The Travel Shock

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Abstract

The COVID pandemic has led to a collapse in international travel and tourism. This note explores how the cross-country impact of the COVID-19 pandemic relates to countries’ dependence on these activities as a source of revenue. Specifically, it first documents the size of the shock to revenues from international travel and tourism for the balance of payments, and then turns to the growth implications. Empirical evidence suggests that current account adjustment in 2020 was driven to an important extent by the collapse in revenues and expenditures on international travel as well as by the collapse in oil prices. On the economic growth front, a country’s dependence on tourism is a main determinant of the intensity of the shock to economic activity induced by the COVID pandemic, explaining a larger share of the cross-country impact of the crisis than measures of pandemic intensity.

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# Introduction

The COVID crisis has led to a collapse in international travel, as countries imposed limits on international travel and individuals adopted social distancing measures. According to the World Tourism Organization (UNWTO, 2021a) international tourist arrivals declined globally by [74] percent in 2020, with 1 billion fewer travelers, putting in jeopardy between 100 and 120 million direct tourism jobs. The same source notes that the decline in tourist arrivals during the global financial crisis of 2009 was around 4 percent. Furthermore, this “travel shock” is continuing in 2021, as restrictions to international travel persist, and there is substantial uncertainty on the nature and timing of a tourism recovery.

In this paper we take a first look at the cross-country impact of the international travel shock during 2020 for the largest possible sample of countries. We show that this impact has been very severe for all tourism-dependent economies. Indeed, our main result is that on a cross-country basis the share of tourism activities in GDP is the single most important predictor of the growth shortfall in 2020 triggered by the COVID-19 crisis, even when compared to a variety of measures of the severity of the pandemic.

Our analysis proceeds in three stages. We first identify the key characteristics of countries with high net revenues from international tourism. We find that those countries are generally small, with tourism activities playing a central role. For instance, for the countries of the Eastern Caribbean Currency Union net revenues from international tourism averaged close to 40 percent of GDP during the period 2015-19. Tourism-dependent economies generally have GDP per capita in the middle-income and high-income range, and they are preponderately net debtors. In contrast, countries with high net spending on international tourism tend to be large, with a relatively modest ratio of such spending to GDP. For instance China, the country with the largest international travel deficit in absolute terms, net spending on international travel averaged 1.7 percent of GDP during 2015-19.

We then document how the travel shock has affected the balance of payments in 2020. We show that the magnitude of the decline in net revenues from international travel for small tourism-dependent economies was staggering (often exceeding 10 percent of GDP). This loss in net exports led to a current account deterioration that, while sizable, was much smaller. Specifically, imports of goods declined (reflecting both a contraction in domestic demand and a decline in tourism inputs such as imported food and energy) and the primary income balance improved with the decline in returns for foreign-owned hotel infrastructure. Overall, we find that the travel shock, together with the big reduction in oil prices, explain an important share of global current account adjustments in 2020.

Finally we present some simple cross-country regressions that relate the COVID-19-related shortfall in growth in 2020 to a variety of controls, including in particular measures of the severity of the pandemic and estimates of the pre-crisis share of GDP accounted for by tourism activities. The latter measure is not only statistically very significant, but it also accounts for a sizable fraction of the cross-country variance in the growth decline. This suggests that the sectoral composition of pre-pandemic output has been a crucial factor in explaining the extent of economic stress experienced in 2020.

ADD BRIEF DISCUSSION OF THE LITERATURE

The literature on….

In terms of methodology, the paper is related to Lane and Milesi-Ferretti (2012, 20yy) who focus on economic performance during the global financial crisis, and show that precrisis current account imbalances are a very powerful predictor of economic performance during the GFC.

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# Travel revenues and the balance of payments

In the balance of payments, the category of services most affected by the restrictions on international travel is “travel services”. This category includes both personal travel and business travel. We also examine a second category of services, namely transportation. This category includes passenger travel (for instance, tickets sold to nonresidents by a domestic airline), freight, and other transportation, which includes postal and courier deliveries. For both categories, we focus on the repercussion of the crisis on net external revenues, to take into account the fact that the crisis impact also reduces overseas outlays by domestic residents.

## Pre-crisis

We start by characterizing the relative importance of these categories of services across countries prior to pandemic, before turning to the impact of the “travel shock.” In the presentation of international travel and transportation statistics, we focus on the balance of trade in those services, rather than gross export revenues, to take into account the fact that the international travel restrictions imposed in 2020 may have pushed domestic travelers that normally vacation overseas to remain in their home country, thus reducing the impact on activity of the loss in external revenues.

