bonds in

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Bank of Russia reduces interest rate within programmes to support lending to SMEs and for urgent needs (June 19, 2020), https://www.cbr.ru/eng/press/pr/?file=22062020_185309pr_eng_20200619_03.htm [https://perma.cc/W2W2-X63Q]; *Russia Prices Economic Recovery Plan at $70Bln*, THE MOSCOW TIMES (June 2, 2020), https://www.themo scowtimes.com/2020/06/02/russia-prices-economic-revery-plan-at-70bln-a70456 [https://perma.cc/96VF-GTQ6].

104 Alpert, *supra* note 9.

105 Alpert, *supra* note 9; Press Release, Bank of Can., Bank of Canada lowers overnight rate target to ¼ percent (Mar. 27, 2020), https://www.bankofcan ada.ca/2020/03/press-release-2020-03-27/ [https://perma.cc/Q3N2-6XPV]; Press Release, Bank of Can., Bank of Canada lowers overnight rate target to ¾ percent, (Mar. 13, 2020), https://www.bankofcanada.ca/2020/03/bank-of-canada-lowers-overnight-rate-target-to-%C2%BE-percent/ [https://perma.cc/L87Z-CJVH]; Press Release, Bank of Can., Bank of Canada lowers overnight rate target to 1 ¼ percent (Mar. 4, 2020), https://www.bankofcanada.ca/2020/03/fad-press-release-2020-03-04/ [https://perma.cc/Z4WT-J4MD].

106 Alpert, *supra* note 9.

107 Alpert, *supra* note 9; *COVID-19: Actions to Support the Economy and Finan cial System*, BANK OF CAN., https://www.bankofcanada.ca/markets/market-opera tions-liquidity-provision/covid-19-actions-support-economy-financial-system/ [https://perma.cc/J96A-MMFC] (last visited May 6, 2020); Press Release, Bank of Can., Bank of Canada maintains target for the overnight rate, scales back some market operations as financial conditions improve (June 3, 2020), https://www.bankofcanada.ca/2020/06/fad-press-release-2020-06-03/ [https://perma.cc/49UG-29D9]; *CMHC Expands Insured Mortgage Purchase Pro gram*, CAN. MORTGAGE AND HOUSING CORP. (Mar. 26, 2020), https://www.cmhc-schl.gc.ca/en/media-newsroom/news-releases/2020/cmhc-expands-insured-mort gage-purchase-program [https://perma.cc/L87P-PBM6].

108 Alpert, *supra* note 9; *Monetary policy decisions*, EUROPEAN CENT. BANK, https://www.ecb.europa.eu/press/govcdec/mopo/html/index.en.html [https://perma.cc/LR4X-DAHP] (last visited May 13, 2020).

the 128 billion USD range.[109] The Pandemic Emergency Purchase Programme (PEPP) issued 800 billion USD in bonds and commercial papers throughout the year 2020 that will be expanded up to a total of 1.5 trillion USD until the end of June 2021 in order to reach a total target of 2.24 trillion USD.[110] The European Union concerted action to avert the economic downturns of the COVID-19 pandemic in a common fiscal stimulus proposal funded by Eurobonds triggers what experts already call the Next Generation EU bringing member states closer together in a fiscal union and stability solidarity pact.[111]

In addition to concerted European Union action, the national governments of the Eurozone countries passed fiscal and monetary policy acts in line with directives from the European Central Bank. Germany enacted the – by far – largest fiscal stimulus and Economic Stabilization Fund within the Eurozone with liquidity constraint relief summing up to around 950 billion

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[109] Alpert, *supra* note 9; Press Release, European Cent. Bank, ECB announces new pandemic emergency longer-term refinancing operations (Apr. 30, 2020), https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200430_1~477f400e39.en.html [https://perma.cc/TE9S-32WQ]; Press Release, European Cent. Bank, New Eurosystem repo facility to provide euro liquidity to non-euro area central banks (June 25, 2020), https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200625~60373986e5.en.html [https://perma.cc/ELV7-H7VU]; EUROPEAN CENT. BANK, *supra* note 102; Press Release, European Cent. Bank, ECB Banking Supervision provides temporary capital and operational relief in reaction to coronavirus (Mar. 12, 2020), https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200312~45417d8643.en.html [https://perma.cc/Y99E-S2LL].

[110] Alpert, *supra* note 9; Press Release, European Cent. Bank, Monetary policy decisions (June 4, 2020), https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.mp200604~a307d3429c.en.html [https://perma.cc/3UYZ-RNCZ].

[111] Alpert, *supra* note 9; Matina Stevis-Gridneff, *E.U. Adopts Groundbreaking Stimulus to Fight Coronavirus Recession*, N.Y. TIMES (Dec. 10, 2020), https://www.nytimes.com/2020/07/20/world/europe/eu-stimulus-coronavirus.html [https://perma.cc/AG4P-Q6F6]; Shalini Nagarajan, *The European Union's $826 billion stimulus plan to battle the coronavirus is 'too small and too late,' analysts say*, BUSINESS INSIDER (May 30, 2020, 6:11 AM), https://www.businessinsider.com/what-eu-826-billion-covid-19-stimulus-package-means-2020-5 [https://perma.cc/5CXM-ZJG9]; Jan Strupczewski & Kate Abnett, *EU leaders unblock 1.8 trillion euro budget, recovery fund, eye climate goals*, REUTERS (Dec. 9, 2020, 6:06 PM), https://www.reuters.com/article/us-eu-summit/eu-leaders-unblock-1-8-trillion-euro-budget-recovery-fund-eye-climate-goals-idUSKBN28J37L [https://perma.cc/AS8D-WLTH].

USD.[112] Similar European Central Bank-conducted monetary and fiscal policy measures were performed in France, Italy, Spain, Austria and the Nordic countries with several subsequent stimulus and relief packages as the COVID-19 economic crisis unfolds.[113] European aid tends to strengthen the relatively more public administered healthcare system and union-protected workers throughout Europe – for instance when thinking about the *Kurzarbeit* model to not lay off workers during the pandemic but shorten their worktime.[114] In addition, Europe tends to support households directly, alongside granting business liquidity and social security aid.[115]

The United Kingdom (UK) faced economic turmoil due to Brexit and trade re-negotiations during the onset of the pandemic. The Bank of England cut its benchmark interest rate twice to 0.1%[116] and issued governmental and non-financial, investment corporate bonds in the range of 567 billion USD.[117]

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[112] Alpert, *supra* note 9; Julia Anderson et al., *The fiscal response to the eco nomic fallout from the coronavirus*, BRUEGEL DATASETS (Nov. 24, 2020), https://www.bruegel.org/publications/datasets/covid-national-dataset/ [https://perma.cc/3WXM-PUJU]; Press Release, Federal Ministry for Econ. Affairs and Energy, Minister Altmaier: "Unprecedented support programme for employees and enterprises" (Mar. 27, 2020), https://www.bmwi.de/Redaktion/EN/Pressemit teilungen/2020/20200327-altmaier-unprecedented-support-programme-for-employ ees-and-enterprises.html [https://perma.cc/L4VQ-7YU5]; Press Release, Federal Ministry of Fin., Federal government takes large-scale measures to tackle crisis fallout (Mar. 23, 2020), https://www.bundesfinanzministerium.de/Con tent/EN/Pressemitteilungen/2020/2020-03-23-supplementary-budget.html [https://perma.cc/5J7V-XVFZ]; Bertrand Benoit & Tom Fairless, *Germany Boosts Already Hefty Coronavirus Stimulus*, WALL ST. J. (Aug. 26, 2020, 7:09 AM), https://www.wsj.com/articles/germany-boosts-already-hefty-coronavirus-stimulus-11598440184 [https://perma.cc/LHU8-VJ8A]; *Factbox: Germany's stimulus pack age helps consumers and companies*, REUTERS (June 3, 2020, 7:44 PM), https://www.reuters.com/article/us-health-coronavirus-germany-stimulus-p/factbox-germanys-stimulus-package-helps-consumers-and-companies-idUSKBN23A3IN [https://perma.cc/7BNF-9VJ7].

[113] Alpert, *supra* note 9.

[114] Martin Gelter & Julia Margarete Puaschunder, *COVID-19 and Comparative Corporate Governance*, 46 J. CORP. L. 557, 565 (2021).

[115] *Id*.

[116] Alpert, *supra* note 9; *Monetary Policy Summary for the special Monetary Policy Committee meeting on 19 March 2020*, BANK OF ENG. (Mar. 19, 2020), https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2020/monetary-policy-summary-for-the-special-monetary-policy-commit tee-meeting-on-19-march-2020 [https://perma.cc/E8KL-KDKA]; *Bank of England measures to respond to the economic shock from Covid-19*, BANK OF ENG. (Mar. 11, 2020), https://www.bankofengland.co.uk/news/2020/march/boe-measures-to-respond-to-the-economic-shock-from-covid-19 [https://perma.cc/SGK7-SBGL].

[117] Alpert, *supra* note 9; *Update on the Contingent Term Repo Facility (CTRF) – Market Notice 19 June 2020*, BANK OF ENG. (June 19, 2020),

Lending and asset-purchasing programs of the Bank of England aid to extend credit during the crisis, especially to small and medium-sized enterprises, with collaterals for the central bank.[118] For instance, the British Covid Corporate Financing Facility (CCFF) sets out to purchase commercial paper and counter-cyclical capital buffers[119] to aid liquidity in the banking sector.[120] The UK fiscal stimulus comprises of six packages totaling up to 18% of the UK GDP.[121]

The United States (U.S.) economy fell into recession in February 2020 in the wake of the news over COVID-19 and a worldwide evolving pandemic.[122] The U.S. unemployment rate rose as high as 14.8% in April 2020,

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https://www.bankofengland.co.uk/markets/market-notices/2020/update-on-the-contingent-term-repo-facility [https://perma.cc/5XPZ-NPTJ]; *Asset Purchase Facility (APF): Pricing of CBPS eligible securities – Market Notice 5 June 2020*, BANK OF ENG. (June 5, 2020), https://www.bankofengland.co.uk/markets/market-notices/2020/apf-pricing-of-cbps-eligible-securities-june-2020 [https://perma.cc/4MBJ-V57W]; *Bank Rate maintained at 0.1% - June 2020*, BANK OF ENG. (June 18, 2020), https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2020/june-2020 [https://perma.cc/G4RJ-R24U]; *Bank Rate held at 0.1% and asset purchases increased by £150bn - November 2020*, BANK OF ENG. (Nov. 5, 2020), https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes/2020/november-2020 [https://perma.cc/4YCD-F35T].

[118] Alpert, *supra* note 9; *Term Funding Scheme with additional incentives for SMEs (TFSME) – Market Notice*, BANK OF ENG. (Mar. 11, 2020), https://www.bankofengland.co.uk/markets/market-notices/2020/term-funding-scheme-market-notice-mar-2020 [https://perma.cc/B8M4-5XAP].

[119] Alpert, *supra* note 9; *HM Treasury and the Bank of England launch a Covid Corporate Financing Facility (CCFF)*, BANK OF ENG. (Mar. 17, 2020), https://www.bankofengland.co.uk/news/2020/march/hmt-and-boe-launch-a-covid-corporate-financing-facility [https://perma.cc/9Q52-BTYF].

[120] Alpert, *supra* note 9; Huw Jones & David Milliken, *Bank of England cancels stress test of banks over coronavirus*, REUTERS (Mar. 20, 2020, 3:24 AM), https://www.reuters.com/article/us-health-coronavirus-britain-regulation/bank-of-england-cancels-stress-test-of-banks-over-coronavirus-idUSKBN2170QI [https://perma.cc/57J4-VZBG]; *HM Treasury and Bank of England announce temporary extension to Ways and Means facility*, BANK OF ENG. (Apr. 9, 2020), https://www.bankofengland.co.uk/news/2020/april/hmt-and-boe-announce-temporary-extension-to-ways-and-means-facility [https://perma.cc/F77Z-YK8Z].

[121] Alpert, *supra* note 9; Szmigiera, *supra* note 89.

[122] Gabe Alpert, *A breakdown of the fiscal and monetary responses to the pandemic*, INVESTOPEDIA (Sept. 24, 2021), https://www.investopedia.com/government-stimulus-efforts-to-fight-the-covid-19-crisis-4799723 [https://perma.cc/DB2H-6JLH]; *US Business Cycle Expansions and Contractions*, NAT'L BUREAU OF ECON. RES. (July 19, 2021), https://www.nber.org/research/data/us-business-cycle-expansions-and-contractions [https://perma.cc/695X-9TJ3].

the highest since the Great Depression.[123] As of August 2021, the unemployment rate was 5.4%, which was 1.9% above the 3.5% in pre-pandemic February from the previous year.[124] The U.S. economy, as measured by real GDP, fell by 3.5% year-over-year (YOY) in 2020 exhibiting a shrinking trend for the first time on an annual basis since 2009.[125]

The U.S. federal government responded to the crisis in most extensive fiscal stimulus packages and emergency relief. The U.S. Congress passed four special appropriations laws for the federal government to use in relief efforts, of which the largest was the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which provides approximately 2.08 trillion USD in all-time-highest aid in North American history.

