COVID-19 AND TOURISM

Assessing the economic consequences

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Abstract

Tourism is one of the sectors most affected by the COVID-19 pandemic. Indeed, the number of international tourist arrivals declined by 84 per cent between March and December 2020 compared with the previous year, according to data observed by UNWTO. Based on a range of tourist arrivals projections, the report quantifies the potential economic effects of the contraction in the tourism industry in 2021. The indirect effects are significant. Due to linkages with upstream sectors such as agriculture, a drop in tourist sales leads to a 2.5 fold loss in real GDP, on average, in the absence of any stimulus measures. Based on three scenarios, one optimistic, one pessimistic and one where the asymmetric speed of vaccinations is considered, the economic losses could range between $1.7 trillion and $2.4 trillion in 2021. The results highlight the importance of the vaccine rollout in getting global tourism restarted and other mitigating measures.

Keywords: covid-19, tourist arrivals, vaccine

Introduction

The COVID-19 pandemic has been a health and economic crisis with devastating effects on developing countries, especially those dependent on tourism. As governments have attempted to protect their population, lockdowns, quarantines, and major restrictions on nation and international mobility were implemented. This, coupled with the decision of consumers to limit international travel, resulted in a sharp contraction for the tourism sector with severe economic consequences, particularly on countries that rely heavily on the sector. The number of international tourist arrivals declined by 74 per cent in the beginning of the year 2020 compared with the previous year (UNWTO tourism dashboard). In many developing countries, arrivals were down by 80-90 per cent. The beginning of the year 2021 has been worse for most destinations, with an average global decline of 88 per cent as compared to pre-pandemic levels, although the northern summer and autumn may see a significant improvement for some destinations, in particular for domestic and regional travel. The indirect effects of this decline are even more devastating, as labour and capital remain unused and the lack of demand for intermediate goods and services has a negative upstream effect into many sectors. This note attempts to quantify these effects and shows how the rollout of vaccines may affect these estimates.
The United Nations world Tourism Organization (UNWTO) report that almost all countries have implemented travel restrictions of one sort or another, such as travel bans, visa control and quarantines (UNWTO 2020). As a result, international tourism was almost totally suspended in April 2020, about 1 billion trips. However, if the pre-COVID months of January and February 2020 are excluded, the fall in arrivals amounts to 84 per cent.

Figure 1 international tourist arrivals (in thousands)

Source: UNWTO based on UNWTO.

1. According to UNWTO (2021c) the drop in international arrivals in 2020 returned the number of travelers back to level of 30 years ago. And the drop of over US$ 900 billion in international tourism receipts accounts for almost the entire drop in service exports. 93 per cent, and cuts the overall exports value by over 4 per cent in 2020. An earlier assessment by UNWTO (2021d) estimates that the loss in direct tourism gross domestic product is US$2 trillion.

The most affected regions are North-East Asia, South-East Asia, Oceania, North America and South Asia. Least affected regions are North America, Western Europe and the Caribbean. His shows that the greatest impact has fallen on developing countries. The reduction in tourist arrivals across developing nations is relatively consistent, mostly between 60 and 80 per cent (Figure 2).

Figure 2 reduction in tourist arrivals for selected developing countries in 2020
Last summer and an update

In July 2020, UNCTAD, in its report COVID-19 and Tsunami (UNCTAD 2020a), presented three scenarios on the potential economic impact of the pandemic on the tourism sector and sectors directly or indirectly linked to it. A 12-month lockdown was estimated to incur a cost of US$ 3.3 trillion, including indirect costs. Unfortunately, even the worst-case scenario has turned out to be optimistic. Few observers expected that international travel would still be very low after 12 months.

This note updates this report and estimates the economic effects going forward. As in the previous report, a general equilibrium model that captures the backward and forward linkages between sectors is used. Therefore, indirect losses to upstream industries that supply food, beverages, accommodation, and transport to the tourism sector are estimated. It is also taken into account that labour and capital no longer needed in the tourism sector may be employed in other sectors. In the short run, however, labour and capital are likely to remain unemployed due to frictions in labour and capital markets.

It is useful to examine inputs used in the tourism sector, as these determine the indirect effects of a tourism downturn. Globally, labour and capital account for half the inputs, with agricultural products and services contributing most of the rest. Figure 3 provides a general picture on the composition of input for the sector, although there is much variation between countries and between tourism sectors. It is worth nothing that even in developed countries where labour is expensive, such as France or Norway, payments to labour account for a large proportion of inputs. This reflects the high wage rates rather than the number of employees being high. As a generalization...
our data from the global trade analysis project (GTAP), which is based on national accounts, suggests that labour accounts, suggests that labour accounts for around 30 per cent of tourist services expenditure in both developed and developing economies.

