Tobacco is the leading single cause of death in Hungary. Epidemiologists only compare today’s Hungarian smoking epidemic to that caused by tuberculosis in the 1930s. 28,000 Hungarians die from smoking every year, more than from alcohol-related diseases, TB and other infectious diseases, road traffic accidents, suicides and homicides combined. (Figure 1.1) The Central Statistical Office (CSO) estimates that in 1999 20.4% of all deaths were caused by smoking, up from 16.3% in 1970. (Józan, 2002)

The fall of the communism and the transition to market economy has contributed to a change in smoking habits of Hungarians. The appearance of transnational tobacco companies (TTCs) and formerly unavailable international cigarette brands in the Hungarian market resulted in the increased competition and intensified promotion of tobacco products. TTCs were interested in creating a supportive legal and regulatory environment for themselves to boost their sales, increase their profits and provide early returns of their investments.

1.1 Smoking in Hungary

Data on smoking habits as well as on manufacturing and trade of tobacco products are regularly collected by the CSO* and with less regularity by some private public opinion poll agencies**.

1.1.1 Trends in adult smoking

In 2000, among adults above 18 years of age, 38.3% of men and 23% of women smoked every day. In 1999, the figures for adults aged 15 or older were 44.1% for men and 21.1% for women.

There are around 2.6 million smokers (1.6 million men and 1 million women, respectively – out of a population of 10 million) in Hungary. As CSO points out, half of them, around 1.3 million Hungarians will die as a result of their habit. 650,000 smokers would die between the ages of 35-69, while other 650,000 aged 70 or older. Those dying in their most productive period of life would live 20-25 years less than if they were non-smokers.

---

* The statistical law requires the CSO to collect data on manufacturing and trade of tobacco products, household expenditures on tobacco and on trends of smoking-related diseases.

** The latest two representative smoking prevalence surveys have been performed by the Fact Institute of Applied Sciences in 1999 and the Hungarian Gallup Institute (health behaviour survey) in 2000, respectively. (Another health behaviour survey has been performed in November 2003, with data to be made available this spring.) While both studies used WHO definitions on smoking (regular smoker = who smokes daily, occasional smoker = who smokes regularly, but not daily), their data are still incomparable because of the difference in the surveyed population (15+ and 18+, respectively).
Hungary ranks 20th (out of 44) among countries of the European region of WHO based on men’s smoking prevalence. (Figure 1.2)

Gender difference in smoking is declining: smoking prevalence decreases slightly (49% in 1986 and 43.3% in 1994) among men, especially among those with higher educational levels. On the contrary, smoking among women continues to increase (from 22.4% in 1986 to 26.6% in 1994).

1.1.2 Smoking among young people

The 1999 data collection of the European School Survey Project on Alcohol and Other Drugs (ESPAD) in Hungary provides data on smoking prevalence as well as on attitudes and beliefs related to smoking among secondary school pupils. (Survey population included teenagers born in 1983.) According to this survey 40.4% of students smoked the previous month, while 29.4% smoked every day. Grammar school (high school) students tend to smoke less, while smoking prevalence among pupils of specialized secondary (vocational) schools or industrial/trade schools is higher. Only 15.7% of high school pupils are daily smokers, while the prevalence of daily smoking among pupils attending industrial schools is more than twice that (37.9%) of the former. ESPAD 2003 indicates changes which correspond to the adult trends of smoking prevalence. While in 1999 37.9% of boys smoked daily, in 2003 “only” 36.2%. On the contrary, girls’ daily smoking became more prevalent (34.9% as compared to 29.9% in 1999).

The Global Youth Tobacco Survey (GYTS), a joint WHO-CDC initiative was first implemented in Hungary in 2002 and provides data on smoking among students aged 13 to 15. According to its findings, 24% of 15 years old boys and 27.3% of 15 years old girls smoked at least once a week.

A survey of secondary school students in Budapest, implemented in cooperation with CDC and the National Public Health and Medical Officer Service (NPHMOS, or Állami Népegészségügyi és Tisztforvosi Szolgálat, ÁNTSZ) Hungary in 1999 also indicates that 18-year-old (school leaving age) girls smoke more than the boys of the same age. The 1999 survey followed up findings of a similar 1995 data collection. A more than 20% increase in smoking prevalence among both girls and boys was found.