Governmental efforts were coupled with the Federal Reserve taking monetary stimulus measures to stabilize and boost the economy in incremental interest rate cuts and discount rate drops down to 0.25% and Federal Reserve repurchase agreement interest rate to 0%.[126] Lending programs, loans and asset purchases as part of a 700 billion USD quantitative easing plan[127] and repurchasing options, as well as bonds financing and regulation changes, are meant to stabilize the market and foster liquidity.[128] The ongoing direct aid programs sum up trillions of USD, of which 2.56 trillion USD were spent by the U.S. Federal Government as of March 31, 2021.[129] A total of four laws included an estimated total of 3.92 trillion USD funding for credit, loans and

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[123] Alpert, *supra* note 122; *Unemployment Rate Rises to Record High 14.7 Per cent in April 2020*, U.S. BUREAU OF LAB. STAT. (May 13, 2020), https://www.bls.gov/opub/ted/2020/unemployment-rate-rises-to-record-high-14-point-7-percent-in-april-2020.htm?view_full [https://perma.cc/42A6-XCVT].

[124] Alpert, *supra* note 122; *Monthly unemployment rate in the United States from April 2020 to April 2021(seasonally-adjusted)*, STATISTA, https://www.statista.com/statistics/273909/seasonally-adjusted-monthly-unemployment-rate-in-the-us/ [https://perma.cc/4NHF-Z2WG] (last visited Aug. 29, 2021).

[125] Alpert, *supra* note 122; *Real Gross Domestic Product*, FED. RES. BANK OF ST. LOUIS, https://fred.stlouisfed.org/series/GDPC1#0 [https://perma.cc/8E33-7LBY] (last visited Apr. 10, 2021).

[126] Jeff Cox, *The Federal Reserve just pledged asset purchases with no limit to support markets*, CNBC (Mar. 23, 2020, 7:59 AM), https://www.cnbc.com/2020/03/23/fed-announces-a-slew-of-new-programs-to-help-markets-including-open-ended-asset-purchases.html [https://perma.cc/5EVC-DQ5N].

[127] Jeanna Smialek & Neil Irwin, *Fed Slashes Rates to Near-Zero and Unveils Sweeping Program to Aid Economy*, N.Y. TIMES (Mar. 5, 2020), https://www.nytimes.com/2020/03/15/business/economy/federal-reserve-coronavirus.html [https://perma.cc/7PYU-5HC8].

[128] Alpert, *supra* note 122; *Federal Reserve Actions to Support the Flow of Credit to Households and Businesses*, FED. RES. (Mar. 15, 2020), https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315b.htm [https://perma.cc/NQP4-3DTK].

[129] USASPENDING.GOV, https://www.usaspending.gov [https://perma.cc/7WP2-2LVM] (last visited Apr. 10, 2021).

loan guarantee programs.[130]

The size, scope and dimensions of COVID-19 rescue and recovery plans are unprecedented and account for the historically largest concerted effort of action to avert the negative economic fallout to an external economic shock. In confronting the crisis and evaluating international and governmental rescue packages, the size of rescue and recovery aid has gained widespread attention for potential negative consequences, such as long-term debt and inflation. For instance, the quantitative dimensions and largess of governmental financialization of aid has led to star-economists Lawrence Summers[131] and Paul Krugman[132] arguing over the right size of the governmental intervention in economic stimulus.[133] Summers points at the sheer amount of stimulus that could set off inflationary pressures[134] – a concern shared by other economists, such as Olivier Blanchard, a macroeconomic expert on inflationary pressure.[135]

In the evaluation and monitoring of these unprecedentedly large amounts of governmental stimulus, economic bailout and rescue packages, socio-economic attention should also be paid to three peculiar aspects of our COVID-19 shock era, which will be addressed in detail in the following:

(1) COVID-19 has become the ultimate inequality accelerator due to changed demand patterns having resulted in economically gaining and losing industries. Sophisticated financial market tools have enabled finance experts to gain from shorting COVID-19 losing industries but also exchanging COVID-19 losing for pandemic winning industries in well-monitored funds and asset allocation options. In addition, the finance industry can use diversification of portfolio components but also hedge against COVID-19 losing industries. The real economy is stuck with less flexible obligations than fi-

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[130] *The Federal Response to COVID*-19, USASPENDING.GOV, https://data lab.usaspending.gov/federal-covid-funding/#fn1 [https://perma.cc/B629-Y89D] (last updated Oct. 1, 2020).

[131] Harvard economics professor, former Vice President of Development Eco nomics, Chief Economist of the World Bank, senior U.S. Treasury Department of ficial throughout U.S. President William Clinton's administration, and former direc tor of the National Economic Council for U.S. President Barack Obama in the 2008/09 World Financial Recession.

[132] Nobel Prize winning Professor of Economics and columnist for The New York Times.

[133] Coy, *supra* note **Error! Bookmark not defined.**; Princeton Bendheim Center for Finance, *supra* note **Error! Bookmark not defined.**.

[134] Howard Schneider, *Friendly fire erupts as economists spar over U.S. stimu lus*, REUTERS (Feb. 12, 2021, 3:13 PM), https://www.reuters.com/business/friendly-fire-erupts-economists-spar-over-us-stimulus-2021-02-12/ [https://perma.cc/JN2G-EPH6].

[135] Olivier Blanchard, *In defense of concerns over the $1.9 trillion relief plan,* PETERSON INST. FOR INT'L ECON. (Feb. 18, 2021, 10:15 AM), https://www.piie.com/blogs/realtime-economic-issues-watch/defense-concerns-over-19-trillion-relief-plan [https://perma.cc/7LKN-QVP8].

nancial assets. All these features widened an unexpected economic performance gap between the finance sector and the real economy that exacerbates an already prevailing trend of inequality between finance and real economy productivity and resiliency.

(2) Systemically differing liquidity in finance and the real economy implies sector-specific affective fallout propensities. Currently-experienced, longest-ever low interest rate regimes foster capital flow for innovation in the finance world, while disincentivizing household savings decreases private consumers' resiliency. Debt burdens and liquidity constraints in private households bring along negative behavioral aspects and destructive propensities, such as malnutrition, socio-psychological impairment, drug intake and suicidal considerations.

(3) Industry-specific inflation patterns as well as urban-versus-rural disposable income differences in the wake of ambitious bailout and recovery plans should be considered when choosing bailout targets. The economic lens needs legal insights to adjust to unproportionally heavy and disparately severe impacts on certain populations, which should become the main focus of governmental rescue and recovery in short-term emergency aid. The potential focus of bailouts and recovery ranges from urban-local or national to even global and future-oriented beneficiaries, as pursued in public investments on climate stabilization in the Green New Deal or European Green Deal Sustainable Finance Taxonomy.

IV. SOCIO-ECONOMIC FALLOUT OF COVID-19

The Union Bank of Switzerland (UBS) recently identified the largest economic gap between world economies for at least forty years.[136] This part therefore focuses on how COVID-19 has exacerbated inequality worldwide. Part 4.1 introduces the economic impact of the external shock of a worldwide pandemic. Part 4.2 shows how the economic fallout of the COVID-19 crisis differs dramatically between the finance world and the real economy, which is a major driver of increasing societal inequality, which has received – to this day – hardly any attention in the literature. Part 4.3. innovatively draws on affect theory, behavioral economic and collective finance theories to lay out that social volatility in markets rises in the wake of the finance versus real economy gap. Part 4.4 discusses how the impact of inflation differs between different social groups and geographical regions. The final Part 4.5 argues that the current low interest rates regimes have a disparate impact on different social and professional strata, which demands for focused public policies to alleviate rising inequality in the post-COVID-19 era.

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[136] *Changing Places, supra* note 69; *The pandemic has caused the world's econ omies to diverge, supra* note 7; *The peril and the promise*, THE ECONOMIST (Oct. 8, 2020), https://www.economist.com/special-report/2020/10/08/the-peril-and-the-promise [https://perma.cc/8CTM-PWNJ].

4.1. *COVID-19 as Inequality Accelerator*

The Union Bank of Switzerland (UBS) currently finds the largest economic gap between world economies for at least forty years.[137] Inequality is not only rising in terms of the quantitative output gap. Already now it also becomes apparent that the COVID-19 crisis is an already existing inequality accelerator. The COVID-19 external shock heightened economic disparity between nations, industries and societal groups that often have already existed prior to the crisis, but are now more accentuated – for instance, such as in access to corruption-free quality healthcare, subsidized preventive medicine and healthy nutrition but also in terms of access to digitalization benefits within society and around the world.[138]

While COVID-19 created significant health and security risks as well as economic costs, the pandemic also brought about unanticipated opportunities for specific market segments.[139] Some industries actually profited economically from the pandemic due to a heightened demand – for instance, such as hygiene producers, medical care facilities, pharmaceuticals including vaccination and medical supply chain providers, and the medical professions curing widespread COVID symptoms and chronic diseases arising from COVID Long Haulers.[140]

From an economic perspective, COVID-19 is an external shock that has accelerated ongoing digitalization trends.[141] In light of the enormous potential to digitally monitor and track healthcare statuses worldwide and over time, big data offers enormous potential to detect the outbreak of pandemics

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137 *Id.*

138 Puaschunder & Beerbaum, *supra* note 20.

139 Julia M. Puaschunder, Martin Gelter & Siegfried Sharma, *Alleviating an Unequal COVID-19 World: Globally Digital and Productively Healthy* (Fordham L. Legal Stud. Rsch. Working Paper No. 3679351, Oct. 2020).

140 *E.g.,* Sharon Lerner, *Big Pharma Prepares to Profit from the Coronavirus: Pharmaceutical Companies View the Coronavirus Pandemic as a Once-in-a-Lifetime Business Opportunity*, THE INTERCEPT (Mar. 13, 2020, 2:46 PM), https://theintercept.com/2020/03/13/big-pharma-drug-pricing-coronavirus-profits [https://perma.cc/L9JZ-BTCL]; Gaurav Agrawal, Hemant Ahlawat & Martin Dewhurst, *Winning Against COVID-19: The Implications for Biopharma*, MCKINSEY & CO. (Apr. 15, 2020), https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/winning-against-covid-19-the-implications-for-biopharma#the-implications-for-biopharma [https://perma.cc/7V2H-QLUA]; Adrian Monck, *The Great Reset: A Unique Twin Summit to Begin 2021*, WORLD ECON. F. (June 3, 2020), https://www.weforum.org/press/2020/06/the-great-reset-a-unique-twin-summit-to-begin-2021/ [https://perma.cc/V6DQ-QKFU].

141 *See generally* Julia M. Puaschunder & Martin Gelter, The Social Representations and Legal Theory of Artificial Intelligence, Robotics and Big Data in Healthcare (June 11, 2020) (unpublished manuscript) (available at https://ssrn.com/abstract=3603106) [https://perma.cc/M8ML-BYVL]) (discussing a survey on the intersection of these sectors).

early on but also the possibility to capture widespread health trends and general reactions to novel occurrences. In the medical sector, the individual condition can be put into perspective with other larger groups in order to derive inferences about the individual health status and outcome perspective of medical conditions. The digital age in its feature to detect information real-time in combination with unprecedented data storage opportunities and computation power in the age of Bayesian analytics has created the most innovative advancements to improve human lives with digitalization. As never before in the history of humankind, individuals are now monitoring their health status in real time and find themselves online to evaluate medical goods and services together. Bluetooth technology tracking of medical devices helps with bottleneck allocation problems and combats fraudulent misuse of resources.

As the fear of a virus contagion through human contact led to lockdowns in all major economies around the globe, the power of digitalization became the source of touchpoint-less contact with the social compound during the pandemic. Because of widespread lockdowns, social distancing and increased home office work in many industries, social scientists have observed a more widespread acceptance for instant communication tools, social engagement, and entertainment platforms.[142] Robotics aided in patient care or have taken on everyday tasks of shelving groceries, administering checkouts or delivering items with drones.

Fear of attending hospitals or seeking medical aid in transmission points has broken a wave of telemedicine and healthcare information exchange online. Especially in the Long Hauler segment with novel, diffuse and often unclarified symptoms that come in waves, laypeople have turned to fast and easy information exchange in online social media self-help groups as visible in the Facebook Long Hauler Survivor Corps group – an open forum to discuss potential unfamiliar Long Haul COVID-19 symptoms and their fast remedy. These citizen scientists meet online to discuss their pressing symptoms and crowdsource information on currently evolving trends in medical care to then inform scientists based on their amalgamated narrative data.[143] Robotics and automated computer systems also promise to help COVID Long Haulers navigate through a complex world during times of weakness and debilitation.[144] Artificial Intelligence now offers amazing remedy opportunities to aid Long Haulers in dealing with information overload when

[142] Titus Corlatean, *Risks, Discrimination and Opportunities for Education Dur ing the Times of COVID-19 Pandemic*, RAIS CONF. PROCEEDINGS, June 2020, at 37, http://rais.education/wp-content/uploads/2020/06/004TC.pdf [https://perma.cc/7ACF-4D7K].

[143] Amy Dockser Marcus, *Covid-19 Patients Are Doing Their Own Research: To advance scientific knowledge of the disease, lay people are organizing to generate data about their experiences*, WALL ST. J. (Jan. 30, 2021), https://www.wsj.com/articles/covid-19-patients-are-doing-their-own-research-11611982860 [https://perma.cc/AN7V-SG58].

[144] *Id.*

waves of fatigue set in unexpectedly and somewhat unpredictably.

