

# The Economic Consequences of COVID-19 & Impact on Clean Energy

Clean Energy Business Council  
webinar

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Chair of CEBC

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Clean  
Energy  
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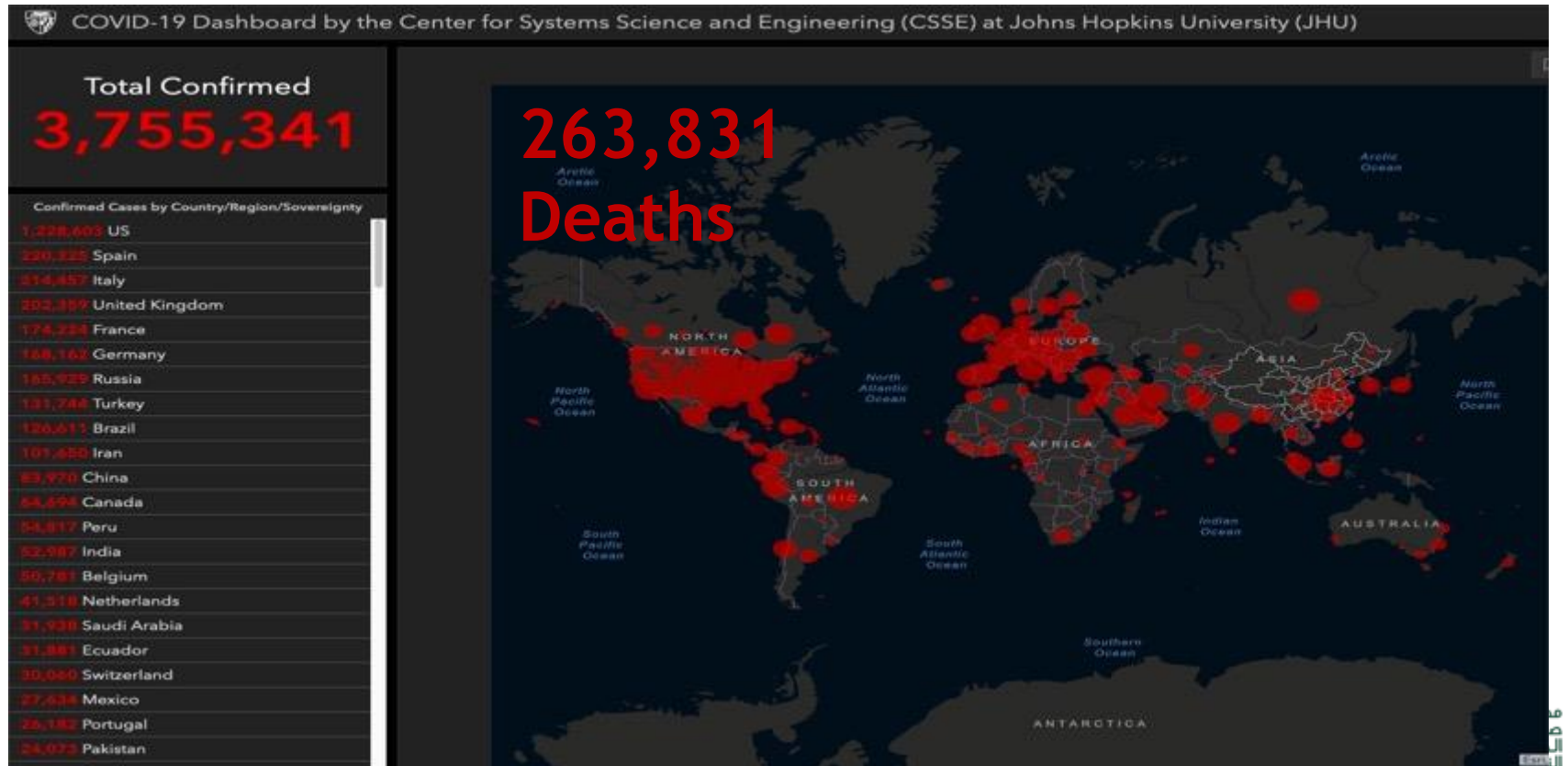
Middle East & North Africa

الشرق الأوسط وشمال أفريقيا

# Agenda

- ❑ Pandemics and their economic impact: supply and demand shock with feedback effects
- ❑ Government Responses & Stimulus
- ❑ Economic Impact of the Pandemic across countries & by sector; Recovery
- ❑ A Post-COVID19 world

# The Red Map of COVID19: Global Health Crisis generated a Global Economic Recession



Source: COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). Updated as of May 7<sup>th</sup>

# Economic Effects of COVID19: An Overview

## Macroeconomic

- Sharp fall in GDP; cripples investments; sharp increase in economic uncertainty
- Massive declines in production & consumption
- Increase in public & private indebtedness
- Renewed financial instability
- Flight-to-safety investment strategy

