There is a further aspect of the structure of tobacco taxes that needs to be looked at. There is always a tendency to concentrate on cigarettes because they are such a dominant part of the market and focus less on the taxation of other tobacco products. This has two effects:

1. It is bad for health, because it can mean that these products are under-taxed relative to the harm that they can do. This gives consumers the wrong signals and undermines the effectiveness of health-oriented tax policy;

2. It opens up the potential for loopholes which the tobacco industry will exploit to the maximum extent possible.

The guiding principle is that <u>all</u> tobacco products should be taxed on a harm equivalent basis. Simple though this seems, in fact it is an objective rarely attained in practice. In Canada for instance, the most glaring inconsistency is the gross under-taxation of fine-cut tobacco. This means that price-sensitive smokers can use fine-cut tobacco instead of quitting. It also means that the tobacco industry is constantly on the look-out for ways of exploiting this differential - for example by producing insta-kit self assembly manufactured cigarettes which retailed below the regular price before the government required them to be taxed at the higher rate applied to manufactured cigarettes.

Canada is not alone in levying low rates of tax on fine-cut tobacco. But if the tax were levied on a health damage basis, the tax on fine-cut tobacco should be higher since it is higher tar and used in a more dangerous way than manufactured cigarettes.

Other examples include:

- The differential in the UK between the tax on pipe tobacco and the tax on fine-cut tobacco - which has led to people using pipe tobacco in hand rolled cigarettes. The government has countered by reserving the right to apply the higher rate of tax, if there is evidence of use of pipe tobacco in this way ;

- The failure in the US to place proportional taxes on smokeless tobacco despite this being a gateway to regular tobacco use and a major cause of oral cancer.

The relationship between the tax and the harm of the product is clearly of paramount concern to the health advocate. But we also need to be sure that we have a system which does not allow the value of the tax to erode over time with inflation. This has led some jurisdictions to " index-link" the tax, so that the tax rises every year with the rate of inflation. There are various options for index-linking. The most obvious ones are:

- Specify that the tax should increase automatically every year (or every half-year or every quarter) by the increase in the consumer price index. This ensures that tobacco should bot become relatively cheaper compared to other goods - though it will not be enough to prevent tobacco becoming more affordable if real wages are rising;

- Specify that the tobacco tax should be linked to the retail price of tobacco. This ensures that the tax rises when the manufacturers put the price up. It was the system that applied in Canada at times during the 1980s. Because two tiers of government were levying taxes, it also meant that if one tier raised taxes the tax levied by the other tier automatically rose, creating an upward spiral.

- Specify the tax as a percentage of the selling price (as in Hawaii in the USA which, not entirely coincidentally, has the highest tobacco tax of any US state). Again, this means that the price will rise automatically with any manufacturers' price increase.

Even in Hawaii, all cigarettes bear the same tax. In many European countries the tax is levied on what is called an ad valorem basis rather than a specific duty on each cigarette. This has various effects:

- It means that there is quite a strong disincentive to price increases in the system. If the manufacturer increases prices, a large share goes to the government. In turn, this means that tobacco companies earn lower profits in these markets than in the markets where there are high specific duties;

- It magnifies the differences in the pre-tax selling price between brands of cigarettes. In practice, what often happens is that there are very cheap local brands available. This obviously reduces the ability of tax policy to keep price sensitive consumers out of the market. Often these cheap brands are also the brands with the highest tar contents.

In health terms, there is no reason for retailing the tax on cigarettes to the pre-tax selling price, but there are advantages in taxes which automatically keep pace with the rate of inflation.

However, there may be a wider economic case for having a system which ensures that the Government gets some advantage if the manufacturers raise their prices, and which can act as a tax on the " economic rents" that manufacturers earn on their most profitable brands. This points to having a system where the specific duty sets a floor but then there is an ad valorem element on top. At present there is no country which has institutes a system so described.

APPENDIX 1

Smoking and Health in the Americas: A 1992 Report of the Surgeon General

Smoking and Health in the Americas

A 1992 Report of the Surgeon General, in collaboration with the Pan American Health Organization

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Chronic Disease Prevention and Health Promotion
Office on Smoking and Health

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION

cigarettes are subject to indirect taxation of up to 120 percent of the wholesale price, contraband U.S. cigarettes have been smuggled into the country from the United States, Panama, Venezuela, and the Caribbean (Nares 1989; *Tobacco International* 1989). The president of Coltabaco (Cia. Colombiana de Tabaco S.A.), the Colombian tobacco company, estimates that smugglers now control 35 percent of the national cigarette market (Nares 1989). In Canada, citizens cross the U.S.-Canadian border to purchase Canadian cigarettes in U.S. duty-free shops. The increase in this activity may be linked to recent substantial increases in Canadian cigarette taxes (USDA 1990).

Effects of Excise Taxes on Smoking

One nearly universal economic concept is the law of downward-sloping demand—that is, the quantity of a commodity demanded declines as the price for that commodity increases. Numerous econometric studies have confirmed that this law holds for cigarettes, even though they are addictive, and the relation has also been demonstrated for various addictive drugs (Henningfield 1986). Because excise taxes increase the price of cigarettes, such increases should reduce the demand for cigarettes

An analysis of the price elasticity of demand for cigarettes estimates the effect on consumption of a change in excise tax rates. Price elasticity of demand measures the degree of responsiveness of demand to changes in price; it is the percent change in the quantity of a good demanded, divided by the percent change in price that caused the demand change. Thus an elasticity of -0.5 means that a 10 percent increase (decrease) in price would reduce (increase) by 5 percent the quantity of cigarettes demanded. To determine the effect of a tax change, the price elasticity of demand must be multiplied by the percent change in price that resulted from a tax change, since cigarette taxes account for only a part of the total retail price of cigarettes. The elasticity of demand with respect to a tax change is generally less than the price elasticity of demand.

Numerous attempts have been made to measure the price elasticity of demand for cigarettes (Table 11). The estimates are from econometric studies that attempt to explain differences in cigarette consumption as a function of price, income, and demographic variables. Different data sets, units of observation, and statistical techniques were used. Estimates were derived from (1) time series of per capita cigarette consumption for countries as a whole or for cross sections of states or countries and (2) survey data on the smoking behavior of cross sections of populations at a point in time and over time. Each of these procedures may result in problems of interpretation. In the time-series studies, the estimates of both price and income elasticity are sensitive to the construction of the different models. In addition, time-series estimates are frequently unstable because the independent variables tend to be highly correlated with each other. On the other hand, estimates based on cross sections of tax-paid sales may be biased upward because some cigarettes sold in low-tax areas are consumed by smokers in high-tax areas. As a result, the estimated price elasticity of sales exceeds the price elasticity of actual consumption.

Data for participants in two national U.S. surveys were used to evaluate the effects of price (tax) differences on individual smoking behavior (Lewit, Coate, Grossman 1981; Lewit and Coate 1982). For a sample of 19,288 persons aged 20 to 70 from the 1976 National Health Interview Survey, the overall price elasticity was estimated at -0.42 for cigarettes (Lewit and Coate 1982). A more detailed breakdown suggested that increased prices primarily reduced the number of smokers (measured as prevalence, or the participation rate) (Lewit and Coate 1982). The estimated effects on the number of cigarettes consumed per smoker were not statistically significant. Differences in the estimated price elasticity were also found among groups; reported elasticity was much higher for adult males than for adult females and much higher for persons aged 20 to 25 than for those in other age groups (Table 12).

