

## Box 3.1

### The Impact of Administered Prices and Tax Adjustments on Inflation

Administered items in the consumer price index are goods and services items whose prices are directly set by the state or state-affiliated entities (municipalities, SEEs, etc.) and/or established by public consent. This box analyzes how the public sector affects consumer inflation through administered prices and tax adjustments from a historical perspective.

**Table 1: Administered Items and Items Subject to Frequent Tax Adjustments**

<b>1. Items subject to tax adjustments</b>	
Alcoholic Beverages and Tobacco Products	
Automobiles	
Fuel	
	<b>Total Weight: 17.0</b>
<b>2. Administered Items</b>	
Electricity	
Water (Tap Water)	
Municipal Urban Passenger Transport (Metro, Tram, Bus, Ferry Prices, etc.)	
Tea (Food and Catering Services Combined)	
City Gas and Natural Gas	
Private Education Services Affected by the State Regulation of Private Schools (Private Primary and High School Tuition)	
Miscellaneous Public Education Services (Distant Learning Student Fees, State University Housing Fees, State Pre-School Tuition)	
Medicine	
Miscellaneous Public Services (Driver's License Fees, Court Documents, Notary Fees, Passport Fees, Compulsory Earthquake Insurance, Compulsory Traffic Insurance, Vehicle Inspection Fees, Emissions Testing Fees, etc.)	
Sugar	
Costs for Hajj and Umrah Visits	
Miscellaneous Healthcare Services (Consultation Fees at State Hospitals, General Practitioner's Consultation Fees, etc.)	
Municipal Bread	
Games of Chance (Horse Racing, National Lottery, Powerball, etc.)	
TCDD Train Fares (Intercity, High Speed Train, Suburban)	
Highway and Bridge Tolls	
Other (PTT Delivery Costs, State Theater Tickets)	
	<b>Total Weight: 13.3</b>
	<b>Overall: 30.3</b>

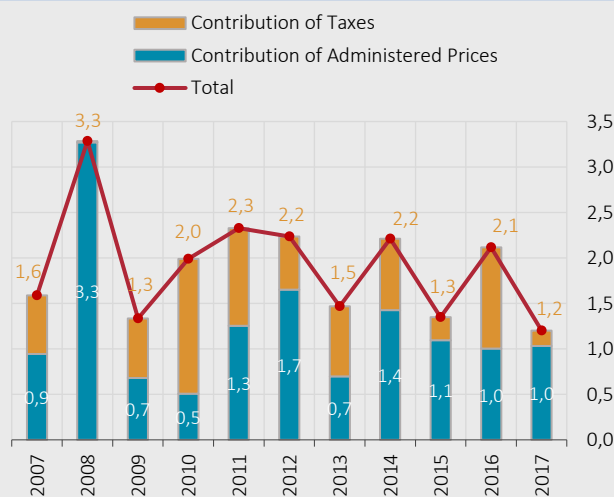
Source: CBRT, TURKSTAT.

Table 1 shows a list of administered items and items subject to tax adjustments. These items, which are directly controlled by the public sector, account for as much as 30 percent of the CPI as of 2018. This underlines the key role of the public sector in inflation dynamics. In fact, as shown in Chart 1, administered prices and taxes added 1.9 points to consumer inflation, which was 8.4 percent on average between 2007 and 2017. Of this 1.9 points, 1.2 points stemmed from administered prices and 0.7 points came from taxes.

Besides their direct impacts, price or tax adjustments to energy items such as fuel, electricity and natural gas affect inflation also indirectly through production costs. For example, fuel prices have an economy-wide impact on costs primarily through transport services, and their indirect impact can be about 1.5 times as strong as their direct impact on inflation. The indirect impact of a price increase is not confined to the cost channel; the signaling effect as well as the pass-through to inflation expectations are equally important. Strong indexation mechanisms in the revaluation rate or wages are examples of such practices which affect expectations and create inflation inertia. In short, the role of the public sector on inflation can be more clearly assessed when indirect effects are also taken into account besides the direct effects.

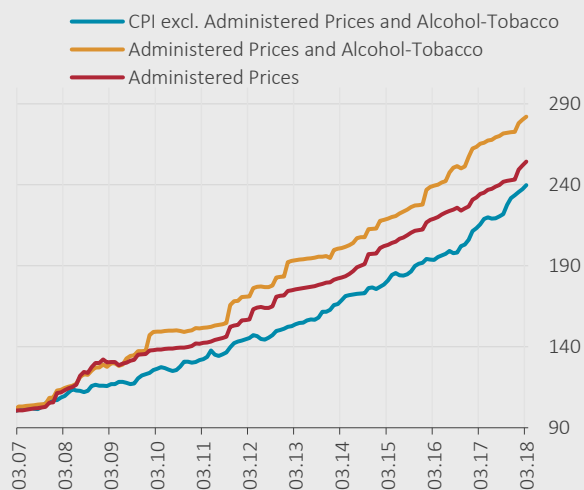
The effect of the public sector on inflation can be analyzed in three parts: level, volatility and pricing behavior. First, the administered price index has been increasing at a much faster pace than the CPI since 2007 on a cumulative basis (Chart 2). The level discrepancy is much more striking when alcoholic beverages and tobacco products, which are subject to frequent tax adjustments, are also included in the analysis (Chart 2). In particular, administered prices and alcohol-tobacco posted an annual growth rate of 10 percent between 2008 and 2017, whereas the CPI excluding these items rose by an annual 8 percent on average.

**Chart 1: Contribution of Administered Prices and Taxes to Inflation (% Point)**



Source: CBRT, TURKSTAT.

**Chart 2: Price Indices (January 2007=100)**



Source: CBRT, TURKSTAT.

Apart from their effects on the level of inflation, administered prices and tax adjustments also increase inflation volatility, thus distorting expectations and causing these unforeseen price movements to create inflation uncertainty and deteriorate pricing behavior. Another impact of administered prices on inflation is through the backward indexation mechanism, which is basically the indexing of prices to past inflation and exchange rates. As mentioned above, adjustment of public prices in line with the revaluation rate, which is based on past D-PPI inflation, is a price-setting behavior that leads to inflation inertia.

In 2017, taxes proved to be less inflationary compared to previous years due to the stronger coordination between monetary and fiscal policies. With no visible tax-driven inflationary pressure, inflation increased at a slower rate while administered prices added only 1 point to annual CPI inflation (Chart 1).

In sum, administered prices and indirect tax adjustments have considerable influence on inflation dynamics. The majority of administered prices increase at a faster pace than inflation, which suggests that there is enough room to support disinflation through these items. It is critical for the internal consistency of macroeconomic policy design that administered prices and tax adjustments be set in view of their possible effects on inflation. Lastly, adopting a continuous and systematic framework for the recently enhanced coordination between monetary and fiscal policies will provide major contribution to permanent price stability in the medium term.