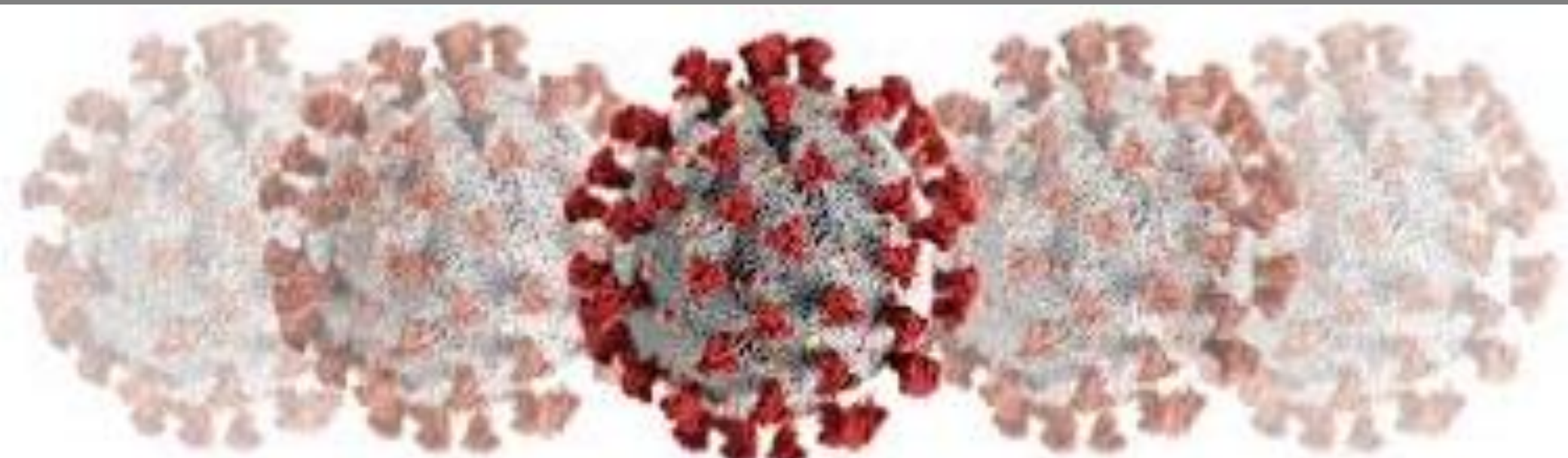




TONY BLAIR
INSTITUTE
FOR GLOBAL
CHANGE

COVID-19: Economic Considerations for Health Response Options in Developing Countries

24 April 2020





Introduction

This document offers a guide for economic management during tightening or relaxation of lockdown measures. This framework proposes a tightening/relaxation strategy differentiated by industry, taking into account both the risk of transmission during the regular operations of an industry and the economic value of said industry.

Steps	Research question	Objective
<p>Step 1: Map the relative economic value of the country's industries.</p>	<ul style="list-style-type: none"> • What industries are most valuable to our economy? 	<ul style="list-style-type: none"> • Find an objective, evidence-based method to measure the value or rank of industries by their contribution to your economic goals.
<p>Step 2: Map industries' transmission risk.</p>	<ul style="list-style-type: none"> • Which industries are most likely to increase the rate of transmission if measures are relaxed? 	<ul style="list-style-type: none"> • Find an objective, evidence-based method to differentiate by industry the risk of increasing transmission rate when containment measures are either tightened or released.
<p>Step 3: Assess the cost to industries if the lockdown continues.</p>	<ul style="list-style-type: none"> • What will happen to industries if the current measures continue? 	<ul style="list-style-type: none"> • Find an objective, evidence-based method to estimate the cost to an industry if the status quo continues.
<p>Step 4: Based on risk and economic value, develop a reactivation strategy.</p>	<ul style="list-style-type: none"> • What industries can we reactivate, given different levels of transmission risk in the country? 	<ul style="list-style-type: none"> • Find an objective, evidence-based set of rules that state which industries get reactivated or locked down according to different levels of transmission risk in the country.



