

Covid 19, sustainability, and competitiveness: country risk exposure

A common-sense data review of corona risk exposure

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Covid 19, sustainability, and competitiveness: country risk exposure

An exercise in common-sense review of corona risk exposure data

1 Summary

What does basic data tell us about country's public health and economic risk exposure to the corona pandemic?

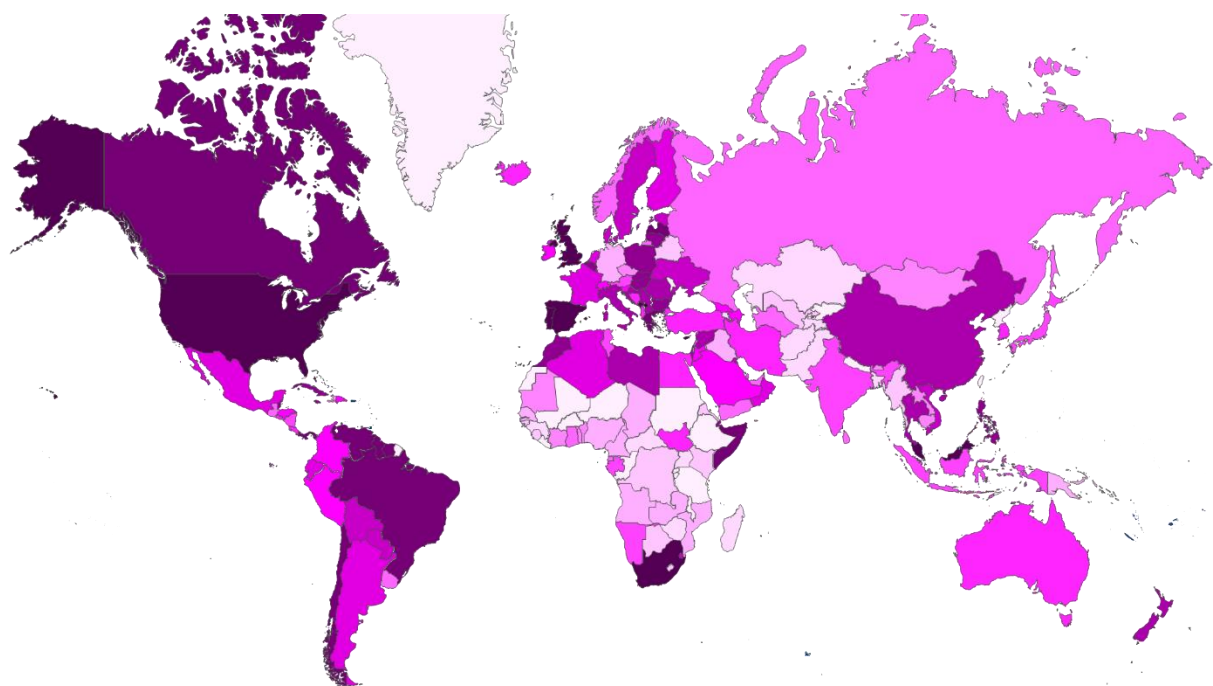
Basic health care and economic performance data – *quantitative measurable data* - can tell us about the potential impact of the COVID-19 pandemic on different countries – both in terms of the toll on health and the economic consequences following the global shutdown.

(Note: *This is meant to be neither perfect nor absolute. This is an exercise in analysing what basic quantitative data can tell us. Basic data cannot tell us about the quality and speed of crisis management, the rapid deployment of testing and tracing, or soft factors such as "societal discipline, or the soft economic power."*)

Covid-19 risks

This analysis describes a country's combined risks to health toll and the downward economic risks *before the pandemic*. Key observations include:

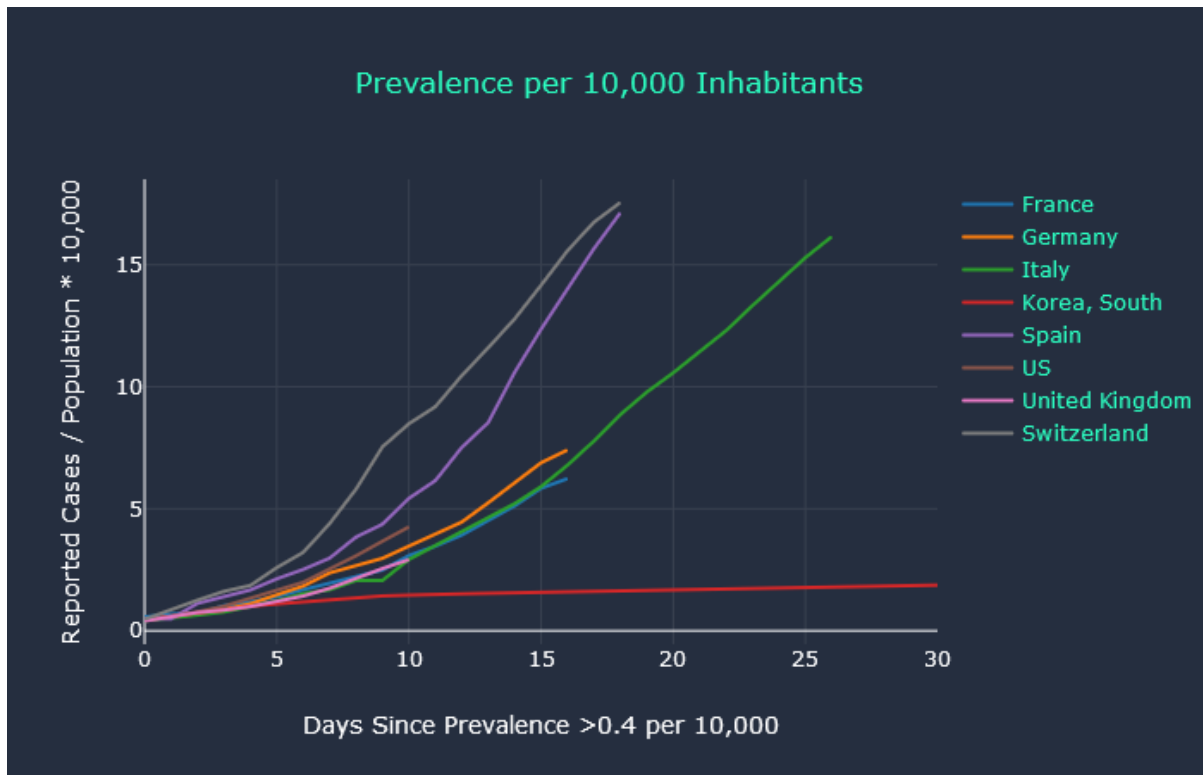
- The US is 3rd on that list, with the risk factors 20% higher than the global average
- Some African countries seem to be lesser exposed – mostly due to the small size of the risk group (the Elderly), and high employment in the agricultural sector (employment in the basic needs sectors is low-paid, but comparably safe in times of economic downturns)
- Europe is a mixed picture with below average risk exposure (e.g. Germany) to higher-risk exposure (Spain, Portugal)
- China's risk exposure is 8% above the global average
- Some highly populated developing nations (e.g. South Africa, Indonesia) are significantly above the global average



Source: SolAbility based on WHO & World Bank data

Crisis management: Korea!

An equal – or even bigger - influence on the final toll of this distressing pandemic has the crisis management. The different responses in different countries unfortunately cannot be measured quantitatively. However, we already have certain data from different countries available that indicates what works (and works not so well). The accuracy of this data is questioned by many; however – even considering the unreported/not tested cases -the data shows a very clear picture: forward step South Korea.



Corona cases per capita (source: www.corona-data.ch)

The data is very, very clear: Korea is on a far flatter trajectory than all of the Western nations. The actions that have set Korea apart are:

- Very early risk awareness
- Rapid development of huge testing capabilities
- The rapid deployment of contact tracing technology
- Societal discipline 1: people didn't go out and party. The lockdown did not have to be enforced because – for whatever reasons – Koreans stay at home voluntarily
- Societal discipline 2: everybody is wearing a face mask. While probably not 100% protective, the chance that an asymptomatic carrier of the virus infects others is most likely lower (to what degree is not yet known). And as we came to know, every step counts in this fight.

