



World Health
Organization

REGIONAL OFFICE FOR Europe

Tobacco taxation policy in Kyrgyzstan



Tobacco taxation policy in Kyrgyzstan

Abstract

A study was carried out to estimate the impact of tobacco taxation policy in 2003–2014 on tobacco consumption and revenues in the country. Kyrgyzstan increased tobacco excise rates by a factor of four in 2011–2014, which resulted in a 5-fold increase in revenue over the 4-year period. However, no decline in tobacco consumption was observed. When the initial excise taxes are very low and the country experiences economic growth, tax increases result in a rise in revenue without a reduction in tobacco consumption, as tobacco affordability does not decline. In 2015, the average cigarette excise rates in Kyrgyzstan were doubled, which should ensure a reduction in tobacco affordability, and some decline of tobacco consumption is expected. Without an increase in excise rates in 2016, tobacco consumption is not expected to decline that year nor is it probable that there will be an increase in revenue. It is, therefore, recommended that the next increase, foreseen in 2017, be brought forward to 2016.

Keywords

TAXES

TOBACCO

TOBACCO INDUSTRY

SMOKING

HEALTH POLICY

Address requests about publications of the WHO Regional Office for Europe to:

Publications

WHO Regional Office for Europe

UN City, Marmorvej 51

DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

© World Health Organization 2015

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Acknowledgments

The WHO Regional Office for Europe is grateful to Konstantin Krasovsky, the primary author of this study.

This study was made possible by funding from the Ministry of Health of the Russian Federation.

Contents

	Page
Introduction	1
Methodology	1
Results	1
Changes in tobacco taxation in Kyrgyzstan, 2003–2015.....	1
Share of excise tax and total tax in cigarette retail price.....	2
Tobacco affordability in Kyrgyzstan and its impact on tobacco consumption.....	6
Cigarette sales.....	7
Illicit re-export of cigarettes and forestalling.....	7
Import duty.....	9
Tobacco excise revenue.....	10
Non-filter cigarettes.....	10
Excise tax regressivity.....	11
Tobacco growing.....	11
Smoking prevalence and estimated cigarette market.....	11
Discussion	12
Conclusions	14
References	16

Introduction

In response to the globalization of the tobacco epidemic, the WHO Framework Convention on Tobacco Control (WHO FCTC) was adopted by the 56th World Health Assembly in 2003 and entered into force in 2005. In accordance with Article 6 of the Convention, “Price and tax measures to reduce the demand for tobacco”, the Parties recognize that price and tax measures are an effective and important means of reducing tobacco consumption in various segments of the population, in particular young people. Each Party should implement tax and price policies on tobacco products to contribute to the health objectives aimed to reduce tobacco consumption (1). The Kyrgyz Republic became a Party to WHO FCTC in 2006 and is committed to implementing the cross-sectoral measures outlined in the Convention to protect people from tobacco use.

The aims of this paper are to: (1) present the estimated impact of tobacco-taxation policy in Kyrgyzstan in 2003–2014 on tobacco consumption and revenues in the country; and (2) propose options for tobacco-taxation policies in 2016 in terms of their impact on tobacco consumption and revenues.

Methodology

Data on tobacco-excise revenue were derived from monthly reports of the Central Treasury of the Kyrgyz Republic (2). Data on prices, import, export and other

indices were taken from the websites of the National Statistics Committee (3) and the Customs Service of the Kyrgyz Republic (4).

Results

Changes in tobacco taxation in Kyrgyzstan, 2003-2015

In 2003, a simple, specific-rate excise system was in practice in Kyrgyzstan whereby the rates were 15.0 som per 1000 non-filter cigarettes and 70.0 som per 1000 filter cigarettes. In December 2003, when a multitier specific-rate excise system was introduced, the tax rates were lowered from 15 to 10 som for 1000 non-filter cigarettes and from 70 to 25 som per 1000 of the cheapest filter cigarettes (Table 1).

In accordance with the Tax Code of the Kyrgyz Republic of 17 October 2008, new excise rates were introduced on 1 January 2009 and value-added tax (VAT) was reduced from 20% to 12%. While, for most kinds of cigarettes, excise rates were raised, they were actually lowered for the brands in the most popular price category (namely, 16–24 som per pack) from 170 som to 91 som per 1000 cigarettes (Table 1).

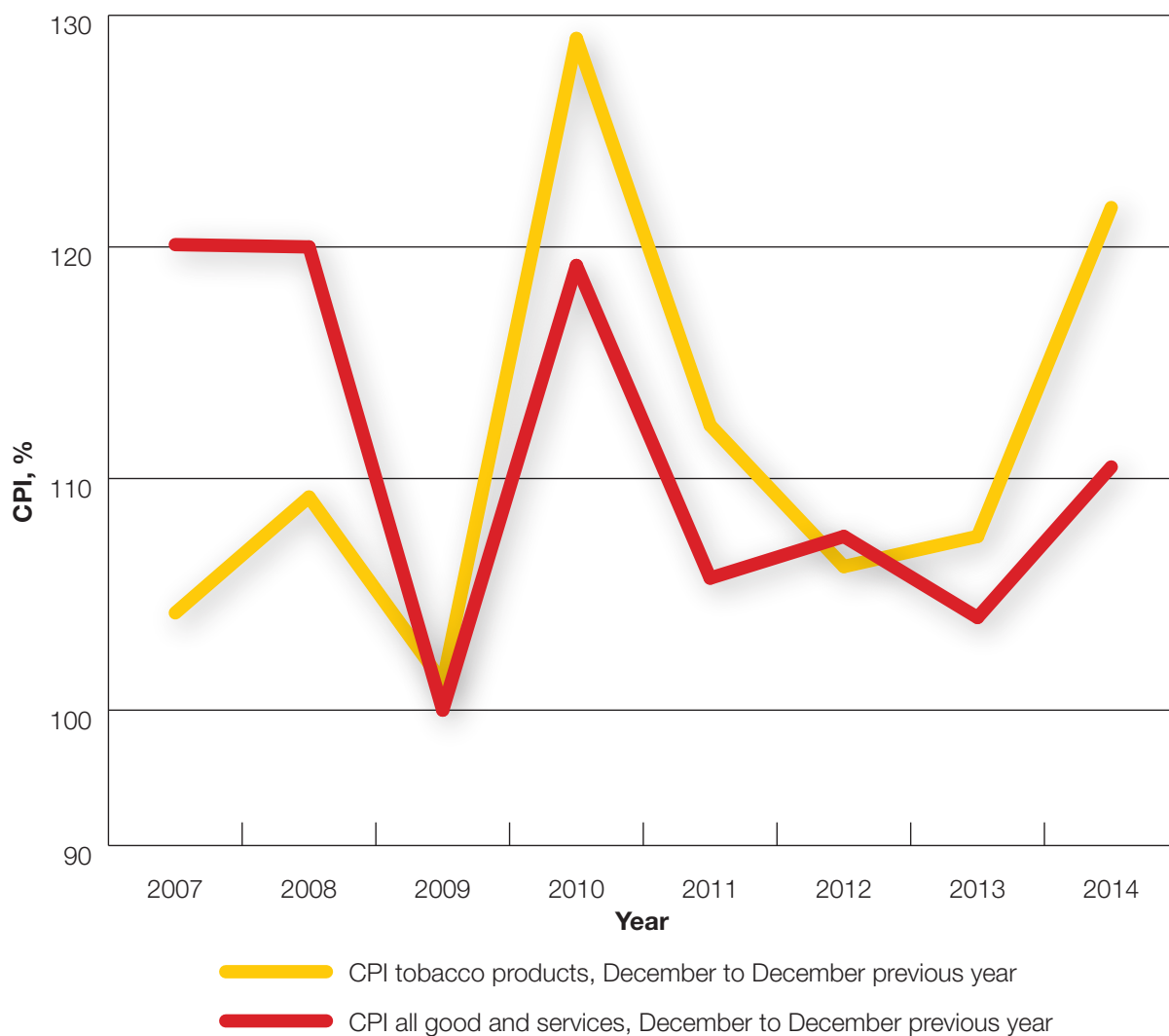
The reduction in VAT also contributed to reducing the tax burden: for example, in 2009, for cigarettes costing 24 som per pack, it was decreased by 3 som per pack. With such a taxation policy, cigarettes were relatively cheaper in 2004–2009, as the prices of tobacco products increased at a slower rate than inflation (Fig.1).