Step 1: Map the relative economic value of the country's industries [1/2]

The aim is to find an objective, evidence-based method to measure the value of an industry, or rank industries by their contribution to your economic goals. Note that goals can differ between countries, as some countries could prioritise, for example, maintaining employment over other variables such as adding value.

1 Select multiple variables to create an index that reflects your priorities

Example: South Africa's economic value of sector assessment.

✓ Most common variables will be contribution to **GDP**, **labour force** and **exports**. Tax contributions could also be included.

✓ How much of the sector is composed of **MSMEs** or **informal work** is relevant as a proxy to economically vulnerable workers.

✓ Some industries are **"enablers"**; they provide inputs for other industries to operate. Assessing their linkages provides an objective way to discern this.

✓ When lacking direct data, an **informed relative assessment** (e.g. high, medium, low) or ranking can be used.

Sectors	GDP contribution (%) ¹	Employment contribution (%) ²	MSME intensity ³	Economic linkage intensity ⁴	Export exposure ⁴	% operational ⁵
Other manufacturing	11.1%	7.4%	Medium	Medium	Medium	
Wholesale & retail (includes home deliveries)	7.9%	10.8%	High	High	Low	
Agriculture & food services	7.6%	4.4%	Medium	High	Medium	

2 Calibrate the result

The final ranking of industries (if not the value of the index) should make intuitive sense. If not, review the premise.

For example, the production and importation of agriculture and food products must be a priority, as well as their retail and distribution.



Step 1: Map the relative economic value of the country's industries [2/2]

Limited sources must not dissuade from providing informed analysis. It is always better to make decisions based on a structured analysis that considers the blindsides, rather than on intuition “because there is no data”.

1 Seek local sources, like statistics agencies, central bank and ministry of finance.

- ✓ When available, **input-output tables** will be particularly useful to ascertain the linkages of the industry.

2 If local sources are not available or are unreliable, consider proxies from global aggregators like ILO Department of Statistics, World Development Indicators (WDIs) and World Integrated Trade Solution (WITS).

WDIs for tourism and travel

- Air transport, freight (million ton-km)
- Travel services (% of commercial service exports)
- International tourism, receipts (% of total exports)
- Air transport (passengers carried)

WDIs for natural-resource dependency:

- Total natural resources rents (% of GDP)
- Oil rents (% of GDP)
- Ores and metals exports (% of merchandise exports)

3 Consider alternative ways to produce estimations

- ✓ For example, distribution of **employment by sector** is often particularly hard to find without input-output tables. Consider ranking industries based on observational evidence of how labour-intensive they are.

Rank	Justification
1. Agriculture	Most rural inhabitants are employed here.
2. Wholesale and retail	Most informal workers are employed here, and most workers are informal.
3. Manufacturing	Little mechanisation means there must be a large labour component if the industry itself is large.



Step 2: Map industries' transmission risks [1/2]

The aim is to find an objective, evidence-based method to differentiate by industry the risk of increasing transmission rate when lockdowns are released.

- 1 Present variables known to increase the risk of transmission and assess them per industry based on their operational practices.

An illustrative example:

Variables	Assessment	Possible measurements	Industry 1	Industry 2	Industry 3
Work-from-home ratio	• How many of the workers in the industry can work from home?	• Dingel and Neiman score (see next slide)	Red	Yellow	Yellow
Physical separation	• To what extent can workers be separated when working?	• O*NET score (see next slide)	Yellow	Red	Green
Density of business	• Does the nature of the business require congregation?	• Less than 10 ppl Less than 50 ppl More	Green	Yellow	Green
Risky workforce	• To what extent are workers put at risk before they get to work?		Yellow	Yellow	Yellow
	• Do they use public transport or cross borders?	• Percentage of workers that do	Green	Red	Yellow
	• Do they come from high-transmission areas?		Yellow	Yellow	Yellow
Ability to separate vulnerable employees	• To what extent could the industry shield vulnerable (e.g. over 50-year-old) workers?	• Percentage of workers over a certain age	Green	Green	Green
Resources and capacity to implement risk mitigation measures	• To what extent can the industry realistically implement mitigation (e.g. providing PPE to all workers)	• High medium low	Yellow	Red	Red



Step 2: Map industries' transmission risks [2/2]

Finding sources to use for assessing an industry's transmission risk will be a challenge, as the practices of an industry are often not standardised or easy to discern (e.g. there are a thousand ways to smoke a fish). Creativity and innovation in seeking this information will be needed, as well as the use of recently (i.e. within a month) published papers.