The above data indicate that smoking prevalence among Hungarian youngsters is disturbingly high and is still worsening. Repeatedly higher smoking prevalence found among girls suggests that the increasing trend of female smoking has not came to an end yet.

1.1.3 Consumption of tobacco products

Hungarians consume almost exclusively manufactured cigarettes. Less than 2% of smokers use other tobacco products (cigar, pipe or hand-rolled cigarettes), the use of the latter is, however, increasing. Use of oral tobacco products is negligible.
1.1.3.1 Per capita cigarette consumption

Hungarians are among the heaviest smokers in the world. According to the 2002 Health Development Report of UNDP Hungary ranks 8th in the world based on per capita cigarette consumption (adults 15+). (Figure 1.3)

Figure 1.3

Number of cigarettes smoked per adult 15+ by top 20 countries
Source: UNDP Human Development Report 2002

Figure 1.4

Trends of per capita cigarette consumption (15+) in Hungary 1970-2002
Source: ILO and UNDP (2002)

Per capita cigarette consumption levelled in the 1980s and 1990s, with a record high of 3320 units in 1980-82. It is encouraging, however, that per capita consumption started to decrease in the second half of 1990s, mainly due to financial and administrative measures taken by successive governments which decreased the demand for tobacco. (Figure 1.4)

1.1.3.2 Total cigarette consumption

The trend and its reasons are similar to that of per capita consumption. (Figure 1.5) In 2002, András Patai, secretary of the Hungarian Association of Cigarette Manufacturers (HACM) in an interview given to "Kreatív" admitted that "the reasons for this phenomenon [that of decrease of overall consumption] can be explained by social, cultural and economic factors, but principally by above-the-inflation rises in cigarette taxes, and no intensive campaign was able to reverse this process". (Figure 1.5)

Figure 1.5

Total cigarette consumption in Hungary 1951-1999
Source: Compilation of Dr. Tibor Szilágyi based on data from Borsos J and CSO
1.1.3.3 Cigarette production in Hungary

Cigarette production follows the demand of the shrinking market and has been decreasing steadily since 1998 from around 26 billion units to almost 20 billion in 2002, and further decrease is expected for 2003 (Figure 1.6) (See later in Chapter 4.1.1)

1.2 Health impact of smoking

“That so many diseases – major and minor – should be related to smoking is one of the most astonishing findings of medical research... less astonishing perhaps than the fact that so many people ignored it.”

(Professor Sir Richard Doll: Tobacco: a medical history)

In the last three decades, which includes the modernization of the Hungarian society and its transition to the free market economy and parliamentary democracy, the epidemic of chronic, non-communicable diseases has developed; the CSO calls this a ‘chronic epidemiological crisis’.

The crisis is not, however, a unique Hungarian feature; it can be observed in many of the Central and Eastern European (CEE) and former Soviet Union (FSU) countries. Also, it does not have an equal impact on all population groups; it primarily, but not exclusively, affects the middle-aged (35-64) male population. The dramatic impact of this crisis in Hungary is the falling of the probability of surviving between the years 35 and 65-year-old male population; at present this is worse than it was in Hungary during the world economic crisis of 1930/1931. The crisis is primarily due to the epidemic of lifestyle related factors, tobacco having the outstanding role among them.

In 2002, CSO has published a special report on smoking and health in Hungary. The main findings of the report are summarized below.

In 1999 deaths from the main disease categories related to smoking (e.g. coronary heart disease, lung and other respiratory and digestive tract cancers, chronic respiratory diseases and stroke), reflecting 84% of the total tobacco-related mortality, were responsible for 24,000 deaths. (Figure 1.7) According to the 2002 report of the CSO, out of 100 Hungarians who die as a result of a smoking related disease 25 die of coronary heart disease, 24 of lung cancer, 16 of hypertension and consequent stroke, 10 of cancers of the upper digestive and respiratory tracks (lip, oral, esophageal and laryngeal cancers), 10 of chronic obstructive pulmonary diseases (chronic bronchitis, asthma and emphysema) and 15 of other smoking-related ill health statuses.
In the period 1970-1999 around 800,000 deaths occurred due to smoking in Hungary. Every fifth Hungarian dies because of smoking. In 1999, 28% of all deaths in men and 9% in women were due to smoking. The number of smoking-related deaths increased from 'only' 20,000 in 1970 to 28,000 in 1999. Between 1970 and 1999 smoking related mortality increased by 19%; during the same period, mortality from all other causes decreased by 9%.