Table 1. Retail prices of and excise rates on cigarettes, Kyrgyzstan, 2003–2011

Cigarette type	1 December 2003–1 January 2009		1 January 2009–30 September 2011	
	Retail price per pack of 20 cigarettes (som)	Excise rate (som per 1000 pieces)	Retail price per pack of 20 cigarettes (som)	Excise rate (som per 1000 pieces)
Non-filter	All prices	10.0	All prices	13.0
Filter	0-10.00	25.0	0-14.00	32.5
Filter	10.01-16.00	70.0	14.01-24.00	91.0
Filter	16.01-24.00	170.0	24.01-31.00	195.5
Filter	24.01 and more	270.0	31.01 and more	297.0

Source: Kyrgyz Republic legislation database.

Fig. 1. Consumer Price Index (CPI), Kyrgyzstan, 2007–2014



Source: National Statistics Committee data.

According to the WHO reports on the global tobacco epidemic (5), the price of the most sold brand in Kyrgyzstan was the lowest in the WHO European Region both in 2010 and 2012: in 2008–2010, it decreased from US\$ 0.56 to US\$ 0.49; in 2012, it increased but only to US\$ 0.51. According to the Global progress report on implementation of the WHO Framework Convention on Tobacco Control for 2014 (6), the price of a pack of cigarettes in Kyrgyzstan that year was equivalent to US\$ 0.55, making it the lowest in the Region.

In October 2011, a mixed excise-tax system (specific and ad valorem)¹ was introduced whereby excise

¹Specific excise tax is levied based on quantity (e.g., a fixed amount per cigarette or weight of tobacco), while an ad valorem excise is levied based on value (e.g., a percentage of the factory price or retail price). Both types of excises have their strengths and weaknesses.

rates were raised annually. In May 2015, the excise system was changed again to a specific system without an ad valorem excise component and with only two tiers (filter and non-filter cigarettes) (Table 2).

Share of excise tax and total tax in cigarette retail price

In 2010, the share of excise tax in the retail price was about 5% for cheap cigarettes and about 17% for expensive cigarettes (Table 3). After increases in excise tax in 2011–2015, its share in the retail price gradually grew and, in May 2015, it was 47% of the price of cheap cigarettes and about 27% of that of expensive cigarettes (Tables 3–5).

Table 2. Excise rates for cigarettes, by cigarette type, Kyrgyzstan, 2011–2017

Cigarette type	2011 (01.10-31.12)	2012	2013	2014	2015 (1.01-30.04)	2015 (01.05)– 2016 (31.12.)	2017
Filter cigarettes							
Specific excise (som per 1000)	80	100	120	280	350		
Ad valorem excise (% of MRP) ^a	7	7.5	8	8	8	0	0
Minimum specific excise (som per 1000)	130	150	180	360	450	750	1000
Non-filter cigarettes							
Specific excise (som per 1000)	5	5.5	6	8	8		
Ad valorem excise (% of MRP) ^a	3	3.3	3.6	4	4	0	0
Minimum specific excise (som per 1000)	18	20	24	30	30	400	950

^aMRP = maximum retail price. *Source:* Kyrgyz Republic legislation database.

Table 3. Prices of and taxes on selected cigarette brands, som per pack, Kyrgyzstan, 2010 and 2012

Cigarette brands	2010					2012						
	Price	Excise	Excise %	VAT %	Non-tax	Excise				Excise %	VAT %	Non-tax
						Price	Specific	Ad valorem	Total			
Brand 1	13	0.65	5.0	10.7	11.0	16	2	1.2	3.2	20.0	10.7	11.1
Brand 2	22	1.82	8.3	10.7	17.8	25	2	1.88	3.88	15.5	10.7	18.5
Brand 3	28	3.91	14.0	10.7	21.1	30	2	2.25	4.3	14.2	10.7	22.5
Brand 4	35	5.94	17.0	10.7	25.3	40	2	3.00	5.0	12.5	10.7	30.7

Table 4. Prices of and taxes on selected cigarette brands, som per pack, Kyrgyzstan, 2013 and 2014

Cigarette brands	2013							2014						
	Price	Excise			Excise (%)	VAT (%)	Non-tax	Price	Excise			Excise (%)	VAT (%)	Non-tax
		Specific	Ad valorem	Total					Specific	Ad valorem	Total			
Brand 1	17	2.4	1.36	3.76	22.1	10.7	11.4	21	5.6	1.68	7.28	34.7	10.7	11.5
Brand 2	27	2.4	2.16	4.56	16.9	10.7	19.6	31	5.6	2.48	8.08	26.1	10.7	19.6
Brand 3	32	2.4	2.56	4.96	15.5	10.7	23.6	38	5.6	3.04	8.64	22.7	10.7	25.3
Brand 4	42	2.4	3.36	5.76	13.7	10.7	31.7	47	5.6	3.76	9.36	19.9	10.7	32.6
Average price	26.2	2.4	2.1	4.50	17.2	10.7	18.9	27.7	5.6	2.22	7.82	28.2	10.7	16.9

Table 5. Prices of and taxes on selected cigarette brands, som per pack, Kyrgyzstan, 2015

Cigarette brands	2015 (January-April)							2015 (May)				
	Price	Excise			Excise (%)	VAT (%)	Non-tax	Price	Excise	Excise (%)	VAT (%)	Non-tax
		Specific	Ad valorem	Total								
Brand 1	25	7	2.0	9.0	36.0	10.7	13.3	32	15	46.9	10.7	13.6
Brand 2	33	7	2.64	9.64	29.2	10.7	19.8	39	15	38.5	10.7	19.8
Brand 3	40	7	3.2	10.2	25.5	10.7	25.5	46	15	32.6	10.7	26.1
Brand 4	50	7	4.0	11.0	22.0	10.7	33.7	55	15	27.3	10.7	34.1
Average price	32.4	7	2.6	9.6	29.6	10.7	19.3	34.7	15	43.2	10.7	16.0

Prices were projected for 2017 on the assumption that the tobacco industry would keep the non-tax part of the price at around the same level (Table 6). Even for the cheapest filter brand (Classic), the excise share would be 52.6% and total tax (excise + VAT) would be 63.3%.

According to the *Guidelines for the implementation of Article 6 of WHO FCTC* (adopted at the sixth session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control, Moscow, Russian Federation, 13–18 October 2014), “when it comes to the most effective calculation base for the share of taxes in retail prices, the concept of ‘weighted average price’ is preferred” (7).

The National Statistical Committee of the Kyrgyz Republic provides data on the average prices of filter and non-filter cigarettes. Data on sales of non-filter cigarettes were not available, but the share of non-filter cigarettes in the total tobacco excise revenue in 2014 was only 0.4%; thus, the average price of filter cigarettes can be used as the “weighted average price”. However, statistical data on the average price of filter cigarettes in Kyrgyzstan are not consistent. For example, in October 2011, it was 41.20 som per pack but, in November 2011, it dropped to 30.11 som per pack. A similar situation was observed in August–September 2013 when the average price decreased from 32.0 som to 26.2 som per pack. Most probably, the method used to calculate the average price was changed in both cases by the statistical bodies in question. Actually, only data dating back to September 2013 can be used to estimate the average price trends (Tables 4 and 5).

In the period, September 2013 to May 2015, the average price of filter cigarettes increased from 26.2

som to 34.7 som (33%). The excise-tax burden increased from 4.50 som to 15 som and the excise share increased from 17.2% to 43.2%. The total tax share (excise tax + VAT) increased from 28% to 54%, which was far from the 75% benchmark used in the *WHO report on the global tobacco epidemic, 2015* (5).

If the tobacco industry keeps the non-tax part of the price at 16 som per pack in 2017, according to current law, the excise rate should increase to 20 som per pack, but the share of taxes in the retail prices would only be about 60%.

If the tobacco industry also keeps the non-tax part of the price at 16 som per pack in 2018, and the excise-tax rate is more than doubled (to 2050 som per 1000 cigarettes, or 41 som per pack), the share of taxes in the retail price would eventually reach 75%. In this case, the average price of cigarettes would be 63.8 som per pack (= US\$ 1.06); in comparison, the current minimal price of a pack of cigarettes in Kazakhstan (2015) is 200 tenge (= US\$ 1.08).

