Economics of Tobacco Taxation in Russia

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"If Russia chooses to reach the level where tobacco tax represents 70 percent of the retail price, up to 2.7 million tobacco-related deaths among the Russian population can be avoided. Furthermore, the government would collect an additional RUB 153 billion (US$ 6 billion) in excise tax revenue per year."

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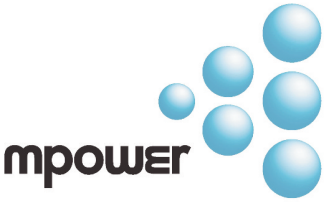

Monitor tobacco use and prevention policies

Protect people from tobacco smoke

Offer help to quit tobacco use

Warn about the dangers of tobacco

Enforce bans on tobacco advertising, promotion and sponsorship

Raise taxes on tobacco

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Acronyms and Abbreviations

BAT: British American Tobacco

CIS: Commonwealth of Independent States

EIU: Economist Intelligence Unit

EU: European Union

FCTC: Framework Convention on Tobacco Control

GDP: Gross domestic product

GYTS: Global Youth Tobacco Survey

HBSC: Health Behavior in School-aged Children survey

JTI: Japan Tobacco International

RLMS: Russian Longitudinal Monitoring Study

RYO cigarettes: Roll-your-own cigarettes

TTCs: Transnational tobacco companies

VAT: Value-added tax

WHO: World Health Organization

Executive Summary

Russia has about 44 million smokers and one of the highest rates of male smoking prevalence in the world. More than 60 percent of adult males consume tobacco, primarily in the form of cigarettes. Female smoking prevalence had traditionally been lower but started to increase following the collapse of the former Soviet Union. Between 1992 and 2004 alone, female smoking rates more than doubled from 6.9 to 15 percent. Youth smoking prevalence is also alarmingly high, with 47 percent of young adult males and 36 percent of young adult females smoking cigarettes. The Russian population has very few former smokers (i.e. people who have quit), an indication of underdeveloped tobacco control measures.

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Tobacco-related diseases are responsible for between 330,000 and 400,000 premature deaths in Russia each year and contribute substantially to the country's declining life expectancy and population decrease. This report examines the potential of using cigarette taxation as an effective tobacco control measure to reverse these unfavorable trends, taking into account Russian historical and socioeconomic perspectives.

The Russian cigarette market has changed dramatically since the entry of transnational tobacco companies in the early 1990s. Transnational tobacco companies now control more than 90 percent of the market, with the largest share, 35 percent, owned by Japan Tobacco International. Other large

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transnational tobacco companies are Philip Morris and British American Tobacco. Virtually all (98.5 percent) cigarettes on the market are domestically produced, although they primarily use imported tobacco leaves. Low import duties encourage the importation of raw tobacco.

Russian smokers increasingly prefer filtered cigarettes to the previously common non-filtered cigarettes and papirosy, a local variant of non-filtered cigarettes. They also can choose from an increasingly wide range of cigarette brands and price points. Cigarettes are available in high- (at least RUB 30 or US$ 1.10 per pack), middle- (RUB 10–29 or US$ 0.37–1.10 per pack), and low- (less than RUB 9 or US$ 0.33 per pack) priced categories. Non-filtered cigarettes are available for as little as RUB 4 (US$ 0.15) per pack of 20.

Cigarettes in Russia are becoming cheaper and more affordable over time compared to basic-needs goods such as bread. This is the result of the current weak tobacco tax policy that both keeps cigarette prices low and is not designed to deal effectively with the nation's double-digit inflation. Between 2000 and 2007 alone, real cigarette prices fell by at least 40 percent. The affordability of cigarettes is further enhanced by rising incomes in Russia, where real

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wages are increasing by 12 to 15 percent a year. In 2005, Russians spent RUB 83.4 billion (US$ 2.9 billion) or 0.4 percent of the gross domestic product (GDP) on cigarettes, an amount that represents the opportunity cost of smoking (i.e. money that could be spent on other goods).

In addition to opportunity costs, other economic losses are associated with smoking. The annual productivity loss from smoking-related premature mortality reaches at least US$ 24.7 billion, or more than 3 percent of the GDP. Additional losses from morbidity and health care expenditures related to smoking are likely enormous, but their magnitude is yet to be determined.

The system of cigarette taxation in Russia is characterized by a differential treatment of filtered and non-filtered cigarettes. In 2007, the specific excise tax on filtered cigarettes was RUB 100 (US$ 3.53) per 1,000 cigarettes, while the *ad valorem* excise tax was 5 percent of the maximum retail price. For non-filtered cigarettes, the excise tax was RUB 45 (US$ 1.60) per 1,000 cigarettes plus the *ad valorem* 5 percent tax of the maximum retail price. The total tax (including the value-added tax) represents about 33 and 43 percent of the retail price for filtered and non-filtered cigarettes, respectively, far below the 67 to 80 percent level recommended by the World Bank to reduce tobacco use. The low tax rates also result in relatively low cigarette tax revenue and represent a missed opportunity to begin recovering the economic costs imposed by smoking and to address the demographic crisis in Russia.

To analyze tobacco tax as a public policy tool in Russia, we present several tax increase options in this report. The first option reflects the current proposed increase in the specific and *ad valorem* taxes by 20 and 10 percent respectively. Such a tax increase would result in a total tax representing approximately 35 percent of the cigarette retail price, still far below the level needed to substantially reduce cigarette use. Increasing taxes to the level of 50, 64, and eventually 70 percent of the retail price is the most effective way to curb the tobacco epidemic in Russia, with the 70 percent level yielding the maximum public health and tax revenue gains. Under such a scenario, the total tax per pack of medium-priced filtered cigarettes would increase from the 2007 level of approximately RUB 5.1 to RUB 24.3 (US$ 0.18 to US$ 0.84). If the tax increase were passed entirely on to the consumer, the retail price for this type of cigarette would increase by approximately 123 percent.

The response to a price increase depends on the price sensitivity of consumers. Only a few studies have estimated the price elasticity of cigarette demand in Russia, and they generally found relatively low price and income elasticity among males, and slightly greater price responsiveness among females. The low level of price sensitivity may be the result of the very low prices of cigarettes and the wide range of cigarette prices, which allow smokers to adapt to the impact of a tax increase by switching to cheaper brands. Rising income, high social acceptability of smoking, and limited public health efforts to curb smoking are other factors contributing to low price elasticity.

Assuming the lower bounds of price elasticity of cigarette demand range from −0.1 to −0.2, the recommended tax level of 70 percent of the retail price has the potential to avert up to 2.7 million tobacco-related deaths. This could potentially save RUB 77 billion (US$ 3 billion) just by reducing the productivity lost due to premature tobacco-related mortality. Apart from saving lives and reducing the costs associated with tobacco use, this optimal tax level also would generate the maximum increase in government revenue by increasing cigarette excise tax collection

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more than 300 percent, contributing up to an additional RUB 153 billion (US$ 6 billion) in annual excise revenue. If only 2 percent of this additional excise tax revenue were allocated to fund tobacco control, Russia would have RUB 3 billion (US$ 120 million) per year to spend on promoting healthier lifestyles and supporting tax collection administration, among other measures. This level of spending on tobacco control would help to counterbalance the tobacco industry's investments to promote smoking. In 2004 alone, the industry spent at least US$ 60 million on cigarette advertising in Russia.

Given the potential impact of cigarette tax policy to improve public health, reduce the costs associated with smoking, and help address the impending demographic crisis, the Russian government should increase tobacco tax, adopt provisions to maintain the tax level at 70 percent of the retail price benchmark indexed to inflation, and earmark a portion of the tax for public health and health care. Experience in both low- and high-income countries confirms that increasing the tobacco tax is among the most effective and practical interventions to reduce tobacco use. Tax increases in Russia, however, need to be accompanied by other tobacco control measures, such as a comprehensive ban on tobacco advertising and smoke-free air laws, as part of an all-inclusive national tobacco control strategy.

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I. Introduction

The prevalence of smoking among Russian men is among the highest in the world, with more than 60 percent of males aged 18 and older consuming tobacco.[1] In 2006, the per capita consumption was 2,207 cigarettes or approximately 110 packs per person annually.[2] By 2014, annual consumption is expected to reach 2,500 cigarettes or 125 packs per person.[2]

Smoking and alcohol use are major causes of premature mortality among men in Russia, and the accumulated burden of tobacco-related disease in men under 75 is the highest in the world.[3] Estimates of the number of tobacco-related deaths vary from 330,000 to 400,000 per year, or between 900 to 1,100 people per day.[4] A study of mortality from smoking estimated that in 1990 about 30 percent of all deaths and 50 percent of cancer deaths in Russian men were attributable to smoking.[5] Males in the prime productive ages of 35 to 54 have the highest death toll, with about 40 percent of all deaths in this group attributed to smoking.[6] According to research conducted in Russia, in the year 2000, tobacco was responsible for 23 to 30 percent of all male and 4 to 5 percent of all female deaths, as well as more than 50 percent of the cardiovascular-related deaths among males.[4,6,7] No estimates of the impact of secondhand smoke on public health in Russia exist, but evidence from other countries suggests that the mortality burden associated with passive smoking amounts to about 15 percent of that from active smoking.[8] Applying that statistic to Russia would increase the total smoking-related death toll from 380,000 to 460,000 persons a year.

The prevalence of smoking among Russian men is among the highest in the world, with more than 60 percent of males aged 18 and older consuming tobacco.

Estimates of the number of tobacco-related deaths vary from 330,000 to 400,000 per year, or between 900 to 1,100 people per day.

The limited historical data available on Russian smoking prevalence and consumption suggest that levels of smoking have been high among Russian men for decades. Unlike patterns in the UK and the US, where male smoking peaked in the 1960s and then began to decline, male smoking prevalence in Russia fluctuated within a range of about 50 to 60 percent from 1975 to 1995, while female smoking prevalence fluctuated within a range of 5 to 10 percent since 1975. Since the early 1990s, smoking rates in both genders have increased significantly. Male smoking rates increased from 57.4 percent in 1992 to 62.6 percent in 2003,[1] while female smoking rates increased from 6.9 percent in 1992 to 14.8 percent in 2003.[1]

The extent of the smoking epidemic in Russia also can be documented through high rates of lung cancer in men. In 2006, the incidence of lung cancer among Russian men was estimated to be the fifth highest among 39 European countries, exceeded only by Belgium, Hungary, Poland, and Albania. The age-adjusted lung cancer incidence for men that year was 92.7 per 100,000, and the age-adjusted lung cancer mortality rate for men was 75.2 per 100,000. Lung cancer rates are considerably lower for women, reflecting the fact that females are at an earlier stage in the smoking epidemic. In 2006, female incidence rates were the eighth-lowest among European countries, ahead of only Cyprus, Malta, Belarus, Latvia, Lithuania, Macedonia and the Ukraine.[9] The actual age-adjusted incidence among Russian women that

year was estimated as 11.2 per 100,000, while age-adjusted lung cancer mortality was estimated as 8.0 per 100,000.[9]

The high lung cancer mortality rates in men reflect the high smoking rates, but unexpectedly, mortality data show that death rates from lung cancer in men peaked in the late 1980s and began to decline in the early 1990s. This decline, however, is thought to result from lower rates of smoking among those who were teenagers between 1945 and 1953, carrying forward the effect of a shortage of cigarettes after World War II. The decline, therefore, is expected to reverse in the near future.[10,11] Age-standardized death rates for lung cancer in Russian women have been low and fairly stable over time, but if the upwards smoking trend in women continues, lung cancer mortality will inevitably increase.[12]

Tobacco use contributes significantly to declining male life expectancy in Russia, which dropped from 64 years in 1989 to 59 years in 2007.[13] If no action is taken to improve the current state of public health, the World Bank predicts that male life expectancy in Russia eventually will fall to 53 years.[14] By comparison, men in Western Europe live, on average, up to 77 years.[13] Local evidence indicates that smoking shortens overall life expectancy in the Russian population by 6.7 years for men and by 5.3 years for women.[15] In addition to shortening life expectancy, smoking also causes substantial ill health, thus reducing the quality of life and productivity. Among smokers (male and female) in Russia, it is estimated that tobacco-related diseases shorten healthy years of life by 13.6 years.[16]*

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The negative economic consequences of the demographic crisis can be addressed by implementing multiple public health measures, including evidence-based tobacco control interventions.

With a low birth rate and high death rate, the population in Russia has been shrinking since the early 1990s. The high death rate, especially among Russian males, has been attributed to cardiovascular diseases, alcoholism, and injuries.[17] Between 1998 and 2007, the Russian population declined by 4.4 percent,[13] and it is now falling by almost half a percent each year. By 2015, the population is expected to reach 136 million, representing a decrease of 5 million or 3.5 percent from the 2007 population of 141 million.[13] Demographic experts expect the decline to accelerate, estimating that Russia's population could fall below 100 million by 2050.[18] This crisis is especially important for the Russian economy because it overwhelmingly involves men of working age and contributes to a shortage of labor.[19]

The negative economic consequences of the demographic crisis can be addressed by implementing multiple public health measures, including evidence-based tobacco control interventions. Studies in both low- and high-income countries confirm that increasing the tobacco tax is among the most effective and practical interventions to reduce the harm caused by tobacco use.[20]

* Only two other risk factors have more detrimental impact on life expectancy in Russia — alcohol consumption and high blood pressure, shortening life by 15.4 and 16.9 healthy years, respectively. (World Health Organization. Global Program on Evidence for Health Policy. Geneva: World Health Organization; 2002.)

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II. Data and Methods

Data on tobacco consumption, production, and sales in Russia come from various international and local databases, including the World Health Organization (WHO) SuRF 2,[21] WHO Europe's Tobacco Control[22] and European Health for All databases,[23] the American Cancer Society's Tobacco Control Country Profiles (TCCP),[24,25] and the World Bank Group's Economics of Tobacco Control data.[26] Data on Russia's population, inflation rates, exchange rates, and purchasing power parity were obtained from the United States Census Bureau,[27] the United Nations Statistics Division,[28] and the World Bank's World Development Indicators.[29] Other information came from published reports, such as ERC Statistics Intl Plc,[30] Euromonitor International,[31] and the Economist Intelligence Unit (EIU).[32] Additionally, data were sought through reviews of published literature, Internet searches, and contact with national and international experts.