In a methodologically similar study, smoking was analyzed for a national sample of 6,788 youths, aged 12 to 17, surveyed between March 1966 and March 1970 (Lewit, Coate, Grossman 1981). Because antismoking messages were broadcast during this period (under the Federal Communications Commission's Fairness Doctrine), these researchers were also able to investigate the effect of that policy on teenage smoking. They reported that elasticity of demand for cigarettes was greater in absolute value for teenagers than for adults (Table 12). In addition, smoking participation was more responsive to price than was quantity smoked. The estimated teenage smoking participation elasticity was -1.20, and the elasticity for quantity smoked, conditional on smoking, was -0.25.

These results suggest that increases in tobacco taxes can deter smoking. Since teenagers appear to be more responsive than adults to changes in the price of cigarettes, excise tax increases may be very effective in preventing the onset of smoking by teenagers. By preventing the onset of this addictive behavior,

Table 11. Recent estimates of the price elasticity of demand for cigarettes

Reference	Estimated aggregate price elasticity	Data, country, dates
Walsh (1980)*	-0.79, -0.38†	Ireland, 1953–1976
Lewit, Coate, Grossman (1981)	-1.44	HES III‡ 12- to 19-year olds United States, 1966–1970
Lewit and Coate (1982)	-0.42	NHIS§ Elasticities by age and sex 20- to 74-year olds United States, 1976
Peturinen (1984)*	-0.48‖ -0.96	Finland, 1960–1981 Tested, 1982–1983
Advisory Commission on Intergovernmental Relations (1985)	-0.45	Pooled time series of state cross sections United States, 1981–1983
Bishop and Yoo (1985)	-0.45	Time-series aggregate data United States, 1954–1980
Mullahy (1985)	-0.47	NHIS§ by sex United States, 1979
Radfar (1985)*	ST¶ -0.23 LT -0.39	United Kingdom, 1965–1980 (quarterly)
Collishaw, Myers, Rogers (1985)	ST -0.42 LT -0.91	Canada, 1950–1982
Porter (1986)	-0.27	Time-series aggregate data United States, 1947–1982
Worgotter and Kunze (1986)*	-0.54	Austria, 1955–1983
Becker, Grossman, Murphy (1990)	LT -0.75	Pooled time series of state cross sections United States, 1956–1985
Chaloupka (1990)	-0.26	NHANES II** Full sample; also by age, sex, race, and education United States, 1976–1980
Townsend (1990)	-0.40	Europe, 1987–1988
Jacobson and Rodway (1990)	LT -0.6 to -0.8	Canada, 1973–1988

*Studies mentioned in Townsend (1990).
†The first estimate is pre-1961, and the second post-1961.
‡U.S. Health Examination Survey, Cycle III.
§National Health Interview Survey.
‖The first estimate is for a price increase, and the second for a decrease.
¶ST = Short term; LT = Long term
**National Health and Nutrition Examination Survey

Table 12. Estimates of the price elasticity of demand for cigarettes in the United States,* by age group

Age group (years)	Elasticity Total	Participation	Quantity†
12–17	-1.40	-1.20	-0.25
20–25	-0.89	-0.74	-0.20
26–35	-0.47	-0.44	-0.04
36–74	-0.45	-0.15	-0.15
All adults (20–74)	-0.42	-0.26	-0.10
All ages (12–74)	-0.47	-0.31	-0.11

Source: Lewit and Coate (1982); Lewit, Coate, Grossman (1981); Lewit (1985).
*Calculated from source data.
†Elasticity for quantity smoked for persons who smoke.

prevalence of smoking and its associated detrimental health effects would decline gradually but substantially over several decades—rather than in the years immediately after a tax increase. In addition, since price elasticity affects prevalence of smoking far more than quantity smoked, attempts by smokers to compensate for fewer cigarettes (by inhaling more deeply and frequently, reducing idle burn and butt length, or even switching to higher tar and nicotine brands) appear to be relatively infrequent responses to price increases.

Formal estimates of the price elasticity of demand for cigarettes in Latin America and the Caribbean are not readily available, and few data have been gathered for other developing countries (Chapman and Richardson 1990). In many developing countries, the price elasticity of demand for all tobacco products may be difficult to measure and may be much lower than that for cigarettes. In response to a tax increase on cigarettes, smokers may substitute lower-priced tobacco products. In many Latin American and Caribbean countries, the price of cigarettes varies widely by brand, and smokers may respond to a tax (price) increase by switching to a lower-priced brand. This recently occurred in the Philippines, when cigarette taxes were increased more on high-priced than on low-priced brands, consumers switched to low-priced brands. Total cigarette tax collections declined even though the tax rate had been increased on all brands (Singh 1988a,b,c,d). Marginal consumers may respond to a tax increase by switching to "roll-your-own" or homemade cigarettes. In addition, as noted above, high taxes and tariffs encourage smuggling, which may provide cigarettes at less-than-fully taxed prices.

Modeling Addiction

Although the addictive nature of cigarette consumption has been recognized for some time (USDHHS 1988), most economic studies of the demand for cigarettes have not explicitly allowed for addiction. The consumption of addictive goods in general was not believed to conform to the rational, utility-maximizing model that is the paradigm of standard economic analysis. Recently however, Becker and Murphy (1988), among others, have developed models of rational addiction that distinguish between the consumption of addictive and nonaddictive goods and that allow for economic analysis. The Becker-Murphy models recognize that current consumption of addictive goods depends on the level of past and future consumption. The model accounts for tolerance, reinforcement, and withdrawal—factors that distinguish between use of addictive and nonaddictive substances (USDHHS 1988). With regard to the price elasticity of demand for cigarettes, the Becker-Murphy approach implies that lower past prices and lower future prices lead to greater current consumption and that the long-term response will exceed the short-term response to a permanent price change.

To test the rational addiction model, Becker and colleagues (1990) used a time series of cross-sectional samples of U.S. per capita state tax-paid cigarette sales, by state, for 1956 to 1985. The results demonstrated a linkage across time periods between price and cigarette demand. In particular, the authors found that a 10 percent permanent increase in the price of cigarettes would reduce current consumption by 5 percent initially and by 7.5 percent over the long term.

Using data for participants aged 18 to 74 in the second National Health and Nutrition Examination Survey, Chaloupka (1990) tested several implications of the rational addiction model. The resultant estimates of the price elasticity of demand were less than those reported by Becker and colleagues (1990) and by Lewit and Coate (1982); the latter analysis did not explicitly allow for the addictive component in cigarette demand.