It is hardly unrealistic, however, to expect that the tobacco industry will keep its non-tax share of the price on a very low level. Currently (2015), it is much lower (about 50%) for cigarette brands sold in Kyrgyzstan than it is for the same brands sold in Kazakhstan where most of them are produced (Tables 5 and 6).

The tobacco industry did not increase the non-tax part of the price above the inflation rate in Kyrgyzstan in 2010–2014, probably because cigarette consumption was stable and the industry was gaining the same profit in spite of the higher excise-tax rates. However, it can change its price policy at any

Table 6. Projected prices of and taxes on selected cigarette brands in Kyrgyzstan, som per pack, 2017, compared to Kazakhstan, May 2015

Cigarette brands	Kyrgyzstan, 2017					Kazakhstan, May 2015					
	Price (som)	Excise	Excise (%)	VAT (%)	Non-tax	Price		Excise		Non-tax	
						Tenge	Som	Tenge	Som	Tenge	Som
Brand 1	38	20	52.6	10.7	13.9	200	64.8	78	25.3	102	33.0
Brand 2	45	20	44.4	10.7	20.2	230	74.5	78	25.3	129	41.8
Brand 3	52	20	38.5	10.7	26.4	260	84.2	78	25.3	156	50.5
Brand 4	61	20	32.8	10.7	34.5	320	103.7	78	25.3	210	68.0

time. For example, when cigarettes sales dropped markedly in Ukraine in 2009 and 2013, the industry increased the non-tax part of the price well above the inflation rate to safeguard its profitability in the declining market. In Kazakhstan, in 2009-2014, the non-tax part of the average cigarette price increased from 61 tenge to 155 tenge (nominal price) or more than 2-fold in real (inflation-adjusted) terms.

If the industry were to increase the tax share of the price of cigarettes in Kyrgyzstan by a factor of two (to the Kazakh level) in 2015-2016, this share of the price of a pack of average-priced cigarettes would decrease from 54% to 39%. Paradoxically, such a decline in tax share would be good for public health, as it would mean that the average price of cigarettes would increase from 35 som to 53 som (51%), thus reducing tobacco affordability and, subsequently, bringing about a decline in tobacco consumption.

As the indicator for tax share in retail price is actually controlled by the tobacco industry, it can hardly be used as an indicator of effective tobacco policy, the main aim of which is to reduce tobacco consumption.

In 2010, the International Agency for Research on Cancer published the monograph, *Effectiveness of price and tax policies for control of tobacco*, written by experts from 12 countries. It states that “the impact of tobacco taxes on prices can be modified by the industry’s response to the tax increase” (8).

To reduce the affordability of tobacco products, the WHO also recommends the adoption of a relatively simple tax system that applies equivalent taxes to all tobacco products with tax increases that exceed increases in consumer prices and incomes (9).

To meet the 75% benchmark, it would be necessary to obtain information from the tobacco industry regarding planned changes to the non-tax part of cigarette prices and then increase the excise rate accordingly. Thus, it would be better to consider ways of reducing tobacco affordability instead.

Tobacco affordability in Kyrgyzstan and its impact on tobacco consumption

Since 2010, tobacco prices have been growing faster than the inflation rate (Fig. 1), but not sufficiently to discourage smoking. The *Guidelines for the implementation of Article 6 of the WHO FCTC* state:

When establishing or increasing their national levels of taxation Parties should take into account – among other things – ... inflation and changes in household income, to make tobacco products less affordable over time in order to reduce consumption and prevalence (7).

For this analysis, a tobacco affordability index (TAI) (10) was used to estimate changes in tobacco affordability² in 2007-2013. TAI is calculated as follows: annual change in individual income per capita divided by increase in inflation-adjusted tobacco price (consumer price index (CPI) tobacco/CPI all items) minus 100. If the result is negative, it means that tobacco has become less affordable and tobacco consumption is expected to decrease. The results of TAI calculations made for 2007-2013 in Kyrgyzstan are presented in Table 7. Data on household per-capita income, were adjusted for inflation, and annual changes were calculated and used as a proxy for individual income changes (11, 12).

² “Affordability” means price relative to per capita income.

Table 7. Tobacco affordability, Kyrgyzstan, 2007–2013

Item	2007	2008	2009	2010	2011	2012	2013
CPI for all goods and services (% to the previous year)	110.2	124.5	106.8	108.0	116.6	102.8	106.6
CPI for tobacco products (% to the previous year)	101.9	109.9	103.3	111.5	123.3	110.0	106.2
Changes in inflation-adjusted per-capita household income	115.7	115.0	106.7	99.9	101.0	106.5	97.3
Tobacco affordability index	25.1	30.2	10.3	-3.2	-4.5	-0.4	-2.3

In 2007-2009, tobacco affordability increased substantially. In 2010-2013, there was a small decrease in affordability, presumably caused by a decline in real income as the price of tobacco rose to only slightly above the inflation rate.

In August 2015, the average prices of cigarettes increased by 17.7% compared to December 2014, and inflation was just 0.1%. The excise hikes introduced in 1 January and 1 May 2015 were rather high and the average excise burden increased from 8 som to 15 som per pack. An increase in excise tax could be expected to increase the average price of cigarettes by about 30% during the year, provided the industry maintains its non-tax share of the price. This should outweigh any expected inflation and income growth in the country and, thus, we might anticipate that tobacco affordability for the whole of 2015 will decline substantially.

Cigarette sales

Cigarette sales³ in Kyrgyzstan were calculated using available statistical data (Fig. 2). They increased from 4.2 billion in 2002 to 6.1 billion in 2005; in 2006–2013, they were rather stable at an average level of 6 billion cigarettes a year, but in 2010–2013, dramatic changes were observed in the proportions

³ Sales = production + import - export.

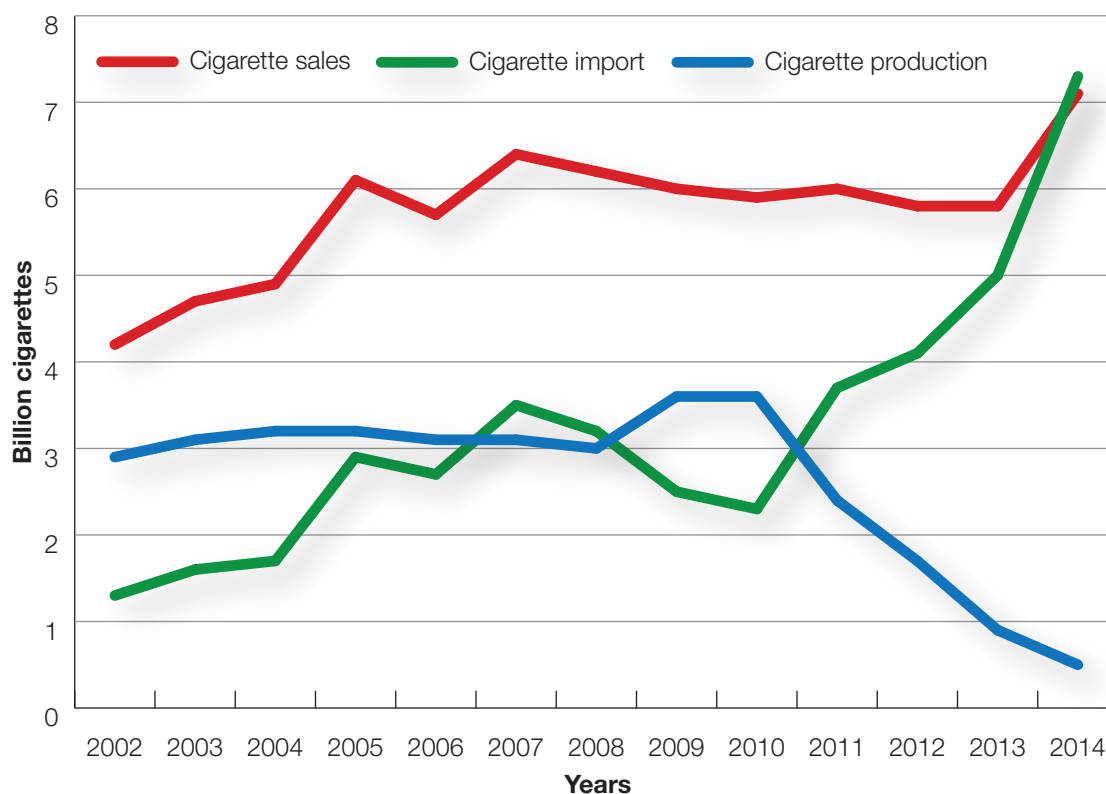
of domestic and imported cigarettes sold. In 2002–2010, domestic production usually exceeded import. However, in 2010–2013, there was a decrease in domestic production from 3.6 billion to 0.9 billion and an increase in import from 2.3 billion to 5.0 billion, which meant that total sales were stable (Fig. 2). In July 2014, the only tobacco factory in Kyrgyzstan was closed down; this was expected as a result of the tobacco-industry’s policy to replace domestic production by imported cigarettes, which had been under way since 2010.