1 Seek local sources of information

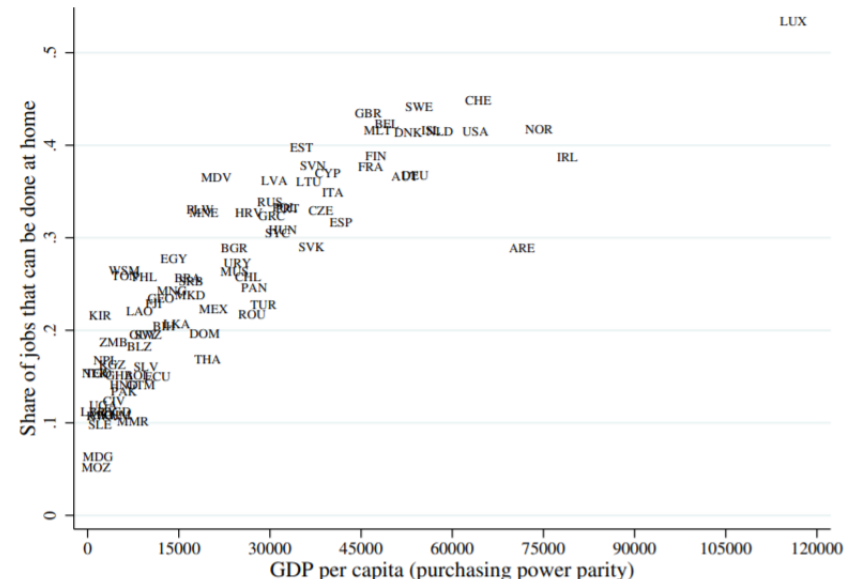
- ✓ Workplace safety regulatory agency, interviews with industry representatives, private sector surveys.

2 Produce new information

- ✓ O*NET carries out surveys in workplaces. The answers to these surveys can be used to assess how feasible social distancing could be. These surveys could be replicated in country, or the results from other countries applied, in order to assess local industries.
- ✓ If no large sample surveys are available, it is possible to use workplace visits (i.e. observational assessment) to a representative sample of the industry and assess the relevant information, even if to only rank industries by risk.

3 Use existing studies

- ✓ Dingel and Neiman developed a “work from home” score that could be replicated for your particular country to offer a replication package.





Step 3: Assess the cost to industries if lockdown continues

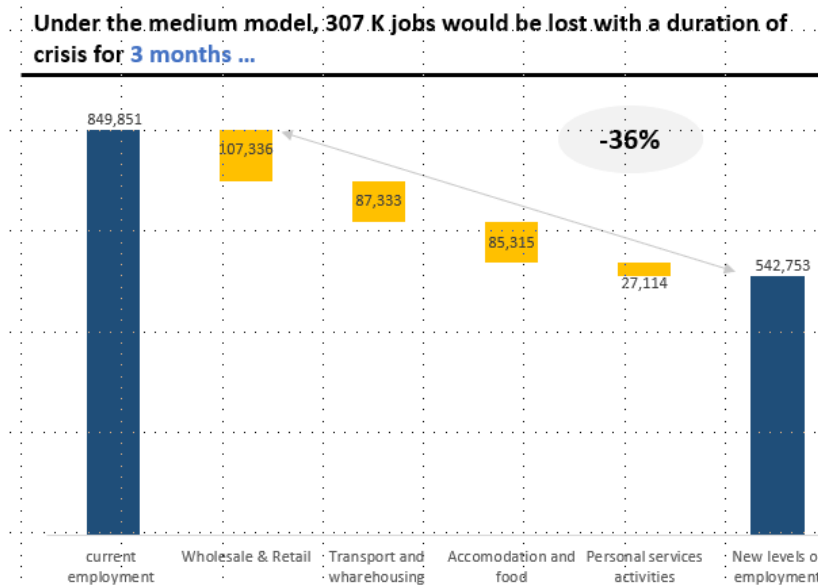
The aim is to find an objective, evidence-based method to estimate the cost to the industry if the status quo continues. Sources of information will include “slow” data: that which is usually produced at a quarterly basis at its fastest, and “quick” data: that which provides an immediate, albeit partial, picture of the situation. Given the rapidly changing nature of the current context, a combination of both will be needed.