In this report, smoking prevalence is measured as the percent of current smokers (either daily or at least once within the last 30 days) in the population, unless indicated otherwise. Smoking prevalence data were obtained from published literature. We relied mainly on the analyses based on the Russian Longitudinal Monitoring Study (RLMS).[1] The RLMS is a nationally representative household survey of persons aged 18 years and older and contains a section on tobacco use. It has been conducted 14 times between 1992 and 2006. Each round contains data on more than 3,000 men and 4,000 women. For more detailed data on the socioeconomic aspects of smoking behavior, we used the Living Conditions, Lifestyles and Health survey conducted in 2001.[33] This was a cross-sectional survey conducted in eight countries, including Russia, using representative samples of the national adult population 18 years of age or older. In Russia, 4,006 residents were interviewed for this survey.[33]

The interpretation of economic indicators and their trends over time is extremely difficult in Russia for several reasons. Since the early 1990s, the country has experienced social and economic turmoil that accompanied the transition from a planned economy to a market economy.

In addition, prevalence data were also obtained from two national surveys conducted in July 1996 and April 2004 by the Levada Institute in Moscow for the New Russia Barometer program. These multi-stage household surveys covered the Russian population aged 18 years and older living in both urban and rural areas and used face-to-face interviews from almost 1,600 households in each survey.[34]

The analysis of cigarette prices and affordability in Russia is based on cigarette and bread prices from the EIU Worldwide Cost of Living Survey,[32] as well as from local sources. The EIU survey is conducted semi-annually to assess the prices of goods in more than 130 of the world's major cities, in nearly 90 countries.[35] If more than one city in Russia was surveyed in any particular year, an average price was calculated, weighing each city equally. Prices were collected in March and September from 2000 until 2003, in June and December from 2004 until 2006, and in June 2007. We use a simple average to obtain one data point for each year for the period 2000 to 2006, and prices from June 2007 were used for 2007. The survey considers the prices of two cigarette brands (Marlboro or the nearest international equivalent, and a local brand) sold at three types of outlets (high-volume supermarket, mid-priced retail outlet, and low-priced retail outlet). Since our study is concerned with the affordability of cigarettes, foreign and local brands in the lowest-priced retail outlets were selected for each year.

The Russian state statistical office Rosstat, the Federal State Statistics Service that previously was called Goskomstat, is the local source of cigarette prices.[36] Rosstat collects the average prices of domestic cigarettes in selected cities of the Russian Federation, based on information from local retailers, and calculates the cigarette price index for the entire country. Prices reported by Rosstat tend to be lower than those reported by the EIU, a difference that may be explained by variation in sampling techniques. According to EIU representatives, the EIU, unlike Rosstat, generates data that reflect the average prices encountered by expatriate executives and their families in Russian cities. The EIU data thus discount the purchasing habits of local residents as well as amplify the effect of wealthier people shopping in more expensive stores. However, this difference does not affect the trend analysis using the EIU prices since a consistent method of data collection is applied over time.

The interpretation of economic indicators and their trends over time is extremely difficult in Russia for several reasons. Since the early 1990s, the country has been going through social and economic turmoil that accompanied the transition from a planned economy to a market economy. This turmoil resulted in rapid hyperinflation spikes between 1992 and 1995 and again in 1998, introduction of a new currency in 1992 that was devaluated in 1998, and a complete overhaul of the system of gathering statistical data. To compensate for this shortcoming, the data presented in this report were drawn from multiple sources and compared to one another in order to assure their accuracy and completeness while identifying the most appropriate source for each measure in question.

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III. Demand for Tobacco Products and Tobacco Tax Policy

Tobacco Use Prevalence and Intensity, and Type of Tobacco Products Consumed

In most countries, a smoking epidemic develops in four stages. It starts in relatively small pockets of male members of a population, and then gains momentum by diffusing to other parts of the male population. In the third stage, female smoking prevalence increases, and eventually smoking prevalence in both genders recedes in the fourth stage.[37,38] However, it appears that Russia's tobacco epidemic may have developed differently from the standard model.[1,33] Historical data on male smoking and tobacco-related mortality rates suggest that smoking among men has been at a high level for some time and, contrary to the predictions of the four-stage model just described, has failed to exhibit a post-peak decline.[33] Smoking prevalence among Russian men has been greater than 50 percent since the late 1970s, consistent with their high lung cancer mortality rates,[5] and more than 60 percent in all surveys conducted since the mid-1990s.[1,33,34] Moreover, analysis of longitudinal data from the RLMS shows a significant increase in male smoking rates from 57.4 percent (56.0 to 58.8 percent)* in 1992 to 62.6 percent (61.1 to 64.1 percent)* in 2003.[1]

Smoking among women has risen later than would be expected given the male rates and trends observed in the West.[33] Female smoking rates began to increase only in the mid- to late 1990s after the entry of transnational tobacco companies (TTCs). The RLMS data indicate that female smoking prevalence has more than doubled, from 6.9 percent in 1992 to 14.8 percent in 2003 (Table 3.1). The increasing trend in female smoking prevalence has also been suggested by previous cross-sectional surveys showing significantly higher rates of smoking in the youngest age groups as compared to the oldest age groups of women,[33] and by the falling age of smoking initiation in successive birth cohorts.[1] The mean age of smoking initiation for women in the 1920 to 1929 birth cohort was 28.6 years, while for women in the 1970 to 1979 birth cohort it was 16.8 years. For men, the age at initiation has been stable over time, between 15 and 18 years of age.[1]

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Traditionally, female smoking prevalence in urban areas, which tend to be more liberal and influenced by Western culture, has been higher than in rural areas, where social norms against female smoking prevail and where tobacco promotions have been less ubiquitous.[1,33,34,39] Recently, however, this gap has narrowed due to an increase in smoking in rural areas. The RLMS from 1996 found that female smoking in large cities was up to five times more common than female smoking in rural areas.[40]

The Levada Institute survey, despite having a relatively smaller sample size, supports a similar conclusion. It estimated that in 1996, women in Moscow smoked almost four times as much as women in villages.[34] By 2004, this ratio fell to only 1.5, and smoking prevalence among women living in villages increased from 8 percent in 1996 to 14 percent in 2004.[34] In addition, the RLMS recorded a three-fold increase in smoking prevalence among rural women between 1992 and 2003.[1]

Some of the apparent increase in smoking prevalence among women might be attributable to changes in the social acceptability of female smoking

* 95% confidence interval.

Table 3.1: Smoking Prevalence in Russia, 1992–2004[a]

	1992	1993	1994	1995	1996	1998	2000	2001	2002	2003	2004
Prevalence (%)											
Adult Males (18+)	57.4%	60.8%	59.0%	61.3%	61.9%	61.0%	61.3%	62.2%	63.0%	62.6%	61.3%
Adult Females (18+)	6.9%	7.7%	9.0%	9.1%	9.8%	10.5%	11.5%	13.9%	13.8%	14.8%	15.0%
Number of Smokers (millions)											
Adult Males	30.2	32.1	31.4	32.8	33.3	33.2	33.8	34.4	34.9	34.7	34.0
Adult Females	4.3	4.8	5.7	5.8	6.3	6.8	7.5	9.1	9.1	9.8	9.9
Adult Total	34.5	37.0	37.1	38.6	39.5	40.0	41.3	43.5	44.0	44.5	43.9

Notes:
[a] Prevalence estimates were indirectly standardized for age by 10-year age bands using the 1995 study population.
Number of smokers calculated using prevalence data and population information.

Sources:
Perlman F, et al. Trends in the prevalence of smoking in Russia during the transition to a market economy. Tob Control. 2007;16:299–305.
Zohoori N, Blanchette D, Popkin B. Monitoring Health Conditions in the Russian Federation: The Russian Longitudinal Monitoring Survey, 1992–2004. Chapel Hill, NC: University of North Carolina; 2005. available from: http://www.cpc.unc.edu/rlms/papers/health_04.pdf. Accessed June 9, 2008.

and greater accuracy in the reporting of smoking data about women, in contrast to the underreporting of earlier years. For example, a 1992 survey in one district of Russia suggested a smoking prevalence of 10 percent among females between 25 and 64 years of age, but cotinine analyses that objectively measure exposure to inhaled cigarette smoke revealed a prevalence of 21 percent among this age group.[41] Nevertheless, much of the increase in female smoking rates is likely to be real.

Particularly alarming is the high smoking prevalence among health care professionals. A survey conducted by the Russian Cancer Research Center in 2002–2003 revealed that 66 percent of male doctors, 21 percent of female doctors, and 34 percent of nurses in Russia are current or former smokers.[7] Of the doctors who smoked, only 38 percent were advising their patients to quit, compared with 58 percent of doctors who had never smoked. In addition, an understanding of tobacco's harmful health effects seems to be limited given that less than 10 percent of doctors demonstrated a familiarity with the harm caused by tobacco use.[7]

A survey conducted by the Russian Cancer Research Center in 2002–2003 revealed that 66 percent of male doctors, 21 percent of female doctors, and 34 percent of nurses in Russia are current or former smokers.

Anecdotal evidence points to an extremely high smoking prevalence among the Russian military. Military service is still mandatory in Russia, and all soldiers are given cigarettes for free as part of their rations.

Youth smoking prevalence in Russia is the highest among eastern European countries. The Health

The most recent 2006 data from the central European part of the Russian Federation indicate that 47 percent of males and 36 percent of females between 18 and 19 years of age smoked.

Behavior in School-aged Children (HBSC) survey conducted in 1997–1998 showed that 24 percent of males and 22 percent of females 15 years of age in Russia smoked.[42] The Global Youth Tobacco Survey (GYTS) conducted in Moscow in 1999 found that 37 percent of male and 28 percent of female high school students (grades 7 through 10) smoked.[43] The 2004 GYTS for Russia, all regions combined, showed that 25.4 percent of males and 20.9 percent of females in grades 7 through 9 smoked cigarettes.[44] The most recent 2006 data from the central European part of the Russian Federation indicate that 47 percent of males and 36 percent of females between 18 and 19 years of age smoked.[4]

Among men, inequalities in smoking habits are long established, with smoking more common among those with lower levels of education than those with higher ones. According to the 2006 data from Moscow, smoking prevalence was 64.7 percent among men with low education and 48.5 percent among men with high education.[4] The same pattern has long been seen throughout the country in national surveys of smoking habits.[39,45] Among women, the gap in smoking prevalence by level of education is increasing over time, and although the rise in smoking prevalence between 1992 and 2003 was seen across all educational groups, it was greatest among the least educated.[1] This trend results in growing inequalities in smoking-related health and economic burden, with the impact being disproportionately inflicted upon those who can least afford it.

Per capita cigarette consumption in Russia is quite high, particularly among male smokers. According to the RLMS, the average daily consumption among men from 1992 to 2004 was 16 cigarettes.[10] In 2000, adult male and female smokers consumed an average of 16.6 and 9.2 cigarettes per day, respectively.[46] Even though the average daily cigarette consumption among women and teenagers is lower than that of men, it is increasing: Between 1992 and 2004, daily consumption increased from 8.1 to 11 cigarettes per day for adult women and from 7.8 to 9.4 cigarettes per day for teens.[10]

In 2006, the per capita consumption was 2,207 cigarettes or approximately 110 packs per person annually, a 66 percent increase since 1990.

The increasing smoking prevalence and smoking intensity are reflected in per capita consumption. Table 3.2 shows how both total consumption, which is based on trade statistics and manufacturer estimates, and the derived per capita consumption have increased in Russia since the mid-1990s. In 2006, the per capita consumption was 2,207 cigarettes or approximately 110 packs per person annually,[2] a 66 percent increase since 1990. By comparison, per capita cigarette consumption in the United Kingdom in 2006 was 826 cigarettes or 41 packs per person annually.[47] Market analysts estimate that per capita consumption will reach 2,500 cigarettes or 125 packs annually per person by 2014.[2]

Given the high smoking prevalence, high per capita cigarette consumption, and the widespread social acceptability of smoking, one can expect in Russia a high level of exposure to secondhand smoke. The GYTS data for 1999 showed that 55.3 percent of teens aged 13 to 15 were exposed to secondhand smoke inside their homes, and 72.5 percent of teens were

Table 3.2: Consumption and Consumption Per Capita, 1990–2014

Year	Consumption (million pieces)	Consumption Per Capita
1990	196,400	1,328
1991	195,608	1,319
1992	193,352	1,303
1993	185,275	1,248
1994	174,733	1,177
1995	200,591	1,351
1996	205,083	1,383
1997	228,000	1,540
1998	270,000	1,827
1999	275,000	1,866
2000	280,000	1,909
2001	283,000	1,938
2002	290,000	1,996
2003	303,700	2,100
2004	308,600	2,143
2005	312,300	2,178
2006	315,423	2,207
2007	318,575	2,237
2008	321,765	2,269
2009[a]	325,625	2,304
2010[a]	329,530	2,340
2011[a]	333,485	2,379
2012[a]	337,490	2,418
2013[a]	341,705	2,457
2014[a]	345,980	2,500

[a] *Estimated*
Source:
World Cigarettes 1. The 2007 Survey. Volume 3 – Central & Eastern Europe. Suffolk, England: ERC Group Ltd; 2007.

exposed to it outside their homes.[48] The same survey conducted in 2004 showed that teens' exposure to environmental tobacco smoke increased to 75.2 and 88.1 percent inside and outside the home, respectively.

The type of cigarettes preferred by consumers has changed dramatically since the 1960s. The traditionally consumed non-filtered cigarettes, ovals or papirosy,* are being replaced by filtered cigarettes. For example, in 1963, filtered cigarettes comprised only 1.1 percent of the market in the former Soviet Union, but 30.3 percent in 1982.[45] In 2005, filtered cigarettes occupied 85 percent of the Russian market, up from 58 percent in 2000.[31]

Non-filtered cigarettes and papirosy are mostly preferred by older smokers and because the TTCs are heavily promoting filtered cigarette brands, the market share for non-filtered cigarettes and papirosy is likely to decrease even more in future years.[31]

* Papirosy are shorter but somewhat thicker variants of non-filtered cigarette, with a short paper pipe attached.

Premium cigarette brands and "low-tar" cigarettes were the fastest-growing segments of the Russian cigarette market between 2004 and 2005.