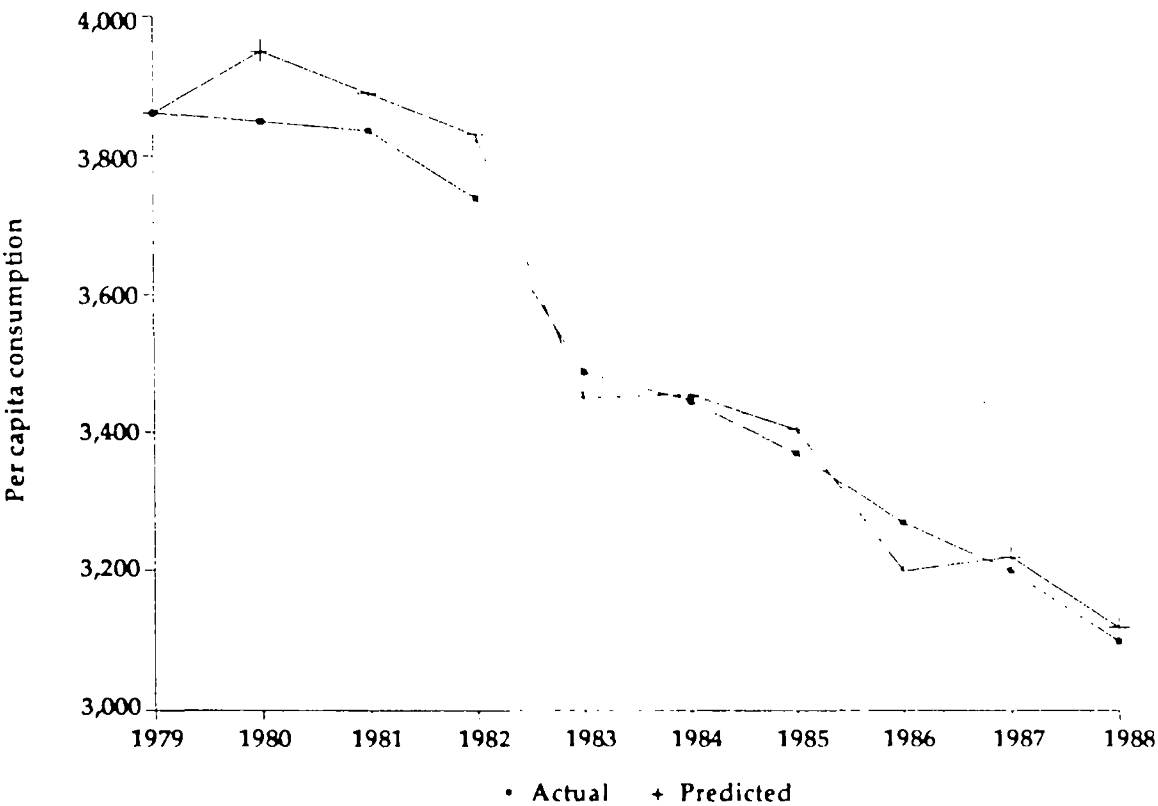
The application of the rational addiction model to cigarette consumption is a recent development; further investigation and refinement are required before the contribution of the model to the understanding of smoking behavior can be fully evaluated. The range of estimates of the long-term price elasticity of cigarette demand derived from the model are not inconsistent with previously published estimates; thus, analyses of the effect of doubling the U.S. cigarette tax in 1983 (discussed next) are not likely to be invalidated by further refinement of the model.

Analysis of Recent Tax Increases

After the federal excise tax on cigarettes was doubled in 1983, total U.S. cigarette consumption declined (Lewit 1988). Before 1982, retail cigarette prices had been increasing more slowly than the general rate of inflation, and as a result, the real price of cigarettes was declining. In anticipation of the January 1, 1983, tax increase, U.S. tobacco companies increased the wholesale price of cigarettes at regular intervals beginning in August 1982 (see also Chapter 2, "The Emergence of the Tobacco Companies"). From 1983 to 1991, the federal excise tax did not increase, but retail cigarette prices continued to increase more rapidly than the general rate of inflation—because of an aggressive pricing policy of the tobacco companies and increases in taxes in many states. Between 1981 and 1988, the price of cigarettes, adjusted for inflation, rose by 57 percent. Based on a price elasticity of -0.42, per capita consumption should have declined by about 23 percent over this period (Figure 5). Data from USDA indicate a decline of about 20 percent. U.S. per capita cigarette consumption had been declining slowly—about 1 percent per annum since the mid-1970s. The very rapid acceleration in the rate of decline—to about 3 percent annually after the excise tax and associated price increases—is consistent with Lewit and Coate's (1982) estimates and serves as further evidence that excise taxes may be a potent tool for reducing cigarette consumption.

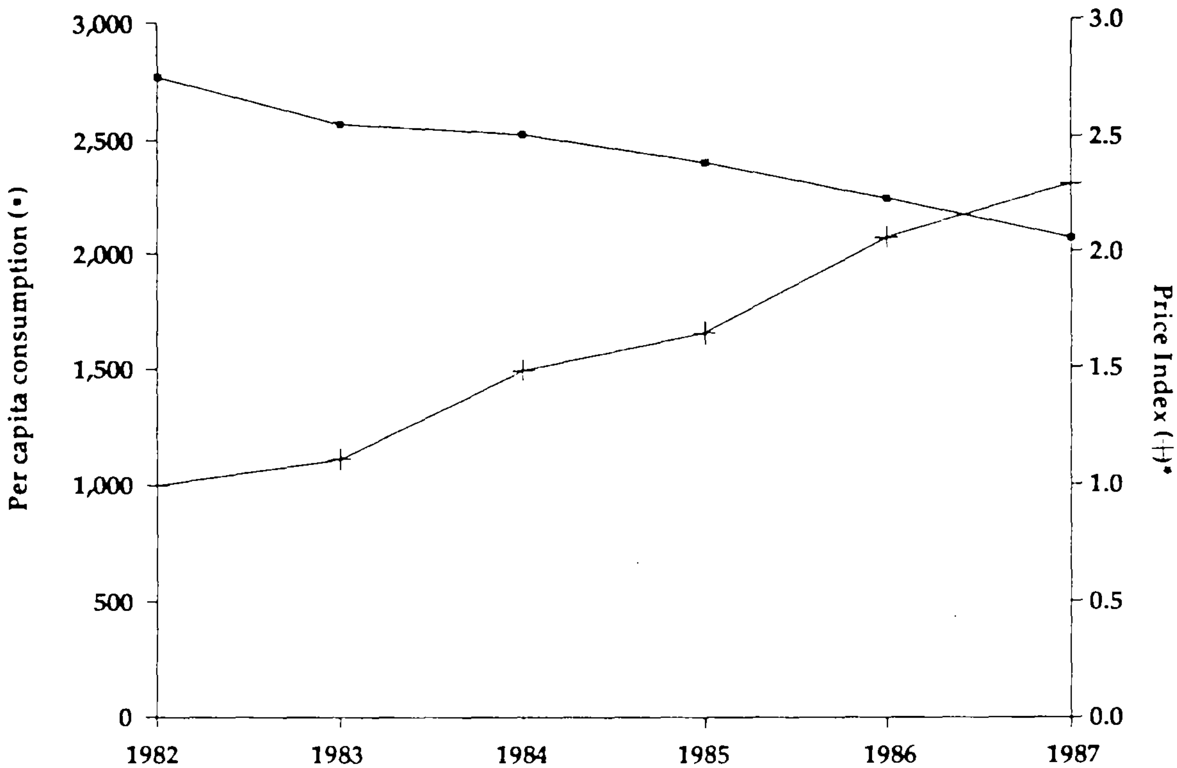
The Omnibus Budget Reconciliation Act of 1990 provides for two increases in U.S. federal excise taxes on cigarettes and other tobacco products (USDA 1990).

Figure 5. Predicted and actual per capita (≥18 years of age) consumption of cigarettes, United States, 1979–1988*



Source: Grise and Griffin (1988); U.S. Department of Agriculture (1991).
*Actual values from source; predicted values calculated by Lewit (unpublished data). Predicted values are based on a price elasticity of –0.42.