Overall, algorithms, robotics and big data have thus experienced an unprecedented use and widespread acceptance within society in the wake of COVID-19 addressed as the digitalization disruption of our new age renaissance.[145] Digitalization accounts for the number one revolution winner in the wake of the COVID-19 pandemic. The workforce is now more divided than ever on skills pegged to digitalization and AI-human compatibility skills. Those with better access to internet connectivity and AI-human-compatibility (i.e., computer and AI literacy, and related skills) have growing competitive advantages, which clearly accentuates the already pre-pandemic unprecedentedly growing gap between skilled and unskilled workers based on compatibility with novel technologies.[146]

Talking about coronavirus economic disparate impact, the COVID-induced lockdowns and workplace closures have also saved corporations on safety and security costs, maintenance and rent or leases.[147] While certain firms and industries have benefited from the pandemic others have suffered from the expenses and burdens of COVID-19.[148] What differed from previous financial turmoil and economic crises was the fact that the economic fallout was not caused by financial constraints and economic fundamentals, but came out of an external shock that dampened the real economy activity and shifted demand extremely.[149] Unprecedentedly clear inequality arose based on individual preconditions, social stratification and work parameters that

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145 Paul Schmelzing, Julia Puaschunder, Alexander Stremitzer & Martin Gelter, *Panel on Digi-disruption & New Age Renaissance,* TU The Top Alumni Club (May 8, 2020), https://tuthetop-alumni.at/digidisruption/ [https://perma.cc/HBP4-SC73].

146 Julia M. Puaschunder, *Nudgital: Critique of a Behavioral Political Economy*, 5 ARCHIVES BUS. RES. 54, 57–59 (2017).

147 TOMEK ET AL., *supra* note 44.

148 Alexander W. Bartik, Marianne Bertrand, Zoe Cullen, Edward L. Glaeser, Michael Luca & Christopher Stanton, *How Are Small Businesses Adjusting to COVID-19? Early Evidence from a Survey* (Nat'l Bureau of Econ. Rsch., Working Paper No. 26989, 2020); Lisa Price, *Impact of COVID-19 on Small Businesses—Where Is It Worst?*, SMALL BUS. TRENDS (Apr. 29, 2020), https://smallbiztrends.com/2020/04/impact-of-coronavirus-on-small-businesses.html [https://perma.cc/H87Q-5VR9]; André Dua et al., *Which Small Businesses are Most Vulnerable to COVID-19—And When*, MCKINSEY & CO. (June 18, 2020), https://www.mckinsey.com/featured-insights/americas/which-small-businesses-are-most-vulnerable-to-covid-19-and-when [https://perma.cc/5U29-4UKY]; *see also* James Kwak, *The End of Small Business*, WASH. POST (July 9, 2020), https://www.washingtonpost.com/outlook/2020/07/09/after-covid-19-giant-corporations-chains-may-be-only-ones-left/?arc404=true [https://perma.cc/J2X7-A59C] (suggesting that the post-pandemic economy will be dominated by giant corporations).

149 SIANNE NGAI, THEORY OF THE GIMMICK: AESTHETIC JUDGMENT AND CAPITALIST FORM 170 (2020); INT'L MONETARY FUND, *supra* note 19; Benjamin Lee, *Volatility*, *in* ROUTLEDGE HANDBOOK OF CRITICAL FINANCE STUDIES 46, 54–68 (Christian Borch & Robert Wosnitzer eds., 2020).

shaped the outcome in meeting the pandemic. The crisis created a great divide between winning and losing market actors, societal groups, industries, nations and potentially also generations.[150] While we are still in the midst of the economic recovery and governmental market aid determining the economic outcome of the crisis, already now it has become apparent that the crisis appears to have widened the gap between financial market performance and real economy liquidity constraints.

4.2. *Finance performance versus real economy gap*

Inequality between financial markets and real economy activities has already experienced an increasing trend in society since the 1990s, in the U.S. in the aftermath of financial market deregulation.[151] The financial world performance began to diverge massively from the real economy in 2008/09 and experienced the greatest divergence so far with the coronavirus crisis that widened the gap between top performance of financial markets and negative socio-economic fallout in the real economy.[152] From the first economic shock during the coronavirus crisis developed a striking and unexpected unequal financial market performance versus the real economy outcome that exacerbated during the recovery.

While the finance world seized its opportunity to benefit from the COVID shock winning opportunities, the real economy experienced a liquidity crunch induced by lockdowns and halted consumption opportunities triggering waves of private bankruptcies and liquidity bottlenecks. Starting from the beginning of 2020, the novel coronavirus caused a dramatic downturn for general consumption and service sector industries. Mobility, trade and tourism including gastronomy plummeted.[153] In the real economy, COVID-19

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[150] Alvaro Espitia, Nadia Rocha & Michele Ruta, *Database on COVID-19 Trade Flows and Policies*, WORLD BANK (Apr. 2, 2020), https://www.worldbank.org/en/data/interactive/2020/04/02/database-on-coronavirus-covid-19-trade-flows-and-policies [https://perma.cc/H4TF-RXWR]. *See generally Global Economic Prospects*, WORLD BANK (2021), https://www.worldbank.org/en/publication/global-economic-prospects [https://perma.cc/36KZ-ZAEB] (predicting the economic consequences of COVID-19).

[151] *See generally* BRANKO MILANOVIC, GLOBAL INEQUALITY: A NEW APPROACH FOR THE AGE OF GLOBALIZATION (2016); THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (Arthur Goldhammer trans., 2014). On trends during the pandemic, *see* Raj Chetty & Markus Brunnermeier, *Raj Chetty on the Economic Impacts of COVID-19: Real-Time Evidence from Private Sector Data*, PRINCETON U. BENDHEIM CTR. FOR FIN. (June 17, 2020, 12:30 PM), https://bcf.princeton.edu/events/raj-chetty-on-the-economic-impacts-of-covid-19-real-time-evidence-from-private-sector-data/ [https://perma.cc/8BKW-AXNB].

[152] *Changing Places*, *supra* note 69; *The pandemic has caused the world's economies to diverge*, *supra* note 7; *The peril and the promise*, *supra* note 136.

[153] Puaschunder et al., *supra* note 67; *see generally* Gössling et al., *supra* note 67.

caused "social volatility" – a collectively depressed mood that largely cut consumption and opportunistic spirit. Social distancing led to corporate temporal closures accompanied by massive layoffs – particularly in the service sector gastronomy and tourism industries. Employment fell below 70% in the mid-career segment of these industries.[154] Almost forty million European workers were sent on short-time work.[155] Unemployment rose in Germany from 3.1% to only 4.3% thanks to widespread *Kurzarbeit* labor protection plans, which encouraged firms to reduce work hours instead of laying off or furloughing workers.[156] According to the Organisation for Economic Co-operation and Development (OECD) and Bloomberg, 19% of workers were furloughed in Great Britain, 23% in Germany and 41% in France.[157] In more market-oriented territories, the impact was more severe.[158] For example, in Great Britain unemployment jumped from 3.8% to 5.4%, and in the United States from 3.7% to 8.9%.[159] Coupled with individual households being under lockdowns, consumption decreased by 46% in China, 97% in Germany, and 20% in the United States, as well as 78% in Great Britain in the early months of the pandemic.[160]

While the real economy faced economic constraints, the clear distinction between COVID-19 profit and loss industries made it possible for today's highly flexible financial world to quickly exchange weakened market segments – such as oil, public transport and aviation, face-to-face service sectors such as international hospitality and gastronomy – with above-average market options – such as pharmaceutical companies and emergency medical devices for healthcare, digital technologies, fintech, artificial intelligence and big data analytics industries, online retail, automotive and interior design industries. Financial portfolio managers could simply diversify risks and exchange market losing segments for Coronavirus

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[154] *The peril and the promise*, *supra* note 136.

[155] *The pandemic has caused the world's economies to diverge*, *supra* note 7; Julia Horowitz, *How 39 million Europeans kept their jobs after the work dried up*, CNN BUSINESS NEWS (May 6, 2020), https://www.cnn.com/2020/05/06/economy/europe-part-time-work/index.html [https://perma.cc/MT64-9833].

[156] Lora Jones et al., *Coronavirus: How the pandemic has changed the world economy*, BBC NEWS (Jan. 24, 2021), https://www.bbc.com/news/business-51706225 [https://perma.cc/NZ5A-5U4M] (graphically showing data provided by the International Monetary Fund).

[157] *Id.* (showing data provided by the OECD); *OECD Economic Outlook*, ORG. ECON. COOP. & DEV. (2021), https://doi.org/10.1787/16097408 [https://perma.cc/ST2K-NXW6]; *see also* Ken Mayhaw & Paul Anand, *COVID-19 and the UK labour market*, 36 OXFORD REV. ECON. POL'Y S215, S217–21 (2020) (surveying furlough schemes in the United Kingdom and Germany).

[158] *See Economy*, EUROSTAT, https://ec.europa.eu/eurostat/web/covid-19/economy [https://perma.cc/L775-B43Y] (tracking several indicia of economic health for several European countries as against the EU as a whole).

[159] Jones et al., *supra* note 156; *see also* CONG. RSCH. SERV., COVID-19: MEASURING UNEMPLOYMENT IN11456 (July 13, 2020) (adding context for percentages).

[160] Jones et al., *supra* note 156.

winning industries in well-managed funds and diversified flexible market options. Financial managers could use sophisticated techniques to short or hedge against an obvious decline in price of clear COVID-19 losing industries. The finance world was thus enabled to turn market losses into gains in their favor. Finance professionals were thus in a quicker-and-easier-to-regain position once the crisis hit and certain consumption propensities became apparent. Whereas the real economy just started to adapt to changing conditions as in most cases real economy agents were more bound in long-term obligations. Just imagine the difference in capital mobility between a portfolio investment and being a restaurant owner with complex long-term leases, on-the-job-trained employee and locked-in order contracts.

A clear difference to previous financial market system-inherently caused recessions – such as the 2008/09 World Financial Recession that mainly stemmed from turmoil in the finance sector and banking liquidity constraints – the external COVID-19 shock surprised with an overly rapid recovery of well-managed financial funds. For instance, the Financial Times Stock Exchange Group, Dow Jones Industrial Average, and Nikkei plummeted in the first quarter of 2020 drastically.[161] At the same time, Deutsche Bank recorded rising earnings after the onset of Coronavirus crisis in Europe, especially the investment bank branch saw rising earnings of 43% or 2.4 billion Euros in the third quarter of 2020.[162] The S&P 500 recovered 50% of its pre-COVID value within the first three months after the crisis, regained pre-pandemic levels by June 2020 and reached an all-time high by August 2020.[163] Not to mention cryptocurrencies and crowdfunding options' unexpected unprecedented market performance.

In all these features, the strong contrasts between COVID-19 winners and losers widened an already existing financial market versus real economy gap. Deep divides opened between strongly positive financial market developments and the negative socio-economic fallout that increased harmful lifestyle propensities of the real world.

4.3. Social volatility and differing affective fallout propensities within society during the COVID-19 pandemic

Volatility is a measure of the amount of randomness in a financial quantity of any point in time.[164] Volatility stems from the notion of fleeting and describes transitory market movements.[165] As an indicator of financial well-being, volatility is a basis for evaluating the overall market climate and stock

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[161] *Id.*
[162] Elliot Smith, *Deutsche Bank swings back to profit in third quarter, beats ex pectations*, CNBC (Oct. 28, 2020, 9:13 AM), https://www.cnbc.com/2020/10/28/deutsche-bank-q3-earnings-2020.html [https://perma.cc/WRT4-BMNH].
[163] YCHARTS, http://www.ycharts.com (last visited Apr. 10, 2021).
[164] Lee, *supra* note 149, at 48.
[165] *Id.* at 47.

performance.[166] Implied volatility is the market estimation of future volatility, which is associated with unpredictable market changes and an overall economic uncertainty.[167]

While standard neoclassical theory defines volatility as a "standard deviation of stock prices" or "statistical dispersion of returns for a given security or market index," political, social and cultural influences also shape volatility.[168] Social volatility adds a social dimension to this rational account of market uncertainty. Departing from notions that trading is purely based on financial rational calculus, the concept of social volatility captures collective interpretations of market performance.[169] Imbuing a subjective element to probability estimations of events and their occurrences, social volatility thereby has a direct effect on economic outcomes, culture and society.

Social volatility stems from social affect and collective moods of emotional market actors, who react to information flows. Affect has a tremendous impact on the collective mood intensity and the quality of judgment around market conduct.[170] Emotions, desires and passions play a role in breaking waves of economic trends. The popular imagination and expectation thereby create a buzz or steer that drives or crunches market actors' behavior.[171] Weighing on one's beliefs and desires in the reflection of information provided about markets shapes individuals' intentions and actions. Affective choices may lead to collective trends and sometimes to suboptimal economic outcomes.[172]

Affect adds a qualitative dimension to volatility, which is missing in the belief-desire model of decision-making under uncertainty.[173] The belief-desire-intention model as the framework to analyze action and communication in markets explains market phenomena, such as herd behavior, panic selling and irrational exuberance around expectations creating bubbles.[174] Affect theory thereby offers an expandable understanding about the emotional sensibilities of collective information flow guiding individual decision-making and the subsequent economic outcomes and societal propensities.