Global revenues and expenditures on international travel services were around $1.45 trillion in 2019, having grown some 5 percent per year in nominal terms since the start of that decade. They represented about [1/4] of total revenues and expenditures from international trade in services. For international transportation services global revenues and expenditures were around $1 trillion dollars in 2019.

For tourism-dependent countries, the support to the balance of payments coming from travel services is very substantial. For instance, in Croatia over 2015-19 the average surplus in those service categories exceeded 15 percent of GDP, while it was above 8 percent of GDP in the Dominican Republic and Thailand, 7 percent of GDP in Greece, and 5 percent in Portugal. But the majority of economies with large net external revenues from travel and tourism consist of small islands in the Caribbean, the Pacific, and the Indian Ocean (Table 1). In our sample, 20 of the 37 economies with net revenues from travel and tourism exceeding 5 percent of GDP on average during 2015-19 had GDP in 2019 below US$10 billion, and 24 of them had population below 1 million. Among those economies, median net revenues from foreign tourism exceeded 26 percent of GDP, highlighting the central role played by the sector in economic activity. The most extreme example of the importance of net external revenues from travel and tourism is Macao SAR, where net revenues were around 68 percent of GDP during 2015-19. Even in absolute terms their net revenues from tourism were the fourth highest in the world, after the U.S., Spain, and Thailand (Table 2, panel 1).

In contrast, for the countries that are net importers of travel and tourism services, the balance is generally much smaller as a share of GDP. In absolute terms, the largest importer of travel services is China (over $200 billion or 1.7 percent of GDP on average during 2015-19), followed by Germany and Russia (Table 2, panel 2).

From the perspective of their external accounts, countries relying heavily on tourism revenues generally ran large deficits in their balance of goods (including imports of oil), had sizable current account deficits during the period 2015-19, and were generally large net debtors in terms of their international investment position (Table 3).

A second category of services affected by the “travel shock” is transportation. For this category, the crisis took a heavy toll on passenger transportation (particularly airline revenues). Unfortunately, however, the breakdown between the different categories of transportation services is available for only a subset of countries, complicating the task of separating out passenger transportation for a global analysis. For the countries providing a breakdown between different transportation categories, passenger transportation accounts for about ¼ of the total, with freight accounting for about half and the “other” category for the remaining quarter. The number of countries for which net revenues from transportation services is high is also much more limited than for travel services, and includes in particular Panama, Cyprus, and Iceland, which also have high travel revenues (Table 4).

## The Crisis

As the pandemic spread beyond China’s borders in early 2020, countries started to impose restrictions on international travel. As a result, nominal revenues from travel and tourism in the first quarter of 2020 were about 25 percent lower than during the corresponding period in 2019. In the second quarter revenues from international travel collapsed—they were more than 80 percent below their levels a year before. While revenues recovered some ground over the summer, they plummeted again in the last quarter of the year, leaving revenues from international travel and tourism in 2020 over 60 percent below their nominal 2019 US dollar levels.

The hit to countries with heavy reliance on international tourism was unprecedented. (Table 5).

DESCRIPTION HERE OF TOURISM ADJUSTMENT AND “OFFSETS” FROM OTHER CATEGORIES

The hit of the crisis on net revenues from transportation services was more modest. While revenues from passenger transportation declined by over 60 percent in nominal US dollar terms in 2020 for the countries providing such data, other transportation categories, such as shipping and road transportation, were much more resilient: the overall decline in freight revenues was around 2 percent, and the overall, the decline in nominal revenues and expenditures from transportation services in 2020 was around 15 percent.

Overall, the variation in current account balances in 2020 is strongly related to countries’ dependence on tourism as well as oil.

NOTES: change in CA related to travel balance and oil balance pre-COVID

# Growth and tourism dependence

In this section we explore the extent to which the dependence of a country on tourism revenues helps predict the size of the economic contraction caused by the COVID crisis. The measure of crisis intensity we use is the difference between GDP growth in 2020, taken from the April 2021 World Economic Outlook (IMF, 2021) and the pre-pandemic growth forecast for the same year, taken from the January 2021 World Economic Outlook update (IMF, 2020a). Using the difference in performance compared to forecasts is important in order to control for differences in trend growth across countries. We rely on the World Economic Outlook given the global coverage of their forecasts, which is essential considering that many of the most affected economies are very small and generally not covered by other economic forecasts.

NOTE: KIRIBATI IIP OUTLIER

## The Data

Our data on tourism dependence come from the World Travel and Tourism Council (WTTC), and is disseminated by the World Bank. The main variables used in the analysis are the direct share of travel and tourism in GDP (defined as…..), and the indirect share (which also takes into account…..). The methodology used to construct these variables is explained in detail in WTTC/Oxford Economics (2020). These data make use, where possible, of the so-called Tourism Satellite Accounts (TSA), which…..