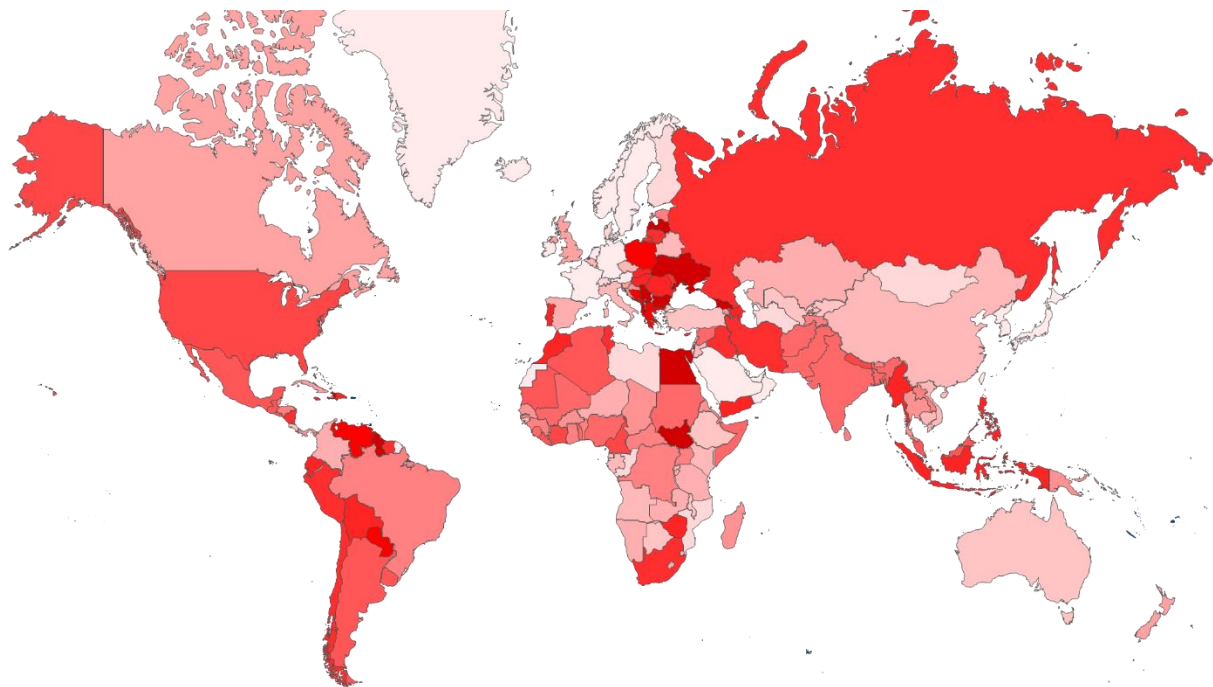
Unfortunately, government responses are often managed in a political environment rather than on a scientific base. What this pandemic also shows – our systems are not sustainable (if not to say broken). They are not up to the task of protecting societies from disruption – neither in terms of health, nor economically. From a management stand-point of view, they are simply inefficient. Not competitive. And therefore, not sustainable.

Which raises the question: [*what are the alternatives?*](#)

(Note: Important soft factors cannot be quantitatively measured (for example, “societal discipline” and fast deployment of modern tracking technology seems to be a significant factor in North-Eastern Asian countries apparent higher capability to control the outbreak compared to western societies). However, we believe that this common-sense approach shows – plus/minus – what impacts can be expected in different countries.)

2 Health risk exposure

Health risks exposure is calculated based on general health indicators, demography, the availability of health infrastructure, and health care financing. Russia, The US, some Eastern European countries but also lesser developed economies (e.g. South Africa, Nigeria, Indonesia) seem to have a higher health risk exposure, while developing nations with low percentage of elderly populations and countries with well-established public health services seem to face less risks – see the World health risk map below:

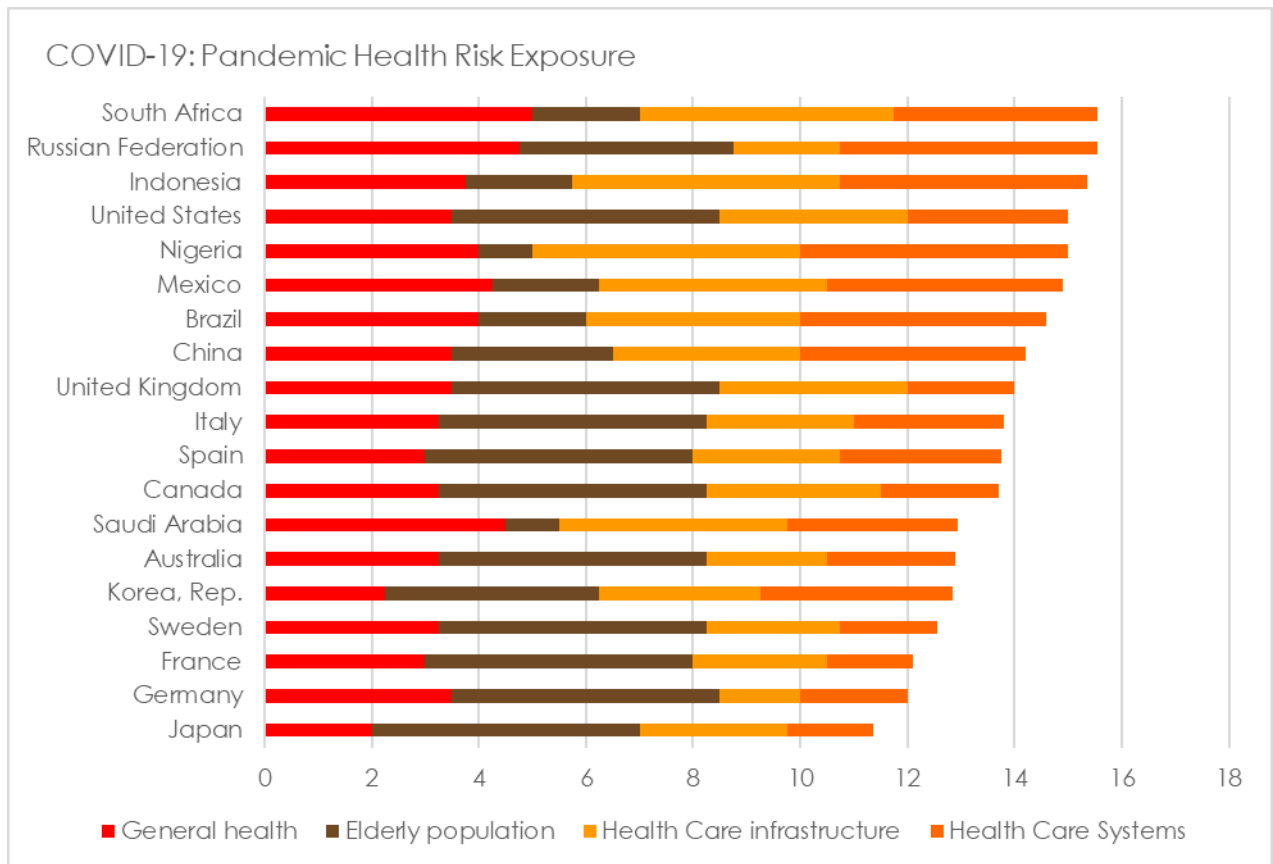


Source: SolAbility based on WHO & World Bank data

The health risk exposure is a combination of the general health of the average person, the size of the risk groups (the elderly, and people with existing pre-conditions), the availability of the health infrastructure (hospital beds, doctors, nurses), and the state of finance of the health care sectors.

Soft factors – the quality and speed of crisis management, societal discipline (voluntary sheltering and social distancing) and the degree of applying tech to monitor the spread – cannot be measured and are therefore not incorporated in this analysis. However, these factors only came into play as the virus started to spread. The analysis shows the expected impacts before the virus started to spread. However, soft factors seems to play a significant role in a country's ability to contain and manage the fallout.

Pandemic health risks exposure of selected countries prior to corona:



Pandemic risk exposure, aggregated by issue (source: SolAbility based on WHO/WB data)

The health risks are calculated based on 4 key issues that shape the response difficulties and capabilities of individual countries: Health, size of risk group, health care infrastructure, and health care financing:

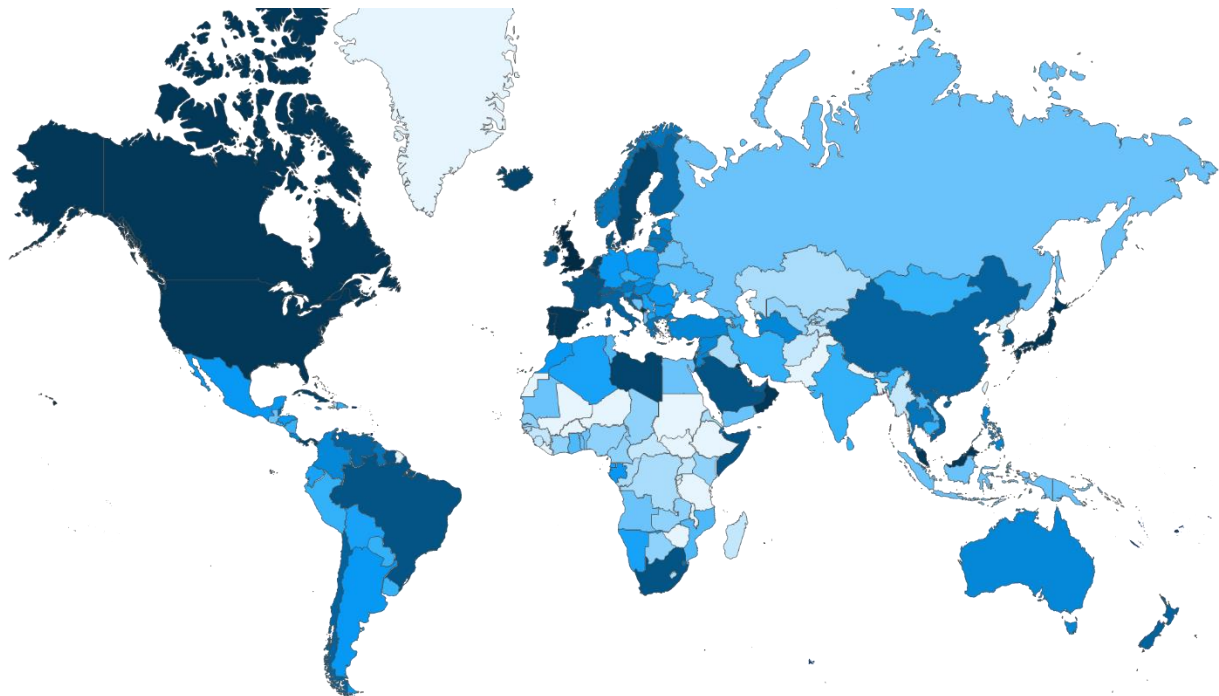
- The general health of the population (calculated based on life expectancy, mortality rates due to air pollution, and general fitness level measured through average standardised body-mass-index)
- Size of risk groups (measured by percentage of population over 65, over 50, and over 40)
- The availability of health care infrastructure (number of beds, doctors and nurses per capita; mortality rate from non-communicable diseases)
- Health care financing (Health care spending per capita, out-of-pocket affordability for lower income segment, government share on health care spending, mortality rate of lifestyle diseases)