Figure 1.8 indicates that mortality from cancers of the upper respiratory tract reflects changes in smoking prevalence of the recent few decades. In Hungary, lung cancer mortality increased tenfold between 1948 and 2001. The excess mortality is particularly disturbing in the aged 40-69. In 1998, Hungary ranked 1st in the world based on lung cancer mortality among men, and 1st among both men and women as mortality from oral cancers is concerned.

In women, the increase of lung cancer mortality is accelerating. In 2002, more women died from lung cancer (2,278 cases) than from breast cancer (2,234 cases). Further increase in lung cancer mortality in women can be expected taking into consideration the increasing smoking prevalence among women since late 1980s.

Estimates by Peto and Lopez signal an even darker future for the Hungarian tobacco-related mortality. According to calculations based on 2000 data 42% of all deaths in the middle aged men (35-69 years) are caused by smoking. The same figure is 22% for women. Those dying between the ages 35-69 lose in average 21 years of their lives. In 2000 the estimated risk of dying between the ages of 35-69 from smoking related diseases for a man aged 35 was in average 7% in the EU countries, and 21% in Hungary. In women, the risk is less than 2% in the EU, while in Hungary it reaches 5%. Hungarian figures even surpass the average of the EU acceding countries', as 16% of 35-year-old men and 3% of 35 year-old-women might expect to die between the ages 35-69. (Figure 1.9)

Hungarian lung cancer morbidity figures compare badly to even those of other countries of the former communist block. Also, lung cancer incidence exceeds the level expected by interpolating other countries' (such as Poland) disease probabilities to Hungary. Further research is needed, however, in order to explain the divergence of Hungarian smoking-related disease probabilities from those of countries with similarly high smoking levels.
1.3 Social costs of smoking in Hungary

Smokers die earlier and their quality of life is also lower than that of non-smokers. During their shorter lives they seek medical assistance more often and cost more the health care system than their non-smoking peers.

Smoking imposes costs to the individual, to the smoker’s family and to the society at a whole. Information on the social costs of smoking can be used by tobacco control advocates as powerful arguments while persuading decision makers to take adequate actions to control tobacco.

According to Crofton and Simpson “the tobacco industry has a profoundly destructive effect on a nation’s wealth as well as its health.” Thus, it is not surprising that tobacco control is increasingly recognised internationally as an economic and as a development issue. Participants of the "EC, WHO and World Bank high level roundtable on tobacco control and development policy", held in Brussels on 3-4 February 2003, stated tobacco control as a “force for development”, since economic research indicates that “most countries would make net economic gains if their demand for tobacco products fell”.

1.3.1 Costs to smokers

in 1999 an average smoker spent HUF 1,260 per week (HUF 65,520 per year) for purchasing tobacco products (around $US 5/per week, in 1999 1 $US = HUF 260). Today, around HUF 400 billion ($US 1.81 billion) is spent on tobacco products each year. Money spent on tobacco should have been used better by individuals, such as purchasing food for themselves or their families. (Figure 1.10)

Figure 1.10 (Source: CSO, 2002)

According to industry sources in 1999 alone the Hungarian tobacco industry's income from underage smoking reached HUF 400 million (cca € 1.5 million)*.

1.3.2 Costs to the society and promoting economic arguments

Tobacco use imposes immense burden on the society. Costs of treatment of tobacco-related diseases and loss of income due to the early deaths of smokers are only two important components of this burden.

Smoking is an important cause of fires, many of which also result in loss of human life. In 1998, 918 fire cases were found to be caused by tobacco use. The cost of damage caused reached HUF 2.8 billion (not including costs of interventions by fire services).