Illicit re-export of cigarettes and forestalling

In 2014, the import of cigarettes increased significantly and total cigarette sales that year rose by 23%, or by 1.3 billion cigarettes (Fig. 2). It is obvious that cigarette consumption within the country could not increase to such a great extent within a year and there are two possible reasons for the high increase: illicit re-export and forestalling.

Despite the recent increases in excise rates and cigarette prices in Kyrgyzstan, they are still much lower than in most of the neighbouring countries (Table 8).

Fig. 2. Cigarette production, import and sales, Kyrgyzstan, 2002–2014



Source: National Statistics Committee and Customs Service data.

Table 8. Excise rates and cigarette prices in Kyrgyzstan and neighbouring countries, May 2015

Countries (currency)	Specific excise rate per 1000 cigarettes		Ad valorem excise tax (%)	VAT (%)	Price of pack of Winston (NC)	US\$
	National currency (NC)	US\$				
Kazakhstan (tenge)	3 900	21.0	0	12	260	1.40
Kyrgyzstan (som)	750	12.8	0	12	50	0.85
Russian Federation (roubles)	1 330	26.8	11	18	80	1.61
Tajikistan (somon)	7	1.1	0	18	4	0.64
Turkmenistan (manats)		25.0	30	20	13.5	3.86
Uzbekistan (sum)	19 196	7.6-18.2 (import)	0	20	4000	1.59

Illicit re-export could be caused by the difference between the excise rates and prices of cigarettes in Kyrgyzstan and those in Kazakhstan and the Russian Federation. In September 2014, the price of a pack of Winston (not produced in Kyrgyzstan) was 38 som in Kyrgyzstan, 220 tenge (64 som) in Kazakhstan and 67 roubles (98 som) in the Russian Federation. In 2014, 4.3 billion cigarettes were imported from Kazakhstan and 1.6 billion cigarettes from the Russian Federation; it is possible that a proportion of these were illicitly re-exported to the countries of their production. Both Kazakhstan and the Russian Federation include strong pictorial warnings on packs produced for domestic sale, but on packs destined for export to Kyrgyzstan, the warnings (printed in Kyrgyz) are without pictorials. It is conceivable that some smokers might prefer to buy these cigarettes, which are the “right” brand, but produced without pictorials for a lower price.

Illicit import or smuggling into Kyrgyzstan is possible only from Tajikistan where taxes and prices are lower (Table 8). However, Tajikistan is planning to increase its tobacco excise rates almost 3-fold by the end of 2015 and proposals to this effect have been submitted by the Ministry of Finance of Tajikistan to the Government.

VAT in Tajikistan and Kyrgyzstan is currently 18% and 12%, respectively. Import duty in Tajikistan is €3 per 1000 cigarettes or €0.06 (4 som) per pack of 20 cigarettes, while, in Kyrgyzstan, the average import duty is about 1.3 som per pack. Due to the higher

VAT and import-duty rates in Tajikistan, in June 2015, the price of a pack of Winston in Kyrgyzstan was just 33% more than in Tajikistan (Table 8), while excise tax was 11-fold higher.

In 2014, about 0.7 billion cigarettes were imported to Tajikistan, mainly from Kazakhstan and the Russian Federation. However, international experience has revealed that smuggling high volumes of cigarettes only occurs if prices in the country of destination are much lower and the cigarette market is much larger. Currently, the market is about 1 billion cigarettes in Tajikistan, 6 billion in Kyrgyzstan, 30 billion in Kazakhstan and 300 billion cigarettes in the Russian Federation, respectively. Illicit import from countries with small markets cannot have a large impact on sales and revenue in a country with a much larger market, as the volumes of illicit import from these countries are also small. Kazakhstan, Kyrgyzstan and the Russian Federation have greatly increased their excise rates in recent years with very good results for revenue.

The tobacco industry usually overestimates the volume of smuggled cigarettes; for example, in 2009, it forecast that after the tax increase in Ukraine, the proportion of smuggled cigarettes on the market would rise to 30–50% (13). The Global Adult Tobacco Survey conducted in Ukraine in 2009–2010 revealed that only 1.5% of smokers had ever smuggled cigarettes. While the recent increase in excise tax in Kyrgyzstan could encourage some smuggling from

Tajikistan, the volumes of cigarettes smuggled would be low.

Forestalling means increasing the production or stock of a product in anticipation of a tax increase with the aim of paying taxes earlier, but at lower rates. The tobacco industry also encourages smokers to buy cigarettes to stock at home, claiming that prices after an impending tax increase would be higher. As a result, within a few months up to the tax increase, revenue could increase greatly. Subsequently, during the first few months after the tax increase, revenues could be lower than before the increase as the cigarettes supplied for retail sale would be mainly those destined for wholesale before the increase. The tobacco industry is able to manipulate revenue and sales figures by claiming that the tax increase had been too high and had caused a reduction in revenue. Being well aware of the impending increase in tax rate in Kyrgyzstan in 2015, the industry could import more cigarettes in 2014 for retail sale in 2015.

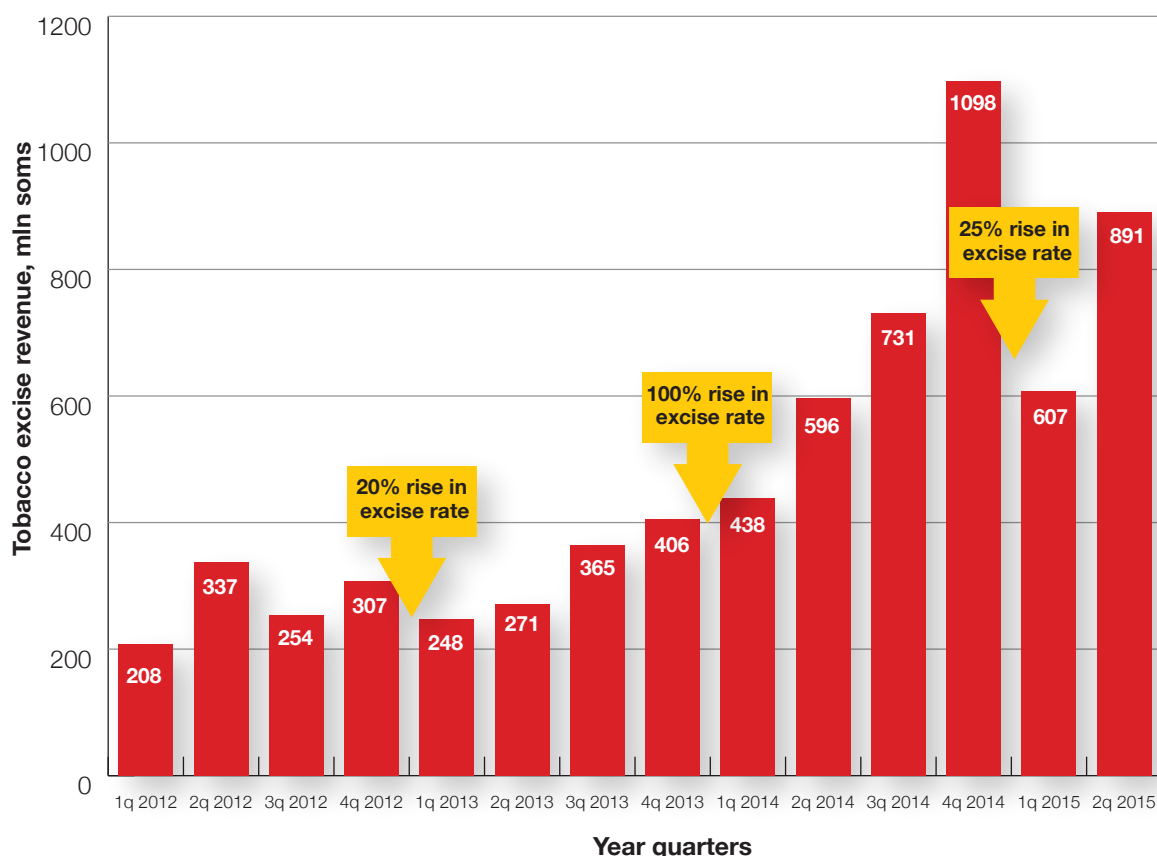
The use of forestalling in Kyrgyzstan is confirmed by the quarterly data on revenues (Fig. 3). Revenue increased substantially in the fourth quarter of 2014, just before the increase in excise tax, but dropped in the first quarter of 2015. At the same time, the