Premium cigarette brands and "low-tar" cigarettes were the fastest-growing segments of the Russian cigarette market between 2004 and 2005.[31] The preference for these brands has increased even in rural areas, which have experienced strong economic growth accompanied by growing purchasing power.[49] Slim cigarettes are popular among women but are now also being marketed to men.[31] The present-day rising demand for "light," "ultra-light," and "super-slim" cigarettes reflects the marketing strategies of the international tobacco companies in Russia.[50]

In addition to cigarettes, other forms of tobacco such as cigars, loose tobacco, water pipes, snus, and chewing tobacco are gaining popularity.[31] The most affluent tobacco users regard these products as indications of wealth and prosperity. The recent appearance of special smoking clubs and saloons is expected to contribute to a growing interest in pipes and roll-your-own (RYO) cigarettes.[31] RYO tobacco is perceived as an alternative to manufactured cigarettes, even though it occupies only a relatively small share of the market (about 2 percent in 2000[31]), partly the result of tax treatment that makes smoking RYO tobacco more expensive than buying manufactured cigarettes.[31]

The prevalence of former smokers is often used as an indication of successful tobacco control policy. This dynamic is well-illustrated in a Russian and a neighboring Finnish community with divergent tobacco control policies. In 1992, more than 70 percent of daily smokers in the Russian Republic of Karelia wanted to quit, compared to more than 60 percent of the smokers living in the neighboring North Karelia in Finland, where several anti-smoking activities were carried out in the 1980s.[41] However, there were fewer cessation attempts in Russia, where 62 percent of male smokers and 56 percent of female smokers never attempted to quit, compared to 35 percent of male smokers and 34 percent of female smokers who never attempted to quit in Finland.[41] As a result, there is a very small percentage of the population in Russia that has quit smoking. The 1998 RLMS data report that about 19 percent of men and 6 percent of women in the adult population over 18 years of age are former smokers.[40] In the United Kingdom, by comparison, the prevalence of ex-smokers among men in the year 2000 was about 30 percent.[51]

Price and Affordability of Cigarettes, and Price Elasticity

The Russian cigarette market is characterized by a large range of cigarette prices where consumers can choose among three main price categories: high (or premium), middle (or mid-priced) and low (or economy). In 2007, cigarettes that cost at least RUB 30 per pack (US$ 1.10) were classified as high-priced, those that cost between RUB 10 and RUB 29 per pack (US$ 0.37 to US$ 1.10) as mid-priced, while those that cost RUB 9 (US$ 0.33) or less per pack were considered low-priced cigarettes.[31] According to the Rosstat, average prices for filtered cigarettes in 2006 ranged from RUB 10 (US$ 0.37) to RUB 36 (US$ 1.33) per pack, and the average price for non-filtered cigarettes was RUB 3.89 (US$ 0.14) per pack.[36]

Cigarette prices throughout Russia vary by region (Annex 1).[52] A study based on the price modules of the

... there is a very small percentage of the population in Russia that has quit smoking.

RLMS community surveys[40] confirms regional differences in cigarette prices, which have been attributed to varying transportation costs, market imperfections,[53] and regional differences in income levels.[54] These differences are likely to diminish, as the new 2007 tax law requires the maximum retail prices to be printed on the cigarette packs.

Graph 3.1 documents the trend in average nominal and real cigarette prices in Russia between 2000 and 2007, using EIU data on Marlboro-type cigarettes. The nominal prices increased between 2000 and 2003 and then stayed constant from 2003 until mid-2007, for an overall increase of 44 percent. Real prices, on the other hand, have been declining throughout the entire period, with the exception of a slight increase in 2003 due to an increase in the tobacco tax and changes in the tobacco industry's pricing strategy. Between 2000 and 2007, the real prices of Marlboro cigarettes decreased by 39 percent. Between 2002 and 2007 alone, the real retail price of Marlboro cigarettes fell by 22 percent. By comparison, the real retail price of 1 kilogram of white bread during that five-year period increased by 41.5 percent.

Overall, between 2000 and mid-2007, the nominal price of local cigarettes increased by 19.2 percent, but real prices declined by 49.4 percent.

The trend from 2000 to 2007 in the average nominal and real prices for a local filtered cigarette brand (Graph 3.2), as reported by the EIU, is very similar to that for Marlboro-type cigarettes. Nominal prices first increased, primarily between 2002 and 2003, then flattened out and even declined slightly from 2004 to mid-2007. Real prices declined during this period, with the exception of 2002 to 2003, when they increased slightly. Overall, between 2000 and mid-2007, the nominal price of local cigarettes increased by 19.2 percent, but real prices declined by 49.4 percent.

Graph 3.1: Nominal and Real Retail Prices of Branded (Marlboro) Cigarettes, in Rubles

Sources: Economist Intelligence Unit. Worldwide Cost of Living Survey. 2007. available from: http://eiu.enumerate.com/asp/wcol_WCOLHome.asp.

Inflation information for the years 2000 to 2005 obtained from World Development Indicators; for 2006, obtained from Datamonitor. The figure for inflation in 2007 is the target inflation for the year obtained from http://www.focus-economics.com/indicators/0708/070904_russia_inflation.htm.

Graph 3.2: Nominal and Real Retail Prices of Local Cigarettes, in Rubles

Source: Economist Intelligence Unit. Worldwide Cost of Living Survey. 2007. available from: http://eiu.enumerate.com/asp/wcol_WCOLHome.asp.

Inflation information for the years 2000 to 2005 obtained from World Development Indicators; for 2006, obtained from Datamonitor. The figure for inflation in 2007 is the target inflation for the year obtained from http://www.focus-economics.com/indicators/0708/070904_russia_inflation.htm.

... cigarettes in Russia are becoming more affordable compared to other basic goods.

Because tax treatment for all filtered cigarettes has been similar during the 2000s, the relatively larger drop in the real price of local filtered brands compared to the premium Marlboro brand is likely the result of industry pricing strategy. This type of market segmentation allows the industry to retain price-sensitive customers (who otherwise might have quit, reduced consumption, or not initiated smoking) while gaining extra profit from less price-sensitive smokers.

As indicated above by the comparison with bread prices, cigarettes in Russia are becoming more affordable compared to other basic goods. The average nominal price of cigarettes has increased about 5.8 percent annually between 2000 and 2005, while the price of bread, milk, meat, and public transportation increased much more rapidly: 13.9, 13.3, 17.8, and 22.1 percent a year, respectively.[4] The average price of the low-priced cigarettes was RUB 12 (US$ 0.44) in 2006;[4] by comparison, a kilo of wheat bread was RUB 10 (US$ 0.35) in Moscow in July 2007[55] and increased by 23 percent by December 2007.[56] The trend in cigarette prices in Russia is contrary to the trend in the European Union (EU), where between 2001 and 2005 cigarettes prices grew 6.8 percent faster than general inflation.[4]

To understand how price influences smoking decisions, economists estimate the price elasticity of cigarette demand, a measure of individuals' sensitivity to price changes. The price elasticity of demand for cigarettes has very strong policy implications. Once the price elasticity is known, one can determine how much to increase prices in order to achieve a planned reduction in consumption, as well as estimate the increase in government revenue as a result of the increase in price (and therefore tax). Estimates of the impact of price on cigarette demand in both low- and high-income countries fall in a relatively wide range depending on the population studied, the data used, and the methods used to estimate demand. However, the majority of international evidence suggests that

a 10 percent increase in cigarette prices would result in a 2.5 to 5 percent reduction in cigarette demand (a price elasticity of –0.25 to –0.5).[20]

Very few studies of price and income elasticities of tobacco demand in Russia exist. Those available in the literature use micro-level survey data as opposed to time series macro-level data. The use of macro-level data suffers from inconsistencies arising from changes in data collection methods after the collapse of the Soviet Union. In addition, the Russian economy in 1998 underwent a major macro-level disruption, including a currency overhaul. Furthermore, macro-level data cannot explain the price responsiveness of various demographic subgroups (e.g. female and youth) and do not capture the impact of illicit trade.

The few extant micro-level analyses of Russian data reported very little price responsiveness among Russian males with respect to cigarette demand. Oglobin and Brock[40] used 1996 and 1998 waves of the RLMS, including its community price modules, and found that the decision to smoke among males was hardly affected by variations in price. (Price elasticity was –0.085, meaning that a 10-percent increase in price would reduce consumption by 0.85 percent.) Similarly, variation in income had little effect: Income elasticity was –0.007, meaning that a 10-percent increase in income would reduce consumption by 0.07 percent. Oglobin and Brock explained this finding by Russian men's tendency to smoke cheap, low-quality cigarettes, spending only a small fraction of income to finance their habit. Among women, price and income elasticities of the probability of smoking were estimated to be higher, –0.628 and +0.047, respectively. This behavior was related to women's preference for more expensive cigarettes. The study suggested that low price elasticity was also related to cigarette price levels, as the price elasticity of participation was higher in 1998 (–0.120 for males, and –0.919 for females), when the real prices of cigarettes reached 180 percent of 1996 prices.

... the relatively low level of price responsiveness is related to the high level of addiction among Russian male smokers and the minimal public health effort in Russia to decrease smoking.

In other analyses, price generally had a negative effect on both smoking participation and smoking intensity, but the magnitude of the impact was again relatively small. Lance et al. (2004)[53] used three waves of RLMS data (1996, 1998, and 2000) to estimate the demand for cigarettes among men. They controlled for wealth (using the household wealth index based on ownership of assets and dwelling characteristics), age, education, household size, and community-level prices (adjusted for inflation). In addition to pooled cross-sectional data, separate models included regional and community-level fixed effects. The study took advantage of the real increase in cigarette prices between 1996 and 1998, and their real decrease between 1998 and 2000 as measured by the price for the cheapest domestic cigarette brand collected by the RLMS. In Lance's models, the price elasticity of smoking participation fell between –0.106 and –0.050, and the price elasticity of cigarette consumption ranged from –0.026 to 0. The total price elasticity for the male sample was between –0.132 for the pooled sample and –0.050 for the fixed-effect models. Similar results were found using a cigarette price measure based on household cigarette expenditures and the quantity of cigarettes purchased. Young people (aged 13 to 19) were found to be much more price sensitive (exhibiting a total price elasticity equal to –0.345) than middle-aged men (aged 25 to 54) (with a total price elasticity equal to –0.072). The same study found that the total price elasticity in Russia increased with wealth and that the effect of wealth on smoking participation was negative and significant. The authors speculated that the relatively low level of price responsiveness was related to the high level of addiction

By mid-2007, Russia had the highest penetration of premium brands in all of Europe, suggesting the high affordability of cigarettes in Russia.

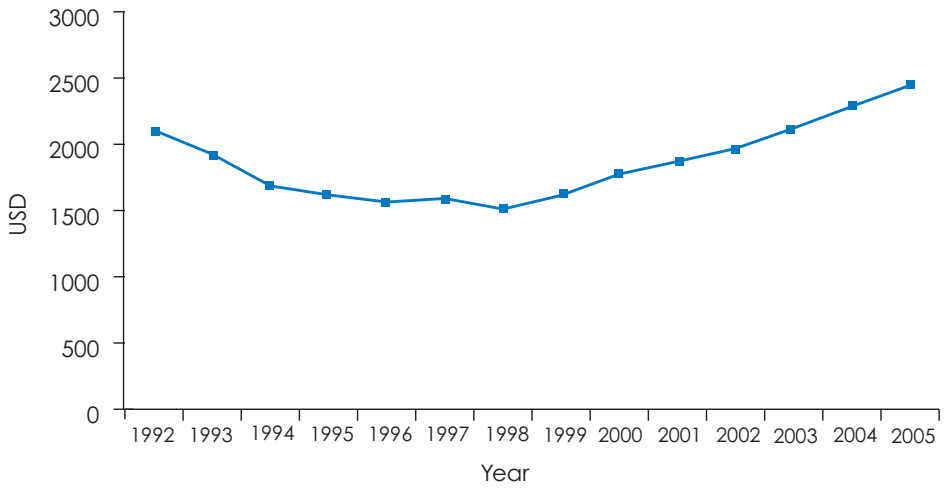
among Russian male smokers and the minimal public health effort in Russia to decrease smoking. This context, combined with the high level of social acceptability of smoking, contributed to the relatively low price elasticity of cigarette demand in Russia.

Macro-level data on product preferences support the hypothesis that the magnitude of price sensitivity in Russia is affected by the wide range of price choices. As reported above, consumers can choose among three main price categories: high, middle, and low. In early 1998, sales in these three price categories represented 20, 30, and 50 percent of total sales, respectively. The macro-economic shock following the events of 1998 substantially changed consumers' preferences concerning these price categories. In 2000, 10 percent of the market consisted of high-priced brands; 15 percent, middle-priced brands; and 75 percent, low-priced brands. Once the country's economic recovery began in 2001, consumers responded by switching to more expensive cigarettes. In 2002, high-, middle- and low-priced cigarettes composed 23, 55, and 22 percent of sales, respectively;[30] by 2006, high-, middle-, and low priced cigarettes represented 31, 49, and 20 percent of sales, respectively.[4]

The trend in preference shifting toward high-priced cigarettes is expected to continue, owing to the increasing purchasing power of the population since 1998,[31] the relative decrease in cigarette prices,[31] and marketing efforts by tobacco companies.[57] In 2006, 10.3 percent of cigarette sales were at prices higher than those for Marlboro cigarettes, which belong to the high-priced cigarette category. By mid-2007, Russia had the highest penetration of premium brands in all of Europe,[50] suggesting the high affordability of cigarettes in Russia. This trend is aligned with the TTC's interest: A British American Tobacco (BAT) marketing presentation given in 2006, for example, estimated that shifting 1 billion cigarettes from the low- to the premium-price bracket would provide an extra US$ 36.9 million in sales revenue.[58]

The combination of rising income in Russia (Graph 3.3) and declining real cigarette prices

Graph 3.3: Real GDP Per Capita in 2000, in USD



Source: World Bank. World Development Indicators. 2007.

contributes to low sensitivity of the Russian population to cigarette prices. This is consistent with empirical evidence on the impact of income on the demand for cigarettes.[59]

Expenditures on Tobacco Products and the Cost of Smoking

Expenditures on tobacco in 2000 represented about 1.8 percent of average household expenditures.[60] However, poor households spend a significantly higher portion of their household budgets on tobacco compared to rich households. Average tobacco spending, based on RLMS data from 1994 to 2001, reached 5 percent for the households in the poorest two deciles, and about 0.8 percent for those in the richest two deciles.[54] In some Russian households, tobacco expenditures continue to compete with basic items such as food, which still represents a relatively high percentage of overall household budgets. According to the 2000 RLMS, an average Russian family spends about 60 percent of its budget on food, including dining out (Table 3.3). Households with the lowest living standards,* in which food can be a luxury, spend almost 3 percent of their budgets on tobacco.[60]

In some Russian households, tobacco expenditures continue to compete with basic items such as food, which still represents a relatively high percentage of the overall household budget.