The importance of affect for market reactions and finance outcomes is

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[166] *Id.*
[167] *Id.* at 48.
[168] *Id.* at 47.
[169] *Id.* at 58.
[170] *Id.*; HENRI BERGSON, TIME AND FREE WILL: AN ESSAY ON THE IMMEDIATE DATA OF CONSCIOUSNESS 43 (F.L. Pogson trans., 1913) [hereinafter *Time*]; *see* HENRI BERGSON, MATTER AND MEMORY (Margaret Pual & W. Scott Palmer trans., 1911); *see* GILLES DELEUZE & FELIX GUATTARI, A THOUSAND PLATEAUS: CAPI TALISM AND SCHIZOPHRENIA (Brian Massumi trans., 1987).
[171] Lee, *supra* note 149, at 46.
[172] *Id.*
[173] *Id.*; *Time*, *supra* note 170; DELEUZE & GUATTARI, *supra* note 170.
[174] GEORGE A. AKERLOF & ROBERT J. SHILLER, ANIMAL SPIRITS: HOW HUMAN PSYCHOLOGY DRIVES THE ECONOMY, AND WHY IT MATTERS FOR GLOBAL CAPI TALISM xxiii (2009); KEYNES, *supra* note 13.

prominently described in John Maynard Keynes' notion of 'animal spirits,' capturing the collective irrational force that can underlie economic outcomes.[175] George Akerlof and Robert Shiller build on the idea of collective moods influencing overall market performances.[176] The New School Professor Benjamin Lee accounts the work of Giles Deleuze, Henri Bergson and Baruch Spinoza as the most important philosophical influences on the development of contemporary affect theory.[177] Brian Massumi explicitly used Spinoza, Bergson, and Deleuze to create the theoretical parameters for affect theory and connected emotionality research to the finance world.[178]

The belief-desire model and moral philosophy notions influenced behavioral economics and behavioral finance theories.[179] Affect also adds to behavioral economics, which is primarily based on the study and description of mental shortcuts that often lead to suboptimal choices. The behavioral economics empirical validation of affective decision-making to impact individual economic choices started with Amos Tversky and Daniel Kahneman.[180] Behavioral economics experiments and empirical fieldwork discovered that individuals systemically do not behave rational as for being tainted by heuristics, framing and affective biases.[181] Belief-desire models were introduced in Daniel Kahneman's flow model that attributed affect as influence on decision-making.[182] Behavioral choice models also integrated unconscious biases and social volatility based on time prospects and money use.[183]

The belief-desire model and decision-making under uncertainty became the dominant framework for subjectivity in quantitative finance. Affect theory rose to prominence out of the wish to understand irrational group behavior in the wake of the 2008–2009 world financial recession and market sentiments tainted by Brexit.[184]

Today's affect theory in economics and finance proponents are Laura Berlant and Sianne Ngai in her most recent book *Gimmick* – both authors

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[175] KEYNES, *supra* note 13.
[176] AKERLOF & SHILLER, *supra* note 174; KEYNES, *supra* note 13; *see* Daniel Kahneman & Amos Tversky, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 4157, S1124-31 (1974); *see* Daniel Kahneman & Amos Tversky, *Pro spect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 2, S263-291 (1979); *see* DANIEL KAHNEMAN & AMOS TVERSKY, CHOICES, VALUES, AND FRAMES (1st ed. 2000).
[177] Lee, *supra* note 149; *Time*, *supra* note 170; DELEUZE & GUATTARI, *supra* note 170.
[178] Lee, *supra* note 149, at 57; *see* Brian Massumi, *The Autonomy of Affect*, 31 CULTURAL CRITIQUE: THE POLITICS OF SYSTEMS AND ENVIRONMENT, 83–109 (1995); *see* BRIAN MASSUMI, POLITICS OF AFFECT (2015).
[179] JULIA PUASCHUNDER, BEHAVIORAL ECONOMICS AND FINANCE LEADERSHIP: NUDGING AND WINKING TO MAKE BETTER CHOICES (1st ed. 2020).
[180] Kahneman & Tversky, *supra* note 176.
[181] *Id.*
[182] *Id.*
[183] *Id.*
[184] Lee, *supra* note 149, at 57.

connect affective fallouts to finance prospects and derive subsequent behavioral response propensities.[185] Ann Case and Angus Deaton provide evidence for the negative emotional consequences of economic disparate impacts and rising inequality in the American society.[186]

Social volatility levels and emotional fallout to economic crises differ drastically within society. Different emotionality propensities in the eye of market communication about the overall economic state are grounded in varying opportunity conditions and flexibility degrees of freedom that vary between different social groups. Intensity and nature of emotionality propensities changed dramatically during the COVID-19 pandemic between those invested in financial markets and those who derive income from real economy labor activities, especially in the service sector or professions with large crowd entertainment. The emotional ebbs and flows during times of crises thereby vary by professional challenge. Extent and intensity of sensations about contemporary events thereby create a gap between capital and labor. The same events are experienced in differing emotional states due to high market profits for financial gains and liquidity constraints imposed in the real economy.

Csikszentmihalyi found high skilled individuals indulging in high challenges, while low-skilled individuals are more likely to experience work stress.[187] In Csikszentmihalyi's *Flow of Everyday Experience,* highly skilled individuals grow on challenges, which are experienced as "flow" moments that create positive reinforcement loops via enjoyable emotions, while low skilled workers are facing apathy, worry and anxiety alerts, stresses, and depressions when hitting constraints.[188] Csikszentmihalyi suggests that being "in the zone" and "in flow" occurs when there is an optimal alignment of goals and abilities.[189] Then, people get positively absorbed by a task.

In light of the current economic situation, the ebbs and flows of affective intensities thereby form certain decision-making qualities and affectual propensities that form silos of experiences, which differ between societal classes. This prepares the argument that flow underlines the distinguishing factor between those who can afford long-term considerations in markets whereas others become negatively emotional in their decision-making under tight constraints.

Time plays a crucial role in the social division of affectual propensities. Financial market proponent or capitalist-industrialists appear to have more long-term possibilities and constant financial streams in light of the unprecedentedly long and large rescue and recovery efforts than consumption-constraint individual consumer-workers. The finance world can alter the sense

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185 BERLANT, *supra* note 16; NGAI, *supra* note 149.

186 BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16; PIKETTY, *supra* note 151.

187 *See* MIHALY CSIKSZENTMIHALYI, GOOD BUSINESS: LEADERSHIP, FLOW, AND THE MAKING OF MEANING (2003).

188 *Id.*

189 *Id.*

of time in discounting future value. The finance profession can choose to maintain a longer-term finance plan whereas in the real economy a constant salary stream is required to consume and maintain a standard of living. Volatility is thereby grounded in a flow model driven by affect that creates a differing sense of time. Different societal groups face different propensities to be holders of opportunities and to have a long-term view in personal finance and opportunities to derive personal gains from overall market losses. Other distinguishing factors are the turnover time and need of capital as well as the obligation to pay for production and consumption goods of industrialists in the real economy.

It is therefore assumed that financial analysts are the ones prone to rational thinking capacity during times of economic upheaval. In the real economy, employees and workers are bound to work for a salary in order to fulfill their day-to-day needs and wants. The holders of the means of production—for instance, factory owners and service sector managers—are likely facing long-term contracts and obligations that they cannot exit or ward off easily.

The ones engaged primarily in capital gains have the luxury of flexibility to exchange losing for winning stocks in a well-managed fund or diversify their portfolio. They are the ones who can wait out and suspect the implied volatility of underlying market options as better estimators of future market performance. And the finance world can turn market downers into profits in shorting and hedging options over time. For all these flexibilities, the finance world stays detached from emotionality given the possibility to hedge, short against and spread risks via diversification of more fungible assets that are not needed to be liquidated to cover day-to-day expenses.

The anthropologist Caitlin Zaloom describes the riding on the ebbs and flows of socially-shared affects constructing economic up and down swings.[190] Instincts of traders and market actor's engagement in capital for investment determine the better understanding and profiting from natural rhythms of financial fluctuation.[191] Dynamic traders can thereby outperform the market in understanding of collective moods bleeding into collective action influencing market outcomes.[192] Surfing volatility thereby becomes a skill of those using money to make money.[193]

While the finance world experiences a confidence boost thanks to diversification, shorting and hedging potential during economic frictions triggering rescue and recovery aid, the real economy suffers from closeness to real-world experiences. Real economy proponents have real skin in the economic game as their everyday life expenses are more likely to be dependent on salaries and—if offering goods and services—the consumption of others and

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[190] Lee, *supra* note 149, at 64–65; *see* CAITLIN ZALOOM, OUT OF THE PITS (2006).
[191] Lee, *supra* note 149, at 64–65; ZALOOM, *supra* note 190.
[192] Lee, *supra* note 149, at 65; Elie Ayache, *I am a creator.*, WILMOTT MAGA ZINE, June 2008, at 36.
[193] Lee, *supra* note 149, at 65; ZALOOM, *supra* note 190; *see* MIHALY CSIKSZENT MIHALYI, FLOW: A PSYCHOLOGY OF OPTIMAL EXPERIENCE (1990).

overall real economy market mood. Facing a propensity to a loss of confidence during a pandemic in the eye of real-life constraints, real economy dependent market actors have therefore a propensity to negative emotional fallouts during economic crises. Real economy dependent producers and workers are therefore more likely to react emotionally negatively given their constraint budgets and perceived lack of degrees of freedom. Industrialist-capitalists enjoy a longer time horizon but are likely also more obliged in long-term obligations and budget lock-ins.

The problem of a gap between the finance world and the real economy highlights a distinction of classes within society. The problem of identities in markets that are either emotionless or filled with affect in the eye of a pandemic lead to two classes of behavioral outcomes materializing in wealth and poverty, but also determining ego-boosting or self-depleting behavioral response propensities during a crisis. While economic crises are absolved by awareness and relatively less emotional content in the finance world, the hypervigilance and tension of the real economy due to real world constraints and inflexible obligations creates an unequal emotional outburst that is related to certain patterns of involuntary reflexes and behaviors.

The real economy seems to suffer from loss of confidence with personal affective states in times of crises given their threats to well-being, while the finance world has a powerful anti-affective force of crisis gain potential that invigorates flow in control of the situation. The affective reconstruction of the reality varies between the two worlds of finance with hope and real economy facing loss and risk aversion during a crisis. These two propensity trajectories and narratives exist concurrently in experiencing a common crisis together.

Affective states taint the conditions of life and how decisions play out in the lived time. The affective moments saturate the cognitive processes that lead to different subjectivities of reality and guide different behaviors. A common historical moment thereby appears as diverse visceral moment in assessing the diverse opportunities and risk prospects of different professional groups. A shared atmosphere of a cluster of opportunities determines a pattern of navigating in markets. The different patterns of affective responses thereby leverage into the structural divide in economies struck by an external shock.[194] The convergence between the affective response and economic differences creates zones of inequality in society.[195]

The inequalities of contemporary capitalism lie in the emotional state of

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[194] *See* Michalis Nikiforos, *When Two Minskyan Processes Meet a Large Shock: The Economic Implications of the Pandemic*, 29 THE LEVY ECON. INST. OF BARD C. POL'Y NOTE, 1 (2020), http://www.levyinstitute.org/pubs/pn_2020_1.pdf [https://perma.cc/W78W-69U3]; *see* Luiza Nassif-Pires et al., *We Need Class, Race, and Gender Sensitive Policies to Fight the COVID-19 Crisis*, MULTIPLIER EFFECT: THE LEVY ECON. INST. BLOG (Apr. 2, 2020), http://multiplier-effect.org/we-need-class-race-and-gender-sensitive-policies-to-fight-the-covid-19-crisis/ [https://perma.cc/U5M7-YXKV].

[195] Nikiforos, *supra* note 194; Nassif-Pire et al., *supra* note 194.

the real economy and the rational mastery of the finance world that gets exacerbated in the dynamic relations of social crowds and clans. While the finance world is more likely to be detached from real world financial constraints, the real economy suffers from a collective trauma in the face of threats and catastrophes in their everyday lives and the higher risk propensities of precarity. The slow death of despair analogy refers to the emotional fallout in the eye of time and money constraints of the real economy working class.[196] Slow deaths occur due to the emotional mindset of the working class, who are more prone to lack peace of mind for reproduction and/or preventive care in exercise or healthy food intake during an economic crisis.[197] Consumption and self-medication are more likely to become the stress relief mechanism in order to cope with the difficulty of contemporary life, which varies between different professional groups. Real economy profit extraction of workers exhausts the workers' bodies and feeds the affect to give in to impulsive everyday pleasure consumption, which can amalgamate to slowly growing diseases or chronic debilitating conditions.[198]

This socio-economic fragility also plays out in novel digital media handling divides. In today's unprecedentedly digitalized world, online media consumption and affect elicited through online virtual media news on insecurity and uncertainty may have a profound impact on individual's lives and determine their consumption patterns. Collective moods created online in instant and global information sharing constituting social volatility are a sign of our globalization time, in which reflexive communication on social media tools has created novel socio-economic pressures.[199] As the internet offers unprecedented opportunities to blast information instantaneously and truly globally, there seems to be volatility introduced by digital technologies in the contemporary culture and politics of finance.[200] Social media, internet technologies and search engines have also increased the "turnover" time of information.[201] Therefore the fractal butterfly effects become increasingly commonplace.[202] The overflow of "availability cascades" has become the norm rather than the exception.[203] Digital technologies speed up widespread transmission of information about volatility. Social contexts then echo the collective sensual activity in light of events that get transmitted and reinforced in

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[196] BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16.