The art of data analysis is separating important data from less important data (while being aware of all available data) – and choosing the indicators that best reflect the relevant risk preparedness or risk exposure. While the pandemic health risk exposure is calculated based on “only” 14 indicators, we strongly believe that the results reflect the pre-pandemic risk exposure to an adequate degree.

3 Economic fallout risk exposure

The risks of economic downturn are calculated based on global economic dependencies of countries, internal inequality levels, the status of government finances, exposure to financial market volatility, and the "fall height". Again – the speed and accuracy of crisis response management – which cannot be measured quantitatively - an equal or bigger impact on the eventual outcome

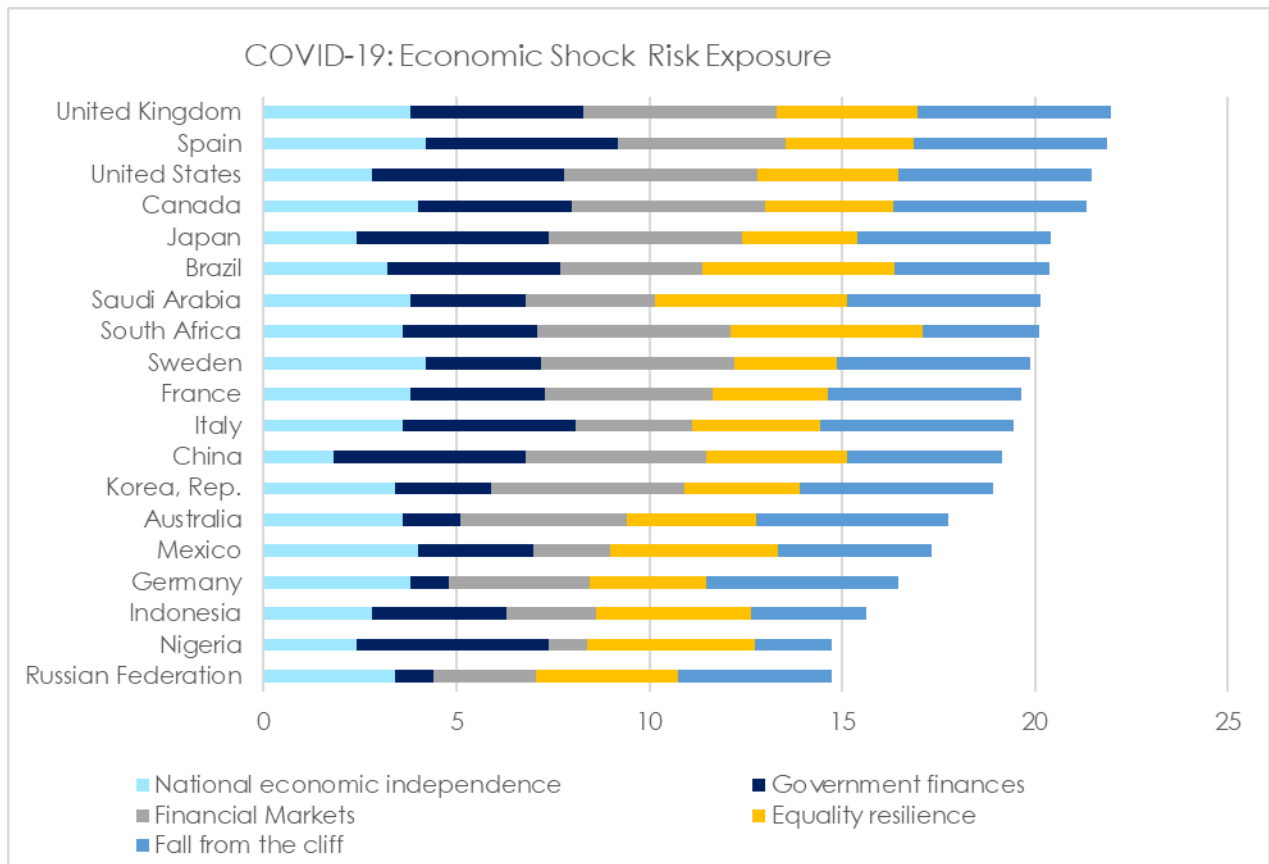
Economically higher developed nations seem to have a higher risk of economic fallout as a consequence of the current global pandemic. The US, the UK, Spain, Canada and Japan all see a risk 25-30% higher than the global average. Lower developed countries with a high percentage of subsistence farmer on the other hand are exposed to below-average risk, but that has to some extent do with the lower standards of living – a assumed reduction of 10% of GDP is significantly lower in absolute terms when the starting pint is 60[^]000 U\$/capita compared to 6000 U\$/capita.



