Box 4.1

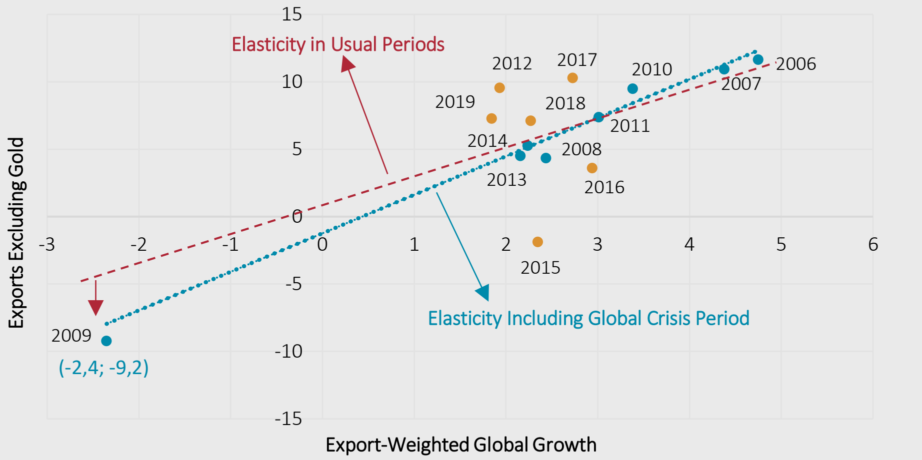
Possible Impact of the Pandemic through External Demand and Tourism Channels

The global growth outlook has weakened significantly due to the pandemic. Several international organizations forecast that the contraction in our external markets will be more severe than the 2008 global financial crisis period (Box 2.1). Besides, the imposed travel restrictions have brought tourism and related transportation activities to a halt. This box discusses the possible impact of these factors on Turkey's growth via the export of goods and tourism channels.

External Demand Channel and Exports

A scatter graph of annual changes in the export-weighted global growth (EWGG) and exports (excl. gold) is a simple yet useful representation to examine the possible impact of a slowdown in external demand on the export of goods (Chart 1). According to the chart, the external demand elasticity (blue line) of exports for 2006-2019 is 2.9. This figure can be interpreted as saying that a 1-point rise in the foreign market growth increases the export (excl. gold) growth by 3 points. This linear relationship can show significant deviations due to the other determinants of exports, such as real exchange rate, oil prices, market diversification, etc. For instance, when the European debt crisis caused decreased exports to Europe in 2012, sales were re-directed to the Middle East and Africa (MEA) countries that had a positive outlook on the back of high oil prices and the cumulative depreciation of the TL, whereas, during the 2017-2019 period, competitive gains from the long term depreciation of the TL played an important role in the positive course of exports. Geopolitical developments may have had a limiting impact in 2015 and 2016 when a weaker export performance was observed than implied by the foreign demand outlook.

Chart 1: Global Growth and Exports (Annual % Change)



Sources: CBRT, TURKSTAT.

When the same analysis is repeated with the exclusion of 2009, marked by a sharp contraction in the global economy (the red line), the external demand elasticity of exports falls to 2.2. Financial constraints (access to credit, balance sheet effects, etc.) in this period might have been effective in a single observation of the global crisis period distorting the external income elasticity of exports to this extent. Observations for 2009, in which the EWGG contracted by 2.4%, indicate that the contraction predicted for our foreign markets, especially in European countries, will significantly limit export opportunities in 2020 due to the pandemic.

Tourism Channel and Its Transmission to Economy

As a part of the measures taken to control the pandemic, all overseas flights were halted in Turkey as of 27 March 2020. Considering that the share of tourism revenues in national income in 2019 stood at approximately 4%, the current tourism outlook is expected to have a significant direct impact on growth. Besides, economic activity will be indirectly affected through tourism-related sectors such as restaurants-hotels, transportation, and retail trade. In this regard, vector autoregressive (VAR) models indicate that the impact of a 10% drop in tourist numbers on GDP growth is in the range of [0.57-0.74] points in the first quarter and is approximately [0.79-0.92] points as accumulated within a year (Chart 2). Moreover, the composition of foreign visitors may affect the results, as per capita expenditures differ according to country groups.

Chart 2: Cumulative Impact of a 10% Decrease in the Number of Tourists on GDP* (% Points)

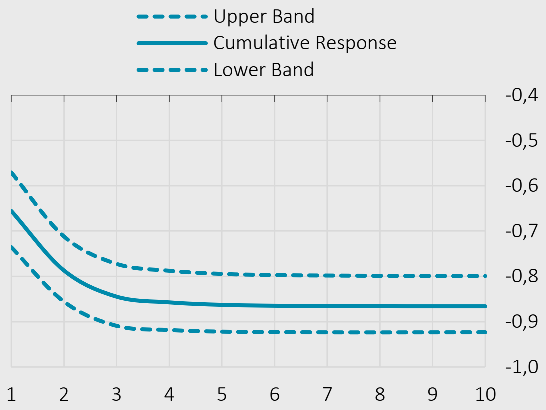
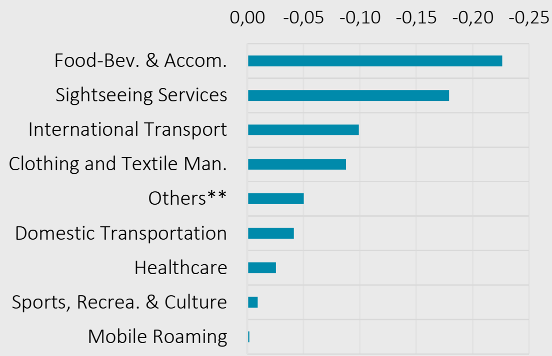


Chart 3: Channels of Transmission of a 10% Decrease in the Number of Tourists to GDP (% Points)



*The VAR model, which includes the number of tourists, the value-added of the trade sector and GDP, and controls the final domestic demand exogenously, is estimated for the 2008Q1: 2019Q4 period. Results obtained from alternative models are mostly consistent with the baseline results.

**The others item that includes mostly souvenirs, carpets, rugs, etc. and other expenditures is considered under the related retail trade.

As a complementary approach, production loss caused by a 10% drop in tourist spending in the economy, and its sectoral transmission are estimated by using the 2012 input-output (IO) table that includes inter-sectoral connections.[1] In this context, a 10% decrease in tourist expenditures leads to a 0.7-point decline in GDP through direct, indirect, and induced effects. The transmission of the shock to the economy is mainly through the food-beverages and accommodation, sightseeing services, transportation, and clothing and textile manufacturing sectors (Chart 3).

While the IO analysis presents important findings as it also considers indirect effects, the fact that the most recent IO table was published in 2012 limits the analysis. The share of tourism, mostly related to the services sector, in GDP has increased over time. Thus, the impact on the GDP calculated based on the structure of the economy in 2012 may be considered as a lower band.

As a result, the deterioration in the global growth outlook and travel restrictions are expected to have a significant impact on growth via export demand and tourism channels. However, adverse effects of the weakening in exports and travel revenues on the external balance will be mitigated by the fall in commodity prices and the decrease in import demand due to the slowdown in activity. Thus, the current account balance will remain moderate in 2020.

[1] Based on the 2017-2019 average, sectors with the highest share in tourism are food-beverages and accom. (32%), sightseeing serv. (24%), domestic and international transp. (21%), and clothing and textiles (12%). Since the last IO table was published in 2012, we assume that the inter-sectoral structure has not changed significantly over the period. Finally, the value-added/production ratio is taken as constant while calculating the impact of tourism shock.