import of cigarettes increased by 52% (or by 0.75 billion cigarettes) compared with the fourth quarter of 2013. The tobacco industry also used forestalling in 2013–2014: there was a decline in revenues in the first quarter of 2013 despite the increase in excise rate. In 2014, the excise rate was increased by 100% and, despite forestalling, revenues for the first quarter were higher than those for the fourth quarter of 2013 (Fig. 3). However, in comparing revenues alone for the first quarters of each year, a steady increase can be seen from year to year.

Import duty

In May 2015, Kyrgyzstan entered the Eurasian Customs Union. As a result, cigarettes imported from the other Union countries are no longer liable for customs duty: in 2014, 82% of the cigarettes imported into Kyrgyzstan were from Kazakhstan and the Russian Federation. However, customs duty in Kyrgyzstan is only 10% of the customs value; therefore, based on 7.3 billion cigarettes imported in 2014 with a total customs value of US\$ 78.1 million, the average customs value of 1 pack of 20 cigarettes was US\$ 0.215 and the average customs duty per pack was US\$ 0.0215 (1.3 som). In January–May 2015, the average price of a pack of filter cigarettes

Fig. 3. Tobacco-excise revenue, per quarter and million som, Kyrgyzstan, 2012–2015



Note. "q" = quarter.

Source: based on data from the Central Treasury of the Kyrgyz Republic.

increased from 31 som to 35 som. Thus, cancelling import duty would have a rather small impact on the price of cigarettes, tobacco consumption and excise revenue.

Tobacco excise revenue

Annual tobacco excise revenue in 2010–2014 increased from 583 million to 2864 million som, or 5-fold in 4 years (Fig. 4). While the excise rate was doubled in 2010–2013, this only slightly reduced tobacco affordability (Table 7). In addition, as tobacco sales were relatively stable, revenue grew in parallel with the rise in excise rate. In 2014, the minimum excise rate rose by 100% but, as sales increased substantially due to illicit re-export and forestalling, revenue increased by 122%.

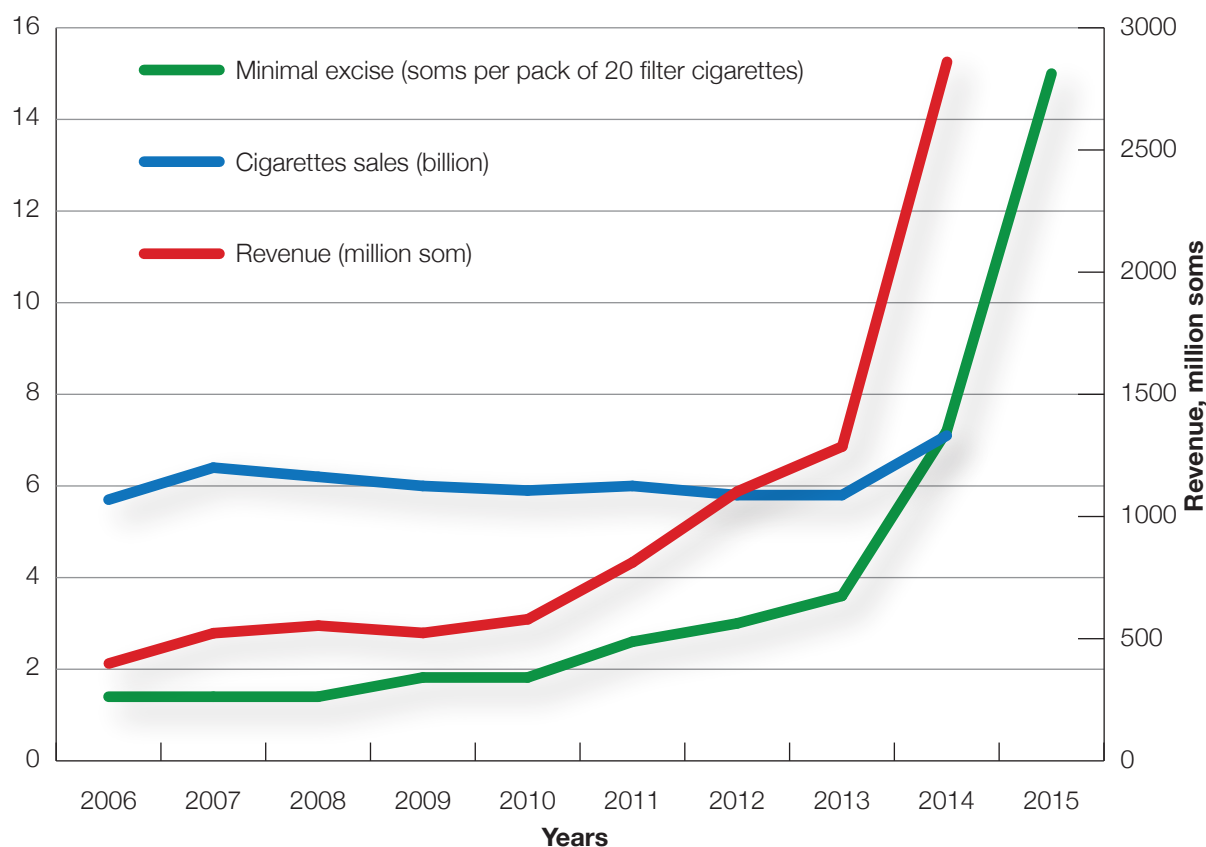
In January–May 2015, tobacco excise revenue was 1395 million som, 70% more than for the same period in 2014, while the excise rate was increased by only 25%. Most probably, the tobacco industry again used forestalling before the excise hike, which took effect on 1 May 2015. Therefore, some decline in tobacco revenue was expected in June–July 2015 despite the increase in excise rate. In June 2015, tobacco revenue was only 103 million som as

opposed to 386 million som in May and 408 million som in April of the same year. Nevertheless, total revenue in the second quarter of 2015 was 295 million som more than in the second quarter of the previous year (Fig. 3).

Non-filter cigarettes

Excise rates for non-filter cigarettes in Kyrgyzstan have been much lower than rates for filter cigarettes (Tables 1 and 2). According to the *Guidelines for the implementation of Article 6 of WHO FCTC* (item 3.3), “all tobacco products should be taxed in a comparable way as appropriate, in particular where the risk of substitution exists” (7). Currently (2015), excise rates for filter and non-filter cigarettes are the same in Kazakhstan, the Russian Federation and Uzbekistan. Since May 2015, excise rates for non-filter cigarettes have increased more than 10-fold in Kyrgyzstan (Table 2), but they are still almost half those for filter cigarettes. In 2013 and 2014, excise revenue for non-filter cigarettes was just 0.4% of total tobacco revenue. The excise rate was about 10-fold lower so the market share for non-filter cigarettes could be estimated to be 4%; most of these cigarettes were produced at the domestic factory, which was closed down in July 2014. Thus,

Fig. 4. Annual tobacco excise revenue, Kyrgyzstan, 2006–2015



Source: based on data from the National Statistics Committee of the Kyrgyz Republic.

an increase in the excise rate for non-filter cigarettes would have a minimal impact on revenue, but could reduce the incentives of some smokers to switch to cheaper cigarettes.