## Uneven incidence of lockdowns on firms

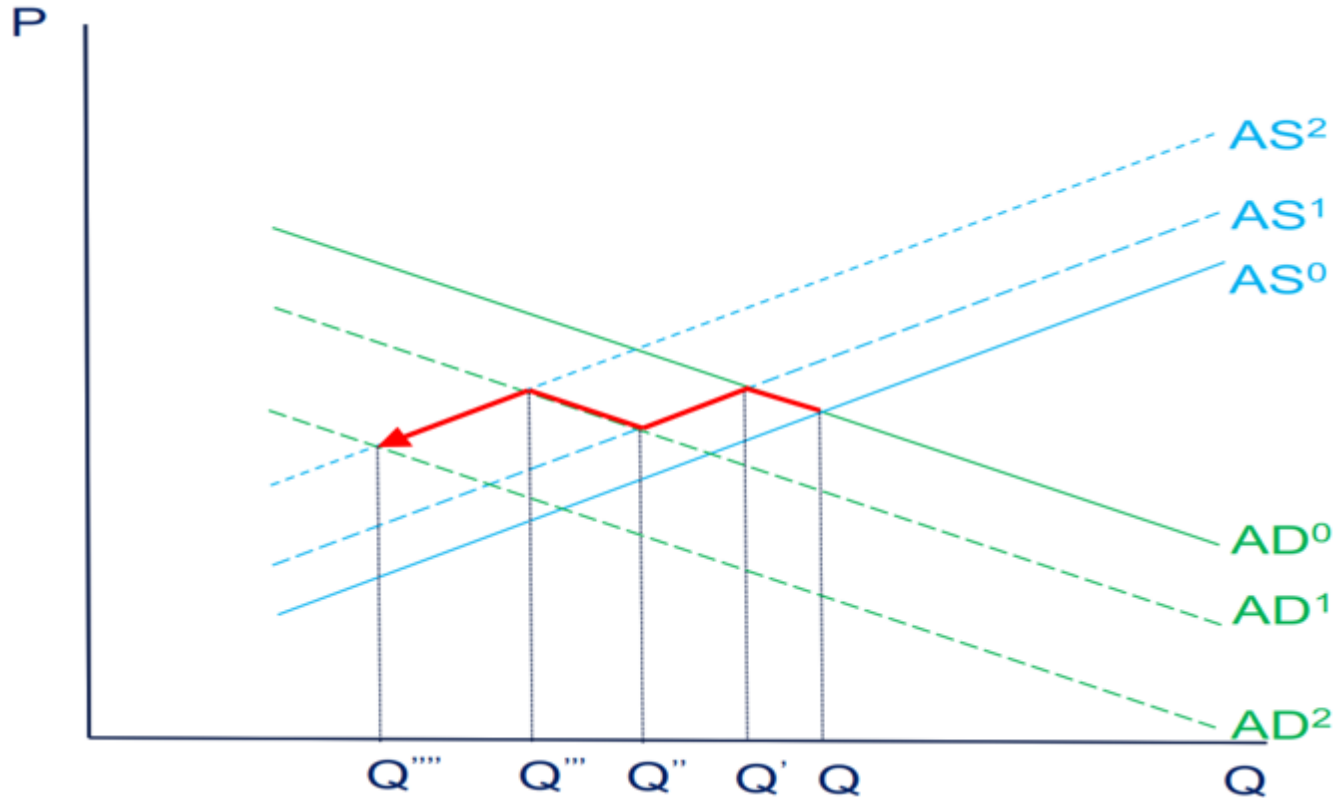
- Direct effects on key sectors: Aviation+Tourism+Hospitality/Leisure+Retail
- Some gains in healthcare, industries supplying it with equipment, consumables, e-commerce, e-services
- Corporate cash flows dry up: liquidity squeeze
- Companies w/ heavy overheads could exhaust working capital => insolvency and bankruptcies

## Effects on households

- Reduction in labour force (due to mortality & illness)
- Deterioration in physical & mental health
- Job losses; scarcity of alternative jobs
- Fall in consumption
- Payments for rents, utilities in jeopardy
- Drop in consumer sentiment, given health & economic uncertainties

**Main challenges for the medium and longer term:** exiting ‘economic hibernation’; mitigating the ensuing macroeconomic fallout; and limiting the damage to the worst affected sectors and to households. Shape of Post-COVID 19 world?

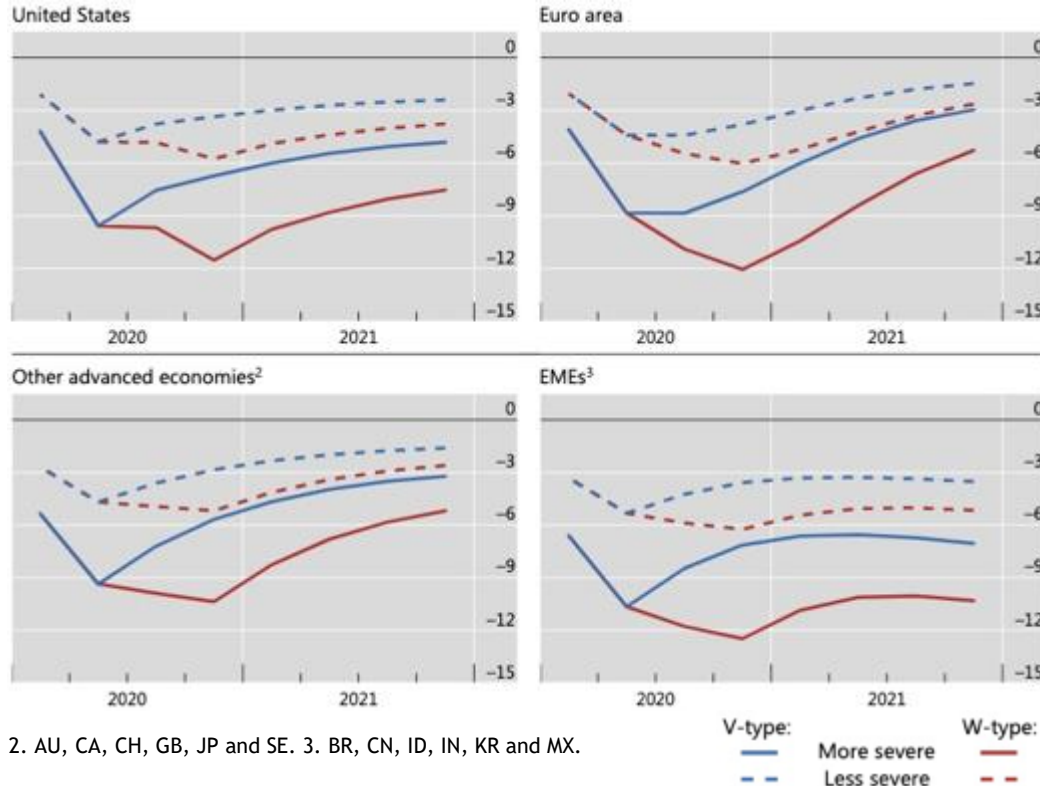
# COVID19: Supply & Demand Shocks + Feedback Loops



Source: Paolo Surico and Andrea Galeotti (2020): A user guide to COVID-19: part III - economics for dummies  
 Downloaded: [https://www.dropbox.com/s/bh6r4pvzyjzfeyg/GS\\_COVID19\\_Part3.pdf?dl=0](https://www.dropbox.com/s/bh6r4pvzyjzfeyg/GS_COVID19_Part3.pdf?dl=0)

