

Box 3.1

Tax Change in Tobacco Products and Its Repercussions on Inflation

In July 2018, tax rates applied to tobacco products were changed. This change constituted a step towards convergence of our tax structure to international averages. Moreover, significant gains were achieved in enhancing the coordination between monetary and fiscal policies in the struggle with inflation.

Differing from the general practice in products subject to Special Consumption Tax (SCT), the tax base employed to calculate the SCT on tobacco products is the final retail sales price of the product. This method reveals a relatively complicated taxation structure.¹ The final sales price in tobacco products (Y) is composed of the sum of the producer price (X), the dealer-distributor (retailer-wholesaler) share and the ad valorem and specific SCT and VAT amounts (Table 1).

Table 1: Price Setting Mechanism in Tobacco Products

Final Sales Price:	Y
Producer Price:	X
Dealer/Distributor Income (p = dealer-distributor share, %):	$Y * p$
Ad Valorem SCT Amount (SCT= ad valorem SCT rate, %):	$Y * SCT$
Specific SCT Amount per Packet:	M
Total SCT Amount:	$(Y * SCT) + M$
VAT Amount (vat = VAT rate, %):	$[X + (Y * p) + (Y * SCT) + M] * vat$

$$\text{Final Sales Price} = \text{Producer Price} + \text{Dealer/Distributor Income} + \text{SCT Amount} + \text{VAT Amount}$$

$$Y = X + (Y * p) + [(Y * SCT) + M] + [X + (Y * p) + (Y * SCT) + M] * vat$$

$$Y = \frac{(1 + vat) * (X + M)}{1 - (1 + vat) * SCT - (1 + vat) * p}$$

Source: Atuk and Özmen (2016).

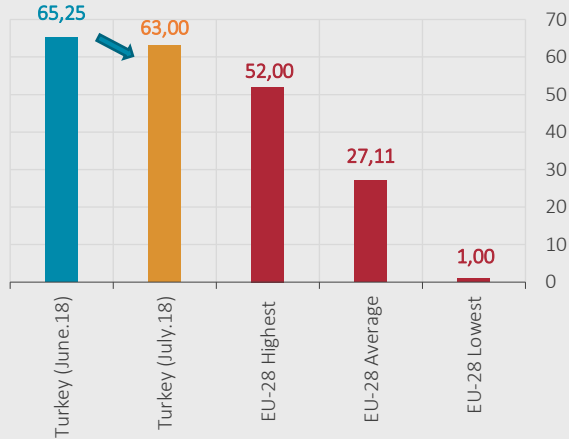
Price formation reveals that final sales price is non-linearly related to the VAT rate, the SCT rate and the dealer-distributor share; and as the level is elevated in these tax rates, a one-unit increase has a higher outcome on final prices (multiplier effect). The current tax structure relies mostly on ad valorem tax, and the ad valorem SCT rate, which is 65.25 percent in the first half of 2018, is significantly higher than the European Union average of 27 percent (Chart 1). Moreover, in comparison with the EU-28, the highest ad valorem SCT rate proved to be exerted in Turkey even after the revision introduced in July (Chart 2).

As the ad valorem SCT rate decreases, the multiplier effect declines as well (Chart 3). Prior to the recent tax change, the multiplier was around 8, implying that a 10-kurus increase in producer or specific SCT amount reflects on the final sales price as around 80 kurus. In other words, the high

¹ For chronological development and further information on the subject, see Atuk, Çebi, Özmen (2011), CBRT (2013), Atuk and Özmen (2016).