A study based on the World Bank Living Standards Monitoring Survey suggests that rich households spend more in absolute terms, but poorer households spend a greater proportion of their

Table 3.3: Budget Shares by Deciles of Living Standards (in %), October 2000–January 2001

	Deciles of Living Standards[a]										
	1	2	3	4	5	6	7	8	9	10	All Households
Food + Home Production + Dining Out	62.4	62.0	62.6	61.6	62.1	62.1	60.5	58.4	57.2	49.3	59.5
Alcohol	1.7	1.4	1.6	2.0	1.6	1.7	1.5	2.2	1.8	2.3	1.8
Tobacco	2.9	2.1	2.1	1.8	2.0	1.7	1.6	1.6	1.3	1.2	1.8
Clothing	6.1	6.7	6.9	7.8	7.6	8.9	9.6	9.1	11.3	11.4	8.7
Health	8.0	7.5	6.5	6.4	6.0	5.8	5.8	6.3	5.7	4.9	6.2
Car	0.5	1.1	1.0	1.6	1.7	1.7	2.2	2.5	2.4	3.6	1.9
Housing	8.9	8.1	8.2	7.0	6.5	5.5	5.9	6.1	5.7	4.6	6.6
Services	4.0	4.9	6.3	6.3	6.8	6.3	6.9	8.1	9.8	18.5	8.1
Durables	5.6	6.1	4.9	5.6	5.7	6.2	6.0	5.6	4.7	4.2	5.4

[a] *Living standard is based on self-reported household expenditures adjusted for expenditures on durables. (1 represents the lowest standard of living and 10, the highest)*
Source:
Decoster A, Verbina I. Who Pays Indirect Taxes in Russia? In: Discussion Paper No. 2003/58. World Institute for Development Economics Research; 2003.

* About 20 percent of the population is considered poor in Russia (World Bank. A New Look at Poverty in Russia. In: Russian Economic Report 9. 2004.)

expenditures on tobacco.[61] Further, the research found that households that spend more on tobacco are likely to also spend more on alcohol.[61] At the same time, the quality and price of tobacco products bought differs by income,[60] evidence that consumers in Russia are sensitive to the prices of cigarettes.

With cigarette prices falling, the relative share of tobacco expenditures in an average household budget has declined over time. Rosstat reports that in the year 2000, tobacco expenditures represented 1.2 percent of total household expenditures, but by 2005, this share dropped to 0.8 percent.[4] Corroborating data shows that low-income families spent between 2 to 3 percent of their budgets on tobacco products in 2000, as opposed to the 1994 to 2001 average of 5 percent.[60]

The relative decline in the proportion of Russian household budgets spent on tobacco can be attributed to two trends: a drop in real cigarette prices and an increase in income. The European Bank for Reconstruction and Development estimates that wages in Russia are increasing by 12 to 15 percent a year, in real terms.[62]

As a whole, Russians spent about RUB 83.4 billion (US$ 2.9 billion),[4] or 0.39 percent of their GDP, on cigarettes in 2005. This amount represents the opportunity cost of smoking, as these resources could have been used for other products, services, or investments.

In addition to the opportunity costs of cigarette purchases, tobacco-related diseases represent a much larger threat to household welfare due to loss of income and out-of-pocket expenditures related to medical care. The World Bank estimates that the treatment of cardiovascular and respiratory diseases primarily associated with tobacco consumption represent about 34 percent of all health care expenditures in Russia.[4] Chronic illnesses overall contribute toward an annual per capita loss of 5.6 percent of income, which negatively affects household budgets.[10]

The World Bank estimates that the treatment of cardiovascular and respiratory diseases primarily associated with tobacco consumption represent about 34 percent of all health care expenditures in Russia.

Estimates of the total costs of smoking in Russia do not exist, but two studies have estimated productivity losses resulting from tobacco-related premature deaths. The first study calculated the productivity loss in 1999 to be US$ 4.44 billion.[63] Using a different methodology, the second study estimated the smoking-attributable productivity loss to be US$ 364 million in 2000.[6]

... at least US$ 24.7 billion was lost nationwide in 2006 due to mortality-related productivity losses alone.

Our estimate, based on research on productive time loss conducted in other countries, points to an even higher loss due to premature mortality. Most studies conclude that each cigarette expends approximately 10 minutes of life.[64,65] Because the average smoker in Russia consumes about 15 cigarettes per day,* he or she loses 10.4 percent of a year (38 days) for every year smoked. An individual in Russia earned on average US$ 450 per month in 2006 (US$ 5,400 per year),[31] which means that smoking cost each smoker about US$ 562 in lost income in that one year alone. Multiplying the lost income by the total number of smokers (43.9 million) shows that at least US$ 24.7 billion (3.22 percent of GDP in 2005) was lost nationwide in 2006, due to mortality-related productivity losses alone.

The estimate of the share of GDP lost due to smoking, given above, is conservative because the

* Weighted average based on male and female smoking intensities of 16 and 11 cigarettes per day, respectively.

calculations do not include smoking-related health care costs, the loss of productivity from smoking-related morbidity, and the costs associated with secondhand smoke. These costs in Russia are yet to be estimated.

Tobacco Tax Level and Tax Structure

The system of cigarette taxation in Russia has undergone several changes since 1991. It is characterized by the differential treatment of filtered and non-filtered cigarettes, and since 1997, by the presence of excise stamps.[66]

Excise taxes were extremely low in the 1990s. In 1998, these taxes amounted to RUB 6 (US$ 0.21) for 1,000 non-filtered and RUB 12 (US$ 0.42) for 1,000 filtered cigarettes (Annex 2). Beginning in 1999, nominal tax rates began to increase incrementally.

In July 2001, the Ministry of Finance decreed that tobacco manufacturers were living in "tax heaven."[67] This political statement presaged cigarette excise tax reform in 2003 that increased the fixed (or specific) tax, introduced a new *ad valorem* tax, and led to the only significant increase in real cigarette prices in the 2000s (Annex 2 and Graph 3.1 and 3.2). The 2003 *ad valorem* rate of 5 percent was based on the wholesale/ex-factory price, while the specific tax was set at RUB 50 (US$ 1.77) and RUB 19 (US$ 0.67) for filtered and non-filtered cigarettes, respectively. Nominal cigarette excise taxes increased by as much as 230 percent for high-priced premium cigarette brands and by 146 percent for mid-priced cigarette brands (based on cigarette prices reported by EIU). However, this increase translated into an excise tax increase of only about RUB 1.8 to RUB 1.2 per pack (US$ 0.06 to US$ 0.04), depending on the cigarette price category. Tobacco companies used the occasion of a tax increase to raise their prices in addition to passing the tax increase onto the consumers, as illustrated by EIU data documenting an increase in the nominal prices for high-priced Marlboro cigarettes and mid-priced domestic brands by RUB 7 (US$ 0.25) and RUB 6 (US$ 0.21), respectively, from September 2002 to March 2003. This increase suggests that even tobacco companies think that consumers are willing to pay higher cigarette prices. A tax increase would in effect transform the potential extra profit for tobacco companies into additional revenue for the government budget.

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The excise tax has increased every year since the 2003 tax reform, but because the hikes have been lower than the double-digit rate of inflation, cigarettes have become relatively cheaper over time.

The excise tax has increased every year since the 2003 tax reform, but because the hikes have been lower than the double-digit rate of inflation, cigarettes have become relatively cheaper over time. The excise tax system was again redesigned in 2006 (with the changes effective January 1, 2007) to tackle the problem of manufacturer and distributor pricing practices that had led to tobacco tax evasion.[68] These practices involved the industry selling cigarettes to distributors for a considerably reduced price and then using this discounted price as the basis for calculating the *ad valorem* tax liability.[31] Once the tax was collected, the distributors would price cigarettes high and share with the industry the extra profit from the now-increased margin. The new 2007 excise tax system is designed to eliminate this loophole: The new tax is

Box 3.1: Types of Tobacco Taxes

***Ad valorem* tax:** a percent of price (levied at wholesale or retail)	**Pros:** ■ Offers governments the advantage that tax is automatically increased with inflation and/or if the price increases for other reasons (e.g. producers' price increases). **Cons:** ■ Tends to widen price differentials by making expensive brands relatively more expensive. ■ Allows industry to control the tax level by keeping its prices low (industry can lower its prices in response to a tax increase).
Specific tax: a fixed tax per cigarette	**Pros:** ■ Reduces price differentials by adding a fixed tax to every cigarette regardless of its price. ■ Addresses more efficiently the externalities associated with smoking by treating all cigarettes as equally harmful. ■ The industry's price policy does not affect its tax liability, thus allowing the governments to better predict tax revenue. **Cons:** ■ Usually welcomed by manufacturers of more expensive cigarettes because they can better compete with cheaper cigarette brands. Higher profits then allow for more marketing activities and financing of lobbying efforts.

based on the maximum retail (rather than wholesale) price* and the minimum excise tax rate. Thus, the *ad valorem* component of the excise tax now depends on the retail price indicated on the cigarette pack and published by the Ministry of Finance based on the input from tobacco companies. The sale of cigarettes without the maximum retail price printed on the pack is forbidden as of January 1, 2008, for filtered cigarettes, and as of July 1, 2008, for non-filtered cigarettes. Manufacturers are allowed to change their maximum retail price once a month.[69] The 2007 excise tax was increased to RUB 100 (US$ 3.53) per 1,000 filtered cigarettes plus 5 percent of the maximum retail price, with the total excise tax per 1,000 cigarettes prohibited from falling below RUB 115 (US$ 4.06). The 2007 rate for non-filtered cigarettes was also raised to RUB 45 (US$ 1.6) per 1,000 cigarettes plus 5 percent of the maximum retail price, with the total excise tax per 1,000 cigarettes not allowed to fall below RUB 60 (US$ 2.1). The new tax regime is expected to reduce the previously exorbitant profit of distributors and retailers.[68]

Despite the tax increase in 2007 and general price inflation, the retail prices of cigarettes as listed by the manufacturers went down by 10 to 15 percent compared to prices at the end of 2006.[69] For example, the price of Marlboro cigarettes that cost RUB 35 (US$ 1.23) at the end of 2006 was reduced to RUB 30 (US$ 1.06). Kent cigarettes that used to cost almost RUB 42 (US$ 1.48) in 2006 dropped to RUB 35 (US$ 1.23) in 2007.[69] This price decrease was made possible by reducing distributors' margins, as the bargaining power shifted from distributors to manufacturers, and by the lower profit margins accepted by tobacco companies as a strategy to keep cigarettes affordable as well as reduce their tax liabilities. The 2007 tax reform had the greatest

* The maximum retail price also constitutes the minimum retail price, because retailers are not allowed to sell cigarettes for a price lower than what is indicated on a pack.

Despite multiple excise tax increases in the 2000s, the cigarette excise tax rate in Russia remains very low.

negative impact on the producers of premium brands such as PM and JTI but was welcomed by BAT, which has a broader brand portfolio that includes lower-priced cigarette brands.[31, 68]

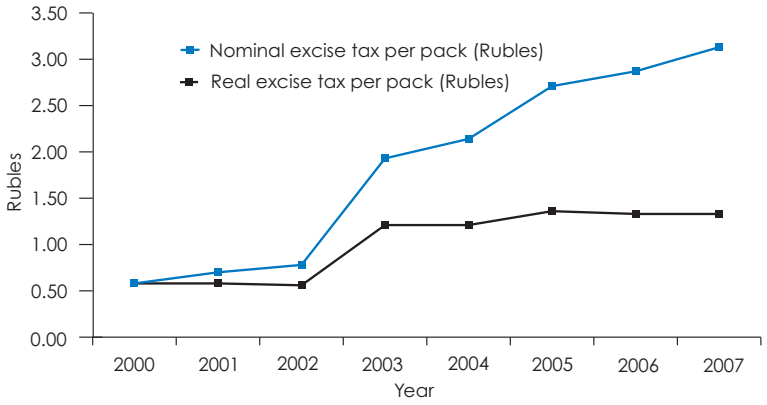
Since 2007, Russia began to collect taxes on other tobacco products that previously have not been taxed. The excise tax rates on loose tobacco, snus, and chewing tobacco are, respectively, RUB 300 (US$ 10.6) per kilo, RUB 17.75 (US$ 2.14) per cigar, and RUB 217 (US$ 7.66) per 1,000 cigarillos. This means that the excise tax on cigarettes is almost two to three times less than the tax on other tobacco products, based on tobacco content.[31]

Cigarettes in Russia are also subject to value-added tax (VAT) that is applied to the wholesale price inclusive of the excise tax. When the VAT was introduced in January 1992, the VAT rate was 28 percent. It was reduced to 20 percent in January 1993, but an additional 1.5 percent "special tax" was added in 1995. In 2004 VAT was reduced to 18 percent as result of World Trade Organization negotiations (Annex 2).

Despite the multiple excise tax increases in the 2000s, the cigarette excise tax rate in Russia remains very low. Graph 3.4 provides a summary of how the nominal and real excise tax rates on local cigarettes have changed since 2000. The only significant increase in real per pack excise taxes occurred between 2002 and 2003. Since then, the real tax per pack has remained relatively constant.*

Rosstat data indicate the excise tax on the average market price of the Marlboro brand in 2007 (about RUB 30 per pack) is RUB 3.5 (US$ 0.12) per pack, less than 12 percent of the retail price. The Euromonitor report in 2007 estimated that the tax represented only

Graph 3.4: Excise Tax on Local Filtered Cigarette Brand



Note: Based on lowest retail price EIU data.

Sources:
Krasovsky K, et al. Economics of Tobacco Control in Ukraine from the Public Health Perspective. Kiev, Russia: Polygraph Center TAT. 128; 2002.
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* The real cigarette price decline during the 2000 to 2007 period is likely the result of a reduced VAT rate, the pricing strategy of tobacco companies, increased efficiency of cigarette production, and a reduced retail margin.

10 percent of the cigarette retail price for filtered brands.[31] On non-filtered cigarettes that cost on average RUB 3.89 (US$ 0.13) per pack in 2006,[36] the excise tax represents about 28 percent of the retail price.