Some other input into tourism services are also labour intensive. Food and beverage product are major input. These are labour intensive, but in this instance the about tends o be more skilled in comparison to other sectors.

Some intermediate inputs are imported. France imports a fifth of the ingredients that go into food production. In a tourism downturn, these foreign suppliers share the burden. GTAP Simulations take these factors into account in attempting to quantify the direct and indirect costs of the decreases in tourism caused by Covid-19.

Figure 3: Input into tourism sector (percentage)

Source: UNCTAD derived from GTAP data base.

Possible scenarios for 2021

The three scenarios presented below are consistent with UNWTO (2021) projection for 2021.
1. **The First Scenario** is a reduction in tourist arrivals as observed in 2020. Reductions averaged 74% per cent with considerable variation between countries. This average reduction is close to the 75% per cent reduction in UNWTO’s pessimistic scenario.

2. **The Second Scenario** is a reduction in arrivals averaging 63% per cent, which the UNWTO sees as an optimistic outcome in 2021.

3. **The Third Scenario** takes into account varying rates of vaccination and assumes a 75% per cent reduction in countries with low vaccination rates, and 37% per cent reduction in countries with relatively high vaccination rates. The cut-off point is economies with 50% per cent of their population vaccinated at the end of May. There are 55 such economies, according to Our World in Data. This includes major destination counties such as the United States, Italy, France, and Spain as well as many smaller economies.

**Table 1: Scenarios**

| Description                        | Average reduction compared to 2019 levels |
|------------------------------------|------------------------------------------|
| 1. Reduction in arrivals as in 2020| 74%                                      |
| 2. Partial recovery                 | 63%                                      |
| 3. Uneven vaccination               | 75% low<br>37% high vaccination share    |

The world divided 38 economies and regions, reflecting available data and match these regions with UNWTO estimate of inbound tourist expenditure for 2018 and the estimate reduction in international arrivals (UNWTO tourism dashboard). The direct and indirect impacts on consumption, gross domestic product (GDP) and employment in each of the 65 goods and services sectors in each region can be estimated.

The standard GTAP model is used and the 2014 database is projected toward to 2019, the last pre-Covid-19 year. Our simulations assume each economy is the same size as in 2019, although it is acknowledged that some economies may not have returned to pre-Covid-19 levels, while other may have grown by several per cent.

Importantly, the stranded labour market assumption sector is modified to allow for unemployment in the tourism sector. Unskilled workers put out of work from the downturn in tourist arrivals will most likely not find employment elsewhere. The adjustment occurs in employment rather than wages. It is assumed that skilled workers and capital can be re-employed elsewhere, although this drives down wages and the return on capital. Details are described in UNCTAD (2020).

The result presented here are based on simulations that capture the effect of tourism reduction only, not any other policies such as stimulus programmes that may have reduced the actual impact of the change in tourism. This allow isolate the effect.
Cascading effects

A feature of computable general equilibrium modelling is intersectoral effects. This means a reduction in output in one sector leads to a reduction in demand for inputs from other sectors, and so on down the supply chain. It also means that labour and capital no longer needed in one sector can be re-allocated into other sectors. If there is a fall in demand for labour and capital, wages and rates of return need to fall or employment falls. Idle factors of production lead to a fall in output, measured by GDP at the national level.

Our analysis shows that depending on employment effects, the indirect of a drop in tourism receipts increase the cost.

A drop

In global tourist receipts of

$1 trillion

A loss

in real GDP of

$2.5 trillion

Leads to

X 2.5

Decrease

This ratio varies greatly across countries, from one to three or four-fold. This depends on the backward linkages in the tourism sector, including the unemployment of unskilled labour.

The effect is somewhat greater for developing countries, as seen in figure 4, as some developing countries are much more dependent on tourism.

A partial recovery, from a loss of 74 per cent to 63 per cent, reduce the loss in global GDP by 30 per cent to $1,696 billion. With the benefit of vaccinations being more pronounced in some counties where the absence of widespread vaccinations keeps tourists away. At are global level, there are significant differences between scenarios 2 and 3, but the major beneficiaries in absolute terms are the united states, France, Germany, the united kingdom and Switzerland. These countries have high levels of tourist and high vaccination rates. Developing countries will carry the greatest burden.