In summary, the direct share measure is estimated by first constructing expenditure measures directed to sectors producing travel and tourism services (such as accommodation, transportation, entertainment, and attractions), and subsequently using input-output matrices to subtract domestic purchases and imported inputs by these sectors. The indirect share measure also includes travel and tourism investment spending, government “collective” spending also benefiting the tourism industry, and domestic (non-imported) supply chain purchases of goods and services by the sectors

dealing directly with tourists the domestic purchases.

From the WTTC text:

The direct contribution of Travel & Tourism to GDP reflects the:

◼ ‘Internal’ spending on Travel & Tourism - total spending within a particular country on Travel & Tourism by residents and non-residents for business and leisure purposes.

◼ As well as government 'individual' spending - spending by government on Travel & Tourism services directly linked to visitors, such as cultural (e.g. museums) or recreational visitors (e.g. national parks).

◼ The direct contribution of Travel & Tourism to GDP is calculated to be consistent with the output of tourism-characteristic sectors such as hotels, airlines, airports, travel agents and leisure & recreation services that deal directly with tourists.

◼ The direct contribution of Travel & Tourism to GDP is calculated from total ‘internal’ spending by netting out the domestic and imported purchases made by the different tourism sectors. This is consistent with the definition of Travel & Tourism GDP, specified in TSA: RMF (2008). The input-output methodology improvements implemented in the 2020 EIR help to more accurately estimate domestic and imported purchases.

ROBUSTNESS WITH COUNTRIES THAT HAVE DATA ON TOURISM SATELLITE ACCOUNTS

CLARIFY PASSENGER FARES AND MEDICAL TOURISM INCLUSION IN WTTC DATA

As a robustness check, we also use the average balance of travel services as a share of GDP during the period 2015-19, which we characterized in the previous sections.

In addition to the dependence on travel and tourism, we use a number of other potential explanatory variables. Two relate directly to the intensity of the pandemic: the number of recorded cases in 2020 (as a share of total population) and the number of recorded deaths attributed to COVID-19 (also scaled by total population size). A third variable, the stringency of lockdown measures, relates instead to the government response to the pandemic. While stringency is clearly correlated with the severity of the pandemic, ……We expect all of these variables to be…..

Two additional variables relate to the sectoral composition of economic activity: the share of agriculture in total value added and the share of manufacturing in value added (both calculated as averages over the period 2014-19). We would expect these shares to be positively associated with 2020 growth outcomes relative to pre-crisis forecasts.

We also include GDP per capita and population size.

Results show a strong negative relation between the growth outcomes in 2020 (relative to pre-COVID forecasts) and the GDP share of tourism activities (Table x).

Results robust to the use of the travel surplus during 2015-19.

DISCUSS THE IMPORTANCE OF PANDEMIC-RELATED VARIABLES VS OTHER VARIABLES (DEPENDENCE ON TRAVEL, OIL…). REFER TO IMPORTANCE OF THE SECTORAL COMPOSITION OF OUTPUT – CITE WEO CHAPTERS.

# Concluding Remarks

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LIST OF TABLES AND FIGURES

Table 1. Countries with net revenues from international travel exceeding 5 percent of GDP, 2015-19

(list of 37 countries, with average net travel revenues)

Table 2. Countries with the largest net revenues and net expenditures on international travel, 2015-19

(top 10 countries in terms of USD revenues and USD expenditures. For those countries provide USD amount and also pct of GDP)

Table 3. Countries with large net revenues from international travel: current account composition

For the countries with travel surpluses exceeding 5 percent of GDP, the table would show average, median, 25th and 75th percentile, and range for the following variables:

*Current account balance 2015-19*

*Travel balance 2015-19*

*Balance of goods 2015-19*

*Balance of services excl. travel 2015-19*

*Primary income balance 2015-19*

*Secondary income balance 2015-19*

*International investment position in 2019*

Table 4. Current account adjustment in 2020

For the countries with travel surpluses exceeding 5 percent of GDP, the table would show average, median, 25th and 75th percentile, and range for the following variables:

*Current account balance 2020 minus 2015-19*

*Balance of goods 2020 minus 2015-19*

*Balance of services excl. travel- 2020 minus 2015-19*

*Primary income balance 2020 minus 2015-19*

*Secondary income balance 2020 minus 2015-19*

Table 5. Regressions, current account adjustment

Table 6. Growth regressions