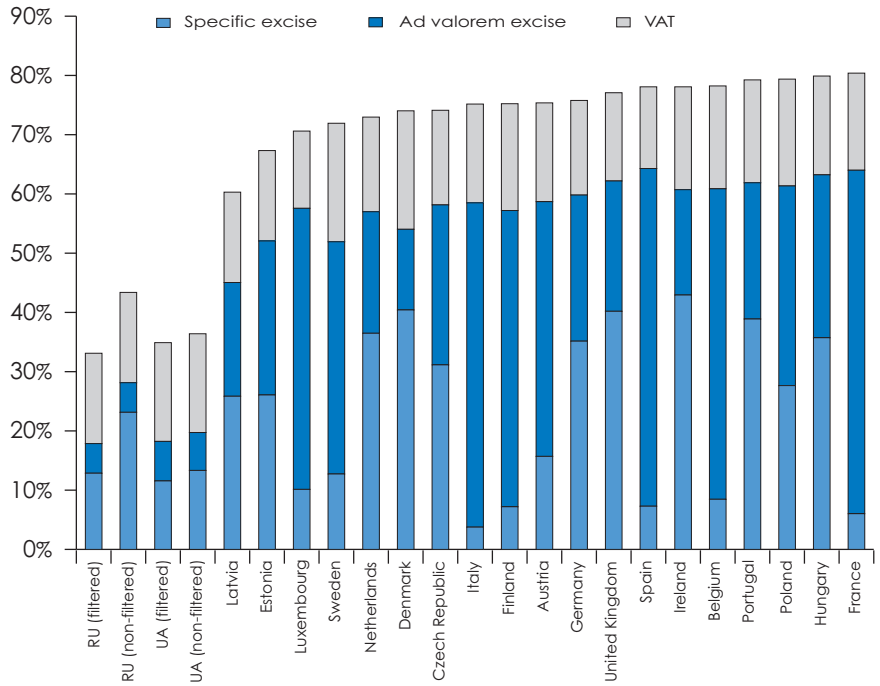
The tobacco tax in Russia is far below the level recommended by the World Bank, which proposes that these taxes constitute between two-thirds and four-fifths of the retail price.[70] One study suggests that the excise tax on cigarettes should have been at least RUB 16 (US$ 0.57 USD) per pack in 2005, almost five times the current level, just to cover the costs associated with smoking-related premature mortality.[63]

As demonstrated in Graph 3.5, tax rates on tobacco products in Russia in 2007 were significantly lower than those in most other European countries.

In 2007, the government adopted a law implementing prospective tobacco excise tax increases.

If the current level of inflation persists — and economists predict that will be the case — the proposed tax increases will be only about 10 percent a year in real terms.

Graph 3.5: Tax as Percent of Retail Selling Price in Selected European Countries as of 2007



Sources: Data on Russia is based on the following:
Rosstat. 2006 [cited July 31, 2007]. available from: http://www.gks.ru/wps/portal/english.
Data on Ukraine is based on the following:
Krasovsky, K. A Tax Increase Nobody Noticed. Bulletin Contact No 26 published under the title "Tobacco gain." 2007. January [cited August 12, 2007]. available from: http://www.glavred.info/archive/2007/01/11/141427-2.html.
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Data on all countries is based on the following:
European Commission. Consultation Paper on the Structure and Rates of Excise Duty Applied on Cigarettes and Other Manufactured Tobacco. 2007 [cited August 12, 2007]. available from: http://ec.europa.eu/taxation_customs/resources/documents/common/consultations/tax/consultation_paper_tobacco_en.pdf.

The law raises the specific excise tax on filtered cigarettes by an additional 20 percent a year from 2008 to 2010 (Annex 2), and on non-filtered cigarettes by 20 percent in 2008, and by 28 percent in 2009 and 2010 (Annex 2).[71] The law also calls for an annual 0.5 percentage point increase in the *ad valorem* component of the excise tax.[71] If the current level of inflation persists — and economists predict that will be the case — the proposed tax increases will be only about 10 percent a year in real terms. Given the low share of taxes in retail price, the impact of the tax hike on cigarette prices is expected to be negligible.[68, 72]

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IV. Supply of Tobacco Products and Industry Regulations

Production, Import, and Export

Russia is the world's third-largest market for tobacco products, after China and the United States[73], and has represented an attractive investment opportunity for TTCs.[74] The economic turmoil accompanying the collapse of the Soviet Union in the early 1990s resulted in a shortage of many products, including cigarettes, which accelerated the opening of the Russian market to foreign investors. The TTCs were among the first to invest in the former Soviet republics.[75]

The Russian tobacco state monopoly was dissolved in 1992.[45] At that time, local cigarette production was low, but the international tobacco companies were quick to supply the Russian market with imported cigarettes; soon imports accounted for 45 percent of total cigarette sales in Russia. The high level of imports was only temporary, as joint ventures between the local companies and foreign investors soon filled the gap in the cigarette market. Production tripled from 141.1 billion pieces in 1995[66] to 414 billion pieces in 2006 (Table 4.1)[50]. By 2005, imports represented only 1.5 percent of the cigarettes consumed.[2,49]

Estimates of the current level of legal cigarette sales (production – export + import) in Russia vary. Euromonitor reports an increase in legal sales from 360.8 billion sticks in 2002 to 399.7 billion sticks in 2005.[31] According to the Association of Cigarette Manufacturers in Russia, Tabakprom, the market stood at about 375 to 385 billion pieces in 2006,[50] a figure close to the Euromonitor data. On the other hand, Datamonitor estimated a 7.7 percent decrease in the legal sale of cigarettes from 393.7 billion sticks in 2002 to 363.4 billion sticks in 2005.[76] According to this source, the market is expected to fall to 312 billion sticks by the end of 2010.[76] The Euromonitor report also predicts a market decline, but only to 366 billion sticks by 2010.[31] The predicted decline is most likely driven by the shrinking population but could be offset by rising smoking prevalence.[31]

Russia is the world's third-largest market for tobacco products, after China and the United States, and has represented an attractive investment opportunity for transnational tobacco companies.

The late 1990s boom in cigarette production capacity driven by foreign direct investment led to a cigarette oversupply by the early 2000s.[67] The overproduction crisis was particularly detrimental to the local tobacco companies who could not compete with the rich multinationals. Many domestic cigarette producers and distributors were forced to declare bankruptcy,[67] which contributed to the consolidation of the Russian cigarette market.

The overproduction was partly absorbed by exports. Although exports remain a small fraction of total production, the Russian trade deficit in manufactured cigarettes in the 1990s (a net import of 74.8 billion pieces in 1998; see Annex 3) was turned into a trade surplus in the 2000s (Graph 4.1). According to Tabakprom, the volume of cigarette exports grew from 924 million pieces in 2000 to 12.4 billion pieces in 2006,[77] approximately 3 percent of the total production. Russian cigarette exports were expected to reach 20 billion pieces in 2007.[49]

The primary target of exported cigarettes is other Commonwealth of Independent States (CIS), which have free trade arrangements with the Russian Federation.[78] Russian cigarettes in CIS are replacing imports previously originating in the EU and the US.

Table 4.1: Cigarette Production, 1990–2006

Year	Production (million pieces)
1990	150,500
1991	144,400
1992	148,000
1993	146,475
1994	135,733
1995	141,091
1996	149,860
1997	173,000
1998	210,700
1999	290,000
2000	341,400
2001	374,300
2002	394,600
2003	382,880
2004	381,200
2005	404,900
2006	414,000

Sources:
World Cigarettes 1. The 2007 Survey. Volume 3 - Central & Eastern Europe. Suffolk, England: ERC Group Ltd; 2007.
Parker J. CIS economic opportunities spur cigarette trade. In: Tobacco International. 2007.
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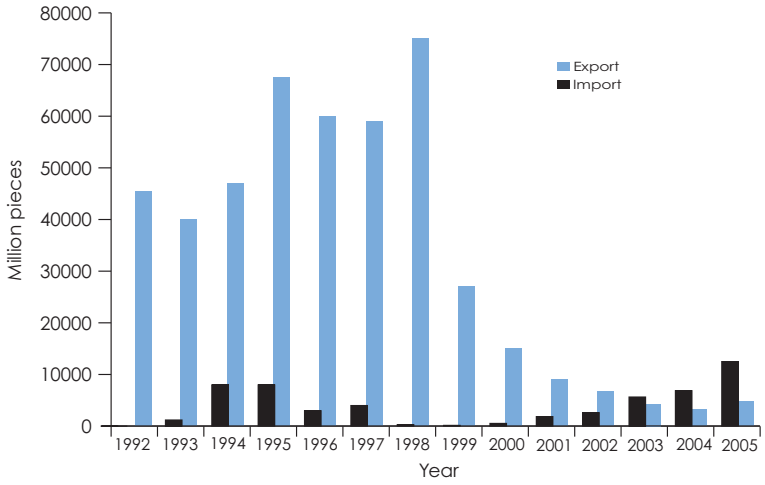
Graph 4.1: Cigarette Exports and Imports, 1992–2005



Sources:
World Cigarettes 1. The 2007 Survey. Volume 3 - Central & Eastern Europe. Suffolk, England: ERC Group Ltd; 2007.
Parker J. CIS economic opportunities spur cigarette trade. In: Tobacco International. 2007.

The decrease in domestic leaf production has been replaced by imported raw tobacco, which has been increasing steadily since 1990. Imports are encouraged by an import duty of 5 percent, one of the lowest in the world.

In addition to importing a relatively small percentage of cigarettes sold in the market, Russia imports all other tobacco products such as chewing tobacco, snus, snuff, cigars, and pipe tobacco. The import of these previously rare tobacco products has experienced an upward trend, particularly since early 2000. For example, the import of snus increased from 72 kg in 2000 to 22,395 kg in 2005[77] as companies started to promote the use of snus in Russia.[79] The trend toward importing other tobacco products is likely to change when the TTCs begin to produce these goods locally.

In contrast with cigarette production, tobacco leaf production remains relatively small, reaching 2,500 metric tons in 2006, which is less than 1 percent of the raw tobacco demand in Russia.[78] The production of raw tobacco declined steadily from the mid-1980s until the mid-1990s. This decline was caused by a number of factors including droughts, the demise of Soviet subsidies to agricultural production, and a 1980s health campaign by then-President Mikhail Gorbachev that discouraged production.[80] Gorbachev's campaign, although focused largely on reducing alcohol consumption, also sought to reduce cigarette consumption by reducing the supply of leaf tobacco and manufactured cigarettes.[45] The decrease in domestic leaf production has been replaced by imported raw tobacco, which has been increasing steadily since 1990.[45] Imports are encouraged by an import duty of 5 percent, one of the lowest in the world.[78] As a result, Russia is running a trade deficit in tobacco leaf, with imports of 295,000 metric tons and exports of only 4,300 metric tons in 2006.[78]* Raw tobacco is imported mostly from Brazil, China, India, and the US.

As in most former Soviet republics, the Russian cigarette market is characterized by a certain degree of smuggling and illegal production. However, one report suggests that the quantity of illegal cigarette export has declined from 55 billion pieces in 2000 to 20 billion pieces in 2005 (which represents about 5 percent of legal sales).[4] Our own estimates based on the comparison of macro- and micro-level data do not support this finding. Table 4.2 contrasts the estimates of cigarette demand as reported in surveys with the estimate of cigarette sales based on production and trade statistics. In estimating the total demand of cigarettes in Russia, we assumed that a male smoker consumes on average 16 cigarettes per day and that female cigarette consumption increased from 8 to 11 per day in 2000, the middle of the period under consideration. The last column shows the difference between consumption as reported by the population and the estimates of cigarettes that officially entered the market. The results for mid-1990 show a gap between cigarettes sold legally and estimated cigarette consumption, which would have been filled by imported illegal cigarettes. The situation reversed by early 2000s, when cigarettes entering the market officially exceed the level of consumption estimated by surveys, with illegal exports abroad most likely accounting for the difference.

Despite the limitation of this research method (e.g. people generally underestimate their cigarette consumption, and some cigarettes are destroyed before they can be consumed), our results support the findings of a market research company that estimated 6 percent of the domestic sales consisted of smuggled

* The amount of export exceeds the level of raw tobacco production, likely a result of raw tobacco re-export.

Table 4.2:. Estimates of Cigarette Consumption in Russia

	Male Smokers (millions)	Male — Cigarettes Consumed Per Smoker Per Year	Female Smokers (millions)	Female — Cigarettes Consumed Per Smoker Per Year	Total Consumption (millions)[a]	Consumption Based on Production and Trade Data (millions)[b]	Difference (millions)	Smuggling as % of Legal Sales
1992	30.2	5840	4.3	2920	188,924	193,352	4,428	2.3
1993	32.1	5840	4.8	2920	201,480	185,275	–16,205	–8.7
1994	31.4	5840	5.7	2920	200,020	174,733	–25,287	–14.5
1995	32.8	5840	5.8	2920	208,488	200,591	–7,897	–3.9
1996	33.3	5840	6.3	2920	212,868	205,083	–7,785	–3.8
1998	33.2	5840	6.8	2920	213,744	270,000	56,256	20.8
2000	33.8	5840	7.5	4015	227,505	280,000	52,496	18.7
2001	34.4	5840	9.1	4015	237,433	283,000	45,568	16.1
2002	34.9	5840	9.1	4015	240,353	290,000	49,648	17.1
2003	34.7	5840	9.8	4015	241,995	303,700	61,705	20.3
2004	34.0	5840	9.9	4015	238,309	308,600	70,292	22.8

Notes:
Data for 1997, 1999, 2005 and later cannot be presented, because the smoking prevalence data are not available for those years from the RLMS.
[a] *Formula used for calculation: number of male smokers x number of cigarettes consumed per male smoker per year + number of female smokers x number of cigarettes consumed per female smoker per year.*
[b] *Obtained from World Cigarettes 1. The 2007 Survey. Volume 3 - Central & Eastern Europe. Suffolk, England: ERC Group Ltd; 2007.*

cigarettes in 1995,[81] as well as those of the Russian Federal Custom Service that suggested 55 billion pieces of cigarettes were illegally exported in 2000.[4]

Besides these large-scale smuggling activities, small-scale smuggling or bootlegging also occurs in Russia (see Box 4.1 for the distinction between smuggling and bootlegging). In 2006, more than 1 million seized cigarettes fell into this category.[82] The authorities also detected incidences of cigarette counterfeiting in the Russian territory.[31]

Structure of the Tobacco Market

After the collapse of the Soviet Union, the TTCs either quickly purchased the most promising factories (such as Yava, Dukat, or Uritsky) or built new modern factories that quickly filled the unsaturated cigarette market.