[197] BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16; NGAI, *supra* note 149; *see* CDC Newsroom Releases, *Overdose Deaths Accelerating During COVID-19: Expanded Prevention Efforts Needed*, CDC (Dec. 17, 2020), https://www.cdc.gov/media/releases/2020/p1218-overdose-deaths-covid-19.html [https://perma.cc/XE2A-MTUF].

[198] BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16.

[199] Lee, *supra* note 149; *see* DAVID HARVEY, THE CONDITION OF POSTMODER NITY (1990).

[200] Lee, *supra* note 149, at 70.

[201] *Id.*

[202] *Id.*

[203] *Id.*

social media. Affective scenarios are emphasized in social discourses via instant messaging within social bubbles and group-specific silos that reciprocate emotions and feelings about the economic outlooks and cultivate social norms sector-specifically. The representation and transmission of positivity or negativity about the same event is constantly updated in real-time within different societal groups. So while the overall narrative may be similar—such as an external shock in a pandemic—the different social groups may create differing social representations that are laden by a set of different emotions that echo in social online platforms about them.[204] Emotions and moods thereby build up in large mass cultures and subgroups via new technologies that are constantly and reflexively scanned for news and information and that change on a periodic basis. Instant communication media thus proliferates world realities about the current state of the world in our common modes of living. The financial traders notice implied volatilities and can use it for their favor in their long-term vision; while the real-world dependent worker gets emotionally-laden and is turned to self-destructive choices. This kind of novel social volatility, and also the class divide in those who can handle social volatility more relaxed versus emotional, account for an increasing phenomenon as digital technologies unfold around the globe exponentially. Inequality of emotionality accounts for the most rising social trend of our pandemic times, which is almost not captured in the standard economics and finance literature but has vast impacts on the behavior and well-being of society.[205] The emotional fallout propensities are exacerbated by a disparate impact of inflation and low interest rate regimes as discussed in the follow.

4.4. Inflation

"Inflation is the decline of purchasing power of a given currency over time."[206] This sustained increase in the general level of prices for goods and services in a country occurs when a national money supply growth outpaces economic growth.[207] Inflation, measured as an annual percentage change, indicates that a unit of currency effectively buys less than it did in prior periods.[208] In inflation, prices of goods and services rise over time, purchasing power decreases and people are incentivized to spend money, which boosts the circulation of money and thereby market activities and subsequently economic growth.

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204 *See* Julia M. Puaschunder, *On the Social Representations of Intergenerational Equity*, 4 OXFORD J. FIN. & RISK PERSP. 4, 78–99 (2015).
205 *Id.*
206 Jason Fernando, *What Is Inflation?*, INVESTOPEDIA (JUNE 17, 2021), https://www.investopedia.com/terms/i/inflation.asp [https://perma.cc/8Q9Y-D559].
207 *Id.*
208 *Id.*

Inflation is widely considered to have an inverse relation to unemployment.[209] The Fisher Effect outlines the inverse relation of interest rates and inflation.[210] Central banks around the world engage in the monetary tool of inflation targeting to hold inflation at a certain level, most likely around 2–3% per year, to ensure a continuous standard of living for all market actors.[211] Especially in regards to lead currencies—such as the United States Dollar, the Eurozone Euro, the United Kingdom Pound Sterling, the Swiss Franc and the Australian Dollar—inflation can have vast impacts on the affordability of goods and services in countries that are pegged to these lead currencies.

Our current economic time features prevalent macroeconomic drivers of inflation in the prevailing central bank money supply boom, demand pull, cost push and monetary debasement.[212] Around the world, central banks and governments are lowering interest rates to produce liquidity across the globe. By-far all-time-high global central bank assets creation just reached 31 trillion USD for the first time.[213] In the U.S. treasury, bonds and notes issuances hit unprecedented high levels, while the U.S. Federal Reserve continued monetizing debt through large quantitative easing programs creating excess money supply adding to inflation.[214]

Inflation is caused by an oversupply of money in the economy. Just like any other commodity, the prices of things are determined by their supply and demand. If there is too much money supply, the price of money goes down and its purchasing power decreases, leading to the prices of everything else priced in dollars getting more expensive.

Built-in inflation may trigger a wage-price spiral, which occurs when workers demand higher wages to keep up with rising living costs. This in turn causes businesses to raise their prices in order to offset their rising wage costs, leading to a self-reinforcing loop of wage and price increases.[215]

Demand-pull inflation refers to situations where there are not enough products or services being produced to keep up with demand, causing their prices to increase.[216] Currently, demand is expected to skyrocket after household savings peaked throughout the end of 2020 coupled with consumer spending unleashed throughout 2021. [217] Trends project already 7.5 times higher the historical average annual spending adjusted for inflation for 2021

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[209] *See* ARMSTRONG ET AL., CAPITALISM SINCE 1945 (1991); *see* BRENNER, THE BOOM AND THE BUBBLE: THE US IN THE WORLD ECONOMY (2003).
[210] Adam Hayes, *Fisher Effect Definition*, INVESTOPEDIA (Aug. 23, 2020), https://www.investopedia.com/terms/f/fishereffect.asp [https://perma.cc/6DGV-RTFC].
[211] Sarwat Jahan, *Inflation Targeting: Holding the Line*, INT'L MONETARY FUND (Dec. 8, 2021), https://www.imf.org/external/pubs/ft/fandd/basics/target.htm.
[212] CRESCAT CAPITAL, *supra* note 26.
[213] *Id.*
[214] *Id.*
[215] *Id.*
[216] *Id.*
[217] *Id.*

that may surge with the grand re-opening of the economy as the Coronavirus risk fades for vaccinated populations.[218]

Inflation is also likely caused when companies' costs of production increase, forcing businesses to raise their prices to maintain their profit margins. Production during pandemic constraints have likely increased costs including wages, taxes and natural resources, imports and safety of labor. Supply shortages not only occurred during lockdown. Production disruptions and consumption patterns shifted abruptly in the beginning of the external shock of COVID-19.[219] Labor shortages also occurred in key qualification frontline workers as well as professions with a vast array of human touchpoints.[220] Pro-active care for maintaining a healthy workforce and the overall long-term well-being of employees, including preventive care in teams, will become an essential corporate feature to attract qualified labor, whose bargaining power increases in the eye of labor shortages in human-facing industries and positions.[221] The Long Haul prospect and prolonged COVID pandemic has risen U.S. job openings to historic highs and the share of U.S. corporations not being able to fill positions has increased to 15%, which accounts for a record highest rate ever measured.[222] At the same time, more workers are quitting with the job quits rate at 2.7% in June 2021.[223] In addition, the US retail inventory to retail sales ratio has been at an all-time low and labor-management conflicts are expected to rise with the widening of the finance market versus real economy gap expected to becoming even more accentuated in the future.[224]

Monetary debasement is another driver of inflation that currently adds inflationary pressure to the U.S. economy featuring a twin deficit of 25% of the nominal GDP.[225] Corporate debt has grown to near all-time highs while bond yields remain near all-time lows.[226] Excess liquidity in the market has

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[218] *Id.*
[219] Susan Helper & Evan Soltas, *Why the Pandemic Has Disrupted Supply Chains,* THE WHITE HOUSE (Jun. 17, 2021), https://www.whitehouse.gov/cea/written-materials/2021/06/17/why-the-pandemic-has-disrupted-supply-chains/ [https://perma.cc/R7J6-WRYK].
[220] Robbie Whelan, *High Pay for Covid-19 Nurses Leads to Shortages at Some Hospitals: Some hospitals pay signing bonuses of up to $40,000; 'We're desperate for nurses,'* WALL ST. J. (Aug. 26, 2020, 7:09 AM), https://www.wsj.com/articles/germany-boosts-already-hefty-coronavirus-stimulus-11598440184 [https://perma.cc/4CMG-6JXJ].
[221] Teresa Ghilarducci, *Are Firms Causing People to Quit? Quits Rate Increasing to 2.7%*, FORBES (Aug. 14, 2021), https://www.forbes.com/sites/teresaghilarducci/2021/08/14/are-firms-causing-people-to-quit-quits-rate-increasing-to-27/?sh=3a18e42d35d0 [https://perma.cc/GSH3-K5YQ] (based on data of Michael Papadopoulos at The Conference Board); Whelan, *supra* note 220.
[222] Ghilarducci, *supra* note 221; Whelan, *supra* note 220.
[223] Whelan, *supra* note 220.
[224] CRESCAT CAPITAL, *supra* note 26.
[225] *Id.*
[226] *Id.*

created one of the most speculative investment environments of all times with cryptocurrencies and social online media playing a peculiar, novel role in overheating markets. At the same time, commodities such as food and beverages, which already had elevated price levels since 2000 and have experienced a significant rise during the 2008/09 World Financial Recession that has not adjusted to previous levels, have exhibited vertical price spikes within the last year.[227] Adding to commodities prices explosions, the aggregate free cash flow for the top 50 gold and silver miners is now growing exponentially.[228] With growing concerns of monetary debasement emerging, investors continue to bid up commodity prices, leading to higher consumer prices.[229] In addition, the S&P 500 earnings yield adjusted for the Consumer Price Index (CPI) is now at its most negative level in 30 years, which has been attributed as an understated measure of true inflation.[230]

Understanding the role of the exponential rise in prices for the stability of the underlying economy is key when trying to avoid historical examples of the past, such as the hyperinflation during the interwar period of the first quarter of the 20th century.[231] International transmissions of inflation are discussed in historic examples to build adaptive expectations on information about current and past experiences with inflation.[232] Disequilibrium inflation occurs when the actual rate of inflation is greater than the expected followed by social unrest and industrial conflict.[233] As a more recent positive example, during the 2008–2009 World Financial Recession, the United States Federal Reserve dropped its interest rate target to close to zero, and then was forced to use unconventional monetary policy tools including quantitative easing as an emergency measure to stimulate the economy and prevent it from tumbling into a deflationary spiral. Treasury bonds issuance was used in order to avoid a free fall inflationary price drop. Due to the Treasury Bond issuance and trust in the U.S. economic performance, the U.S. government remained intact as the economy continued an overall productive pace during the period

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[227] Jeff Cox, *Consumer prices jump 5% in May, fastest pace since the summer of 2008*, CNBC NEWS (June 10, 2021), https://www.cnbc.com/2021/06/10/cpi-may-2021.html [https://perma.cc/NV5E-Q793].
[228] *Id.*
[229] *Id.*
[230] *Id.*
[231] *See* Adam Hayes, *Why Didn't Quantitative Easing Lead to Hyperinflation?* INVESTOPEDIA, https://www.investopedia.com/articles/investing/022615/why-didnt-quantitative-easing-lead-hyperinflation.asp [https://perma.cc/BRE4-32XB] (last updated June 27, 2021).
[232] Peter A. Hall & David Soskice, *An Introduction to Varieties of Capitalism*, *in* VARIETIES OF CAPITALISM: THE INSTITUTIONAL FOUNDATIONS OF COMPARATIVE ADVANTAGE 1, 8–9 (Peter A. Hall & David Soskice eds., 2001); *see* David Soskice, *Strike Waves and Wage Explosions, 1968-1970: An Economic Interpretation, in* THE RESURGENCE OF CLASS CONFLICT IN WESTERN EUROPE SINCE 1968 221, 221–45 (Collin Crouch & Alessandro Pizzorno eds., 1978).
[233] Hall & Soskice, *supra* note 232; Soskice, *supra* note 232.

of the Great Recession and only saw very modest increases in inflation.[234]

A potential wage-price spiral—such as the one in the 1970s—is likely to be followed in the decades to come, driving investment in raw materials, real-estate and innovative finance options, such as cryptocurrencies.[235] The number of companies mentioning inflation in earnings calls and people searching for the term 'inflation' on Google is growing at a pace as never before feeding into the general population not feeling confident to hold cash or save money in the bank accounts.[236] This kind of behavior spurs large-scale investment and/or highly risky myopic growth consumption—such as in investments in cryptocurrencies—fueling bubble potential. All these correlates set the tact in shaping economic booms and busts. Of the underlying of socio-psychological correlates of such market behavior, however, there is hardly any coverage or understanding.[237] Yet information about the economy is key in shaping collective moods that determine individual market actors' propensity to consume or invest, which lead to specific underlying economic long-term cycles and their positive or negative socio-economic fallout propensities implied.

While economics offers multiple accounts on the relation of inflation with interest rate dynamics and purchasing behavior shifts in various inflation rate scenarios, less is known about inflationary effects on different social strata. Inflation affects different people in different ways, with some benefiting from its effects at the expense of others who lose out. Inflation therefore can be viewed positively or negatively depending on the individual viewpoint and rate of change.