# Economic Simulation of a Global Pandemic: V,W,?

## GDP effects of the pandemic, in %



2. AU, CA, CH, GB, JP and SE. 3. BR, CN, ID, IN, KR and MX.

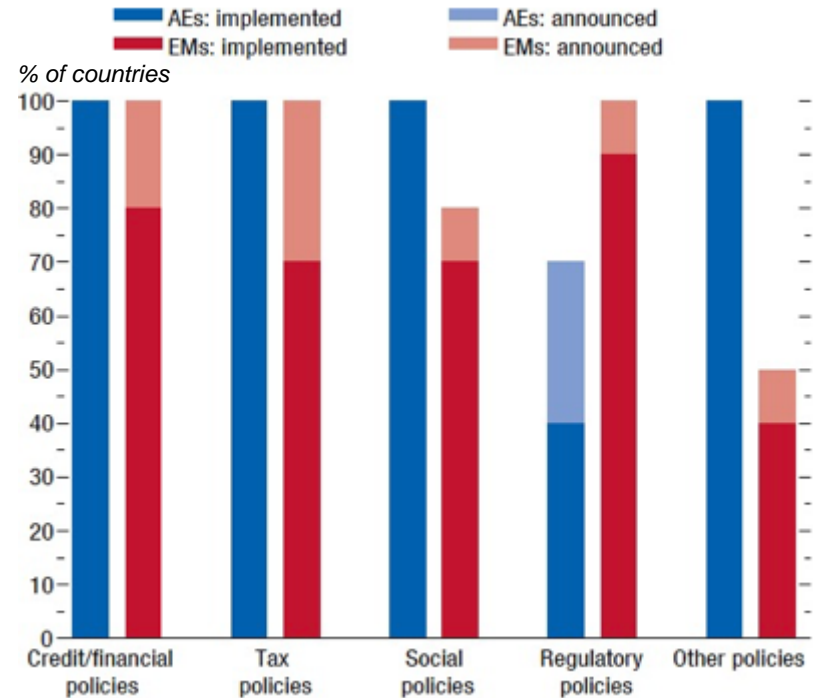
- Reduction of GDP due to confinement is likely to drag on over several quarters.
- The total GDP shortfall could be as much as twice that implied by the direct initial effects of confinement.
- There is no immunity from the economic effects if the epidemic is controlled in only one or two regions.

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# COVID19: Government Responses & Stimulus

- ❑ G20 providing \$6.3trn in fiscal support (~9.3% of 2019 G20 GDP); G20 loan guarantees alone > \$2trn
- ❑ Direct govt spending is higher than levels during GFC
- ❑ EMEs have boosted spending but still lag advanced economy peers by a wide margin & lack fiscal space
- ❑ Largest component of fiscal support is intended to provide financing to businesses
- ❑ Priority 1. Resources should be made available for health care systems
- ❑ Priority 2. Limit the propagation of the health crisis to economic activity



Source: World Economic Outlook, IMF, Apr 2020



# Common Policy Responses

Sizable targeted fiscal measures

Provision of liquidity & credit guarantees

Loan restructuring

Temporarily suspend bankruptcy procedures, home repossession

Broader stimulus: synchronized interest rate cuts, asset purchase programs, CB Swap lines

Coordinated, Multilateral Cooperation to Assist Constrained Countries

**No tax rebate, low-interest loan, or cheap mortgage refinancing will convince people to resume normal economic activity if they still fear for their own health**

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# COVID19 & Global Economic Impact

- World is facing the Worst Economic Downturn Since the Great Depression

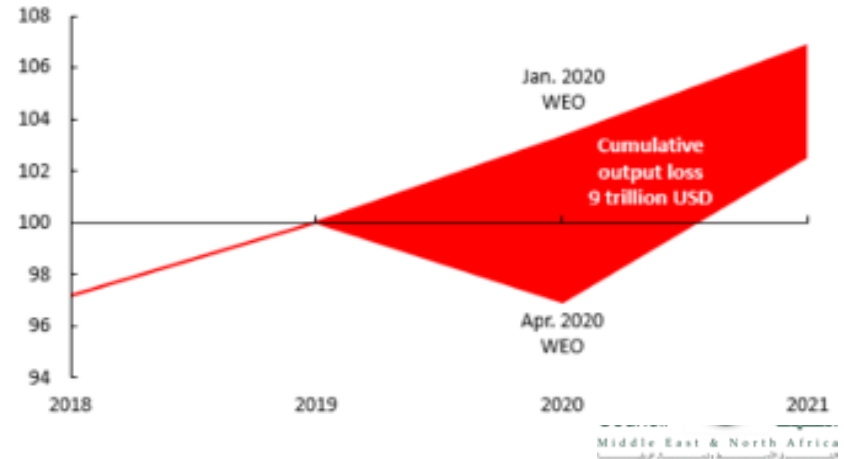


Source: World Economic Outlook, IMF, Apr 2020

## Output losses

The cumulative output loss over 2020 and 2021 from the pandemic crisis could be around 9 trillion dollars.

(global real GDP level, index)



The COVID-19 pandemic will severely impact growth across all regions.