Source: SolAbility based on WHO & World Bank data

Again, measurable quantitative performance indicators pre-pandemic cannot do not fully reflect the risks. Much of the final outcome depends on the soft power and government response. A quick, decisive initial response to monitor and thus contain the outbreak will lessen the economic fallout. Unfortunately, it seems almost all Western nations have failed at managing the outbreak despite having more than two months' notice and preparation time since the outbreak in Asia started.

Economic fallout risks exposure of selected countries *prior* to corona:



Economic fallout risk, aggregated by issue (source: SolAbility based on IMF/WB data)

Economic fallout risks are calculated based on 5 key areas that define the resilience of an economy: independence of global markets, state of government finances, exposure to financial market volatility, internal inequality/equality, and the fall height:

- The economic independence (dependency on imports/exports, employment in service sectors (highly impacted) and agricultural sector (safe employment), as well as innovation capabilities (required for rapid adaption)
- Status of government finance: current state of government debt & interest payments
- Private and corporate debt, as well as dependency on stock markets (measured as value of stock and value of annual stock turnover)
- Internal inequality measurements (income and asset share hold by the lowest 20%, lowest 40% and lowest 60%)
- The fall-height: a potential 10% reduction in GDP is significantly higher in absolute terms in high-income countries

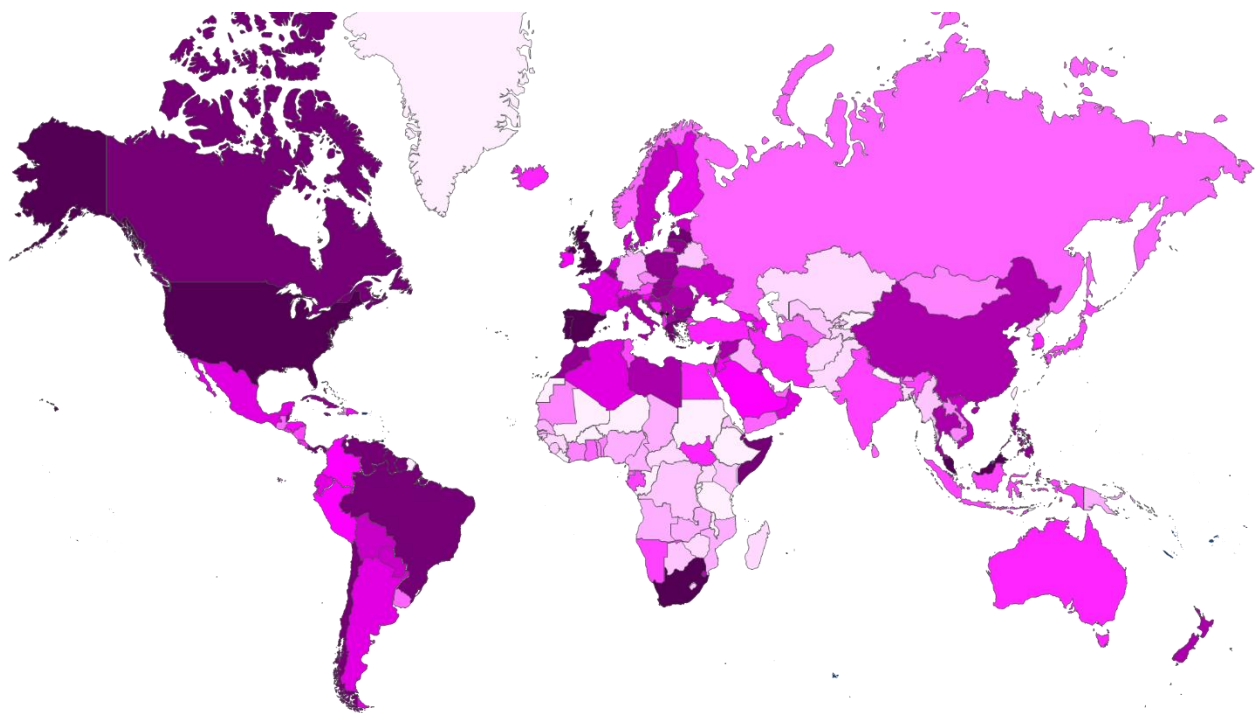
As in fighting the pandemic itself, the economic fallout depends on the crisis management – the response to the pandemic itself (see previous chapter), and the crisis response to the economic fallout. There is no data available at this point that would indicate which course is most successful, but common sense implies that