Figure 6. Per capita consumption and real price of cigarettes in Canada, 1982–1987



Source: ERC Statistics International Limited (1988)
*Relative cost per pack of cigarettes (1981 = 1.0).

The cigarette tax was increased four cents per pack beginning January 1, 1991, and will increase an additional four cents on January 1, 1993. The tax on snuff increased from 24 cents per pound to 30 cents per pound in 1991 and will increase to 36 cents in 1993. Chewing tobacco tax will increase by eight cents per pound (to ten cents) in 1991 and by 12 cents in 1993. Taxes on other tobacco products were also increased. Although it is still too early to judge the effect of these taxes on tobacco consumption, the impact may not be the same as that from the 1983 tax increase because of the substantial increase in retail tobacco prices since 1982 (also discussed in Chapter 2, "The Emergence of the Tobacco Companies"). The current tax increases will result in a smaller percent increase in retail prices than did the percent increase that accompanied the 1983 tax rise.

In Canada, in part due to a very aggressive antismoking campaign, both federal and provincial cigarette excise taxes have increased substantially since 1980 (Figure 6). The federal tax rose by 179 percent between 1980 and 1988, and provincial taxes rose by an average of 367 percent during the same period. Overall, the real price of a pack of cigarettes almost doubled between 1982 and 1987, and per capita consumption fell by more than 30 percent during the same period.

In Latin America, evidence of the impact of cigarette tax increases on consumption is found in Brazil, where after years of rapid growth, per capita cigarette consumption fell substantially in the early 1980s in response to a large cigarette tax increase and a general economic slowdown (USDA 1985). In developing countries, income may play an important role in determining smoking behavior. A decline in per capita cigarette consumption in Peru and Bolivia in the 1980s has been attributed to falling incomes in both countries (Chandler 1986).

Health Consequences of Tax Changes

In some countries, a policy of aggressively increasing cigarette taxes could lead to a large reduction in smoking-related illness and an improvement in the general level of health. The information on price and income elasticity given here can be used to make rough estimates of the health effects of changes in tobacco taxation in the United States and Canada.

Both Warner (1986) and Harris (1987) have provided crude estimates of some of the health effects that might result from the 1983 U.S. federal tax increase. Based on the conservative assumption that one of every four lifelong smokers dies of smoking-related illness (Mattson, Pollack, Cullen 1987), Warner calculated upper-bound estimates of the impact on mortality of increases or decreases in federal excise tax. Warner estimated that an eight-cent tax increase, maintained in real value over time, would avert 450,000 premature deaths among Americans aged 12 or older in 1984 and that this number would rise to 860,000 after a 16-cent increase.

Harris estimated that as a result of the post-1983 tax-induced price changes and their impact on consumption, 100,000 additional persons will live to age 65. About 54,000 of these persons are among the 600,000 teenagers who will live to age 65 as a result of having been discouraged from starting to smoke. Thus, for the 1983 U.S. federal tax increase, the main effect on mortality will not be realized for decades. Although no estimates have been published on the impact of the tax increase on other health measures, reductions in smoking-related morbidity and disability should raise aggregate health levels long before the projected reduction in mortality is fully realized.

For other countries in the Americas, elasticity estimates from the United States and Canada may be misleading, and country-specific estimates are needed. More precise estimates depend on additional information about the number of persons who smoke less, stop smoking, or do not start to smoke as a result of tax changes. But the declining economy in Latin America and the Caribbean and the attendant decline in tobacco consumption suggest that excise taxes could have a substantial impact on long-term morbidity and mortality in the region. This supposition is reinforced by the latency of the health effects of tobacco use (addressed earlier) and by the fact that the tobacco epidemic is still immature in many countries of Latin America and the Caribbean (Chapter 3, "Smoking-Attributable Mortality in Latin America and the Caribbean").

Equity, Incidence, and Distribution of the Tax Burden

Tobacco excise taxes are primarily a revenue-generating device. As such, attention must be paid to the distribution of the burden of these taxes among the general population and to their impact on the economy. Tobacco taxes are mainly collected from manufacturers and distributors at the wholesale level. To the extent that these businesses can raise the retail price of cigarettes, they do not pay the tax but shift the incidence of the tax burden to consumers. In addition, the tax may lower the demand for tobacco, which would result in lower tobacco prices (Sumner and Wohlgenant 1985) and place some of the incidence of the tax burden on tobacco growers.

Because the tobacco tax is primarily paid by smokers (Sammartino 1987), the distribution of the tax burden in the general population mirrors the distribution of smokers. In the United States, as the health hazards posed by tobacco use have become more well known, tobacco consumption has decreased more rapidly in higher than in lower socioeconomic groups (USDHHS 1989). Consequently, tobacco consumption has become more concentrated in lower socioeconomic groups, and tobacco tax increases, as a share of income, would fall most heavily on these groups. Sammartino (1987) analyzed the distributional effects of a hypothetical $1 billion increase in the U.S. federal excise taxes on beer, wine, distilled spirits, tobacco, gasoline, airfares, and telephone service and concluded that an increase in the tobacco tax would be the most regressive.

In some Latin American countries, such as Brazil, Uruguay, and Venezuela, prevalence of smoking is also higher for lower socioeconomic groups (Chapter 3, "Prevalence of Smoking in Latin America and the Caribbean"). In these countries, tobacco tax increases might also be regressive. In most other countries of the Americas, however, cigarette smoking is positively correlated with income. Moreover, in most Latin American and Caribbean countries, high-income smokers are more likely than low-income smokers to consume more cigarettes and purchase expensive brands of cigarettes. When increased revenues from tobacco taxes reflect expenditures on tobacco, the taxes may be proportional relative to income even in countries in which smoking is more common among the lower socioeconomic groups. Tobacco taxation may be progressive in countries in which smoking prevalence is positively correlated with income. The actual incidence of tobacco taxes must be determined for each country, and attempts to make cigarette taxes progressive, as was recently done in the Philippines, can be thwarted if high tax rates cause smokers to substitute low-price/low-tax brands for high-tax brands (Singh 1988a,b,c,d).

Although the potential regressiveness of tobacco taxes is a valid concern, the desire for proportional or even progressive tax systems does not require that all potentially regressive taxes be avoided. Most tax systems are a mix of many different taxes, and fairness can be achieved by increasing progressiveness elsewhere in the tax system to balance tobacco tax increases or, perhaps more importantly, by directing revenues to the maintenance of or increases in benefits for low-income groups.

Use of Tobacco Taxes

Health care costs and work-loss rates are greater for smokers than for nonsmokers. In the United States and Canada, both public and private insurance plans provide much of the financing for health care and disability benefits. Thus, increases in tobacco taxes have recently been advocated as a form of user tax (similar to the U.S. federal gasoline tax used to finance highways) or as a corrective tax to compensate for the additional health-related costs that smokers impose on others.

Several studies have attempted to measure the medical care, morbidity, and mortality costs attributable to smoking in a particular year. These estimates (described earlier in this chapter) cannot be used to establish the appropriate level of tobacco taxation because, in addition to several methodological limitations, the estimates do not explicitly distinguish between costs borne by smokers (e.g., the cost of premature death) and costs shifted to others (i.e., external costs). Moreover, these estimates do not adequately account for the social insurance benefits that nonsmokers realize but smokers do not because of their premature death associated with smoking.