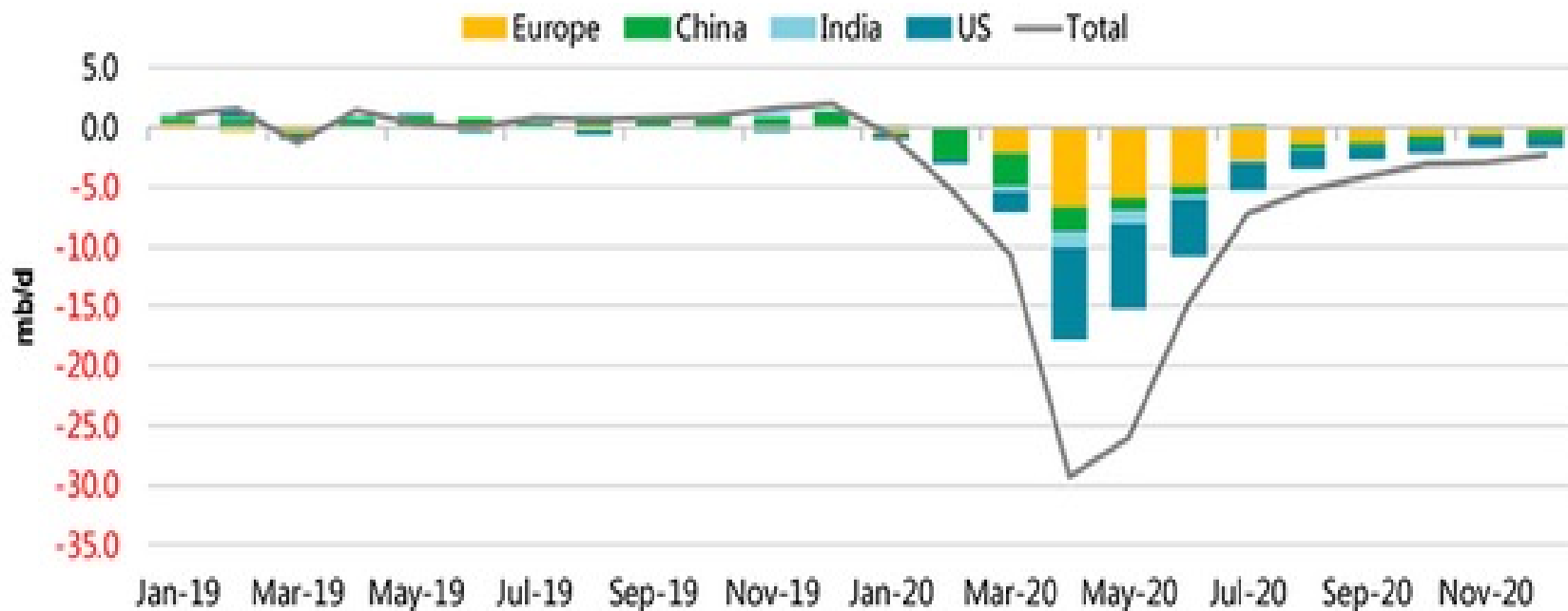
(real GDP, annual percent change)	PROJECTIONS		
	2019	2020	2021
<b>World Output</b>	<b>2.9</b>	<b>-3.0</b>	<b>5.8</b>
<b>Advanced Economies</b>	<b>1.7</b>	<b>-6.1</b>	<b>4.5</b>
United States	2.3	-5.9	4.7
Euro Area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other Advanced Economies	1.7	-4.6	4.5
<b>Emerging Markets and Developing Economies</b>	<b>3.7</b>	<b>-1.0</b>	<b>6.6</b>
<b>Emerging and Developing Asia</b>	<b>5.5</b>	<b>1.0</b>	<b>8.5</b>
China	6.1	1.2	9.2
India	4.2	1.9	7.4
ASEAN-5	4.8	-0.6	7.8
<b>Emerging and Developing Europe</b>	<b>2.1</b>	<b>-5.2</b>	<b>4.2</b>
Russia	1.3	-5.5	3.5
<b>Latin America and the Caribbean</b>	<b>0.1</b>	<b>-5.2</b>	<b>3.4</b>
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
<b>Middle East and Central Asia</b>	<b>1.2</b>	<b>-2.8</b>	<b>4.0</b>
Saudi Arabia	0.3	-2.3	2.9
<b>Sub-Saharan Africa</b>	<b>3.1</b>	<b>-1.6</b>	<b>4.1</b>
Nigeria	2.2	-3.4	2.4
South Africa	0.2	-5.8	4.0
<b>Low-Income Developing Countries</b>	<b>5.1</b>	<b>0.4</b>	<b>5.6</b>

- **IMF:** most countries should expect their economies to be 5% smaller than planned even after a sharp recovery in 2021
- **No countries/ regions are spared:** Both advanced & emerging market economies are in recession; the degrees vary
- **Additional challenges for EMEs:** reversals in capital flows, currency pressures, limited fiscal space, high debt levels
- **Caveat: COVID19 effects still unfolding in EMEs/Africa/LATAM:** lead to second wave?

Source: World Economic Outlook, IMF, Apr 2020

# IEA sees record decline in global oil demand; demand had already been weak pre-COVID & before price war

Global oil demand growth, % yoy



Source: International Energy Agency, Apr 2020

# Triple Whammy of COVID19, Oil Price Crash & Financial Market Shock on MENA's Oil Producers

## Impact from the Coronavirus

- Fall in global oil demand
- Decline in revenues of travel & hospitality sectors (airlines, hotels, restaurants)
- Tourism dips: slowdown in # of Chinese tourists + MICE
- Decline in entertainment & leisure services
- Retail activity subdued, except e-commerce, e-services
- Impact on education services



## Impact from oil price shock:

- Increased production amid low oil demand => prices dip lower
- Lower revenues => lower government spending; pro-cyclical fiscal policies
- Lower international reserves
- Reduced recycling of petrodollars



- Lower consumer and business confidence
  - Trade & tourism spillovers
  - Slowdown in FDI
  - Strains on oil & non-oil revenue sources
  - Difficulty in accessing additional funding/ rollover debt for sovereign & corporate borrowers
  - Losses on SWF portfolios and net foreign assets
- => Deep Economic Recession**



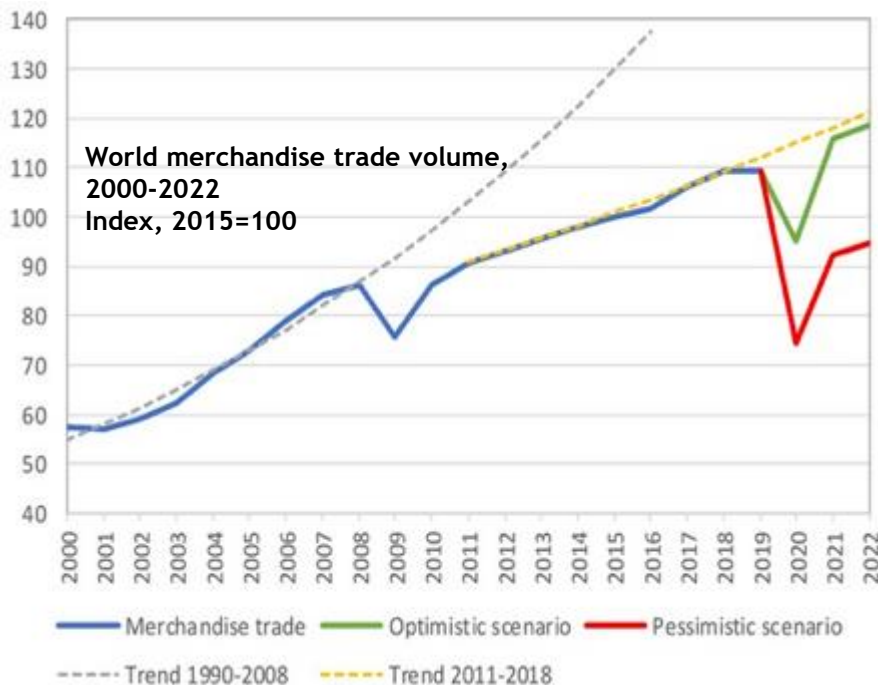
- Health: Mortality & morbidity (i.e. unable to work for a longer period)
- Businesses: factory closures, supply chain disruptions, tightening credit
- Consumers: workplace closures, loss of pay, job losses + greater uncertainty => lower consumer spending