The total foreign direct investment in the tobacco sector between 1992 and 2000 reached more than US$ 1.7 billion, about 8 percent of all foreign direct investment during that period, and the ownership of 11 of the largest cigarette factories in Russia was transferred to foreign investors.

Philip Morris, BAT, Japan Tobacco International (JTI), and Gallaher (acquired by JTI in 2007) were the first to enter the Russian market between 1992 and 1994.[31,45,67] Imperial Tobacco entered the Russian market in 1998.[30]

The total foreign direct investment in the tobacco sector between 1992 and 2000 reached more than US$

Box 4.1: Illicit Trade in Cigarettes: Bootlegging, Smuggling, and Counterfeiting

Bootlegging is the smaller-scale, illegal cross-border trade of tobacco products that are not intended for personal use and are taxed in the country of origin. Smuggling involves the large-scale, organized illegal sale of tobacco on which no duty has been paid. Counterfeiting involves the buying, selling, and distributing of fake cigarettes that are produced by legitimate tobacco companies.[83] Bootlegging is motivated by price differentials whereas smuggling benefits from completely avoiding taxes (in most cases).[84] Smuggling appears to be associated with the presence of organized crime and the complicity of the industry.[85] The industry profits from illicit trade in a number of ways: It stimulates consumption if the smuggled cigarettes are sold for prices lower than those for the legal cigarettes (the industry gains its profit regardless of whether cigarettes enter the legal market or the illegal one) and enables the industry to penetrate markets that would otherwise block its products. In addition, the industry uses the presence of smuggled cigarettes to argue for a reduction in tobacco taxation, despite growing evidence of its own direct involvement in smuggling.[86, 87] The legal actions against the TTCs resulted in agreements, signed in 2004 and 2007, between the European Commission and both Philip Morris and RJ Reynolds (the latter now also encompassing Gallaher) to establish a system for preventing smuggling and counterfeiting, including large settlement payments by the TTCs to the European Commission.

Further information on the tobacco industry's role in smuggling is available from the Center for Public Integrity website (http://www.publici.org/story_01_030301.htm#newsstories). The content of the agreement between the European Commission and Philip Morris is available from: http://ec.europa.eu/anti_fraud/budget/agreement.pdf.

Adapted from Gilmore A, Osterberg E, Heloma A, Zatonski W, Delcheva E, McKee M, et al. Free Trade Versus the Protection of Health: The Examples of Alcohol and Tobacco. In: Maclehose, L, Mckee, M, Nolte, E, eds. Health Policy and European Union Enlargement, Open University Press; 2004.

1.7 billion, about 8 percent of all foreign direct investment during that period,[88] and the ownership of 11 of the largest cigarette factories in Russia was transferred to foreign investors.[67] There is some evidence that countries of the former Soviet Union receiving such major tobacco investments increased their consumption much more than those that did not receive similar investments.[45]

The Russian cigarette manufacturing consolidated at high speed: from 120 factories in 2000 to 70 factories in 2001.[67] Consolidation of distribution channels also occurred. Many large manufacturers now organize their own distribution by working directly with retailers or via a limited number of distributors.[31]

By 2006, the Russian cigarette market was controlled by the seven largest tobacco companies, five of which were TTCs. Philip Morris controlled 26.6 percent of the Russian cigarette market while BAT and JTI each had about 18 percent[76] (Table 4.3). The JTI market share increased to 35 percent after it acquired Gallaher in 2007[50] — Gallaher's assets in Russia were a key incentive driving this acquisition — giving JTI the leading position on the Russian cigarette market.

The Russian cigarette market structure, as far as the product type is concerned, has changed rapidly with the entrance of the TTCs. Data from the October 2000 to January 2001 RLMS estimated that at the end of 2000, filtered cigarettes, non-filtered cigarettes, papirosy, and RYO cigarettes represented 52.7, 38.7, 6.8, and 1.9 percent of the market, respectively. Looking at the cigarette market alone, the filtered and non-filtered cigarettes had 57.7 and 42.3 percent shares in 2000, respectively. By 2005, the shares had already reached 84.5 and 15.5 percent, respectively,[31] indicating a clear trend toward a preference for filtered cigarettes. Graph 4.2 also demonstrates that the production of papirosy is losing its momentum, reflecting the declining demand for this type of product.[50]

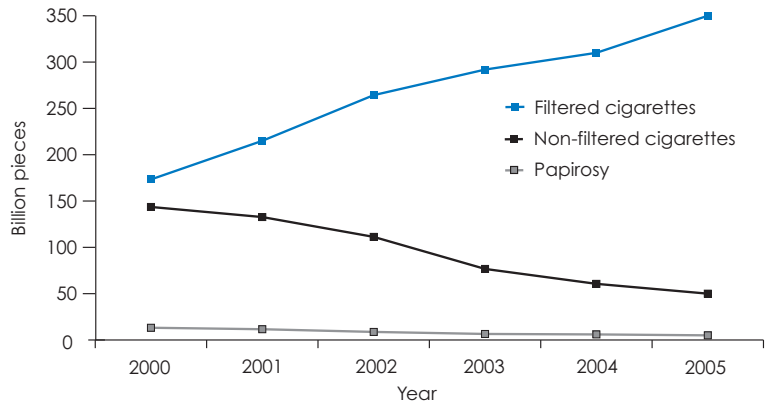
Entrance of foreign investors into the cigarette market was accompanied by massive advertising

Table 4.3: Manufacturer Market Shares 1997–2004, 2006

	% Volume								
	1997	1998	1999	2000	2001	2002	2003	2004	2006
Philip Morris	27.7	28.5	18.4	18.5	19.1	23.8	25.0	26.4	26.6
JTI	16.0	18.0	19.2	16.5	14.8	15.3	15.0	15.9	18.0
BAT	10.9	11.9	13.1	13.2	13.6	13.8	15.3	16.8	18.5
Liggett Ducat (Gallaher)	7.0	7.3	10.0	9.6	14.3	14.1	15.0	16.3	–
Balkanskaya Zvezda (Altadis)	5.2	4.8	5.9	6.8	7.0	7.8	7.4	6.8	–
Donskoy Tabak	7.3	7.6	9.2	9.1	10.7	7.7	6.6	4.7	–
Reemtsma / Imperial Tobacco	–	–	–	–	3.3	4.8	5.0	5.3	–
Nevo Tabak	–	–	–	–	2.6	3.2	–	–	–
Bulgartabak	–	–	2.5	2.3	1.5	0.8	–	–	–
Others	25.9	21.9	21.7	24.0	13.1	8.7	10.7	7.8	36.9
TOTAL	100	100	100	100	100	100	100	100	100

Sources:
Euromonitor International. Tobacco - Russia. 2007 [cited June 19, 2007]; available from: www.portal.euromonitor.com.
Datamonitor. Tobacco in Russia Industry Profile. 2007 [cited July 11, 2007]; available from: www.datamonitor.com.

Graph 4.2: Main Types of Goods Produced



Source: Rosstat. 2006 [cited July 31, 2007]; available from: http://www.gks.ru/wps/portal/english.

campaigns previously unknown in Russia.[74, 75] In 2000, tobacco advertising expenditures reached US$ 44 million,[66] and by 2004, the industry was spending about US$ 60 million on advertising annually.[31] The three major TTCs ranked as the first-, second-, and third-heaviest outdoor advertisers.[89]

The amendment to the advertising law in 2006 banning partially outdoor advertising encouraged the tobacco industry to find new ways to promote its products.* Philip Morris, for example, ran a successful advertising campaign for its Marlboro Classics clothing shop.

Tobacco Tax Collection Mechanism and Tax Revenue

The Ministry of Finance is in charge of enforcement of the tax law in the Russian Federation. Taxes are collected at the producer level, but the authority can also enforce the maximum cigarette price regulation at the retail level. Since January 1, 2007,[90] any retailer selling cigarettes for more than the maximum retail price is subject to a penalty between RUB 5,000 (US$ 195) and RUB 50,000 (US$ 1,948).

Government revenue from tobacco excise taxes has been increasing since the late 1990s (Table 4.4).[78] Between 2002 and 2006 alone, tax collection increased from RUB 11.7 billion (US$ 0.4 billion) to RUB 35.5 billion (US$ 1.3 billion),[4] a 203 percent increase in nominal terms and a 97 percent increase in real terms (adjusted for inflation). The increase in tax collection can be attributed primarily to the increase in excise tax rate, and somewhat to the increase in cigarette consumption (which increased by 8.8 percent during this period). Experts predict that the government should collect as much as RUB 48.8 billion (US$ 1.53 billion) in 2007,[4] which corresponds to information from the Ministry of Finance reporting

Table 4.4: Tobacco Excise Revenues in Russia

	1998	1999	2000	2001	2002	2003	2004	2005
Nominal Tobacco Excise Tax Revenue (billion RUB)	1.6	2.5	5.1	9.2	11.7	15.9	23.2	28.9
Nominal Tobacco Excise Tax Revenue (million US$)	203.8	100.6	181.7	315.4	372.9	518.5	805.5	1021.9
Total Excise Tax Revenue (billion RUB)	56.6	84.2	131.1	203.1	214.9	252.5	117.2	106.6
Total Excise Tax Revenue (billion US$)	7.2	3.4	4.7	7.0	6.8	8.2	4.1	3.8
Tobacco Excise Tax Revenue as % of Total Excise Revenue	2.8%	3.0%	3.9%	4.5%	5.4%	6.3%	19.8%	27.1%
Tobacco Excise Tax as % of GDP	0.06%	0.05%	0.07%	0.10%	0.11%	0.12%	0.14%	0.13%
Total Excise Tax as % of GDP	2.15%	1.75%	1.79%	2.27%	1.98%	1.91%	0.69%	0.49%
General Level of Inflation	27.7%	85.7%	20.8%	21.5%	15.8%	13.7%	10.9%	12.7%

Sources: Author's calculation based on:
World Cigarettes 1. The 2007 Survey. Volume 3 - Central & Eastern Europe. Suffolk, England: ERC Group Ltd; 2007.
Ministry of Finance of the Russian Federation. Federal Tax Service. [cited November 15, 2007]; available from: http://www.nalog.ru/index.php?topic=nal_statistik.
Inflation information obtained from World Development Indicators.[29]

* Details of tobacco control laws are discussed in the section "Regulations of the Tobacco Industry, Its Political Power, and Image" (page 34).

Despite the increase in tax collection in the 2000s, the amount of taxes collected on cigarettes in Russia is still low relative to the size of the market.

a 32.4 percent increase in tax revenue in the first half of 2007, compared to the first half of 2006.[91] A part of this increase can be attributed to taxes collected on other tobacco products that were previously not taxed.

Despite the increase in tax collection in the 2000s, the amount of taxes collected on cigarettes in Russia is still low relative to the size of the market. The 2004 cigarette excise tax revenue of RUB 23.2 billion (US$ 810 million) was similar to that in Bulgaria and far below the tax collection in Italy and in Germany, for example (Table 4.5). In 2004, Russia collected US$ 18 in tobacco taxes per smoker, while Italy collected approximately US$ 1,019 worth of tobacco taxes per smoker (Table 4.6).

Even though the relative contribution of tobacco to the total excise tax revenue in Russia has been increasing since late 1990s (in 2005, tobacco contributed about 27 percent to the total excise tax collection, which also includes excise taxes on automobile fuel and alcohol), the importance of tobacco excise tax is better assessed by its contribution to total government revenue. The World Bank estimated that all tobacco taxes contributed about 5 percent to the total government tax revenue in 1999,[92] and that tobacco excise taxes represented around 2 percent of total government revenues in 2000. The World Institute for Development Economics Research also reported the relatively minor role of tobacco excise taxes, assessing their contribution to the 2000 government revenue to be about 1.3 percent.[60] In that year, excise tax collection on all goods subject to this tax made up 8.7 percent of the total government revenue.[60] It is expected that the focus on tobacco taxes as a source of revenue in Russia is likely to diminish with the recent rise in government revenue from oil and gas exports.[78]

The low cigarette tax rates are the primary cause of the low tax revenue even though there are some signs of tax evasion by the tobacco companies. For

Table 4.5: Tax Collected in 2004

Country	Excise Tax Collected (in billion US$)	Excise Tax Collected Per Smoker (in US$)
Italy	10.74	1019
Germany	15.69	829
France	10.46	817
Slovenia	0.29	709
Poland	2.52	256
Bulgaria	0.75	255
Russia	0.81	18
Ukraine	0.28	17

Sources:
European Commission. Consultation Paper on the Structure and Rates of Excise Duty Applied on Cigarettes and Other Manufactured Tobacco. 2007 [cited August 12, 2007]; available from: http://ec.europa.eu/taxation_customs/resources/documents/common/consultations/tax/consultation_paper_tobacco_en.pdf.
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Table 4.6: Contributions of Different Cigarette Price Categories Toward Tobacco Excise Tax Revenue in 2006

Segments	Excise Tax Revenue Generated (in million RUB)	Excise Tax Revenue Generated (in million US$)	Excise Tax Revenue as % Total Excise Revenue	Average Price Per Pack (in RUB)	Average Price Per Pack (in US$)	Average Excise Tax Per Pack (in RUB)	Excise Tax as % of Average Price Per Pack
Above Premium	5,737.3	211.2	14.5%	35.7	1.3	3.7	10%
Premium	6,743.4	248.2	17.0%	20.8	0.8	2.9	14%
Medium	7,069.0	260.2	17.8%	15.6	0.6	2.7	17%
Value	7,368.7	271.2	18.6%	10.6	0.4	2.4	23%
Low-Filter	11,831.2	435.5	29.9%	7.2	0.3	2.3	32%
Non-Filter	865.9	31.9	2.2%	3.9	0.1	1.3	33%
Total/Weighted Average	39,615.5[a]	1,458.2	100.0%	14.1	0.5	2.6	18%

[a] *The 2006 excise tax revenue of RUB 39.6 billion (US$ 1.4 billion) is different from the previously mentioned RUB 35.5 billion (US$ 1.25 billion) because the numbers come from two different government sources.*

Source:
Rosstat. 2006 [cited July 31, 2007]; available from: http://www.gks.ru/wps/portal/english.

example, in 2006, high-, middle-, and low-priced cigarettes represented 31, 49, and 20 percent of sales,[4] respectively. Tax collection data from that year, however, would suggest that the majority of smokers consumed low-priced cigarettes, given that these cigarettes contributed most to the tobacco excise revenue in 2006 (Table 4.6).[36] A problem with the tax collection system also formed the basis of a 2007 lawsuit brought by the government against Japan Tobacco to recover ¥ 8.5 billion (US$ 72 million) of unpaid taxes. The arbitrator on the case ruled in favor of the tobacco company in October 2007.[94]

Contrary to its modest contribution to the government budget, tobacco use is responsible for a large share of government expenditures on health care (see Chapter III). To the extent that those expenditures are covered by taxes collected from the general population, non-smokers are subsidizing the higher health care costs of smokers.