Globally, the blow to international tourism given by covid-19 has caused a loss in GDP of more than $4 trillion only for the year 2020 and 2021, if indirect are taken account as our estimates suggest.

Figure 4: As tourism falls world GDP takes a hit in 2021, 3 alternative scenarios

| SCENARIO 1 | SCENARIO 2 | SCENARIO 3 |
|------------|------------|------------|
| 53%        | 52%        | 60%        |
| 47%        | 48%        | 40%        |

Developed | Developing
The estimated GDP effect of the observed loss in tourism receipts are shown in figure and in more detail in appendix. For example, international tourism contributes about five per cent of the GDP in Turkey and the country suffered a 69 per cent fall in international tourist in 2020. The fall in tourism demand is estimated a $33 billion and this leads to losses in sectors that supply tourism, such as food, beverage, retail trade, communication and transport. The total fall in output is 493 billion, about three times the initial shock. The decline in tourism alone contributes to a real GDP loss of about 9 per cent. This decline was partly offset in reality by fiscal measures to stimulate the economy.

Figure 5: Estimated losses in GDP by region from reduction in tourism (percentage)

Source: UNCTAD based on GTAP simulation. Simulations capture effects of tourism reduction only, not other policies such as economic stimulus programmes.
Labour market effects

The estimated losses in employment of unskilled labour due to the fall in tourist arrivals is shown in figure 6. The losses vary according to the proportion of unskilled labour employed in the tourism industry and the extent to which the tourism sector is hit in a specific economy. There is a somewhat similar fall in wages and rates of return for skilled labour and capital.

Figure: estimated loss in employment of unskilled labour by economy and region from reduction in tourism (Percentage)

Source: UNCTAD based on GTAD simulations.

Simulations capture effects of tourism only, not other policies such as economic stimulus programmes.

If labour and capital could be readily re-employed in other industries, the overall impact of a fall in demand for international tourist would be somewhat less than its direct effects. The loss of tourism receipts would be partially offset by output in other sectors. Obviously, in tourist dependent developing countries this is difficult to do in the short run, but more achievable in the longer run. With tourism not expected to fully recover until perhaps 2023 the policy question is whether and how to support the sector until that time.
Policy implications

Tourism is a major economic sector and has a particular socio-economics importance, as it employs many women and young people and provides a livelihood to many informal workers in developing countries. The current pandemic has a devastating effect for the tourism sector. UNWTO (2021) estimates that 100-120 million direct tourism jobs are at stake. Taking the impact on closely linked sectors into account, the drop in international arrivals has caused an estimated loss of about $2.4 trillion GDP in 2020 and it is possible that a similar loss occurs again this year. More positive scenarios for this year with a stronger rebound in tourism in the second half still show a loss of about $1.7 to 1.8 trillion compared to 2019 levels. The recovery will depend on a large extent on the uptake of vaccines, the removal and coordination among countries of travel restrictions and the rebuilding of travelers confidence.

Three policy dimension important

- Bringing tourism back on track including in developing countries. Much needs to be done to restore the confidence of traveler, who are concerned about health, and the risk of cancelled travel plans and becoming stranded overseas. Vaccinations seem the most important element.

- It is important to mitigate the socio-economic impacts on livelihoods. Developed countries have used fiscal measures to support tourism businesses and workers. This is essentially borrowing from the future, and while helpful as a transitionary measures, incurs a debt that will need to be repaid at some stage. Where the support is for otherwise healthy businesses, it is likely to pay off. This strategy is a challenge for most developing countries in particular where tourism is large. Social security nets do often not exist, and informality is high. Workers should be protected rather than specific jobs in declining sectors, for example through training.

- Countries need to make strategic decisions regarding the future of tourism in their countries. Some tourism businesses will not survive even once travel restrictions are removed. Governments need to decide which to support and for how long. Long term implications of the pandemic need to be considered. Some structural adjustment is likely to be necessary. It seems likely that COVID-19 will be around for some time. A return to normal before 2023 seems optimistic. Furthermore, environmental considerations, for example, may become more important and could increase costs for long-distance flights or increase social pressure to avoid them. Other changes may be a reduction of confidence in cruise ships. More domestic tourism in the three largest source regions. United states, Europe and china. Developing countries dependent on tourism might consider how they can diversify resources away from tourism.
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