- Massive fiscal deficits
- Higher current account deficits
- Negative impact on money and credit flows, liquidity
- Negative impact on financial markets
- Spillovers into local non-oil sector
- Lower remittances, foreign investment

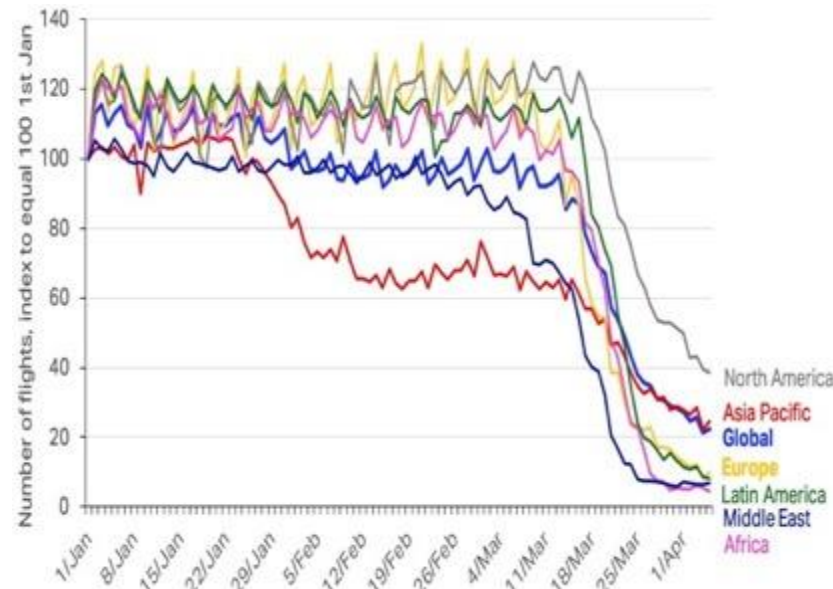
# Trade & Travel negatively impacted; GHS adding to de-globalisation narrative

World merchandise trade growth to remain weak:  
forecast to decline by 13-32% in 2020



Source: World Trade Organisation

Worldwide flights now down almost 80% by  
early April



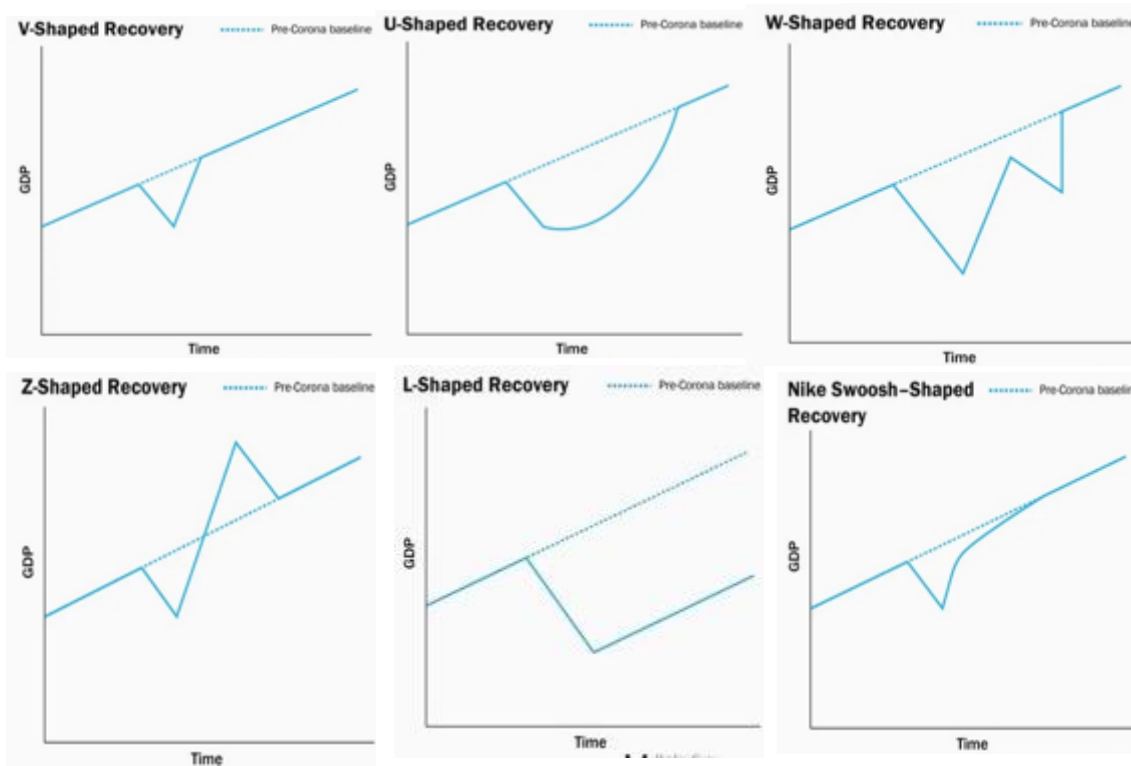
Source: IATA

# Impact of the crisis on Business & Employment)

- ❑ Approx. **81% of employers & 66% of own-account workers** live & work in countries with recommended/ required **workplace closures**
- ❑ **About 47mn employers**, representing ~54% of all employers globally, **operate businesses in the hardest-hit sectors**
- ❑ Prolongation + extension of containment measures => global Q2 working hours expected to be 10.5% lower than in last pre-crisis quarter: equivalent to **305mn full-time jobs**
- ❑ Almost **1.6bn informal economy workers** are significantly impacted by lockdown: 1<sup>st</sup> month of crisis - **60% decline in income**
- ❑ **Bottom line: massive increase in inequality, poverty (including extreme poverty) and potential famines in economic & health distressed countries**