Regulations of the Tobacco Industry, Its Political Power, and Image

The entrance of the TTCs in early 1990s with substantial foreign direct investment shaped tobacco control policy in most of the former Soviet Union. At that time, the former Soviet states were developing new legislative and taxation systems, and the TTCs used their political influence to develop these systems in their favor.[45] For example, a Soviet decree banning tobacco advertising was reversed in exchange for the

The "On Advertising" law adopted in 1995 was based on the industry's voluntary code of conduct, and licensing of production and wholesale trade was not introduced until 2001, when all of the TTCs were already firmly established in the Russian market.

import of 34 billion cigarettes in the early 1990s to help overcome cigarette shortages.[34] The "On Advertising" law adopted in 1995 was based on the industry's voluntary code of conduct,[66] and licensing of production and wholesale trade was not introduced until 2001, when all of the TTCs were already firmly established in the Russian market.[66]

The weak "On Advertising" law has been amended every year since 2004 and now prohibits tobacco advertising on the radio, television, in cinemas, in print media, in public transportation, and on billboards.[4,77] However, the tobacco industry can still find loopholes in this law (e.g. branded shops like the Marlboro Classics clothing stores are allowed) and characterize the marketing opportunities in Russia as favorable.[50]

The federal "On Restriction of Tobacco Smoking" law that became effective January 2002 was also shaped by the tobacco companies' lobbying efforts. This law required minimal health warnings,[4] banned the sale of cigarettes in packs of less than 20, eliminated the sale of cigarettes from vending machines, and prohibited sale of tobacco products to people younger than 18 years old. The law also limited smoking in some public places, but these restrictions have been widely ignored.[95]

The enforcement of tobacco control legislation in Russia is weak. The 2002 law outlines financial penalties for non-compliance with smoking bans in places where smoking is prohibited: Fines for smoking in public areas other than restaurants and institutional settings can be as much as one month of the offender's minimum wage; in restaurants, the penalty ranges from 25 to 50 times an individual's monthly minimum wage; for smoking within an institution, the fine ranges from 800 to 1,000 times an individual's minimum wage.[4] However, this law is rarely enforced, and there is no federal funding for implementing and enforcing such measures.[66]

The [2002] law also limited smoking in some public places, but these restrictions have been widely ignored.

Tobacco companies are lobbying policymakers and influencing public opinion via corporate social responsibility programs. Many TTCs have initiated public relations campaigns focusing on adolescent smoking — the so-called "youth smoking prevention" campaigns. Evidence shows that these campaigns are at best ineffective, or at worst may encourage youth smoking. In further efforts to defray criticism, the tobacco industry also made donations, established a new non-governmental organization purportedly to address the issue of youth smoking, organized conferences on youth smoking prevention,[66] and supported the arts and competitions, among other initiatives.[31,77]

Overall, the industry is very optimistic about the prospects of the Russian cigarette market. In October 2007, an industry magazine predicted, "The value of cigarette sales in Russia will continue to expand. The impressive performance in Russia continues with strong volume and profit increases."[50] The annual reports of BAT also comment frequently on the Russian success story.[1]

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V. Tobacco Tax Policy Options and Their Impact on Cigarette Consumption and Tax Revenue

As discussed above, the level of tobacco taxation in Russia is extremely low. Excise tax on medium-priced filtered cigarettes in 2006 was between 12 and 18 percent of the retail price. Total tax including VAT amounted to about 33 percent of the retail price. These levels are far below the World Bank recommendations that cigarette taxes constitute between two-thirds and four-fifths of the retail price to discourage their consumption. The EU tax law requires that cigarette taxes constitute at least 70 percent of the retail price (including VAT), and that the excise tax alone be at least 64 Euro (or RUB 2,242) per 1,000 cigarettes.[96]

In order to reach the tax level that would discourage tobacco use, the Russian government should consider a sizable increase of cigarette excise taxes. Presented below are four possible variants of a tax increase that preserve the current tax structure; each of which is characterized by a mixture of specific and *ad valorem* taxes (see Table 5.1 for a summary of tax increase alternatives). The first option, based on the prospective tobacco excise law adopted in 2007, is to raise the specific and *ad valorem* taxes by 20 and 10 percent, respectively. In this case the total tax (including the VAT) will comprise approximately 35 percent of the retail price. The other options are to increase the total tax (including the VAT) such that it comprises 50, 64, and 70 percent of the retail price, respectively, based on the range recommended by the World Bank and reflecting the proposed tax level discussed during the drafting of the federal law "On Restriction of Tobacco Smoking" in 2001. The original version of the law proposed an 80 percent excise tax on Russian-sold cigarettes.[77] Although the proposed base for such a tax (wholesale or retail price) is not clear, it would have been a step towards the EU standards.

To predict changes in consumption and revenues, we examine the results using two levels of price elasticity of cigarette demand: −0.1, when a 10 percent increase in cigarette prices would result in a 1 percent decrease in cigarette demand; and −0.2, when a 10 percent increase in cigarette prices would result in a 2 percent decrease in cigarette demand. These elasticities fall into the lower range of the price sensitivity estimates[20] and correspond to the price responsiveness observed in Russia.*

Our calculation is based on medium-priced filtered cigarettes, which hold the largest share of sales volume[4] and cost on average RUB 15.55 per pack in 2006.[36] Assuming that the retail price remained unchanged in 2007,† the total tax (including the VAT) on this type of product is RUB 5.15 per pack, or 33 percent of retail price. The impact of such tax increases is reported in Table 5.1.

The tax increase based on the prospective tobacco excise law could avert up to 80,000 deaths (about 0.4 percent of the expected tobacco-related mortality in this cohort) and generate about RUB 5.3 billion (US$ 209.3 million) in additional excise revenues. However, the number of smokers would be reduced only marginally.

If Russia chooses to reach the global public health standard where tobacco tax represents 70 percent of the retail price, up to 2.7 million tobacco-related deaths among the Russian population could be avoided. This would reduce tobacco-related mortality by up to 12 percent, with an even potentially greater

If Russia chooses to reach the global public health standard where tobacco tax represented 70 percent of the retail price, up to 2.7 million tobacco-related deaths among the Russian population could be avoided.

* We assume that price elasticity is the same for males and females, and across age groups.

† This assumption is based on the cigarette price trend between 2006 and 2007 (a slight decline in nominal prices) and the expected 10 percent inflation rate in 2007.

Table 5.1: The Impact of Increasing Tobacco Taxes on Tobacco-attributable Mortality and Government Revenue

	Current levels	Future values			
Average Retail Price per pack (RUB)	**15.55**	16.17	20.84	28.92	34.68
Tax as % Retail Price	**33%**	35%	50%	64%	70%
% Increase in Retail Price		4%	34%	86%	123%
Reduction in Number of Smokers (thousands)	**43,900**				
Price Elasticities[a]					
–0.10		79.6	741.2	1,883.1	2,698.7
–0.20		159.2	1,482.4	3,766.2	5,397.4
Tobacco-related Mortality Averted (thousands)	**21,950**				
–0.10	High (50%)[b]	39.8	370.6	941.5	1,349.3
	Low (25%)[b]	19.9	185.3	470.8	674.7
–0.20	High (50%)	79.6	741.2	1,883.1	2,698.7
	Low (25%)	39.8	370.6	941.5	1,349.3
Remaining Number of Smokers (thousands)	--				
–0.10		43,820.4	43,158.8	42,016.9	41,201.3
–0.20		43,740.8	42,417.6	40,133.8	38,502.6
Additional Excise Revenue (RUB million)	**48,800**				
–0.10		5,347.7	46,598.4	111,570.2	152,950.5
–0.20		5,150.5	43,264.4	96,521.1	124,668.6
Additional Excise Revenue (US$ million)	**1,909.5**				
–0.10		209.3	1,823.4	4,365.7	5,985.0
–0.20		201.5	1,692.9	3,776.9	4,878.3
% Increase in Excise Revenue					
		11.0%	95.5%	228.6%	313.4%
		10.6%	88.7%	197.8%	255.5%

Notes:

[a] *Assuming 50 percent impact on prevalence and 50 percent impact on consumption (Evans W, Farrelly M. The compensating behavior of smokers: taxes, tar, and nicotine. The RAND Journal of Economics, 1998;29:578–595.)*

[b] *Assuming 25 to 50 percent of smokers will die due to tobacco-related illness and that those who do not quit face the same mortality risks as before the tax increase. (World Bank. Curbing the Epidemic: Government and the Economics of Tobacco Control. Washington DC: World Bank, 1999:23.)*

Small discrepancies in calculation can occur due to rounding.

Formula for calculating % increase in revenue: [(number of times tax increased) X (1 – % of decline in consumption/100) –1]x 100.

impact in the long run. At the same time, the government would collect an additional RUB 153 billion (US$ 6 billion) in excise tax revenue per year. Investing only 2 percent of this additional revenue in public health in Russia (as is done, for example, in Thailand[97]) would provide up to RUB 3 billion (US$ 120 million) a year to promote health, including the implementation and enforcement of tobacco control measures under the Framework Convention on Tobacco Control (FCTC).

Our calculations demonstrate that bringing the cigarette tax level to 70 percent of the retail price provides not only the greatest public health benefits, but also generates the maximum tax revenue. Various studies have shown that large real tax increases are both practical and beneficial for the public health and state budget. For example, between 1994 and 1999, South Africa, a country with a sizable low-income population, raised its tobacco excise taxes by 149 percent in real terms and doubled its tobacco tax revenues from South African Rand (ZAR) 1,162 million to ZAR 2,332 million.[98] During that period, real cigarette prices increased by 81 percent and tobacco consumption declined by 21 percent.[99] Another example of a successful use of tobacco tax policy comes from the city of New York, where the excise tax on tobacco was raised from US$ 0.08 to US$ 1.50 in 2002.[100] Despite the availability of cheaper cigarettes from low-tax regions outside the city,[101] the adult smoking prevalence declined from 21.6 percent in 2002 to 17.5 percent in 2006,[102] an unprecedented 19 percent decrease in smoking rate in just four years. During the same period, the female smoking rate fell from 20 to 16 percent,[103] and the youth smoking rate fell from 17.6 in 2001 to 8.5 percent in 2007.[102] This example illustrates that sizable tax increases will achieve reduction in smoking prevalence even when cheaper illicit cigarettes are available.

Our calculations demonstrate that bringing the cigarette tax level to 70 percent of the retail price provides not only the greatest public health benefits, but also generates the maximum tax revenue.

Our estimates suggest that raising the cigarette tax level in Russia to that of many European countries as recommended by the World Bank would not only improve public health in Russia and reduce smoking-related mortality but also yield substantial tax revenue gains. To maximize the benefit of the proposed tax policy, part of this newly generated revenue could be invested in tobacco cessation services provided to smokers wanting to quit and in the implementation of comprehensive tobacco control measures. Such investments would bring additional health and economic benefits to the Russian people.

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VI. Other Implications of Tobacco Tax Policy

Smuggling and Product Substitution

The tobacco industry often raises the specter of an increase in smuggling activity in response to proposed tax increases. However, studies have demonstrated that factors other than high prices contribute to high levels of smuggling.[84]

Even though an increase in cigarette taxes could create incentives for the illegal importation of cigarettes to Russia, only a limited number of countries could be potential sources of these cigarettes because even after the proposed tax increase, the majority of European countries would still have higher cigarette prices than Russia.

Although higher tobacco taxes could in theory also motivate cigarette producers to avoid paying taxes, the income generated by the tax increase could be used to improve corporate audit and tax law enforcement. The tobacco industry should be required to use tax stamps, which simplifies the tax audit and usually leads to better compliance with tax law. Moreover, effective tracer and tracker systems now exist that could be used to control illegal production and distribution. Brazil has implemented such a system, and it is similar to that required under new legislation concerning surrogate alcohols in Russia.[104,105]

Substitution among cigarettes in different price categories may occur as the result of a higher excise tax. Such substitution would reduce the impact of higher taxes on smoking prevalence and consumption. However, if the excise tax increase is driven by the increase in the specific component of the excise tax, the price differences among the various brands will get smaller, reducing the incentive for brand substitution. In addition, a tax increase above the level of inflation will reduce the affordability of all cigarette brands, and individuals currently consuming low-priced cigarettes will have very few choices for substitution. Equalizing the excise tax for filtered and non-filtered cigarettes can further reduce brand substitution. In contrast, a heavy reliance on *ad valorem* excises may encourage price-cutting, including price wars on the part of the tobacco industry, as the government will bear part of any price decrease through lower *ad valorem* excise and VAT collections.

... if the excise tax increase is driven by the increase in the specific component of the excise tax, the price differences between the various brands will get smaller, reducing the incentive for brand substitution.