- Financial resources need to be allocated wisely and keep the economy over water during the freeze.
- Cash needs to be distributed to people directly, and not in form of tax breaks for companies.
- Bailouts for corporations need to have stringent requirements attached

4 Combined Health & economic COVID-19 risk exposure

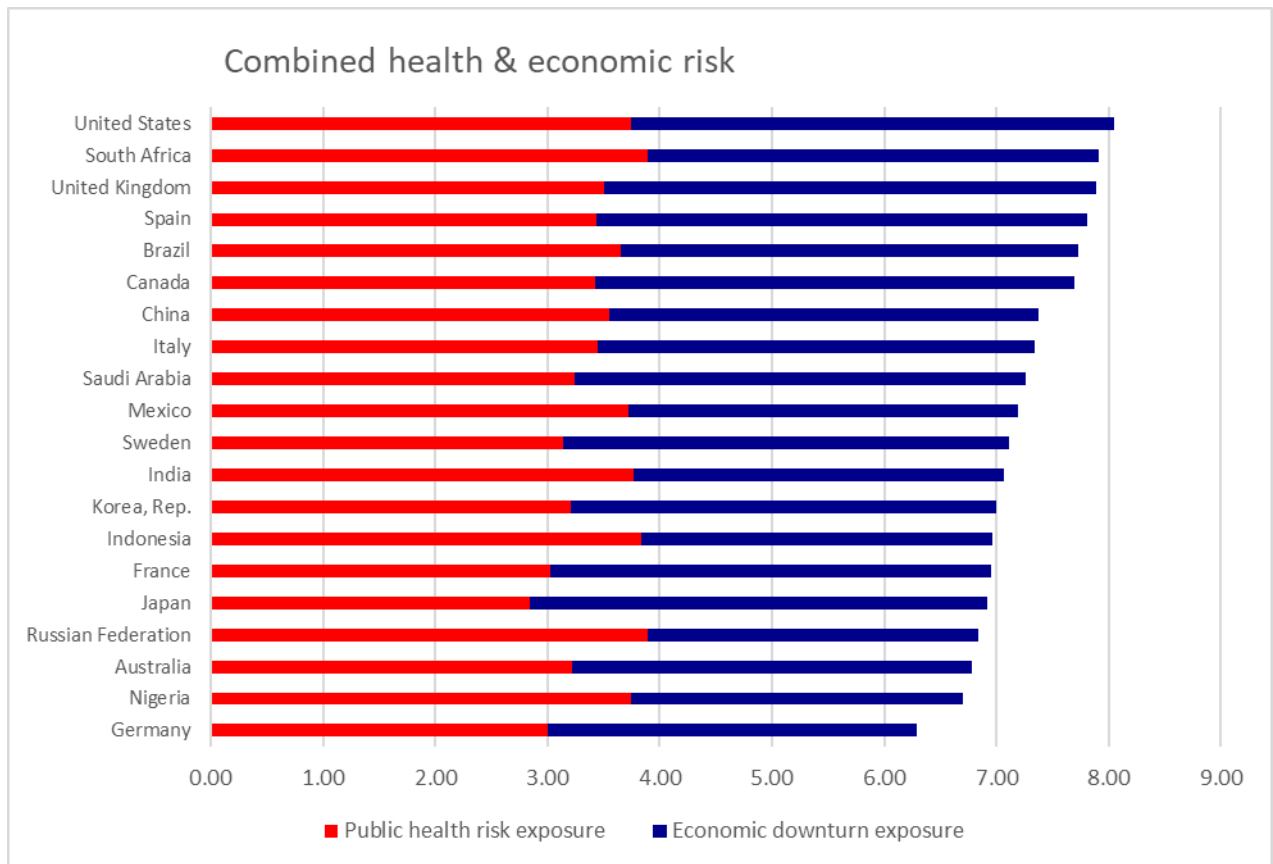
The following map shows the twin threats of the pandemic on public health and the economic fallout as a consequence of the shutdown of much of the global economy on different countries – *prior to the pandemic*. It is important to note that the final outcome of the current crises depends as much on government crisis management and response as well as the initial risk exposure.