1 Use “slow” data to model the likely impact

- ✓ In the absence of local data, use global estimates of impact and translate into local effects, e.g. global slowdown of travel will impact X of GDP that represents travel receipts.

2 Gather or produce, when possible, “quick” data

- ✓ Various international organisations are producing up-to-date data on key global supply chains (see [FAO’s Big Data tool on food chains under the Covid-19 pandemic](#)).
- ✓ Google is producing [Community Mobility Reports](#) based on anonymous mobile data usage.

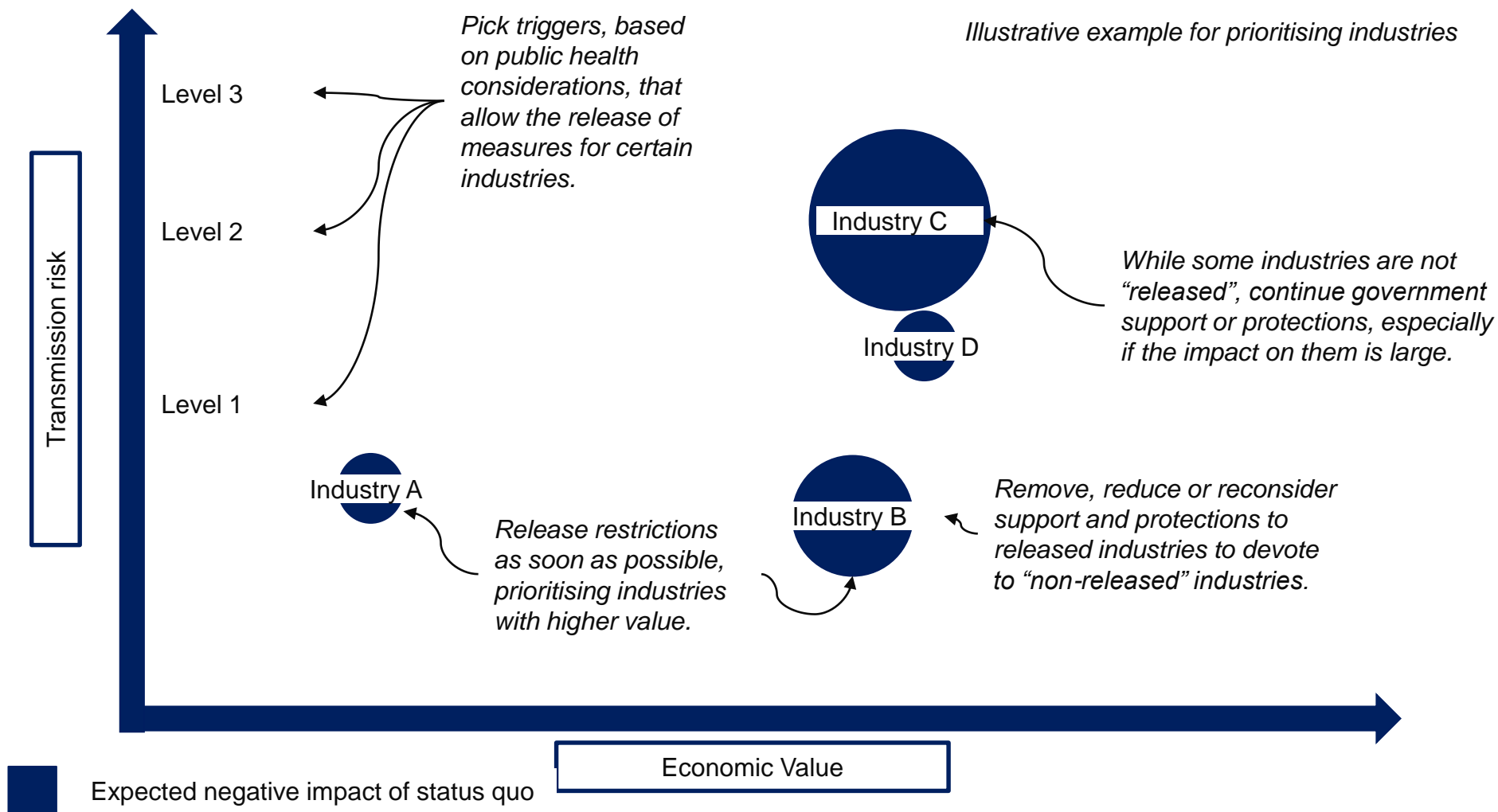


- ✓ Example: South Africa used a private sector survey to inform the expected impact.

	0 – 20%	21 – 40%	41 – 60%	61 – 80%	81 – 100%	Proportion of payroll that is likely to be paid at the end of May (%)	Proportion of the pre-crisis industry workforce that is likely to be retrenched (%)	Proportion of large firms in your industry that are likely to close (%)	Proportion of SMEs in your industry that are likely to close (%)
Agriculture and food supply						75	25	15	35
Automotive						85	5	0	5
Banking						85	5	0	0
Chemicals						85	15	15	45
Construction						15	25	15	35



Step 4: Based on risk and economic value, plan a strategy and mitigation measures [1/2]





Step 4: Based on risk and economic value, plan a strategy and mitigation measures [2/2]

The objective is to clearly and publicly establish which industries are reactivated or locked down at different levels of global risk of transmission.

1 Select number of levels based on health risks
 Example: TBI proposal – not to be taken as a proposition for all countries

NB: Thresholds and measures are illustrative	Individuals	Hospitality, entertainment	Transport	Retail	Schools	Other business	Econ impact