Smokers tend to contribute to retirement plans at the same rate as nonsmokers do, but they do not collect, on average, the same total pension over a lifetime as nonsmokers do. Smokers' uncollected pension claims revert to nonsmokers by increasing the ratio of benefits to contributions that nonsmokers receive. In any particular country, the magnitude of the burden of smoking-related costs borne by nonsmokers is determined by the costs of the excess illness, the morbidity and mortality caused by tobacco, and the national system for financing health care, disability and retirement in that country. The key variable is the amount of excess tobacco-related costs borne by nonsmokers relative to the rate of taxation on tobacco. In reviewing the situation in Ontario in 1978, Stoddart and colleagues (1986) found that, even with a government health care system and high-technology medical care, health care expenditures attributable to smoking amounted to a maximum of 30 percent of the tax revenue on tobacco products. They also concluded that no uncompensated externality existed in Ontario in 1978. Collishaw and Myers (1984), using a different methodology, also found that for Canada in 1979, total tobacco taxes exceeded government-financed health care costs attributable to smoking.

In the most recent and comprehensive examination of the external costs of smoking in the United States, Manning and co-workers (1989) found that cross-subsidies, implicit in the current U.S. system for financing health care, disability, and pension benefits, transfer from never smokers to smokers and from smokers to never smokers. Thus, on average, never smokers subsidize the excess nonaged health care, disability, and sick-leave benefits of smokers, and smokers subsidize the Medicare and retirement benefits (pensions and Social Security) of never smokers. Manning and associates (1989) reported that their estimates of the net external economic costs of smoking are quite sensitive to two parameters: the rate of discount and the determination of which health differences between smokers and never smokers are actually caused by, rather than merely associated with, smoking. Nonetheless, their best and high estimates of the external economic costs of smoking fell below the average excise tax (state plus federal) imposed at the time of their analysis, which suggested that, at that rate of taxation, smokers probably compensated for the costs of smoking imposed on never smokers. Since the publication of their analysis, evidence of additional hazards of passive smoking has been reported (Glantz and Parmley 1991). Such evidence suggests that the net costs that smokers impose on never smokers in the United States may have been underestimated.

No known studies from other countries in the Americas evaluate the excess financial burden imposed on never smokers by smokers. However, uncompensated financial externalities may be substantial in countries at the upper end of the income scale where life expectancy and patterns of tobacco consumption are similar to those in the United States and Canada. In the few countries at the lower end of the income scale, such uncompensated externalities may be minimal for two reasons: (1) in the absence of well-organized institutional support systems, the excess costs of smoking are unlikely to be shifted from smokers to never smokers and (2) the total cost of smoking-related illness may be low if life expectancy is short (as in Bolivia and Haiti [PAHO 1990]), if many competing causes of disease and death are operative, if smoking is a recently introduced activity, or if medical care is inexpensive.

The essence of the argument for tobacco taxes is that tobacco-related illnesses may impose an uncompensated burden on never smokers regardless of their income class. If, however, smoking is positively correlated with income, smoking-related illness is more likely to occur among persons higher in the income distribution. Hence, increases in smoking-related illnesses may result in a shift in health care resources to provide expensive hospital-based care for affluent smokers. If such a shift occurs at the expense of health programs for low-income groups, it may have an undesirable effect on the health of the disadvantaged and on the total income distribution, including transfers (Lewit 1988). As a means of addressing this particular inequity, high tobacco taxes might be justified, whether they discouraged smoking or were used to finance excess health care for smokers.

Another justification for a high tobacco tax is that, to smokers or potential smokers who lack complete information on the dangers of tobacco use, the tax may signal the total costs of tobacco use, including the costs of ill health. An increase in tobacco taxes could improve health by discouraging tobacco use among persons who would not have used tobacco if they were fully informed. The effect would be particularly beneficial if it interfered with the initiation of tobacco use—before smokers became addicted.

Conclusions

1. Because the health costs of tobacco consumption result from cumulative exposure, they are most pronounced in the economically developed countries of North America, which have had major long-term exposure. Since many countries of Latin America and the Caribbean are experiencing an epidemiologic transition, the economic impact of smoking is increasing.

2. The economic costs of smoking are a function of the economic, social, and demographic context of a given country. In the United States, estimated total lifetime excess medical care costs for smokers exceed those for nonsmokers by $501 billion—an average of over $6,000 per current or former smoker. Similar formal estimates for many Latin American and Caribbean countries are not available.

3. Evidence of the cost-effectiveness of smoking control and prevention programs has increased. In Brazil, for example, the cost of public information and personal smoking-cessation services is estimated at 0.2 to 2.0 percent of per capita GNP for each year of life gained; treatment for lung cancer costs 200 percent of per capita GNP per year of life gained.

4. In Latin America and the Caribbean, as GNP increases, cigarette consumption increases, particularly at lower income levels. This effect is attenuated at higher income levels.

5. Advertising tends to increase consumption of cigarettes, although the relationship is difficult to quantify precisely. Advertising restrictions are generally associated with declines in consumption and, hence, are an important component of tobacco-control programs.

6. The case for promoting increased tobacco production on economic grounds should be reconsidered. Although tobacco is typically a very profitable crop, much of the advantage of producing tobacco stems from the various subsidies, tariffs, and supply restrictions that support the high price of tobacco and provide economic rents for tobacco producers. Although the tobacco industry is a significant source of employment, production of alternative goods would generate similar levels of employment.

7. Increases in the price of cigarettes, which are a price-elastic commodity, cause decreases in smoking, particularly among adolescents. Excise taxes may thus be viewed as a public health measure to diminish morbidity and mortality, although the precise impact of taxes on smoking will be influenced by local economic factors.

APPENDIX 2

Sources & Data Points For Graphs

__**Graph 1 Data Points**__ : See graph in text.

Note: Canadian data includes highest credible estimate of smuggling (80% of all Canadian cigarette and fine-cut tobacco exports) and fine-cut tobacco equivalents (1g.).

Sources:

U.S. data obtained from **Tax Burden On Tobacco**, The Tobacco Institute, Volume 27, p.6, 1992. Canada data obtained from Statistics canada catalogue 32-022 Monthly.

Graph 2 Data Points

	Per Capita Consumption	Smuggling Included	1992 dollars
1950	2109		$2.69
1951	2002		$2.66
1952	2207		$2.70
1953	2212		$2.42
1954	2173		$2.34
1955	2247		$2.34
1956	2277		$2.31
1957	2383		$2.24
1958	2530		$2.19
1959	2519		$2.28
1960	2495		$2.31
1961	2582		$2.29
1962	2650		$2.27
1963	2641		$2.24
1964	2605		$2.21
1965	2698		$2.23
1966	2747		$2.24
1967	2700		$2.25
1968	2658		$2.43
1969	2629		$2.43
1970	2746		$2.39
1971	2770		$2.38
1972	2764		$2.31
1973	2823		$2.23
1974	2854		$2.10
1975	2835		$2.12
1976	2928		$2.14
1977	2926		$2.14
1978	2860		$2.16
1979	2910		$2.09

(Graph 2 Data Points continued)

	Per Capita Consumption	Smuggling Included	1992 dollars
1980	2881		$2.08
1981	2930		$2.09
1982	2924		$2.18
1983	2788		$2.43
1984	2718		$2.59
1985	2615		$2.92
1986	2479		$3.30
1987	2361		$3.42
1988	2280		$3.55
1989	2200		$3.99
1990	1976	2072	$4.35
1991	1678	1944	$5.42
1992	1465	1824	$5.54

Note: Cigarettes include fine-cut equivalents (1g.)
Smuggling estimate = 80% of all Canadian cigarette and fine-cut tobacco exports.