Some – but not all – of the higher developed economies, particularly in the West, are facing above-average risks. The US, the UK, Spain, Portugal all are in the highest risk bracket. Europe is a mixed bag with no clear visible tendencies. Eastern European countries also seem to be facing larger challenges. Brazil, Chile, South Africa and Malaysia also seem to face higher obstacles:



Source: SolAbility based on WHO, World Bank & IMF data

Economic fallout risks exposure of selected countries *prior* to corona:



The combined risks (health toll and economic fallout) seem to be higher in the developed nations of the “West”, while sub-Saharan countries risks seem to be lower. However, this is an analysis looking at the state before the outbreak of the Covid 19 pandemic. Rapid crisis response and management are equally important to quell the outbreak, and the following economic shock. The better the initial government response, the shorter and less drastic the shutdown will be, and the sooner the economy can hopefully move back into gear, However, in today’s globalised World everybody depend on everyone – even if a nation manages to suppress the outbreak better than others, it will depend on other countries for imports as well as exports.

What this pandemic once again shows is that our systems are woefully inadequate to deal with a crisis of this magnitude. They fail to protect the people, and they fail at protecting the economy. Our systems are not sustainable. They are not competitive,

We need a reboot. A restart rooted in system efficiency. Sustainable. Competitive. Democratic.

Sustainable, competitive, and democratic *could* be -

1. **Much more democracy, and real Governance.** In the 21st century, it is not possible that individuals decide over whole countries. The people need to be consulted on policy and law changes through mandatory referenda, and the possibility to induce issues on the governing agenda. And - it is not possible that people have to stand in line to vote in the 21st century. The same applies in the corporate World: we don't need presidents and we don't need CEOs; we need teams of decision makers
2. **A global climate tax.** Climate change is a gigantic market failure. We need a global climate tax - introduced in phases, paid back to the people in cash and reinvested in a renewable energy infrastructure - to avoid disaster. Now.
3. **Real market economy.** Markets only work when all costs are incorporated. The environmental costs of substances, materials and processes have to be integrated in the market price – based on a globally agreed level. The taxes generated need to be fiscally neutral (cash-back and/or used to offset the environmental cost).
4. **Quality education for all.** We need quality education, equal for all; taxed and re-distributed at the national level so the same resources are available to each student
5. **Working financial markets.** We need financial markets that support the real economy, and not vice-versa. This can be achieved through a transaction tax on, and/or a minimal holding periods for all financial instruments.
6. **Health care and social security for all.** We need affordable basic health care for all – paid for as percentage of income, directly deducted, with the choice of additional insurance for more luxurious health care.
7. **Impartial and efficient justice system accessible to all.** The justice system has to work fast, efficient, accessible to all while minimising abuse. Judges need to be completely impartial, appointed through a process that is safeguarded from any political influence.
8. **Unitary Taxing.** We need a global approach to tax multi-national corporations (e.g. by a combination of revenues/employees/sourcing per country), as well as private tax. These are not normal times. A wealth tax on the rich, maybe for a limited time, needs to be seriously considered.
9. **Fact-based, impartial information.** We need impartial, science- and fact-based information, not opinions. Financed through taxes, but safe-guarded against any control attempts by governments/politicians.
10. **A basic income for all.** The current pandemic with its expected mass-layoffs show that we need alternative models. We cannot afford having 20, 30, or 40% of the population on the street. A possible alternative is a basic income for all, possibly in exchange for a day or two works for the society.
11. **Population control.** Not very popular, but we need a global two-child policy.

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