Obviously, creditors (the lenders of funds) are in a less favorable position when it comes to the value of money than debtors (the borrowers of funds) economically if considering the overall purchasing power of creditors declines over time, while the overall debt burden for the borrower declines with time. Higher inflation thus harms savers because it erodes the purchasing power of the money they have saved in their accounts and benefits borrowers because the inflation-adjusted value of their outstanding debts shrinks over time.[238] But this effect is a rather economic mechanism, in which creditors lose degrees of freedom over time by decreasing the purchasing power of the funds they expect to receive back. Higher inflation can trigger two scenarios: For one, inflation encourages spending, as consumers will aim to purchase goods quickly before their prices rise further. Savers, on the other hand, could see the real value of their savings erode, limiting their ability to

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[234] Federal Reserve Bank of St. Louis, *The Origins of Unconventional Monetary Policy in the U.S.*, https://www.stlouisfed.org/annual-report/2015/the-origins-of-unconventional-monetary-policy-in-the-us [https://perma.cc/YDW8-TNVG].
[235] CRESCAT CAPITAL, *supra* note 26.
[236] *Id.*
[237] CRESCAT CAPITAL, *supra* note 26; KEYNES, *supra* note 13; Julia M. Puaschunder, *Socio-Psychological Motives of Socially Responsible Investors*, 19 GLOB. CORP. GOVERNANCE 209 (2017).
[238] Fernando, *supra* note 206.

spend or invest in the future.[239]

What is missing in economic writing is attention to the psychological account of debtors, who often cannot afford purchases on their own, lock themselves in repayment prisons and lower their purchasing power freedom to reallocate funds over time. Never having the financial means to finance large-scale choices flexibly but to constantly having to pay back old debt puts individuals in a backward-looking prison of constant debt repayment of past needs and wants. When people are spending their real economy lives hunting the shadows of their past consumption choice, life starts going backwards and rests in the yesterday. Capital being the withheld consumption today grants future flexibility of consumption. Consumption that does not result in debt may grant peace of mind rather than imposing emotionality in the face of long-term constraints.[240] Money at hand thus is psychic energy released at the holder's discretion giving the ultimate freedom of future-oriented choice.[241]

In the international arena, inflation is a double-edged sword for import and export industries. Inflation declines a nation's currency's value, which benefits exporters by making their goods more affordable when priced in the currency of foreign nations. Inflation at the same time harms importers by making foreign-made goods more expensive.[242] Thus inflation is neither good or bad, it simply depends on if your revenue or purchasing power are based on imports or exports.

Inflation hits metropolitan populations harder than rural populations, not only in the general price levels but the relative income spent on living expenses. The currently found economic Doughnut effect speaks about richer metropolitan segments having moved out of cities to live in suburbs (hence the Doughnut) during the COVID-19 pandemic, while poorer individuals, who cannot afford relocation costs remain in the city and have lost the income sources stemming from richer populations' purchasing power.[243]

Inflation effects also depend on whether inflationary changes are anticipated or unanticipated, for instance, when considering that the re-negotiation of contracts may take a certain period of time. The question here is not whether inflation occurs but who has flexibility at what pace to renegotiate salaries and other transfer payments for living expense conditions. People living off a fixed-income or social welfare payment beneficiaries, such as those on food stamps, governmental welfare programs, retirees and annuitants, see a sticky, hence hard-or-slow-to-change over time, or non-renegotiable decline in purchasing power that is likely not adjusted for inflation fast enough or at all. People being able to renegotiate their terms or—again—

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[239] *Id.*
[240] Csikszentmihalyi, *supra* note 187.
[241] *Id.*
[242] Fernando, *supra* note 206.
[243] Arjun Ramani & Nicholas Bloom, *The Donut Effect of Covid-19 on Cities* (Nat'l Bureau of Econ. Rsch., Working Paper No. 28876, 2021), https://www.nber.org/papers/w28876 [https://perma.cc/PH3E-797R].

people with savings that can wait out negotiations benefit more from inflation than those who are constraint and pay off old mortgages under tight budget constraints, resulting in decreased negotiation power and likely facing high costs for refinancing or a personal bankruptcy, which may lead to social misery and self-harming choices.

Those with tangible assets, like property or stocked commodities, benefit from moderate inflation as these asset holdings' values are likely to increase with inflation.[244] People holding cash may typically prefer no inflation, as it erodes the value of their cash holdings.[245] Homeowners and landlords rather benefit from inflation, especially if homeownership is built on a fixed-interest or no mortgage. Housing prices tend to rise in inflationary markets and homeowners are able to raise the rent each year or lease term.[246]

So the discussion of our time should not be about whether the size of the quantity of money established to aid and back economic recovery will likely cause inflation but to whom transfer payments should be redirected in order to offset the negative disparate impact of inflation. It is thus not to label inflation good or bad *per se* but to eyes and minds in rather educating people about their own personal situation and decisions to navigate in the jungle of finance more strategically in a fast-paced and ever-changing world.

4.5. Interest rate

Government bailout packages are partially financed via debt and a historically-lowest, never-so-long-low key interest rates for savings to spur financial market activity.[247] The U.S., but also other major economies around the world, are expected to face historically low interest rates for savings below growth rates for a long time into the future.[248]

Low interest rates allow investors and industry to borrow money for innovative corporate and financial endeavors, which will overall boost the economy and provide a vital liquidity stream for the finance sector.[249] Falling interest rates lubricate the spread of capital across the globe and foster innovative activities by heightening the prospect of a net rate of profit. The economist John Maynard Keynes described the underlying subjective and objective factors of aggregate consumption patterns and factors that influence individual savings propensities.[250] Subjective factors are the desire to

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[244] Passy, *supra* note 25; Cassim et al., *supra* note 21; The White House, *supra* note 21.
[245] Fernando, *supra* note 206.
[246] Passy, *supra* note 25; Cassim et al., *supra* note 21; The White House, *supra* note 21.
[247] OLIVIER BLANCHARD, *Public Debt and Low Interest Rates*, 4 AM. ECON. REV. 109, 1197–1229 (2017); Puaschunder, *supra* note 237.
[248] BLANCHARD, *supra* note 247; Puaschunder, *supra* note 237.
[249] KEYNES, *supra* note 13.
[250] *Id*.

save for future consumption and contingencies, to use passive and speculative investment to expand future income, to amass wealth, and for some, even to enjoy miserliness.[251] Objective factors include windfall gains or losses, taxation, price controls, expectations and changes in the interest rate.[252] Institutional and organizational factors shape and channel all such factors.

In Keynes' General Theory, the interest rate is subjective and interest rates are linked with each other by maturity.[253] In Keynes, the interest rate is determined by subjective preferences and the price of a commodity is based on costs.[254] In Keynes, prices and the interest rate are based on expectations how the market will perform.[255] The government can step in by reducing the interest rate to override the fall in confidence through investment stimulus.[256] A low interest rate regime may crowd out capital accumulation and spur financial investment flows.[257]

At the same time, a cut in interest rates also fuels international bubbles in finance and real estate as well as leads to consumers being incentivized to spend rather than save, which puts them at risk of lowered resilience in times of crises.[258] Excessive borrowing may also imply that corporations and governments become excessively indebted, which raises liquidity constraints and market risks. When investing stops and elevated debt levels become endemic, banking liquidity and governmental credit decreases and the economy will enter a system-inherently-induced recession, such as the market downturn in 2008/09. When savings interest rates are low and public debt accumulates, social welfare costs arise in debt rollovers, which crowds out capital accumulation and implies missed welfare opportunities in the future.[259]

Low key interest rates will continue to spread the inequality gap of the finance world versus the real economy performance. Low interest rates and access to capital will allow the capital market to flourish based on incentivized liquidity and access to venture capital. Low interest rate regimes will – at the same time – weaken the potential of the interest rate as a monetary policy tool of central banks. The macroeconomic ineffectiveness of lowering an already low interest rate even further was first described by Keynes as a "liquidity trap" at the beginning of the 20th century during the Great Depression.[260] The blasé consumer sentiment over a marginal decline of an already low interest rate was also discussed by Ben Bernanke during his term as the

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[251] *Id.*
[252] *See generally* ANWAR SHAIKH, CAPITALISM: COMPETITION, CONFLICT, AND CRISES (2016).
[253] *Id.*
[254] *Id.*
[255] *Id.*
[256] *Id.*
[257] *Id.*
[258] Passy, *supra* note 25.
[259] BLANCHARD, *supra* note 247.
[260] KEYNES, *supra* note 13.

Chairman of the Federal Reserve in the 2008/09 Financial Recession.[261]

From the hardly captured socio-psychological standpoint, a low interest rate promotes a rise in consumer debt. With falling interest rates and credit being made easier, consumers and other spending continues to rise. A low interest rate policy thereby brings along long-term external financing of past ideas, which impairs the flexibility of investors to allocate liquidity to future-oriented innovations and may hold back societal progress and thus actually decrease general welfare on the long run.[262] A rising tide of debt also increases the likelihood of real economy constraints and subsequently financial market crashes if people realize that endemic debt levels are no longer sustainable.

The Austrian School of Economics describes excessive issuance of credit by banks as a driver of crises in banking systems.[263] Excessive issuance of bank credit is exacerbated if central bank monetary policy sets interest rates too low. The resulting expansion of money supply causes a boom, in which resources are misallocated because of artificially-low interest rates and inflation rise. This unsustainable boom is followed by a bust, in which malinvestments are liquidated below their original costs and the money supply contracts and then the financial market system collapses.

Different groups in society may have different outlooks on the same information. While financially-versed parts of the population may experience the COVID-19 economic fallout as an opportunity – given modern finance tools and methods such as shorting, derivatives and diversification – the real economy may hit stronger feelings in the eye of uncertainty given the lower levels of degrees of freedom fueled by low interest rates that incentivized debt cycles for consumer credits.[264] What is new to this argument nowadays, is the fact that we are seeing massive socio-psychological burdens in private households these days in the middle class of the United States.[265] Consumer debt tends to create lurking social misery on the long run that has a socio-psychological propensity fallout for sub-optimal choices, decisions with negative overall impact over time and self-destructively harmful behavior. A so-coined 'deaths of despair' trend is already noticed in the U.S. for mid-career population segments that face death spikes induced by alcoholism, drug use

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[261] *Id.*

[262] BLANCHARD, *supra* note 247.

[263] JOSEPH A. SCHUMPETER, THE THEORY OF ECONOMIC DEVELOPMENT (1934); JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY (George Allen & Unwin, 5th ed. 1976) (1943); JOSEPH A. SCHUMPETER, ECONOMIC THEORY AND ENTREPRENEURIAL HISTORY (1949); JOSEPH A. SCHUMPETER, ESSAYS ON ENTRE PRENEURS, INNOVATIONS, BUSINESS CYCLES, AND THE EVOLUTION OF CAPITALISM (1989).

[264] EDWARD LIPUMA & BENJAMIN LEE, FINANCIAL DERIVATIVES AND THE GLOB ALIZATION OF RISK (Durham, N.C.: Duke U. Press, 2004); BENJAMIN LEE & RANDY MARTIN, DERIVATIVES AND THE WEALTH OF SOCIETIES (Chicago, Ill.: U. of Chi cago Press, 2016).

[265] CASE & DEATON, *supra* note 16.

and suicide – all problems that have been exacerbated during the COVID-19 pandemic.[266] Low interest rates on savings accounts in the real economy keep people trapped in the debt financing of past aspirations.[267] Private household debt traps differ from public or governmental debt as the Ricardian equivalent points out in intergovernmental entities' ability to issue bonds and roll over debt to future generations in comparison to private household entities.[268] Financial managers may therefore currently benefit from the low interest regimes in access to capital at the socio-psychological fall-out expense of the real economy and in the eye of an overall market insecurity risk implied in low interest rate regimes on the long run.

One related theory that was brought forward recently was the idea of Sianne Ngai's *Gimmicks* that give a tableau of illusions that do not add up to reality.[269] Gimmicks include the camouflage of unequal expansion of capitalist gains and economic opportunities by mass media, literature, television, film, video and art up to social media online that procreates cultures of aspirations that actually make people unhappy on the long run.[270] Good life fantasies and lifestyle aspirations in a low interest rate climate may create prisons of debt for indebted consumers who spend their whole life paying off bills of previous choices based on past aspirations. Their consumption patterns and financial flows psychologically go backwards in time. This cruelty in the optimism portrayed in media created by capitalist machineries may be associated to the so-called 'death of despair' – rising numbers of self-induced deaths in the young middle class through such means as alcohol, drug intake and suicide noticeable in today's capitalist society.[271]

V. THE REMEDY: TARGETED RESCUE AND RELIEF PACKAGES

The trends of abruptly changed demand patterns having unexpectedly widened the economic performance gap between the finance sector and the real economy; differing flexibility and liquidity potentials between finance and the real economy implying sector-specific affective fallout propensities; but also the currently-experienced longest-ever low interest rate and industry-specific inflation patterns all lead to the quest for a closer analysis of the disparate impact of the COVID-19 pandemic in the distribution decision of rescue and recovery funding. Governmental rescue and recovery aid should

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266 CASE & DEATON, *supra* note 16; CDC Newsroom Releases, *supra* note 197.

267 Rohit Arora, *Which Companies Did Well During The Coronavirus Pandemic?,* FORBES (June 30, 2020), https://www.forbes.com/sites/rohitarora/2020/06/30/which-companies-did-well-during-the-coronavirus-pandemic/?sh=418c3bda7409 [perma.cc/T6CE-S7F8].