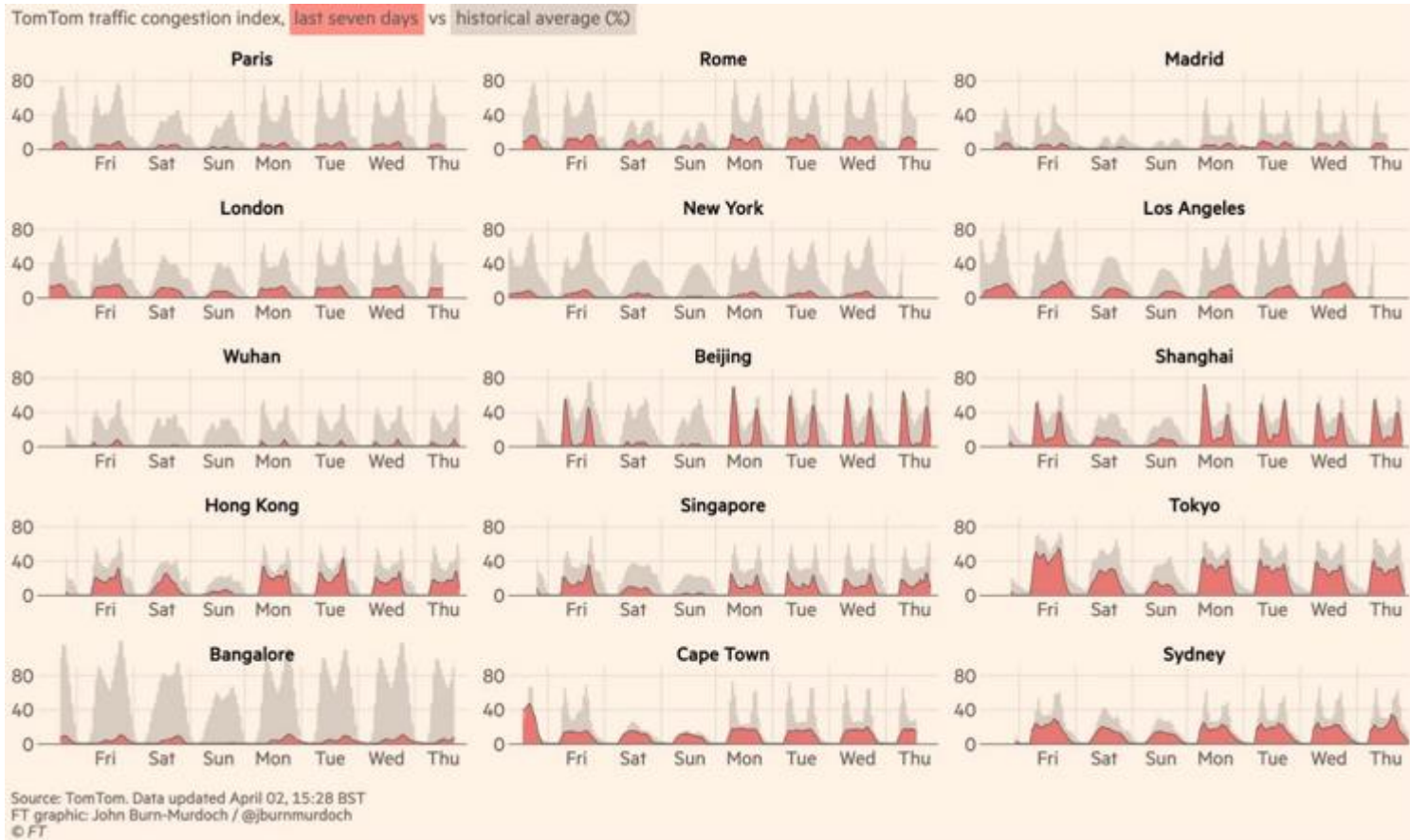
# Economic Recovery: Optimistic V, very optimistic Z, pessimistic but likely U, possible W, pessimistic L, Nike swoosh or Arabic ب?



Damage depends on:

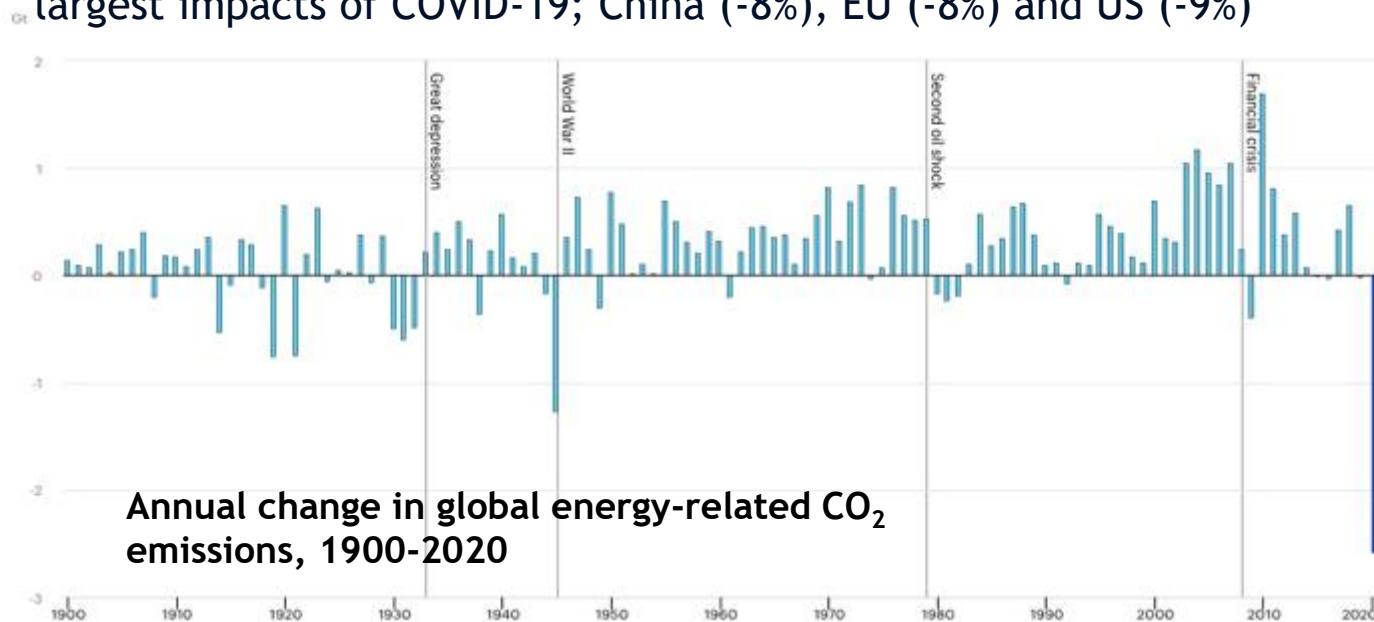
- Household's ability & willingness to spend
- State & local govt finances
- Businesses: bankruptcies & lower investment
- Lost human capital