Hard Lockdown if • Daily new cases > 500	Only leave home for exercise, medical need or essential supplies	Closed	Essential transport only	Closed	Closed	Only essential business to be done on-site	Economy around 65% (OBR)
Soft Lockdown if • Daily new cases < 500 • Testing capacity > 100k • Tracing capacity > 50% • Shielding	Work if workplace open and clear tracing-app reading, masks where possible otherwise only leave home as for Hard Lockdown. Over-65s as per Hard Lockdown	Partially open with strict capacity limits. Patrons encouraged to show clear contact tracing app reading	Private transport, public transport with masks, social distancing and clear app readings for passengers	Social distancing enforced, entry to shops limited, patrons to wear masks and have clear app reading	Open	Open with social distancing enforced, masks, clear app readings for staff	Economy around 90%
Soft Open if • Daily new cases < 100 • Testing + tracing as for Soft LD	Public gatherings < 100 allowed, travel to low-risk countries allowed	Open, patrons encouraged to show clear contact-tracing app reading	Private transport, public transport with masks and clear app readings for passengers	Social distancing enforced, masks	Open	Open with social distancing enforced, clear app readings for staff	Economy around 95%

2 Describe measures for each industry at every level

3 Estimate economic impact

Economic activity assumptions derived from OBR scenario. Soft lockdown: Accom & Food remains at OBR's lockdown activity level, Transport & Storage and Wholesale & Retail see 50% recovery towards normality, Health up 20% on normal, other sectors down 10% on normal. Soft Open: Accom & Food down 20% on normal, Health up 10%, other sectors down 5% on normal.