However, tobacco industry generates revenue for the budget by both paying taxes and employing workers as well as through others who are dependant on the manufacturing sector.

Thus, both tobacco control advocates and the industry might use economic arguments in an attempt to influence tobacco control policy development. The industry prefers to communicate its real or invented economic power in a manipulative way (overstating the economic impact of the tobacco sector on the overall economic achievement of the country). Trying to prevent governments from regulating tobacco they often portray tobacco control as being “detrimental” to country’s economy. Tobacco control advocates often emphasis social costs related to smoking in their communication towards policy makers and government officials.

In Hungary, both sides initiated economic impact studies to gather evidence in support of their case. These studies are taken into account as follows.

* “The income of the tobacco industry from sales to people under 18 has so far come up to some Ft 400 million (€ 1.55 million) a year. But the industry targets adults and would rather lose the income from sales to underage people.” (Péter Dávid, Philip Morris Hungary, cited in Central Europe Online, Agence France Presse, November 1, 1999)
### 1.3.3 Studies commissioned by the anti-tobacco sector

Up to now three social costs analyses have been performed in Hungary by researchers not affiliated to tobacco companies. Their main conclusion was similar: direct and indirect costs related to smoking far outweigh incomes of the state budget from the tobacco industry and its affiliated businesses. Some prevalence studies have also been performed requesting smokers to estimate how much they spend on tobacco.

As far as methods of calculating smoking-related social costs differ in these three economic studies, no comparison of their findings can be made. Thus, the follow-up of changes in costs imposed by smoking on the society is difficult.

The first analysis on social costs of smoking in Hungary was performed by the research team of Ágnes Rupp. According to Rupp’s estimate total burden of smoking to the Hungarian society (direct and indirect costs altogether) reached HUF 96.7 billion in 1995 (around $US 690 million). The value of the study is given by the fact that it gives an estimate for social costs related to passive smoking. According to authors’ calculation, 1.25% of the total of the smoking related costs can be attributed to passive smoking, which amounted for HUF 1.2 billion ($US 8.57 million) in 1995.

The GKI Economic Research Institute (GKI Gazdaságkutató Rt) provided three sets of social costs data so far. These are summarized in Table 1.1. Findings indicate that from 1995 on, direct and indirect costs related to smoking increase continuously, exceeding by about three times state revenues from tobacco sector. Direct smoking related costs, including – among others – hospital care, disability pensions and subsidies of pharmaceutical products amounted for around 10% of total expenditures of the National Health Insurance Fund in all three years for which calculation were being made.

#### Table 1.1 (Source: Barta J)

<table>
<thead>
<tr>
<th>Cost categories</th>
<th>Cost or lost income attributable to adverse health effects of smoking</th>
<th>As % of the expenditures of the National Health Insurance Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HUF billion</td>
</tr>
<tr>
<td>Direct costs</td>
<td>Loss of income due to illness</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Inpatient hospital care</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Disability pensions</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Sick-pay</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Outpatient care and family doctors’ activity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subsidies for pharmaceutical products</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total direct costs</td>
<td>37-38</td>
</tr>
<tr>
<td>Indirect costs</td>
<td>Loss of income due to early death</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Total (direct&amp;indirect) cost</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Total government revenue from the tobacco sector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total revenue</td>
<td>65.7</td>
</tr>
</tbody>
</table>

Figures indicate that the costs of smoking imposed to the exceed by 2-3 times the amount of government revenue from the tobacco sector.

The latest data indicate that while state incomes from the tobacco sector reached HUF 210 billion in 2003, direct and indirect costs exceeded that amount by around three times reaching HUF 600-700 billion. Out of these costs HUF 90 billion were imposed to the National Insurance Fund in form of medical costs related to diseases caused by smoking.
The number of years of life lost due to early deaths caused by smoking reaches around 116,000 years in men and 9,000 years in women. Out of these around 70,000 years and 4,000 years, respectively, falls to the economically active 35-60 (35-55 for women) age groups. (Figure 1.11)

In 1998 the net value of the state’s loss income due to early deaths caused by smoking amounted for 2.6% of GDP; by 2002, the loss reached 4% of GDP.