# Environmental silver lining? Cleaner air as roads empty across the world as lockdowns go into effect



# Global CO<sub>2</sub> emissions are expected to decline even more rapidly

- CO<sub>2</sub> emissions fell, as the most carbon-intensive fuels experienced the largest declines in demand during Q1 2020.
- CO<sub>2</sub> emissions declined the most in the regions that suffered the earliest and largest impacts of COVID-19; China (-8%), EU (-8%) and US (-9%)



Source: Global Energy Review 2020, IEA, Apr 2020

Milan, Italy **BEFORE****AFTER**Dharmasala, India **BEFORE****AFTER**

Venice, Italy



Jakarta, Indonesia



New Delhi, India

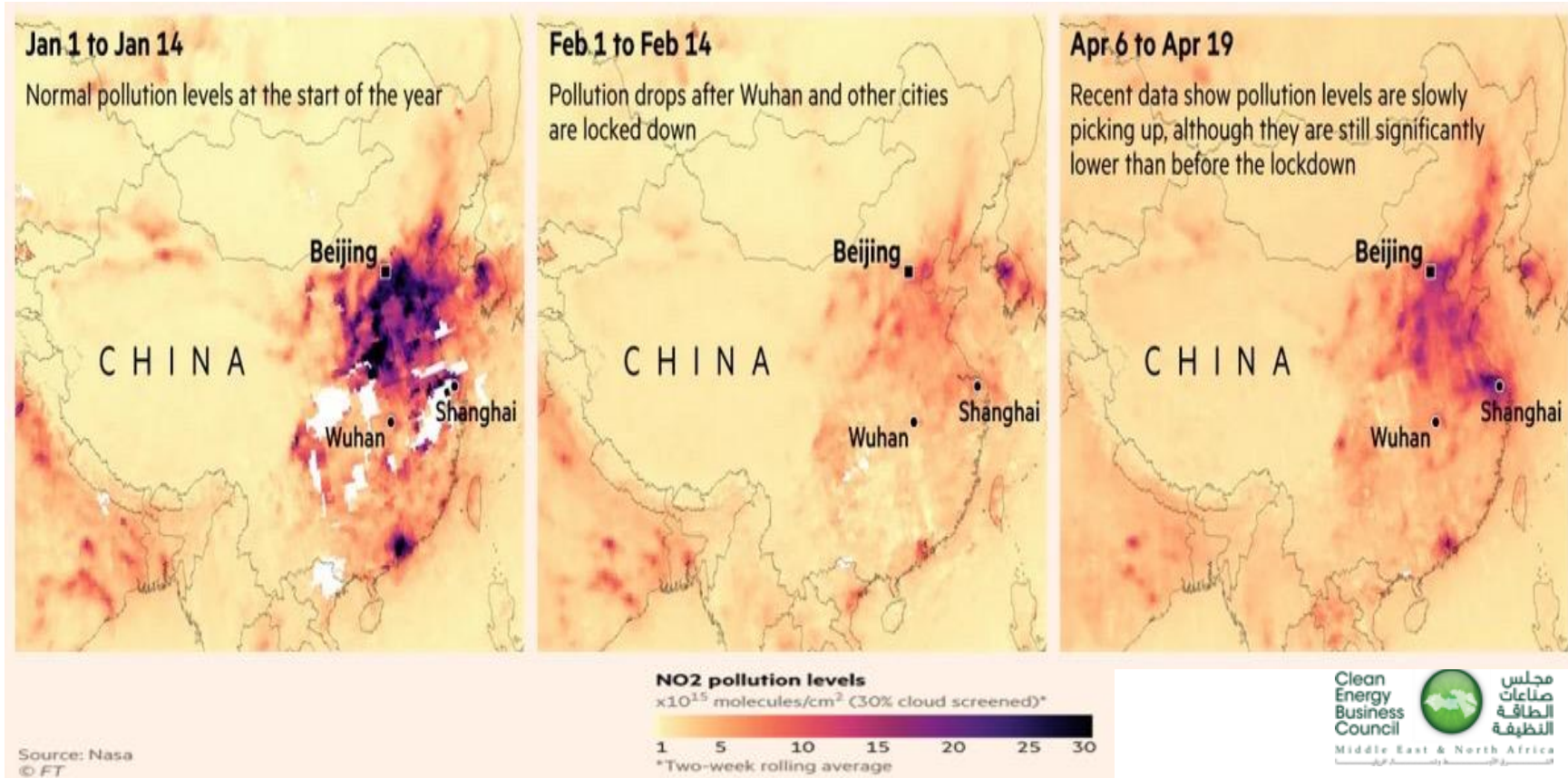


Copacabana beach in Rio de Janeiro, Brazil





# However, China's pollution levels are on the rise as lockdown restrictions ease



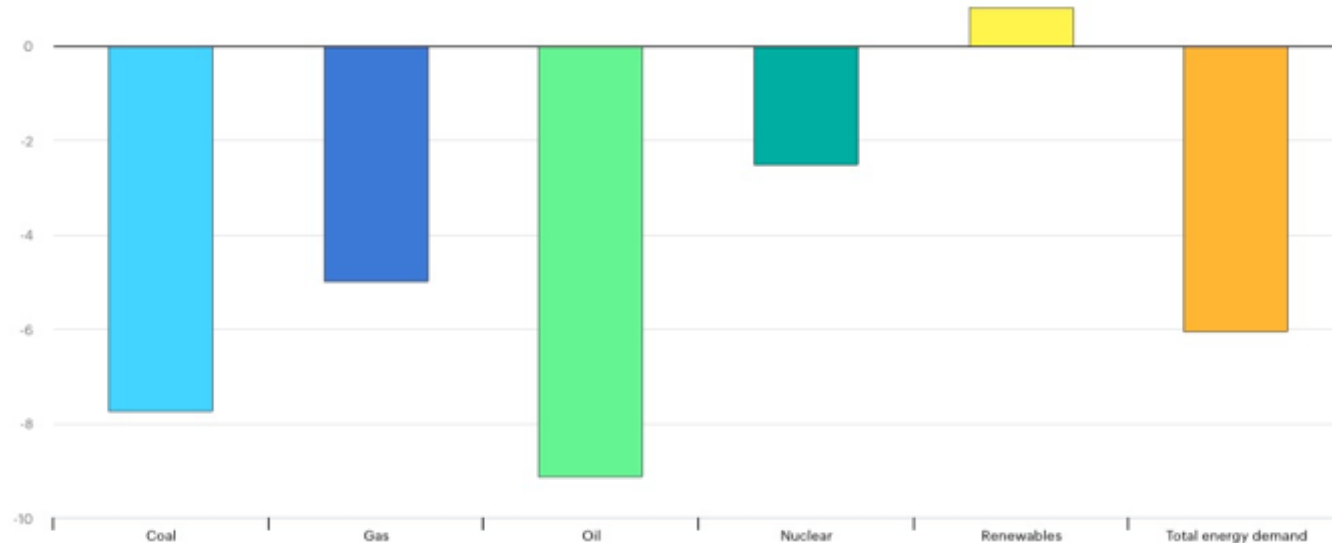
# Clean Energy: World at a Crossroads

- ❑ Path I: lower fossil fuel prices + government stimuli = diminished incentives to invest in clean energy & clean tech; return to business as usual and pre-COVID19 path
- ❑ Path II: “Green Deal”; continue on COP21+ energy transition
  - ❑ Accelerate the decarbonization of power and road transport
  - ❑ No bailout should benefit industries or business models that are not viable in the coming low-carbon world
  - ❑ Focus on Energy Efficiency investments
  - ❑ Time to revisit and phase out subsidies + incentives to reduce carbon emissions

# A Covid19 Renewable Energy Surge?

IEA projects a 6% drop in global energy demand (7X as much as after 2008 global financial crisis); demand for renewable energy is expected to grow by 1% this year; demand for renewable electricity is expected to grow by 5% in 2020

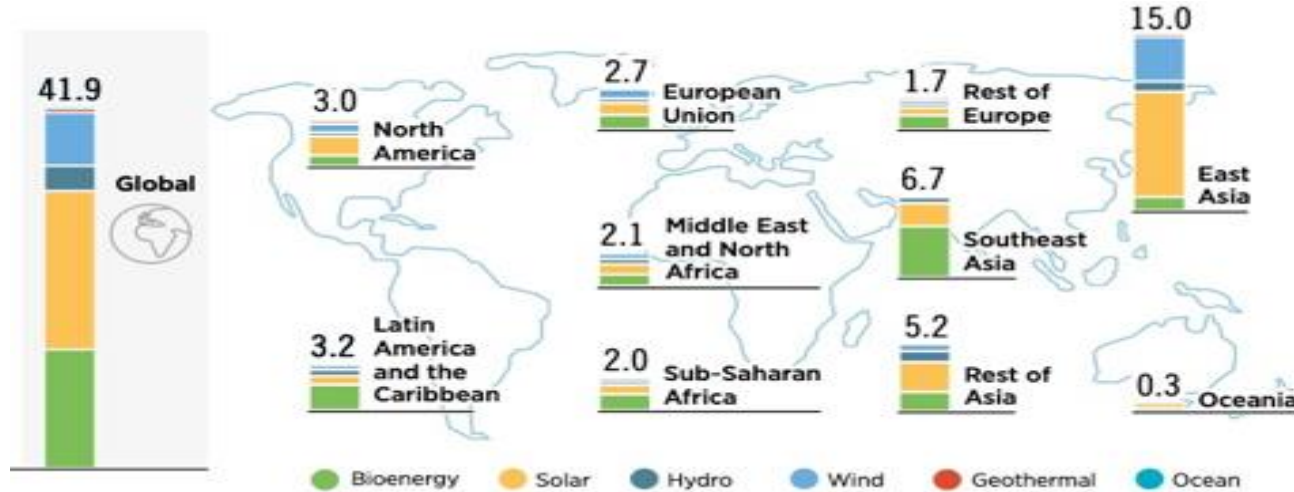
Projected change in primary energy demand by fuel in 2020 relative to 2019



Source: Global Energy Review 2020, IEA, Apr 2020