Employment and Poverty

The tobacco industry is not a significant employer in Russia. In 2005, tobacco manufacturing employment represented less than 0.2 percent of total industry employment in the Russian Federation.[106] Reduced consumption from the proposed higher cigarette taxes will not affect the level of this sector of employment, which has been declining in the 2000s owing to automation of the manufacturing process. Despite the growing cigarette output, the number of employees in the manufacturing sector declined from 21,420 in 2001 to 19,075 in 2005.[107]

Employment in tobacco farming in Russia is also negligible; raw tobacco production is limited. Estimates of the number of tobacco farmers in Russia do not exist, but the approximate level of employment in this sector can be derived based on the amount of raw tobacco production. This calculation suggests the presence of about 1,570 full-time jobs in Russian tobacco farming, or about 0.002 percent of the 2005 total labor force.[29] Hence, tobacco farming does not contribute significantly to employment in Russia, and

In 2005, tobacco manufacturing employment represented less than 0.2 percent of total industry employment in the Russian Federation.

any reduction in cigarette production will have an insignificant impact on unemployment. In addition, Russian tax policy does not intend to protect the small number of tobacco farmers from global competition, a fact made clear by the tax policy's lack of quotas on the importation of tobacco leaves and low duties on such imports (5 percent of the declared value).[78]

The increasing relative wealth among the Russian population suggests that only substantial increases in taxes on cigarettes can reduce their affordability and thereby encourage quitting and lower rates of smoking initiation. Between 1999 and 2002, Russia succeeded in reducing poverty from 41.5 to 19.6 percent,[108] the equivalent of 32 million people escaping poverty during the three-year period. Pensions are expected to rise by 37 percent in 2007,[109] and wages are increasing annually by 12 to 15 percent in real terms, the result of the current shortage of labor.[62]

Low-income adults and youth with low disposable incomes will be most affected by tax increases and ultimately benefit most by decreased initiation, increased cessation, and lower consumption.[110,111] Those who quit as a result of the proposed tax increase can save about RUB 4,257 (US$ 167) per year based on the average number of packs consumed per year before the tax increase and the average price of medium-priced filtered cigarettes in 2007. On the macro level, the reduction in the opportunity costs of smoking among those who quit or do not initiate will depend on the magnitude of the tax increase (Annex 4). A tax increase envisioned by the current tax law will result in lowering the opportunity costs by as much as RUB 678 million (US$ 26.5 million). A tax increase to 70 percent of retail price can reduce the opportunity costs by as much as RUB 23 billion (US$ 899 million), or 0.12 percent of the 2005 GDP. Given the higher price responsiveness of lower-income groups, these savings, along with the reduced economic burden associated with lower smoking-related health care costs, will be enjoyed mostly by the poor. Higher cigarette taxes therefore will confer an added benefit of reducing economic disparities.

Economic Growth, Trade, and Foreign Exchange

The Russian economy is expected to grow by at least 7.3 percent in 2007,[112] a level of growth that will be unsustainable in future years due to an increasing shortage of labor.[62] The European Bank for Reconstruction and Development estimates that the labor force peaked in 2007 at 90 million, and that by 2020 there will be 15 million fewer workers in the economy as a result of the declining Russian population.[62]

Tobacco control can be a part of the long-term solution to the shortage of labor. Several studies have shown that reducing smoking prevalence would substantially increase life expectancy in Russia. A non-smoking male in the most productive earning years (40 to 59 years old) in Russia can be expected to live 10.5 years longer than a male of the same age who smokes 15 cigarettes per day. Similarly, the life expectancy of a woman 30 to 69 years old smoking six cigarettes per day would increase by six years if she were a non-smoker.[113] Higher life expectancy would

Russia loses at least US$ 24.7 billion nationwide annually as a result of lost productivity resulting from premature smoking-related mortality.

augment the number of productive years per person and increase the labor supply.

A study by the World Bank calculated that reducing cardiovascular disease in Russia by 20 percent would add five years to male life expectancy,[10] which in 2007 was just above 59 years.[114] Since tobacco use is responsible for about 25 percent of the deaths caused by cardiovascular diseases, the study concluded that smoking is the "single most preventable cause of disease and death in Russia."[113]

In addition to reducing cigarette consumption — thereby saving lives and reducing medical care costs — and generating more government revenue, higher cigarette taxes would also benefit the economy by increasing overall productivity, as documented by numerous studies.[115, 116] Russia loses at least US$ 24.7 billion nationwide annually as a result of lost productivity resulting from premature smoking-related mortality. Higher cigarette taxes will mitigate this loss of productivity, with the extent of the saving dependent upon the magnitude of tax increase implemented. Whereas tax increases legislated under the current law will avert productivity losses of about RUB 2 billion (US$ 90 million), a tax increase to 70 percent of the retail price can potentially avert annual productivity losses amounting to at least RUB 77 billion (US$ 3 billion) (Annex 4).

A tax increase to 70 percent of the retail price can potentially avert annual productivity losses amounting to at least RUB 77 billion (US$ 3 billion).

Even though the tobacco trade represents only a small percentage of Russian foreign trade, a sizable tobacco tax increase would nevertheless improve the Russian trade balance and current account by reducing the demand for raw tobacco that is primarily imported to Russia. Because the majority of Russian-sold cigarettes are produced domestically, reducing consumption will not impact the cigarette trade balance unless lower domestic demand motivates cigarette export.

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Discussion and Recommendations

Extremely high male smoking rates and rapidly increasing female smoking rates will exacerbate Russia's demographic crisis and inflict economic harm unless appropriate tobacco control policies are promptly implemented. The importation of pro-smoking Western culture to Russia without concurrent Western-like tobacco control measures may prove injurious to the Russian economy and a health care system without the capacity to adequately address smoking-attributable diseases.

Evidence-based tobacco control policies can curb the Russian tobacco epidemic. This study focuses on the most effective of these policies: tobacco taxes. Only a substantial increase in cigarette excise taxes — to at least 70 percent of retail price level — and their automatic adjustment for inflation would produce a significant reduction in tobacco use. Gradual annual tax increases as envisioned by the current tax law will have only a minimal impact on smoking prevalence, particularly when augmented by increasing incomes and the general level of inflation.

Equalization of the excise tax rates on filtered and non-filtered cigarettes would further reduce cigarette consumption by limiting the motivation for substitution as a way to avoid a tax increase. Equalization also would make cigarettes less affordable for those with less disposable income (young people and low-income groups). From an economic perspective, the excise tax is intended to correct for externalities; that is, costs imposed on others without requisite compensation. In the case of tobacco use, this cost is primarily associated with secondhand smoking. There is no reason to believe that non-filtered cigarettes generate less secondhand smoke. There is also no evidence that non-filtered cigarettes are less damaging to health than filtered cigarettes. Thus, the adoption of a tax policy equalizing rates for those two types would address the externalities associated with smoking based on the premise that all cigarettes, independent of type, are harmful to the same degree. Tax rate equalization should also be applied to other tobacco products to prevent potential substitution of cigarettes.

Extremely high male smoking rates and rapidly increasing female smoking rates will exacerbate Russia's demographic crisis and inflict economic harm unless appropriate tobacco control policies are promptly implemented.

The effectiveness of excise tax as a public health measure would be enhanced by strengthening tax administration and enforcing obligatory tax stamps on cigarette packages. Despite being mandatory, tax stamps are present on only some cigarette packs sold in Russia. Enforcement authorities may consider making it an offense for a retailer or wholesaler to possess tobacco products that do not bear authentic stamps, requiring stamps that are difficult to duplicate, and imposing strong penalties or criminal sanctions for producing or possessing counterfeit stamps.[117] Licensing of retailers should also be considered because doing so would allow license revocation to become an additional enforcement tool for the authorities. The presence of tax stamps can also help combat smuggling by confirming the payment of excise tax and by ensuring that goods for which the tax has been paid in one jurisdiction do not get shipped to another.[117]

The government could consider giving local authorities an option to levy additional regional excise tax. The notion of decentralizing taxes is not new in Russia. For a brief period of time, Moscow and St. Petersburg charged local sales tax, which was

abolished on January 1, 2004. As recently as July 2007, the Federal Tax Service proposed transferring control of the production and retail sale of alcohol to regional authorities.[90]

Many Russian policymakers believe that the issue of tobacco taxes is extremely politically sensitive. They point to the time in the early 1990s when the shortage of cigarettes resulted in increased prices and consequently the threat of public riots. However, the economic situation in Russia in the early 1990s was very different from that of the present day. With the highly active TTCs present in Russia, the cigarette shortages of the 1990s have been replaced by cigarette over-production. Moreover, the Russian economy is now growing at a fast pace, and income levels are on the rise. The probability of civil protest against higher tobacco taxes, which would play out in the context of much faster-rising bread prices, is minimal. This probability can be reduced further if a tax increase is accompanied by a media campaign explaining the rationale for the increase and announcing a program funded by a portion of the tax revenue, (e.g. 2 percent of tax revenues earmarked for programs to help smokers quit). This campaign should stress the harmful effects of smoking with respect to cardiovascular diseases and the hazards of secondhand smoke, particularly for women and children, given that this knowledge is very limited among the population.[39]

Higher tobacco taxes would exacerbate inflationary pressures that Russia has been struggling to control since 1991. The 2007 inflation rate has already exceeded its 8 percent target rate and reached 12 percent mark by year-end.[118] To eliminate this potential hurdle for tobacco tax increases, and to help the government reach its goal of cutting inflation to 6 percent by 2010,[109] cigarettes should be taken out of the basket of goods used to calculate a consumer price index.*

Some market analysts speculate that when foreign capital controls more than 90 percent of the cigarette market, the Russian government will no longer be compelled to protect national cigarette producers and therefore will be more willing to raise tobacco taxes to achieve parity with EU countries.[31] This level of foreign capital control is certainly within reach, if it has not already been achieved.

Government attention to tobacco control would help to ease the burden placed on health care that, despite rapid economic growth, suffers from a lack of funding. Allotting a portion of tobacco taxes for public health activities and improving health care is a viable option that could be integrated into the Public Health Project that was declared a national priority by President Putin in 2005. The Project is of vital importance for Russia and is aligned with the president's economic development goals. The relatively progressive Ministry of Economic Development and Trade may be a potential ally in getting the earmark taxes on the government agenda.

Recommendations

- Increase cigarette-specific excise taxes far beyond the level proposed by the current tax law, to at least 70 percent of retail price level.
- Ensure for an automatic inflation adjustment for the specific component of the cigarette excise tax.
- Equalize the excise tax rates on filtered and non-filtered cigarettes.
- Equalize the excise tax rates on other tobacco products.
- Earmark a portion of tobacco taxes for public health activities and improving health care.
- Introduce additional regional excise taxes to account for regional income differences and to help finance regional health priorities.

* The consumer basket is the base for calculating the Consumer Price Index (CPI), which is a measure of the level of inflation. CPI measures how much the price of a basket of consumer goods has changed over a given time period.

- Take cigarettes out of the consumer basket of goods for calculating inflation.
- Strengthen tax administration and tax law enforcement.
- License tobacco retailers.
- Adopt other tobacco control measures called for by the FCTC.

Endnotes for Discussions and Recommendations

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Annexes

Annex 1: Average Consumer Prices of Cigarettes in the Russian Federation from 1995–2005

Year	Average Price in RUB (range of regional prices in parentheses)
1995	1488 (680–4500)
1996	1627 (832–5000)
1997	1920 (1400–3750)
1998	5.18 (3.17–10.40)
1999	6.18 (3.41–14.83)
2000	6.48 (3.59–14.38)
2001	6.78 (4.29–15.75)
2002	7.15 (2.82–13.53)
2003	7.57 (4.35–20.96)
2004	7.95 (NA)
2005	8.45 (NA)

Notes: The Russian currency ruble was devalued at the rate of 1:1000 in 1998. The regional prices were provided by Dr. Arzhenovskiy and are based on data from the Rosstat. The regional price variation was not available for 2004 and 2005.

Source:
Arzhenovskiy S. Price information for Russia from Rosstat 1995–2005. 2007. Personal communication with Dr. Ross.

Annex 2: Tax Rates on Cigarettes in Russia

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	VAT=20%						VAT=18%				Not yet known		
Filtered Cigarettes (per 1000 pieces)	12 RUB	14 RUB	29 RUB	35 RUB	39.2 RUB	50 RUB + 5% whole-sale price	60 RUB +5% whole-sale price w/o excise & VAT	65 RUB +8% whole-sale price w/o excise & VAT	78 RUB +8% whole-sale price	100 RUB +5% max retail price (not <115 RUB)	120 RUB +5.5% max retail price (not <142 RUB)	145 RUB +6% max retail price (not <172 RUB)	175 RUB +6.5% max retail price (not <210 RUB)
Non-filtered Cigarettes (per 1000 pieces)	6 RUB	7 RUB	7 RUB	10 RUB	11.2 RUB	19 RUB + 5% whole-sale price	23 RUB +5% whole-sale price w/o excise & VAT	28 RUB +8% whole-sale price w/o excise & VAT	35 RUB +8% whole-sale price	45 RUB +5% max retail price (not <60 RUB)	55 RUB +5.5% max retail price (not <72 RUB)	70 RUB +6% max retail price (not <90 RUB)	90 RUB +6.5% max retail price (not <115 RUB)

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Annex 3: Cigarette Trade, 1990–2005

Year	Export (in million pieces)	Import (in million pieces)	Net Trade
1992	10	45,362	–45,352
1993	1,200	40,000	–38,800
1994	8,000	47,000	–39,000
1995	8,000	67,500	–59,500
1996	3,000	60,000	–57,000
1997	4,000	59,000	–55,000
1998	300	75,110	–74,810
1999	160	27,070	–26,910
2000	540	15,000	–14,460
2001	1,860	8,970	–7,110
2002	2,620	6,740	–4,120
2003	5,650	4,310	1,340
2004	6,880	3,170	3,710
2005	12,505	4,777	7,728

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Annex 4: Impact of Increasing Tobacco Taxes on Productivity and Savings of Quitters

	Increase Tax Rate To:			
	35%	**50%**	**64%**	**70%**
Savings of Quitters (in million RUB)				
Price Elasticities				
–0.10	338.9	3,155.2	8,015.9	11,487.8
–0.20	677.9	6,310.4	16,031.8	22,975.7
Savings of Quitters (in million US$)				
Price Elasticities				
–0.10	13.3	123.5	313.7	449.5
–0.20	26.5	246.9	627.3	899.0
Productivity Savings (in million RUB)				
Price Elasticities				
–0.10	1,143.6	10,645.6	27,045.5	38,759.7
–0.20	2,287.1	21,291.3	54,091.0	77,519.3
Productivity Savings (in million US$)				
Price Elasticities				
–0.10	44.7	416.6	1,058.3	1,516.7
–0.20	89.5	833.1	2,116.6	3,033.3

Notes: Small discrepancies in calculation can occur due to rounding.
Formula for calculating savings of quitters: [number of quitters/non-initiators] x [average number of cigarette packs consumed per smoker] x [average price per pack in 2007]
Formula for calculating productivity savings: [number of quitters/non-initiators] x [annual earnings lost per smoker] (see page 26)

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