Sources:

Consumption data obtained through Domestic Sales & Exports data (Statistics Canada catalogues 32-022 Monthly) and Population data (Statistics Canada).

Statistics Canada, catalogue no. 13-531, 13-210, 62-010

Graph 3 Data Points

	Total Sales	Real Price of Tobacco
1950	28.92	100.00
1951	28.05	98.90
1952	31.90	100.20
1953	32.84	89.60
1954	33.23	87.20
1955	35.28	87.20
1956	36.62	86.10
1957	39.57	83.40
1958	43.20	81.30
1959	44.03	85.00
1960	44.59	85.90
1961	47.09	85.30
1962	49.25	84.70
1963	50.00	83.30
1964	50.26	82.40
1965	52.99	83.00
1966	54.99	83.40
1967	55.02	83.80
1968	55.02	90.10
1969	55.20	90.20
1970	58.48	88.60
1971	59.75	88.10
1972	60.27	85.90
1973	62.22	82.90
1974	63.83	78.20
1975	64.35	78.90
1976	67.32	79.50
1977	68.10	79.60
1978	67.27	80.30
1979	69.09	77.50
1980	69.28	77.20
1981	71.32	77.80
1982	71.89	79.50
1983	69.12	79.80
1984	67.90	96.10
1985	65.82	108.50
1986	62.85	122.40
1987	60.48	127.30
1988	59.08	132.20
1989	55.35	148.40
1990	52.58	161.60
1991	45.30	201.40
1992	40.14	215.30

Source: Statistics Canada catalogue 32-022 Monthly.

Graph 4 Data Points

	Real Disposable Income Per Adult 15+	Real Price of Tobacco
1949	100.00	100.00
1950	103.8	99.80
1951	109.7	100.90
1952	114.1	98.30
1953	118.4	90.10
1954	114.7	87.20
1955	122.3	87.60
1956	130	85.80
1957	130	83.10
1958	134.7	80.80
1959	137.3	84.90
1960	137.2	85.70
1961	135.6	84.70
1962	144.1	84.50
1963	149	82.90
1964	150.7	81.70
1965	157	82.90
1966	164.9	82.70
1967	168.7	83.30
1968	171.2	91.10
1969	169.9	89.90
1970	170.3	88.30
1971	178.9	88.00
1972	192.3	86.80
1973	203.3	82.90
1974	206.2	77.80
1975	217.3	80.40
1976	228.1	81.00
1977	226.2	78.80
1978	228	81.20
1979	234.7	77.90

(Graph 4 Data Points continued)

	Real Disposable Income Per Adult 15+	Real Price of Tobacco
1980	234.5	77.80
1981	237.7	78.00
1982	235.4	79.70
1983	226.2	89.80
1984	240	95.70
1985	243.8	114.80
1986	244.5	122.40
1987	245.3	128.10
1988	251.3	133.80
1989	260.2	154.30
1990	254.00	161.00
1991	244.20	200.70
1992	246.10	214.50

Sources: Statistics Canada catalogues no. 13-531, 13-210, 62-010.

<u>**Graph 5 Data Points**</u> : See graph in text.

Sources:

The Non-Smokers' Rights Association (Canada). Annual Federal Budgets, Canada 1984 - 1993.

Graph 6 Data Points

Annual Sales of Cigarettes
Per capita 18 +
Canada 1982 - 1992

1982	4066
1983	3839
1984	3715
1985	3562
1986	3373
1987	3263
1988	3146
1989	2938
1990	2767
1991	2592
1992	2431

Note: Cigarettes include fine-cut equivalents (1g.). Data includes all domestics sales and 80% of all Canadian cigarette and fine-cut tobacco exports.

Source:

Dr. Michael Goodyear, Canadian Oncology Society, Ontario, Canada.

Graph 7 Data Points

	GRAMS/ADULT 15+	CIGARETTES/ADULT 15+
1972	4,000	3900
1973	4,010	3950
1974	4,020	3975
1975	3,950	3950
1976	3,875	4025
1977	3,750	4000
1978	3,600	3800
1979	3,550	3875
1980	3,500	3800
1981	3,525	3875
1982	3,500	3800
1983	3,375	3625
1984	3,125	3475
1985	2,950	3375
1986	2,750	3175
1987	2,625	3100
1988	2,500	3000
1989	2,275	2800
1990	2,100	2625

Source:

N.E. Collishaw, Tobacco Products Unit, Health and Welfare Canada, 1991.

Graph 8 Data Points

Prevalence of Regular Smoking
Among Adults 15+
Canada 1965 - 1991

1965	46%
1970	44%
1974	42%
1975	41%
1977	39%
1979	38%
1981	36%
1983	34%
1986	30%
1991	26%

Source:

1991 data : Statistics Canada, General Social Survey, 1991.

1965 - 1986 data : Government of Canada, Labour Force Survey supplements.

Graph 9 Data Points

	Proportional Decline	Real Price of 20 Cigarettes
1965	1.1%	$2.20
1966	1.1%	$2.21
1967	1.1%	$2.22
1968	1.1%	$2.39
1969	1.1%	$2.39
1970	1.4%	$2.35
1971	1.4%	$2.34
1972	1.4%	$2.28
1973	1.4%	$2.20
1974	1.4%	$2.07
1975	1.9%	$2.09
1976	1.9%	$2.11
1977	1.9%	$2.11
1978	1.9%	$2.13
1979	2.4%	$2.06
1980	2.4%	$2.05
1981	2.4%	$2.06
1982	2.4%	$2.15
1983	4.0%	$2.39
1984	4.0%	$2.55
1985	4.0%	$2.88
1986	2.8%	$3.25
1987	2.8%	$3.37
1988	2.8%	$3.50
1989	2.8%	$3.93
1990	2.8%	$4.29
1991	2.8%	$5.34

Sources:

The Non-Smokers' Rights Association (Canada).

Statistics Canada, catalogue no. 13-531, 13-210, 62-010.

1991 smoking prevalence data : Statistics Canada, General Social Survey, 1991.

1965 - 1986 smoking prevalence data : Government of Canada, Labour Force Survey supplements.

Graph 10 Data Points

Year	Smoking rate	Real Price of Tobacco 1981=100
1979	42%	100
1980		99
1981	40%	100
1982		104
1983	35%	116
1984		124
1985		140
1986	23%	157
1987		164
1988		170
1989		191
1990		208
1991	16%	259

Sources:

1991 smoking prevalence data : Statistics Canada, General Social Survey, 1991.

1979 - 1986 smoking prevalence data : Government of Canada, Labour Force Survey supplements.