Excise tax regressivity

An argument frequently used to avoid increasing excise tax is that it is regressive; hence, the poorest quintiles would bear the burden. In 2010–2013, the minimum excise rate was doubled in Kyrgyzstan (Fig. 4). Per capita household expenses for tobacco were 12.2 som in 2010 (11); in 2012, they amounted to 14 som (12). In 2013, the percentage of household expenses for tobacco for the lowest income group was very low, and actually decreased (Table 9); thus, the excise hikes decreased regressivity. In 2013, the poorest group spent 7 som per capita a month on tobacco, while the richest group spent 22 som per capita.

Research has revealed that poorer people are much more responsive to price and tax increases in terms of reducing smoking prevalence and that increase in tobacco excise tax is not regressive(14, 15).

Tobacco growing

Tobacco growing has very much declined in Kyrgyzstan over the past 25 years. While in 1990, 53 900 tons of tobacco leaves were grown, this amount fell to 34 600 tons in 2000, 9900 tons in 2010, and 4400 tons in 2014. Most of the tobacco grown was fermented in the country before being exported, but, in 1998–2013, the export of fermented tobacco decreased 10-fold (Fig. 5). Currently, tobacco growing has almost no future in Kyrgyzstan. This situation is typical for all countries of the European region where

tobacco growing has declined in recent decades since the transnational tobacco industry prefers to import raw tobacco from other regions of the world.

Smoking prevalence and estimated cigarette market

Several surveys on tobacco use have been carried out in Kyrgyzstan, but, as they were conducted among different age groups and with different questions, it is difficult to estimate the smoking trends in the country in recent years.

According to the two Health in Times of Transition (HITT) surveys conducted among people aged 18 years or more, in 2001–2011, smoking prevalence among men decreased from 50.8% to 41.2%, while it increased among women from 4.5% to 5.9% (16). The Demographics and Health Survey, conducted in 2012 among people aged 15–49 years revealed that 44% of men and 3% of women were current cigarette smokers. According to the WHO STEPwise approach to Surveillance (STEPS) survey conducted in 2013 among people aged 25–64 years, 48.2% of men and 2.7% of women were current cigarette smokers (17).

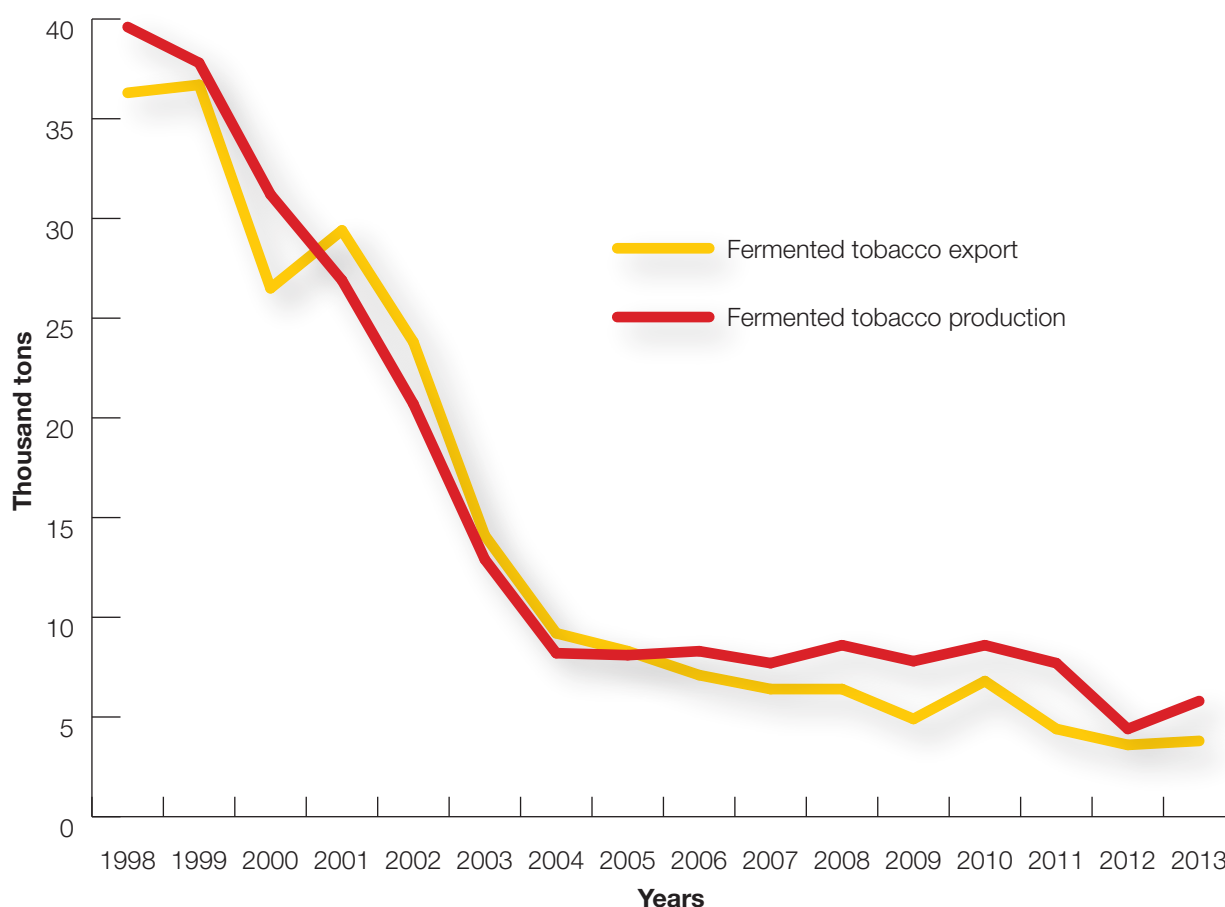
Some people in central Asian countries use a smokeless tobacco called nasvay. However, surveys conducted in Uzbekistan have revealed that only a small proportion of tobacco users both smoke cigarettes and use nasvay; therefore, nasvay can only partly substitute cigarettes when they become more expensive (18). In Kyrgyzstan, nasvay is usually homemade and there would be little sense in taxing it as the costs of tax administration and law enforcement would probably exceed any revenue made.

Table 9. Lowest to highest proportion of household spending on tobacco, by income decile group, Kyrgyzstan, 2010 and 2013.

Year	Income decile group									
	Lowest	2nd	3rd	4th	5th	6th	7th	8th	9th	Highest
2010	0.9	0.7	0.9	0.8	0.6	0.6	0.6	0.4	0.5	0.4
2013	0.7	0.7	1.0	0.7	0.6	0.6	0.6	0.6	0.5	0.4

Sources: Standards of living of the population of the Kyrgyz Republic, 2006-2010 (11); Standards of living of the population of the Kyrgyz Republic, 2009-2013 (12).

Fig. 5. Fermented tobacco production and export, in thousand tons, Kyrgyzstan, 1998–2014



Source: based on data from the National Statistics Committee of the Kyrgyz Republic.

According to national statistics, there were about 1.6 million men and 1.9 million women aged 18 years or more in Kyrgyzstan in 2014. Assuming that the prevalence of daily smokers (which is lower than the current prevalence of smoking) was 40% among men and 3% among women aged 18 years or more, and that the average male and female daily smokers smoked 20 and 10 cigarettes a day, respectively (in other countries, the number of cigarettes smoked daily is usually lower), the estimated number of cigarettes smoked in 2014 would be about 5 billion, while 7.1 billion cigarettes were actually sold that year. This calculation implies a high level of cigarette smuggling out of the country.

In January–July 2015, 3.8 billion more cigarettes were imported to Kyrgyzstan than exported, which is 0.5 billion cigarettes fewer than in the same period of 2014. Since 0.5 billion cigarettes were produced in January–July 2014 before production was stopped, the decline in sales amounts to about 1 billion cigarettes, or 23%. This could be the first sign of a reduction in tobacco consumption but it could also be a consequence of excessive importing in 2014.