268 BLANCHARD, *supra* note 247.

269 CASE & DEATON, *supra* note 16; NGAI, *supra* note 149.

270 NGAI, *supra* note 149.

271 NGAI, *supra* note 149; BERLANT, *supra* note 16; CASE & DEATON, *supra* note 16; CDC Newsroom Releases, *supra* note 197.

be informed by the results of the analysis of the diversified impact of economic variables on specific societal groups. When contemplating on the targeted rescue and relief efforts of governments and public institutions, the focus of the aid should be guided by a whole-rounded effect analysis.

Economic crises in the wake of pandemics are intensified situations with extensive threats to survival, economic resilience and heightened risk of social upheaval. The distribution of funds thus highly depends on the geopolitical and biopolitical locations as well as the socio-economic starting ground. The distinction into social classes of crises is structural and should include the role of affect – which materializes in emotional excitement caused by crisis in some parts of the population and emotionless rational response in others that determines health and well-being whole-roundedly and over time.

As a first start in a stratified economic impact analysis, governmental officials currently face decisions whether to target funds and policy aid on the local versus rural versus urban level, national versus international prospect as well as the immediate versus the long-term beneficiaries, as pursued in public investments on climate stabilization efforts underlying the Green New Deal or European Green Deal Sustainable Finance Taxonomy.[272]

5.1. Urban-local-regional and national focus

In the decade prior to the COVID-19 pandemic, globalization already slowed. From 2010 on, a trend called "slowbalization" depicted stagnant or declining international trade, finance, and profits abroad.[273] The rising 'glocalisation' of consumers meant that purchasing decisions were more focused on the local production.[274] Corporate Social Responsibility pledges had gotten informed and environmentally-conscientious consumers to support their

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[272] Edward Barbier, *A Global Green New Deal*, *Report Prepared for the Green Economy Initiative of UNEP,* UNITED NATIONS ENV'T (2009), https://sustainable development.un.org/index.php?page=view&type=400&nr=670&menu=1515 [https://perma.cc/VXM3-B22M]; *see also* Mariana Pargendler, *The Rise of Interna tional Corporate Law* 24, 24–32 (Eur. Corp. Governance Inst. L. Working Paper No. 555/2020, 2020), https://ssrn.com/abstract=3728650 [https://perma.cc/2KS8-EGBC] (providing a historical overview of UN initiatives relating to ESG, particu larly climate change); *Group Letter to Congress Urging Green New Deal Passage*, EARTHWORKS (Jan. 10, 2019), https://www.earthworks.org/publica tions/group-letter-to-congress-urging-green-new-deal-passage/ [https://perma.cc/VKD3-E46C]; *see A European Green Deal*, EUR. COMM'N, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en [https://perma.cc/LX5Y-23M6].

[273] Luca D'Urbino, *The Steam Has Gone out of Globalisation*, THE ECONOMIST (Jan. 24, 2019), https://www.economist.com/leaders/2019/01/24/the-steam-has-gone-out-of-globalisation [https://perma.cc/G4VC-UBNN].

[274] Joe McDonald, *Companies prodded to rely less on China, but few respond*, AP NEWS (June 29, 2020), https://ap

communities in leveraging shopping as a quasi-democratic and personal choice act that supports their own network.[275] As the internet online window to the world shed light on production conditions abroad, in many developed jurisdictions firms felt increasingly compelled by political pressure to re-shore production and localize global value chains.[276] Contagion risks became apparent as shadows of the invisible hand—as vividly outlined in the 2008–09 world financial recession financial spill-overs, food insecurity emerging out of commodity prices' international interdependence and global health safety risks in spreading diseases in an increasingly mobile general population.[277]

Newest trends that gained prominence during the COVID-19 lockdowns couple architecture and living with being close to nature and in harmony with the local community. Agri-hoods spread all over the world as

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news.com/bc9f37e67745c046563234d1d2e3fe01[https://perma.cc/7MCB-V4QC]; *Council on Investments for the Future*, PRIME MINISTER OF JAPAN AND HIS CABINET (Mar. 5, 2020), https://japan.kantei.go.jp/98_abe/actions/202003/_00009.html [https://perma.cc/2EDG-4W5F]; *EU Trade Chief Urges for More Diverse Supply Chains After Crisis*, REUTERS (Apr. 16, 2020, 10:15AM), https://money.usnews.com/investing/news/articles/2020-04-16/eu-trade-chief-urges-for-more-diverse-supply-chains-after-crisis; Vasileios Theodeosopoulos, *The Geopolitics of Supply: Towards a new EU approach to the security of supply of critical raw materials?*, INSTITUTE FOR EUROPEAN STUDIES POLICY BRIEF, July 2020; Robert E. Lighthizer, *The Era of Offshoring U.S. Jobs Is Over*, THE N.Y. TIMES (May 11, 2020), https://www.nytimes.com/2020/05/11/opinion/coronavirus-jobs-offshoring.html [https://perma.cc/R98Q-JG5V]; Andrea Shalal et al., *U.S. mulls paying companies, tax breaks to pull supply chains from China,* REUTERS (May 18, 2020), https://www.reuters.com/article/us-usa-china-supply-chains/u-s-mulls-paying-companies-tax-breaks-to-pull-supply-chains-from-china-idUSKBN22U0FH [https://perma.cc/3GJ9-FWNG]; Geoffrey Gertz, *How to Deglobalize*, FOREIGN POLICY (July 24, 2020), https://foreignpolicy.com/2020/07/24/how-to-deglobalize [https://perma.cc/T36J-JL8Y]; *The steam has gone out of globalisation: Slowbalisation*, THE ECONOMIST (Jan. 26, 2019), https://www.economist.com/leaders/2019/01/24/the-steam-has-gone-out-of-globalisation [https://perma.cc/3YNK-KWLR]; *Special Report on Slowbalisation: Multinational companies are adjusting to shorter supply chains: The risks of not knowing who supplies your supplier*, THE ECONOMIST (July 11, 2019), https://www.economist.com/special-report/2019/07/11/multinational-companies-are-adjusting-to-shorter-supply-chains [https://perma.cc/HD8S-BXZQ].

[275] Julia Margarete Puaschunder, *Socio-psychological motives of socially responsible investors*, 1 ADVANCES IN FINANCIAL ECONOMICS 19, 209–47 (2017).

[276] Pete Ryan, *Multinational Companies Are Adjusting to Shorter Supply Chains*, THE ECONOMIST (July 11, 2019), https://www.economist.com/special-report/2019/07/11/multinational-companies-are-adjusting-to-shorter-supply-chains [https://perma.cc/38YB-KT34].

[277] Miguel Angel Centeno et al., *Global Systemic Risk: Proposal for a Research Community* (Apr. 1, 2013) (Princeton Inst. Int'l and Reg'l Stud. Working Paper, 2013) (on file with author).

organized communities that integrate agriculture into a residential neighborhood. These closed eco-systems are communities that facilitate local food production and consumption as well as provide shared recreational facilities for its local community members.[278] Agri-hoods are extraordinarily popular with millennials, who master global mindsets online with having grown up using the internet and instant communication tools more than any other generation before.[279] In their real lives though, millennials seem to long for supporting a local, non-complex world, in which they like to enjoy harmony with the given nature around and their local community. As of May 2020, there are already 90 agri-hoods in the United States and another 27 are planned. In their own living spaces, individuals tend to enjoy closeness to nature.[280] Biophilia designs have skyrocketed during the pandemic, which resemble nature within the private living space—such as in cork or wood but also fungus and plants around.[281] People have become more local than ever before in the history of modern technologies.

Since 2016, nationalism emerged in homeland-first and EU-exit sentiments.[282] The ongoing coronavirus-crisis exacerbated these trends of slowing globalization by putting an abrupt halt to global mobility and migration.[283] As Professor Martin Gelter argues in his work on nationalism in this Journal issue, currently economic arguments for nationalism are experiencing a renaissance. Governmental ownership to defend against takeovers and large-scale governmental bailout packages to rescue struggling industries have gained unprecedented momentum in the wake of the crisis, but also foreign direct investments had already experienced a decline even in the decade

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[278] EcoWellness Group, *Salzburg European Declaration from the Gasteinertal: Interdisciplinary Conference on 'System change?! The chance of transformation of the healthcare system*, July 14–15, 2021, https://www.oekowellness.de/wp-content/uploads/2021/07/Final-Stand-5.7.-2021.07.04_Programm-14.7.-und-15.07.2021-2.pdf [https://perma.cc/9XZ6-CFZ6] (last visited Aug. 23, 2021).

[279] *The Agrihoods are coming*, AGRITECTURE (June 17, 2021), https://www.agritecture.com/blog/2021/6/17/the-agrihoods-are-coming [https://perma.cc/RWP5-U8Y4]; *Agrihoods: A new trend in lifestyle living*, GARDEN DESTINATIONS, https://www.gardendestinations.com/agrihoods-a-new-trend-in-lifestyle-living/ [https://perma.cc/8QZJ-T9ZF] (last visited Sept. 7, 2021).

[280] *What is an Agrihood?*, NEW HOPE VILLAGE & FARM (Dec. 8, 2021), https://www.newhopevillagefarm.com/what-is-an-agrihood [https://perma.cc/G7VV-GKV4].

[281] Alex Pearlman, *Biophilic homes prove nature is the best medicine: Living design elements create a serene, multisensory, healing experience*, https://neo.life/2020/12/biophilic-homes-prove-nature-is-the-best-medicine/ [https://perma.cc/ZTG7-ZGNG] (last visited Sept. 7, 2021).

[282] Sofia Profita, *Slowbalization and Its Risks* (Colum. U. Working Paper, 2019) (on file with authors).

[283] Julia M. Puaschunder, *Artificial Intelligence Market Disruption*, RSCH. ASS'N INTERDISC. STUD. CONF. PROC.: 13TH INT'L RAIS CONF. ON SOC. SCI. & HUMAN. 1 (June 2019), http://rais.education/wp-content/uploads/2019/07/01-JP.pdf [https://perma.cc/Y7JU-GSXU].

prior to the Coronavirus era.[284]

All these signs point at nationalism having become a focus of governmental attention for distributing bailouts and recovery funds. COVID-19 has strengthened nationalist impulses and outlines that protectionist policies are not always detrimental. Infant-industry protectionism but also our times of the pandemic crisis recovery let nationalism appear somewhat favorable.[285] Benefits of local, regional and national focus of attention are to keep foreign political influences but also international competitors that establish market dominance out of one's own territory. International competition on national soil can be harmful to breeding a country's own innovation and may crowd out learning-by-doing at work and erode the social compact.[286] A protectionist view allows to first focus on allocating funds solely to one's own territory and work with the existing talent pool and resources, which hones skills that may trickle down in multiplier effects into the own economy.[287] Moreover, Professor Gelter also points out in this journal issue that in a crisis mode, firms can benefit from being embedded into local business network and a close relationship with the respective government that helps them to become more resilient. Since the economic disturbances from the pandemic are not disappearing entirely and shocks are likely to recur, it may be beneficial for countries to establish resilient structures for firms on one's own grounds that help them to survive shocks, even if they come at the expense of traditional efficiency goals in corporate governance. The local or domestic network simply offers a smaller, easier to control regulatory focus – especially when the world and interactive effects appear highly complex in a fast-paced changing pandemic crisis climate.

5.2. Global and future-oriented beneficiaries focus

Interestingly, the COVID-19 external shock that released the largest and most widespread economic recovery aid and rescue packages worldwide came at a time of global attention to rising inequality around the world.[288] As the crisis unfolded, global inequality in access to affordable medical care but also preventive healthcare became apparent.[289] The Coronavirus crisis truly challenged leaders around the world to argue for economic systems being

[284] D'Urbino, *supra* note 273.
[285] *See generally* HA-JOON CHANG, KICKING AWAY THE LADDER: DEVELOPMENT STRATEGY IN HISTORICAL PERSPECTIVE (2002).
[286] *Id*.
[287] MARIANA MAZZUCATO, THE ENTREPRENEURIAL STATE: DEBUNKING PUBLIC VS. PRIVATE SECTOR MYTHS (2015); KEYNES, *supra* note 13.
[288] PIKETTY, *supra* note 151.
[289] Puaschunder & Beerbaum, *supra* note 20.

equitable and share the benefits of economic prosperity and scientific advancement equally around the globe.[290] Global governance has taken a leading role in arguing for access to affordable vaccinations around the world.[291]

But the crisis has also drawn attention to novel social inequalities within society and sharpened our senses for the disparate impact of policies of prevention and recovery for different societal groups. More than ever before in the history of modern humankind are leaders urged to place their policy programs in line with social justice pledges. How to align economic interest with justice notions has leveraged into the most important question of our times.

The crisis also came during a time when ecological limits had been reached and climate change was on the minds of the global community.[292] The worldwide and long-term impact of CO_2 becoming apparent in rising temperature around the globe changing living condition massively, drove the need for concerted action on climate stabilization.[293] Around the world global public and private sector entities are nowadays working on a broad variety of climate change mitigation and adaptation and climate stabilization efforts. Like no other concern of our lifetime, the solutions and accomplishment of climate stabilization goals will determine the lives of many generations to come. More than ever are leading Law and Economics scholars currently trying to imbue the idea of environmental justice in a greening economy.[294]

COVID-19 rescue and recovery aid echoes all these contemporary concerns in being pegged to green economy efforts and social justice pledges. This is foremost the case in the United States with the U.S. President Biden administration fostering the Green New Deal (GND) but also the European Union Commission sponsoring the European Green Deal and a Sustainable Finance Taxonomy.[295] These ambitious acts and plans account for the most vibrant and large-scale developments in our lifetime if considering the mas-

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[290] *Id.*

[291] *Id.*

[292] ENCYCLOPEDIA OF THE UN SUSTAINABLE DEVELOPMENT GOALS (forthcom ing).