1.3.4 Studies aimed at supporting the tobacco industry’s case

Tobacco companies frequently use economic arguments to support their case. Keeping cigarette excises and, consequently, retail price of cigarettes low and ensuring that cigarettes are affordable for the public are priority objectives of tobacco companies in every market. In Hungary tobacco companies or the HACM spent significant resources for commissioning economic impact studies. These reports were publicized principally in the wake of pending further regulation of tobacco and further, they attempted to promote tobacco industry views during negotiations between Hungary and the EU along the accession process.

Reports commissioned by tobacco companies or their affiliates are summarized in Table 1.2

<table>
<thead>
<tr>
<th>Author</th>
<th>Commissioned by</th>
<th>Date</th>
<th>Title</th>
<th>Main suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deloitte&amp;Touche</td>
<td>unknown</td>
<td>1996 (prior to the opening of the parliamentary debate of the advertising bill)</td>
<td>Macroeconomic effects of the prohibition of tobacco advertising</td>
<td>The ban would have a significant negative impact on GDP</td>
</tr>
<tr>
<td>KPMG Hungary Ltd</td>
<td>HACM</td>
<td>December 1998 (the parliamentary debate of the anti-smoking law took place in early 1999)</td>
<td>Economic study to support a request for derogation for the introduction of the minimum EU tobacco tax level of 57%</td>
<td>– The Ministry of Finance should ask for a transition period for the application of the EU directives on tobacco taxation – Hungary should only apply the minimum cigarette excise level 12 years after the date of accession and introduce it gradually</td>
</tr>
<tr>
<td>Deloitte&amp;Touche</td>
<td>HACM, Hungarian Hotel Association, Board of the Hungarian Hospitality Industry</td>
<td>1998 (in order to subverting the pending anti-smoking law)</td>
<td>Analysis of the economic impact on the hospitality industry of the bill protecting the rights of non-smokers</td>
<td>Strict rules on smoking in public places (with special regard to banning smoking in restaurants and other catering units) would be detrimental to the Hungarian economy</td>
</tr>
<tr>
<td>Nomisma – Institute of Economic Research, Bologna, Italy</td>
<td>Philip Morris</td>
<td>February 2000 (negotiation talks between accession countries and the EU)</td>
<td>The consequences of rapid alignment to the EU’s minimum tax on cigarettes in five accession countries (Slovenia, Poland, Hungary, Estonia, the Czech Republic)</td>
<td>&quot;a gradual approach to excise tax alignment is preferable in order to minimize the disruptive effects on domestic markets&quot; &quot;slow alignment – through 2009 – would be the preferable option&quot; for all countries</td>
</tr>
</tbody>
</table>
Industry-commissioned studies have been widely publicized in the press or submitted for consideration to relevant officials of the Ministry of Finance (e.g. tax department). Members of the Parliament were also made aware of the findings of these studies; they later referred to them in speeches they gave in the Parliament.

In an attempt to achieve better awareness on their findings, tobacco companies organized study tours abroad for policy makers, where they could have learnt more about the economic power of the tobacco industry. These services, which could only be provided by wealthy companies, clearly enhanced lobbying capabilities of the tobacco industry*.

References

Anon. Gazdasági hatástanulmány a dohánytermékek fogyasztási adójának 57%-ra való emeléséről szóló EU irányelv derogációs javaslatához. (Economic impact study for the request of delay to align to the EU directive on setting minimum tobacco tax level at 57%) KPMG Hungária Kft. December 1998. (Manuscript)


Anon. The consequences of rapid alignment to the EU’s minimum tax on cigarettes in five accession countries. Nomisma. February 2000. (Manuscript)


Barta J. Social costs data of 2003 based on personal communication (material also provided to journalists at a press conference on 12 February 2004).


References to Polish lung cancer data. Prof Witosl Zatonski, personal communication (March 2004).


* In September 2002 an economist and tax expert who worked for the finance ministry (under the head of department who was a guest of BAT in London) and was aware of findings of industry-commissioned studies left his position to become ‘government relations manager’ at Philip Morris Hungary.