Discussion

The WHO publication entitled, *Raising tax on tobacco: what you need to know*, states the following:

In addition to reducing tobacco use and the associated health burden, tax increases generate substantial additional revenues to governments. Tax increases are a win-win situation because they are good for both public health and government revenues (19).

Many similar statements have been made in other publications on tobacco taxation. However, in Kyrgyzstan, in spite of a 4-fold increase in tax rates, a 5-fold increase in revenues, and an increase in tobacco sales in the period 2010–2014, when the tax share of the retail price increased from 30% to 54%, there was no evidence of a reduction in tobacco use in the country. Thus, there was no win for public health, only for revenues.

Tax increases can diminish the adverse health effects of tobacco use by changing the behaviour of current and potential smokers. Most smokers are not aware of the tobacco-taxation rates, though some might alter their behaviour as regards smoking if they see changes in the affordability of tobacco products.

Increasing tobacco tax does not necessarily change behaviour and improve health; only if the increase is high enough to raise the real price of tobacco products above inflation and income growth, and thereby decrease tobacco affordability, will it have the potential to do so.

If a country has very low excise rates in monetary terms, as was the case in Kyrgyzstan in the 2000s, even a sizable increase in these rates results only in a small rise in the price of cigarettes. When a country is experiencing high inflation and income growth, another increase in tax will not reduce tobacco affordability or tobacco consumption. If the volume of taxable cigarettes remains the same, revenue will increase in parallel with increases in tax rates, which was what happened in Kyrgyzstan in 2010–2013. Similar situations were observed in Kazakhstan in 2010–2013 and the Russian Federation in 2010–2012. If a country with very low tobacco taxes wishes to reduce tobacco use, tax hikes should be very high. This was the case in Ukraine where, in a 22-month period, the excise rate was gradually increased 6-fold, resulting in a 5-fold increase in revenue and a 26% drop in cigarette sales (13). In 2014, Kazakhstan increased the excise rate by 94%, which resulted in a 72% increase in revenue and an 8% drop in sales.

The tobacco taxation process comprises three main phases.

1. **Revenue-only wins**, that is, when excise taxes are very low and the country experiences economic growth, tax increases result in a rise in revenue without a reduction in tobacco consumption, as tobacco affordability does not decline. Kyrgyzstan was at this stage until early 2015.
2. **Win-win**, when excise tax is already rather high and the next increase, while moderate in terms of percentage, could increase tobacco prices above inflation and household income growth and reduce tobacco affordability. In this case, both a reduction in tobacco consumption and a rise in revenue are observed, resulting in a classical win-win situation. Usually the higher the tax hikes, the higher the magnitude of both wins. Most countries are currently at this stage and Kyrgyzstan could possibly reach it during

2015 as: (a) cigarette sales had already declined by 23% in January–July 2015; (b) even if the tobacco industry maintains its pre-tax price, two excise hikes entered into force (in January and May 2015), which should increase cigarette prices by about 30%, well above the expected inflation and income growth.

3. **Health-only wins**, which come into play when tobacco tax is rather high in monetary terms and even a small percentage increase could substantially increase prices and reduce tobacco affordability. For example, in Ireland, which has the highest excise rate in Europe (€6 per pack), tax increases in recent years have reduced tobacco consumption in the country, but there has been little change in revenues. Tobacco affordability can also be reduced during an economic recession even without tax increases; in this case, revenue falls, as was observed in Greece in 2011–2013.

The tobacco industry did not increase the non-tax part of the price above the inflation rate in Kyrgyzstan in 2010–2014. However it could do so in 2015, especially if cigarette sales decline. Until May 2015, Kyrgyzstan used the mixed excise taxation system (specific and ad valorem), so that almost every increase in pre-tax prices led to an increase in excise tax. In May 2015, ad valorem excise was cancelled, making the excise rate the same for all filter cigarettes regardless of price. This could give the industry more of an incentive to increase the non-tax part of the price, which would in turn increase the final retail price and reduce tobacco affordability.

The tobacco industry can distort the impact of taxation on tobacco consumption and revenue through its pricing policy, forestalling and smuggling; however, its tactics can be countered.

Cigarette excise rates and prices are much lower in Kyrgyzstan than in most of its neighbouring countries (Table 8), which means that an increase in smuggling into Kyrgyzstan would be improbable after the recent excise hikes, as most of the neighbouring countries have already raised their excise rates for both 2015 and 2016.

The industry routinely uses the threat of smuggling to prevent high increases in excise tax in any country: in Kyrgyzstan, this relates to smuggling from Tajikistan; in Kazakhstan to smuggling from Kyrgyzstan; in the Russian Federation to smuggling from Kazakhstan; and so on. It claims that smokers would simply switch from legally taxed cigarettes to cheaper, illicit cigarettes, and that government would lose revenue

as a result of the higher excise rates. However, these claims are not supported by the experiences of the countries, including that of Kyrgyzstan in 2011–2014.

An increase in tobacco excise tax could reduce tobacco affordability and result in an increase in smuggling into the country. However, an increase in illicit sales could only partly compensate a decline in legal sales and would result in a reduction in total tobacco consumption.

Smuggling out of the country is usually ignored by governments as it is considered beneficial in countries where cigarette taxes are low: taxes are levied but the cigarettes are smoked in other countries. However, as experience in Ukraine and other countries has revealed, excise hikes do reduce smuggling out of the

country; paradoxically, however, they also increase revenue from this kind of activity because the percentage increase in excise rates is higher than the reduction in smuggling volumes (13).

A reduction in revenue could be expected within a few months of increasing excise rates, not as a result of smuggling, but of forestalling.

To counteract the tactics of the tobacco industry, it is necessary to monitor the economic indicators carefully both before and after an increase in excise rate enters into force. Taking stronger measures to deal with illicit sales and introduce anti-forestalling policies (already in use in some countries) is also recommended.

Conclusions

Kyrgyzstan increased tobacco-excise rates by a factor of four in 2011–2014, which resulted in a 5-fold increase in revenue over the 4-year period. No decline in tobacco consumption was observed as raising excise tax did not result in a reduction of tobacco affordability.

The 2014 average cigarette excise rate was doubled in 2015 to reduce tobacco affordability, and a decline in tobacco consumption is expected.

According to current legislation, the next increase in excise rate (33%) is not scheduled before January 2017. Without an increase in 2016, tobacco consumption is not expected to decline that year nor is it probable that there will be an increase in revenue. It is, therefore, relevant to consider to bring the next increase forward from 2017 to 2016.

The following two main recommendations are included in the *Guidelines for implementation of Article 6 of the WHO FCTC (7)*.

“Tax rates should be increased... annually, taking into account inflation and income growth developments in order to reduce consumption of tobacco products.”

“When establishing or increasing their national levels of taxation, Parties should take into account... inflation and changes in household income to make tobacco products less affordable over time in order to reduce consumption and prevalence (7).”

This study estimates that the minimum increase in excise rate required in 2016 to ensure a decline in tobacco affordability on the basis of the following assumptions: 5% inflation; 5% income growth; and an increase (by the tobacco industry) in the non-tax component of the price equal to the inflation rate only. Thus, if the excise rate were to be increased from 750 som to 1000 som per 1000 cigarettes in 2016, the average price of a pack of cigarettes would increase from 37 som in 2015 to 43 som in 2016, or by 16%. TAI would be “–5” and, therefore, a small reduction in tobacco consumption (no more than 5%) could be expected. A higher increase in excise rates could ensure a greater reduction in tobacco consumption. A similar situation could be expected in the following years. The revenue forecast for 2015 and 2016 is presented in Table 10.

Between December 2014 and April 2015, 2.7 billion cigarettes were imported and the revenue in January–May was almost 1.4 billion som (excise is paid from sales made in the previous month). It was expected that, after forestalling in 2014 and early 2015, sales for May–November (7 months) would be only 2.8 billion cigarettes, and total sales for 2015 would be 5.5 billion cigarettes, which is lower than in 2012–2013 (Fig. 4). Total revenue in 2015 is predicted to be 3.5 billion som, 20% more than in 2014 despite a huge drop (23%) in sales.