# RE also supports job creation

An estimated 42 million jobs in renewables: Regional distribution (Source: IRENA)



*All regions gain more energy sector jobs than they lose as jobs in transition-related technologies (renewable energy, energy efficiency, power grids and energy flexibility) outweigh the loss of jobs in the fossil-fuel sector*

Regional jobs as a percentage of total global jobs



Source: "Global Renewables Outlook: Energy transformation 2050", IRENA



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# ... But, can & will the post-COVID19 world become more sustainable?

Post Global Financial Crisis, carbon emissions increased by 5.9% as a result of policy stimulus... but the COVID19 pandemic has been an eye-opener:

- ❑ Will travelling to work be necessary? How much office space is required?
- ❑ Will air travel recover to previous levels? Is business travel essential?
- ❑ Will people grow more conscious about their carbon footprints?
- ❑ Carbon capture?
- ❑ Agriculture, food & land use: vertical farming, less reliance on food imports
- ❑ Boost shorter-term job creation & incomes => long-term sustainability and growth: sustainable transport infrastructure, ranging from bike lanes to metro systems, energy efficiency for existing buildings

# Long-run multipliers of climate-positive policies are high: what should policymakers focus on?

Clean physical infrastructure investment

Building efficiency retrofits

Investment in education and training

Natural capital investment for ecosystem resilience and regeneration

Clean R&D investment

Behavioural change in work & transport policies: remote working + reduced aviation & car transport

Source: “Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?”, Smith School Working Paper 20-02. <https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf>

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