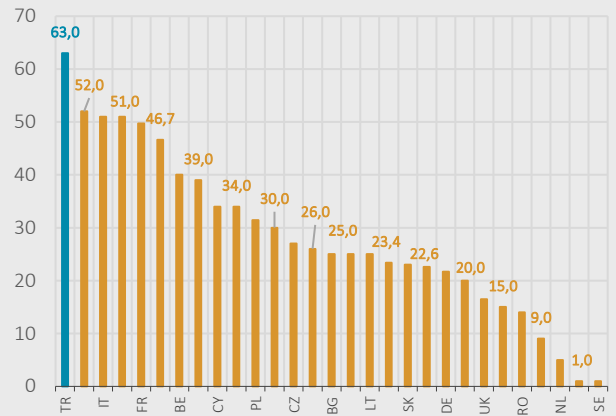
multiplier renders a small increment in the specific tax amount or the producer price to have a higher impact on the final sales price.

Chart 1: Comparison of Ad Valorem SCT Rates: Turkey and the European Union (%)



Source: EU Commission (2018).

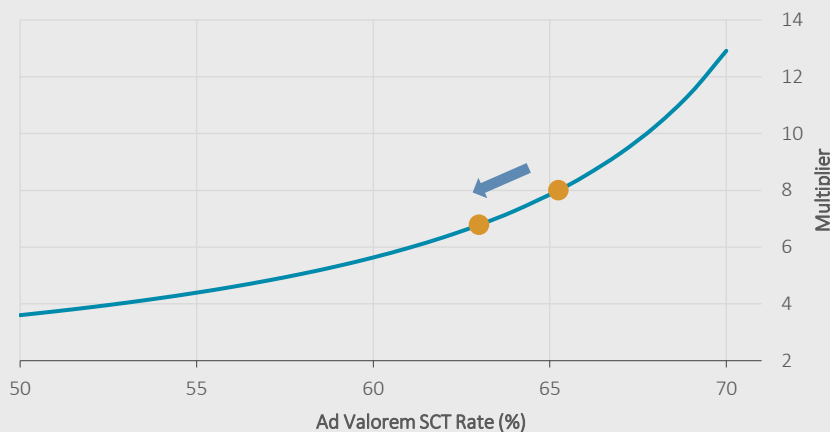
Chart 2: Ad Valorem SCT rates in EU-28 (%)



Source: EU Commission (2018).

Owing to the enhanced coordination between monetary and fiscal policies regarding administered prices and tax adjustments, the ad valorem SCT rate was reduced from 65.25 percent to 63 percent, and the specific SCT amount per packet was raised from 32.46 kurus to 42 kurus in July. This not only curbed short-term inflationary pressures, but also allowed the multiplier to recede to 6.8 from 8 (Chart 3). Thus, in the period ahead, the impact of a potential increase in producer prices or specific taxes on inflation is also restricted. Comparison with the EU countries signals that there is long way to go in this respect and this arrangement constitutes a starting point in harmonization with the internationally-exercised taxation.

Chart 3: Ad Valorem SCT Rate (%) and Multiplier



Source: CBRT Estimates.

As a result, from a medium/long term perspective, reducing the weight of the ad valorem tax within the final sales prices while increasing the share of the specific tax mitigates the impact of the multiplier effect of tax and producer price adjustments on final sales prices and gains importance in the convergence with EU averages. In this respect, this arrangement constitutes an example of an enhanced coordination between monetary and fiscal policies. In the meantime, a stronger coordination in areas other than administered prices and tax adjustments will also offer valuable contribution to the struggle for disinflation in the upcoming period.

References

Atuk, O. Çebi, C. and Özmen, M. U. (2011), “Special Consumption Tax on Tobacco Products”, CBRT Research Notes in Economics No. 11/16.

Atuk, O. and Özmen, M.U. (2016), “Firm Strategy and Consumer Behavior under a Complex Tobacco Tax System: Implications for the Effectiveness of Taxation on Tobacco Control”, Tobacco Control, 26(3), 277-283.

CBRT (2013), “Recent Changes to Taxing of Tobacco Products and the Effects of SCT Rate Hikes on Prices”, 2013-I inflation Report, Box 3.1.

European Commission (2018), “Excise Duty Tables, Part III-Manufactured Tobacco”, Directorate-General Taxation and Customs Union.