Table 10. Forecast of tobacco excise revenue in Kyrgyzstan for 2015 and 2016

Item	2015 (January-May)	2015 (June-December)	2015	2016 (option 1)	2016 (option 2)
Average tax rate (som per 1000 cigarettes)	518	750	636	750	1000
Sales (billion cigarettes)	2.7	2.8	5.5	5.4	4.9
Revenue (million som)	1400	2100	3500	4050	4900

If the excise rate were not increased in 2016 (Table 10, option 1), and sales were approximately the same as in 2015 (about 5.4 billion cigarettes), there would be an increase in revenue to 4.05 billion som (as a new rate was introduced on 1 May 2015, the excise rate in January–April 2016 would be higher than for the same period in 2015, but the May–December rate would be the same for both years).

If the excise rate were increased in 2016 (Table 10, option 2), there would only be a small reduction in consumption (less than 5%), but sales could decrease by 10% due to an increase in illicit export and a decline in illicit import. If sales drop to 4.9 billion cigarettes, revenue would increase to 4.9 billion som, or more than 20% above the expected revenue for 2016, and 40% more than that for 2015.

An annual increase in tobacco excise rates of at least 30% in 2016–2018 is necessary if a reduction in tobacco affordability in Kyrgyzstan is to be

guaranteed. An even higher increase would ensure a greater reduction in tobacco consumption, as well as an increase in revenue.

International experience has shown that imposing higher and more uniform specific tobacco excise taxes results in higher tobacco-product prices and increases the effectiveness of taxation policies in reducing tobacco use (20).

It is worthwhile considering to increase the excise rates for both filter and non-filter cigarettes and to keep the rates for both at the same level.

From 2017, excise tax rates should be increased annually by at least 30%. The exact rates can be determined based on the results of carefully monitoring the economic indicators in 2015 and 2016. The key criteria for establishing new tax rates should be their ability to guarantee a reduction in tobacco affordability in the country.

Key messages

Increasing tobacco tax does not necessarily change behavior and improve health; only if the increase is high enough to raise the real price of tobacco products above inflation and income growth, and thereby decrease tobacco affordability, will it have the potential to do so.

An annual increase in tobacco excise rates of at least 30% in 2016–2018 is necessary if a reduction in tobacco affordability in Kyrgyzstan is to be guaranteed. An even higher increase would ensure a greater reduction in tobacco consumption, as well as an increase in revenue.

It is worthwhile considering to increase the excise rates for both filter and non-filter cigarettes and to keep the rates for both at the same level.

The tobacco industry can distort the impact of taxation on tobacco consumption and revenue through its pricing policy, forestalling and smuggling; however, its tactics can be countered.

References

1. WHO Framework Convention on Tobacco Control. Geneva: WHO; 2003 (<http://apps.who.int/iris/bitstream/10665/42811/1/9241591013.pdf>, accessed 15 September 2015).
2. **Отчеты об исполнении бюджета [Budget reports].** In: **Центральное Казначейство, Центральное казначейство Министерства финансов Кыргызской Республики [Central Treasury, Ministry of Finance of the Republic of Kyrgyzstan]** [website]. Bishkek: Ministry of Finance of the Republic of Kyrgyzstan; 2015 (<http://www.kazna.gov.kg/index.php/ispolnenie-byudzheta/otchety-ob-ispolnenii-byudzheta>, accessed 4 September 2015).
3. **Национальный статистический комитет Кыргызской Республики [National Statistics Committee of the Kyrgyz Republic]** [website]. Bishkek: National Statistics Committee; 2015 (www.stat.kg, accessed 4 September 2015).
4. **Государственная таможенная служба при Правительстве КР [State Customs Service of the Government of the Kyrgyz Republic].** Bishkek: Government of the Kyrgyz Republic; 2012 (<http://www.customs.kg/index.php>, accessed 4 September 2015).
5. Tobacco Free Initiative (TFI) [website]. Geneva: WHO; 2015 (http://www.who.int/tobacco/global_report/en/, accessed 19 September 2015).
6. 2014 global progress report on implementation of the WHO Framework Convention on Tobacco Control. Geneva: WHO; 2014 (<http://www.who.int/fctc/reporting/2014globalprogressreport.pdf?ua=1>, accessed 19 September 2015).
7. Guidelines for the implementation of Article 6 of WHO FCTC. In: FCTC: Adopted guidelines [website]. Geneva: WHO; 2015 (<http://www.who.int/fctc/guidelines/adopted/en/>, accessed 15 September 2015).
8. Chaloupka FJ, Straif K, Leon ME. Effectiveness of tax and price policies in tobacco control. *Tobacco Control*. 2011;20:235–8.
9. Taxation. In: Tobacco Free Initiative (TFI) [website]. Geneva: WHO; 2015 (<http://www.who.int/tobacco/economics/taxation/en/index1.html>, accessed 15 September 2015).
10. Krasovsky K. Tobacco taxation policy in three Baltic countries after the EU accession. *Tobacco Control and Public Health in Eastern Europe*. 2012;2(2):81–98.
11. **Уровень жизни населения Кыргызской Республики 2006–2010 [Standards of living of the population of the Kyrgyz Republic, 2006–2010].** Bishkek: National Statistics Committee of the Kyrgyz Republic; 2011 (<http://www.stat.kg/media/publicationarchive/4ae00fed-f918-41f9-89d5-1112ba4e3e35.pdf>, accessed 19 September 2015).
12. **Уровень жизни населения Кыргызской Республики 2009–2013 [Standards of living of the population of the Kyrgyz Republic, 2009–2013].** Bishkek: National Statistics Committee of the Kyrgyz Republic; 2014 (<http://www.stat.kg/media/publicationarchive/9d4cf3cb-1107-4074-b6d1-e7fdf6ff662f.pdf>, accessed 19 September 2015).
13. Hill S, Amos A, Clifford D, Platt S. Impact of tobacco control interventions on socioeconomic inequalities in smoking: review of the evidence. *Tobacco control*. 2014;23(e2):e89–e97.
14. Krasovsky K. Sharp changes in tobacco products affordability and the dynamics of smoking prevalence in various social and income groups in Ukraine in 2008–2012. *Tobacco Induced Diseases*. 2013;11(1).
15. Roberts B, Gilmore A, Stickley A, Rotman D, Prohoda V, Haerpfer C, McKee M. Changes in smoking prevalence in 8 countries of the former Soviet Union between 2001 and 2010. *American Journal of Public Health*. 2012;102(7):1320–8.
16. National Statistical Committee of the Kyrgyz Republic (NSC), Ministry of Health of the Kyrgyz Republic, ICF International. *Kyrgyz Republic Demographic and Health Survey 2012*. Bishkek: Kyrgyz Republic, and Calverton, MD: NSC, Ministry of Health of the Kyrgyz Republic, ICF International, 2013 (<https://dhsprogram.com/pubs/pdf/FR283/FR283.pdf>, accessed 19 September 2015).
17. Usmanova G, Neumark Y, Baras M, McKee M. Patterns of adult tobacco use in Uzbekistan. *The European Journal of Public Health*. 2012;22(5):704–707.
18. Raising tax on tobacco: what you need to know. Geneva: WHO; 2014 (<http://apps.who.int/iris/bitstream/10665/112626/1/9789241591013.pdf>, accessed 15 September 2015).

int/iris/bitstream/10665/112841/1/WHO_NMH_PND_14.2_eng.pdf?utm_source=rss&utm_medium=rss&utm_campaign=raising-tax-on-tobacco-what-you-need-to-know-pdf, accessed 15 September 2015).

19. Krasovsky K. The story of Ukraine. In: Tobacco Control in Practice. Article 6: Price and tax measures to reduce demand for tobacco. Copenhagen: WHO Regional Office for Europe; 2013 (pp. 6–15; <http://www.euro.who.int/>

data/assets/pdf_file/0007/233368/Tobacco-Control-in-Practice-Article-6.pdf, accessed 15 September 2015).

20. International Agency for Research on Cancer, WHO. Effectiveness of tax and price policies for tobacco control. Lyon: International Agency for Research on Cancer, 2011 (<http://www.iarc.fr/en/publications/pdfs-online/prev/handbook14/handbook14-0.pdf>, accessed 15 September 2015).

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav
Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 45 33 70 00. Fax: +45 45 33 70 01.

Email: contact@euro.who.int. Web site: www.euro.who.int.