Graph 11 Data Points

	15 - 19 YEAR OLDS	ADULTS 15+
1981	3333	3825
1982	3190	3811
1983	2832	3624
1984	2413	3511
1985	1981	3376
1986	1863	3186
1987	1667	3026
1988	1527	2935
1989	1325	2712
1990	1289	2585
1991	1252	2458

Note: Cigarettes include fine-cut tobacco equivalents (1g.) and highest credible estimate of smuggling (80% of all Canadian cigarette exports)

Source:

Roberta Ferrence et al., Effects of Pricing on Cigarette Use Among Teenagers and Adults in Canada 1980 - 1989. Addiction Research Foundation, Ontario, Canada, 1991.

THE SMUGGLING OF TOBACCO PRODUCTS:

Lessons from Canada

Prepared by:

The Non-Smokers' Rights Association /
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(Canada)

July 1994

THE SMUGGLING OF TOBACCO PRODUCTS: LESSONS FROM CANADA

EXECUTIVE SUMMARY

Between 1982 and 1992, the Canadian government instituted a series of substantial tobacco tax increases. These increases sharply reduced cigarette consumption and increased both federal and provincial tax revenue. Illegal cigarette smuggling from the U.S. into Canada escalated significantly in 1993, because of Canadian tobacco industry involvement and weak law enforcement by the Canadian government. This smuggling increase prompted the Canadian government to lower cigarette taxes in 1994. The Canadian smuggling epidemic was caused by a combination of factors that are unique to Canada. The level of smuggling experienced in Canada is highly unlikely to occur elsewhere.

1. Tobacco tax increases in Canada dramatically reduced smoking and raised substantial new revenue

Between 1982 and 1992, cigarette taxes in Canada increased by more than 500 percent and cigarette prices increased by 170 percent. As a result:

* Total smoking declined 38 percent.

* Teenage smoking declined 60 percent.

* Federal and provincial tobacco tax revenue increased 240 percent, from $2.1 billion (CDN) in 1981 to $7.2 billion (CDN) in 1992.

Canada's policy of maintaining substantial tobacco taxes was an unqualified success in improving the health of Canadians, reducing tobacco use by children, and raising federal and local revenue. Contrary to claims by the tobacco industry, Canadian government prevalence statistics, and estimates of total consumption made by health groups, take into account both legal and smuggled cigarettes.

2. Smuggling increased dramatically in 1993

Between 1981 and 1991, cigarette smuggling from the U.S. into Canada was a minor problem, despite a series of substantial Canadian cigarette tax increases. In 1992, smuggling increased. Contraband cigarettes were highly concentrated in Québec and Ontario. Smuggling increased sharply for a number of geographic, demographic and other reasons that are unique to Canada, and unlikely to be duplicated elsewhere:

* Cigarette prices in the U.S. were lower than in Canada by about $2.50 (US) per pack, because U.S. cigarette taxes are the lowest in the industrialized world. This cross-border price difference was the largest in the world.

* The border between Canada and the U.S. is the longest undefended land border in the world.

* Approximately 90 percent of Canadians live within a 2 hour drive of the U.S. border.

3. **The tobacco industry contributed significantly to the volume of cigarette smuggling**

The Canadian tobacco industry actively encouraged smuggling, supplied over 90 percent of the tobacco smuggled into Canada and frustrated anti-smuggling law-enforcement in several ways:

* Canadian tobacco companies cancelled their agreement with the Canadian government to voluntarily restrict exports to the U.S. despite the fact that 80 percent of Canadian exports would re-enter the country illegally.

* Canadian manufacturers changed distribution routes and began to ship all U.S. bound cigarettes through a single warehousing operation in New York State. Shipping all U.S. exports to a single destination makes it impossible for the Canadian government to track smuggled goods.

* One Canadian tobacco manufacturer redesigned export cigarette packaging in such a way that they were almost identical to domestic brands. This packaging policy makes it difficult to distinguish legal cigarettes from contraband.

4. **Slack law enforcement allowed smuggling to expand unchecked**

The Canadian government failed to take steps that would have reduced or eliminated cigarette smuggling. This inaction manifested itself in several ways:

* After a 1992 tax on exported cigarettes had prevented Canadian tobacco companies from supplying smugglers by simply shipping tobacco to the U.S., the Canadian government succumbed to tobacco industry pressure and repealed the tax.

* The Canadian government failed to require adequate product identification codes, prominently displayed tax-paid markings, and distinct packaging for legitimate cigarettes -- all of which greatly facilitate anti-smuggling law enforcement.

5. **Canada's tax rollback will be a public health disaster**

In February, 1994, to reduce smuggling from the U.S., the Canadian government announced a reduction in cigarette taxes of 50 cents (CDN) per pack, and an agreement to match provincial tobacco tax reductions up to $1 (CDN) per pack. To date, 5 provinces have reduced local tobacco taxes. The average per-pack cigarette tax in Canada fell from $2.96 (US) to $1.96 (US).

The Canadian tobacco tax rollback is expected to produce the following results:

* Canada's smoking population will increase by 840,000. Teenage smoking will increase by 50 percent.

* 250, 000 additional Canadians will suffer premature death from tobacco use.

6. A major U.S. tobacco tax increase will not create a smuggling epidemic

A U.S. cigarette tax increase in the $1 to $2-per-pack range that is currently under consideration by Congress will be insufficient to cause substantial illegal cigarette trafficking. The U.S. - Mexican border situation cannot be compared to the U.S. - Canadian situation for a number of reasons:

* The U.S. - Mexican land border is one-fifth the length of the U.S. - Canada land border.

* The U.S. - Mexican border has far fewer crossing points that could be used to transport large quantities of cigarettes or other products.

* The U.S. - Mexican border is a carefully controlled border patrolled by the U.S. Customs Service, the U.S. Border Patrol, and State law-enforcement authorities.

* A $350 million U.S. Customs Service improvement is underway to upgrade U.S. - Mexico border posts. Both the U.S. Customs Service and the U.S. Border Patrol will intensify operations along the border.

* The difference between cigarette prices on either side of the U.S. - Mexican border is a fraction of the price difference that existed along the U.S. - Canadian border.

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I INTRODUCTION

Canada witnessed a rapid escalation of tobacco taxes and prices beginning in the early 1980's. This was largely the result of public policy efforts by health and medical organizations that entered the debate with authoritative studies showing a strong relationship between prices and consumption.

Canada's tobacco tax policies had the desired effects of reducing tobacco use and raising revenue. At the same time, these tax policies created the opportunity for the smuggling of tobacco products from the United States into Canada. By early 1994, many governments in Canada moved to lower tobacco taxes in order to eliminate the price differential between Canada and the United States as a way to eliminate smuggling.