[293] JULIA M. PUASCHUNDER, GOVERNANCE AND CLIMATE JUSTICE: GLOBAL SOUTH AND DEVELOPING NATIONS (2021).

[294] John Armour, Luca Enriques & Thom Wetzer, *Corporate Carbon Reduction Pledges: Beyond Greenwashing*, OXFORD BUS. L. BLOG (July 2, 2021), https://www.law.ox.ac.uk/business-law-blog/blog/2021/07/corporate-carbon-reduction-pledges-beyond-greenwashing [https://perma.cc/B99X-BUBN]; Eleonora Broccardo, Oliver Hart & Luigi Zingales, *Exit. v. Voice,* (ECGI Fin. Working Paper No. 694/2020, 2020), https://ssrn.com/abstract=3671918 [https://perma.cc/VD5G-5HT5].

[295] Recognizing the duty of the Federal Government to create a Green New Deal, *supra* note 28; Barbier, *supra* note 28; EARTHWORKS, *supra* note 28; Puaschunder, *supra* note 28.

sive amount of funds involved but also the widespread impact energy transition will have.

The GND is a governmental strategy to strengthen the United States economy and foster inclusive growth.[296] The GND directly targets at sharing economic benefits more equally within society.[297] The GND thereby addresses the most pressing concern of our times in the quest to align economic endeavors with justice and fairness. Concrete central areas of development tackle environmental challenges, healthcare demands and social justice pledges.[298] Ethical imperatives and equity mandates lead the economic rationale behind redistribution in the GND. Social harmony, access to affordable quality healthcare and favorable environmental conditions are thereby pursued in an understanding of their role as prerequisites for productivity.[299] In all these endeavors, the GND offers hope in making the world and society but also overlapping generations more equitable. As a large-scale and long-term plan, the GND offers to bestow peace within society, around the world and over time.[300]

To determine if these efforts will be successful, we have to acknowledge that they are fairly novel and include the most complex variety of actions that will have to be performed for a longer time horizon than simple economic recovery after system-inherent recessions would require. The multiple implementation facets and multiple agents involved but also the contested theoretical foundations and long-term implications will need more time to monitor and evaluate the effectiveness and equitable growth accomplishments than regular rescue and recovery efforts, such as the 2008/09 World Financial Recession bailout and recovery packages. Tracking the success of these endeavors will be a long-term goal by itself, mainly due to the diversified projects, long-term impetus and the stratified impact of large-scale economic changes. While it is thus too early to tell how successful these projects will be in the grand scheme of complex issues tackled and over time in history, already now it is becoming apparent that teaching law and economics with a focus on ethical imperatives and a disparate impact lens will become key to ensure our common sustainable development and human progress of the future.

VI. POLICY IMPLICATIONS

The COVID-19 crisis turns out to be a crisis of rising inequality. Some features of inequality that persisted prior to the outbreak of the novel Coro-

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[296] JULIA M. PUASCHUNDER, *Equitable Green New Deal*, RSCH. ASS'N INTERDISC. STUD. CONF. PROC.: 22ND INT'L RSCH. ASS'N INTERDISC. STUD. CONF. ON SOC. SCI. & HUMAN. 27 (June 21, 2021).
[297] *Id.*
[298] *Id.*
[299] *Id.*
[300] *Id.*

navirus were exacerbated in the wake of the crisis, such as, for instance, access to affordable quality healthcare inequality around the world or income inequality within Western society.[301] Other inequality patterns that were not so obvious became accentuated by COVID-19 to a point that inequality became apparent to a broader population – for example, we saw rising inequality in the finance world versus real economy gap but also disparate effects of inflation and a low interest rate regime are currently becoming more and more obvious in an analysis of socio-psychological propensities determined by industry classes.

At the same time, the COVID-19 pandemic has elements of an expurgatory catharsis and opportunity for a reset to embark on a better, more just and equal world. In record speed the world has seen drastic changes implemented in the healthcare, finance and economics sectors. The way we lived, worked and structured our days has changed dramatically since the outbreak of the crisis. In the aggregate, the modes of operation of corporations, governments and governance were challenged and redefined throughout the crisis as we go along with the recovery. Unprecedented policy shifts coupled with extraordinarily rescue and recovery packages sprouted throughout the world. In most cases these aids are pegged to noble causes and the wish to make the world a better place for this generation and the following. While it is still too early to tell whether the efforts in the aftermath of the crisis will become established and fruitful transitions to a better state, already now it is apparent is that the rescue and recovery help offers a once-in-a-lifetime generational shift and a potential gateway to a new era. Throughout the history of humankind, very many different plagues and crises throughout the world have heralded betterment in the overall grand theme of developments that were adopted.

What will it take for the COVID-19 crisis to be remembered by historians as the beginning of a golden age or a new renaissance? Learning from the examples of previous pandemics, we can say that strong governmental support of productive causes has a history of transferring society to higher social welfare levels. The combination of economic stimulus in large scale production and consumption coupled with educational and moral grounds appears to foster an extraordinarily vital societal development. Building growth on economic capital enhanced with human capital and strengthening the social glue is key in making something good out of a devasting crisis.

Today's society holds the largest levels of inequalities of which some are more obvious and blatant, whereas other inequalities are more implicit or just emerging. For instance, the finance-real economy gap opened somewhat surprisingly, while social justice pledges have risen steadily in the previous decades to culminate to an all-time-pressing demand during the pandemic that will shape decades to come. But also disparate effects of inflation and the low interest rate regime have become apparent in the wake of rescue and recovery packages floating economies with liquidity. Novel challenges arise

[301] ANDRÉ GORZ, THE IMMATERIAL: KNOWLEDGE, VALUE AND CAPITAL (2003).

in the disparate impact of inflation and the socio-psychological impetus of low interest rate regimes. Today's leadership in the public and the private spheres has to address these challenges and work towards contributing to causes such as inequality alleviation, social fairness and equal access to opportunities while protecting those who have a disadvantage to participate in markets.

In the future, social friction is expected due to the strong polarization of financial profits sponsored by low key interest rate policy. The flexible substitutability of financial fund components in the exchange of loss segments for winning industries increases financial market profits, but at the same time reduces liquidity capacity and sustainability survival of small and medium-sized enterprises. In this sense, the generally low interest rate creates a situation that the financial world lives at the expense of the real economy.

Most recent developments indicate that there is also an increasingly affective quality of language online that turns the crisis communication into a hidden inequality accelerator. The general populace now faces a divide of affective differences in the perception of COVID-19 external shock communication that underlines the immaterial wealth of capital. Capital leverages as a shared skill that materializes in the everyday life decisions and grants peace of mind. But this feature in capital leads to a reduction of emotions and real economy experiences. The financial market hegemony therefore capitalizes on the real economy by creating security in making money from money and the exchange of non-profitable industries without creating wider cultural value or social capital. People's life choice in their profession they follow boils down to a rational versus emotional propensity state during external shock crises.

While the finance world features impersonal judgments with efficiency, the real-world consumption is based on personal judgement tainted with emotions. Intuitions guide both worlds in their choices, as do the personal networks and social reference groups. New hierarchies of statuses of affect arise based on the origins of wealth generation. Money skills in the finance world are pitted against life(style) skills acquired in the real economy. The laws of the creation of value determine a novel balance of power based on trust in the economy and gain prospects. Trust is established and reinforced together in networks and contexts that draft the social bubbles of information exchange.

For society the question arises if the rational finance sector has an obligation to serve the higher societal progress and fund the real economy with the fruits of the spirit of capitalism.[302] The instrumentalization of human beings and specifically human dimensions of life in the finance sector wears down the authenticity and individuality of daily life.[303] Market actors of the future will have to align these two worlds. Legal scholars and law practitioners will be required to balance between their powers to share benefits among

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[302] LUC BOLTANSKI, THE MAKING OF A CLASS: CADRES IN FRENCH SOCIETY (1987).
[303] *Id*.

them for the good of all society.

Governments' role in this appears to become the great equalizer and inequality alleviation via reset funding. Governments all over the world can advocate for a sustainable finance world and equally accessible economic growth benefits. Governmental leadership can bring back the financial world in the service of improving and stabilizing the real economy in a stricter separation between investment and consumer banks, which already began in the course of the regulations following the 2008/09 recession. Central banks could offer diversified interest rates. Low key interest rate for driving innovation and economic growth in the financial sector that refunds higher interest rates for the real economy savings for consumers in order to avert socio-psychological fallouts of over-indebtedness in households. Online currencies, such as the currently planned European Central Bank digital currency, could help a transparent use of the currency over time to strictly divert interest rate profits and avoid arbitrage or interest rate swops in diversified interest rate regimes. Mutual collateral insurance between the financial world and the real economy would also be possible in order to spread overall market risk. Throughout history bonds have been used to finance long-term strategies with unknown outcome. Bonds are now discussed to enable innovations while repayments' interests should be redistributed to the real economy. In order to enact this diversified bonds effect, one could think of commitment bonds but also a diversified interest rate regimes based on the professional starting ground or individual recipient's representing industry.

As an equalizer between financial market and real economy stability, taxing the COVID-profit industries, especially digitization winners, could create fiscal space for redistributing some of the economic gains to industries that clearly lose from COVID-19. Taxation of digitalized economic growth during our forced digitalization disruption could provide the necessary redistribution funds to back the liquidity-dried real economy sectors – such as the service industry, foremost in gastronomy and tourism.

In addition, the finance sector could be governmentally-obliged or at least incentivized and encouraged to use the current profits for future large-scale investments that add societal long-term value. For example, large construction projects but also innovation in research and development, are valuable macroeconomic multipliers that can benefit society as a whole in the short run and long term.[304] Governments and intergovernmental bodies, like the European Union, have the long-term vision and financial freedom to operate on deficits but also the regulatory means in legal frameworks to enact large-scale redistribution and long-term wealth creation in grand investments for the future. The COVID-19 pandemic could be used as a gateway of transition and become a major reset offering also exciting opportunities and long-

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[304] KEYNES, *supra* note 13; Gerald Epstein, *The Coronavirus Consensus: "Spend, Spend, Spend"*, DOLLAR & SENSE: REAL WORLD ECONOMICS (Mar. 2020), http://dollarsandsense.org/archives/2020/0320epstein--spend.html [https://perma.cc/G4DR-UTUT].

lasting positive societal advancements. The potential focus of bailouts and recovery ranges from urban-local or national to even global and future-oriented beneficiaries, as pursued in public investments on climate stabilization in the Green New Deal or European Green Deal.

On all the aspirational goals of these long-term investment projects, science and also the implementation can benefit the most from learning from the young what future world they aspire to live in. Future research should couple macroeconomic calculus with shedding light on economic disparate impacts of economic crises. Monetary policy to alleviate negative externalities of external shock crises could pay attention to the inequality pandemics impose on specific societal groups. Diversified research on the collective moods of certain societal groups and their propensity to certain kinds of affects triggering subsequent unfavorable behavioral patterns would allow to paint a deeper shadow of the invisible hand creating socio-psychological inequality. Investigating the unprecedentedly described role of social online media information about markets driving inflation and/or debt could aid to understand the hidden behavioral dynamics that are constantly building and fueling economic booms and downturns. Future legal scholarship could also elucidate affectivity of events in order to provide group specific modes of policy responses. Different professional groups may feature different affective outfalls from crises given a certain propensity to face constraints, financial flexibility and differing opportunities to consume and invest. Attentive policy work may target certain affect propensities but also different affect stages during crises and through the individual lifespan. Affective fallouts may become a different layer of scrutiny on social stratification within society in order to highlight the different shades and alleviate negative effects of inequality prevailing in society. Linking the world of feelings to the worlds of money and real economy will aid in capturing how catastrophes bleed into ordinary life in emotions that then guide consumption and life choices. All these insights will offer most novel ways how to find the right communication and socio-psychological means to avert crises whole-roundedly and meaningfully. Pursuing the greater goal of deriving recommendations how to stabilize economic markets in the instant communication century will add to purely economic calculus in finding an optimum balance of deregulated market systems and governmental control.

V. CONCLUSION

The future of the post-COVID-19 era holds difficult ethical challenges: With the planned post-COVID-19 bailouts representing more than 60 percent of the money ever issued in the history of the U.S., should the finance float be pegged to an obligation to return to human well-being and promote the pursuit of sustainable growth? Can the finance sector lacking emotional fallouts return peace of mind to the real economy and sooth the hurtful anxieties of certain societal groups with heightened propensity to emotionally destructive states? Is there a moral sense or honor to put the finance world into service for the sake of human feelings that nurture the arts and culture of human progress? If handling all these challenges and efforts successfully based on values of justice, equity, ethics and trust, the COVID-19 pandemic and our generation hold the potential for becoming renown in the history of humankind as a great reset and ultimate driver of positive change for this generation and the following. This could become the post-COVID-19 Renaissance and Reformation of Immaterial social capital as in the end, life is about reality. The real present in the real conditions of existence. If we stop the real world social or the care for those around us, our guiding post in the law society forgets what humanity is about.