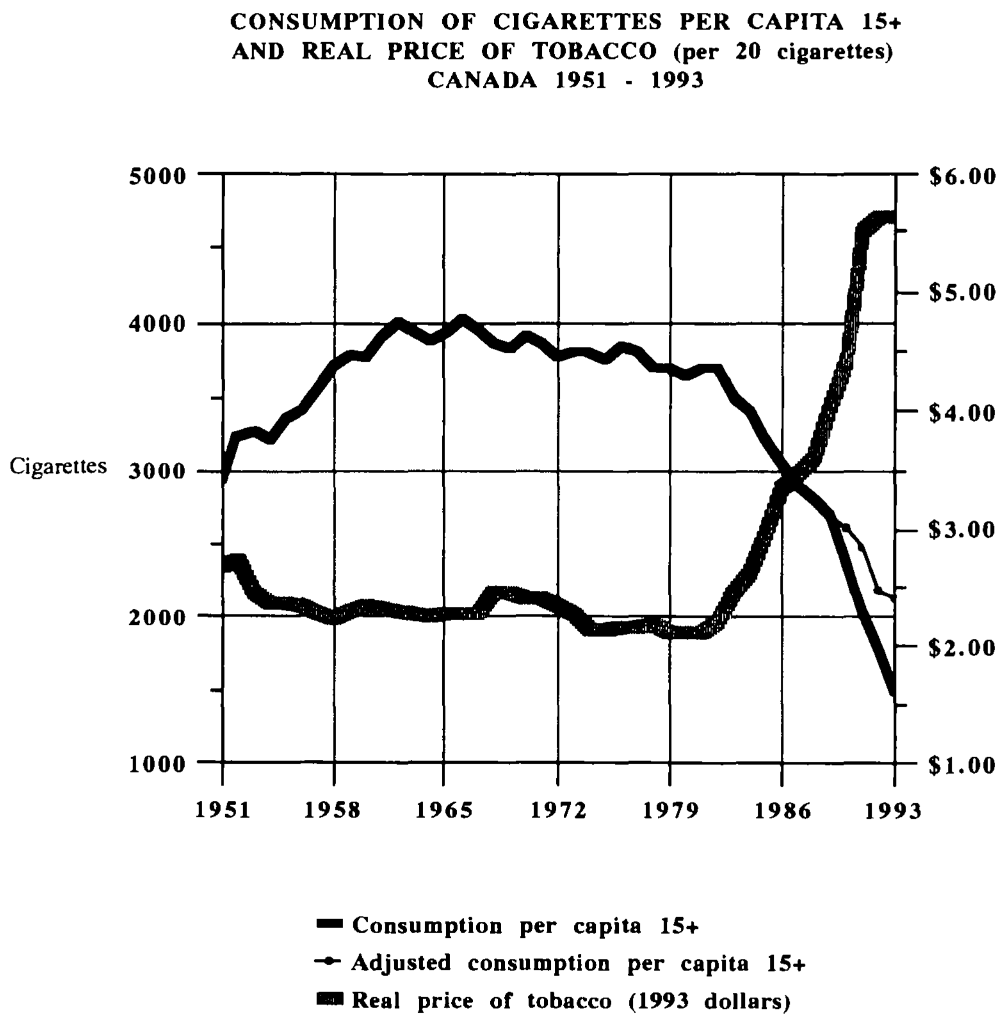
A great deal of attention has been focused on what has happened in Canada and particularly the relevance of recent events to plans in the United States to significantly increase tobacco taxes. Many of the comments made, particularly by the tobacco industry, do not accurately reflect the Canadian experience. This report is intended to provide more accurate information.

II THE HISTORY OF TOBACCO PRICING IN CANADA

As graph 1 shows (p.2), cigarette prices rose by about 170% in real terms in Canada between 1982 and 1992. This moved Canada from a tobacco tax rate which (along with the United States) was the lowest among wealthy countries, to a rate on par with northern Europe. The consumption of cigarettes fell by about 40% during this period, even after adjusting for the highest credible estimates of smuggling.

The decline in tobacco use was much as economic models had predicted based on the relationship between price and consumption. At the same time, the development of smuggling is clearly visible in the consumption trends shown in graph 1.

Graph 1



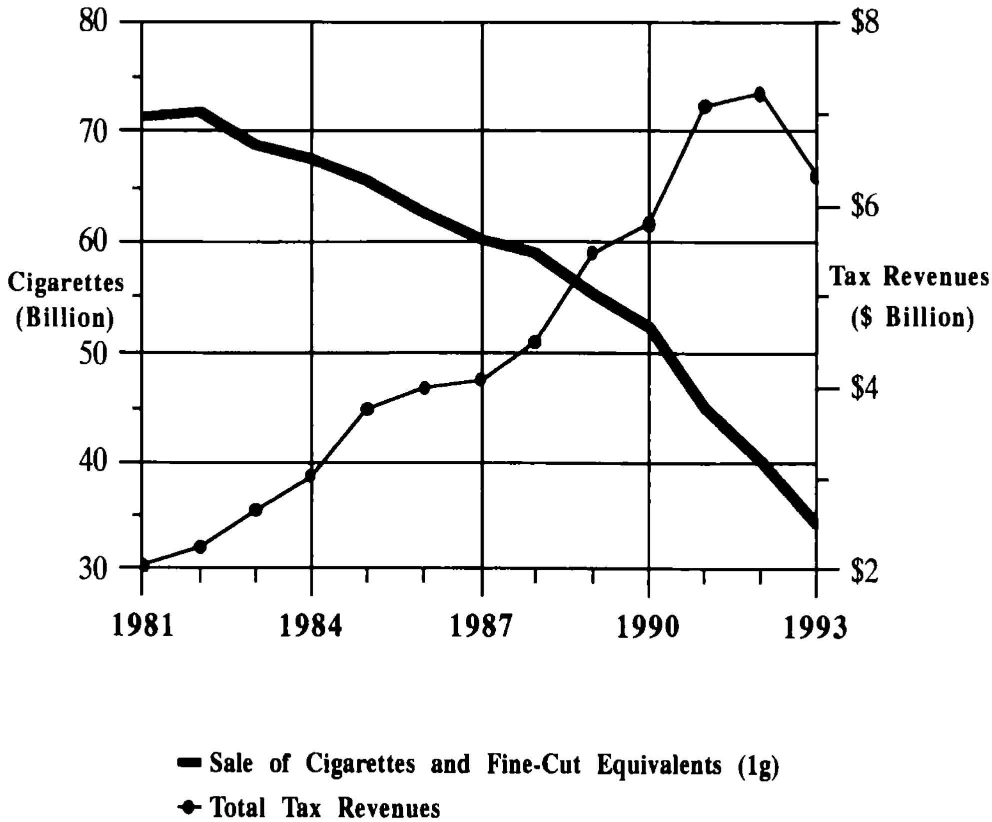
Note: Real price of tobacco expressed in 1993 Canadian dollars.

Adjusted consumption factors for consumption of all legal cigarettes (and fine-cut tobacco equivalents) and the highest credible estimate of contraband cigarettes (and equivalents) consumed in Canada.

While consumption was falling, revenue was rising. This was, again, exactly as the economic models had predicted since demand for tobacco products is inelastic (generally for the United States and Canada a price increase of 10% will reduce consumption by about 4%). As graph 2 shows, tax revenue from tobacco products increased significantly even as domestic sales fell markedly.

Graph 2

**Domestic Sale of Cigarettes and Fine-Cut Equivalents
And Domestic Tobacco Tax Revenues
Canada 1981 - 1993**



Note: Tax Revenues are in Canadian dollars.

During the past decade Canada enacted various public policy measures aimed at reducing tobacco use. The increases in prices started in 1982 and other measures, such as severe restrictions on tobacco promotions and the provision of smoke-free spaces, occurred around 1990. The various analyses done of the relative impact of these measures point to fiscal policy as the most significant. In fact, a 1994 analysis by Dr. Tom Stephens, the leading expert on Canadian tobacco use statistics, found a fundamental shift to much lower levels of tobacco consumption occurring subsequent to 1982.

III THE EXTENT OF SMUGGLING IN 1993

There are various estimates of the extent of smuggling, which by the very nature of its illegality, is hard to measure. This does not make effective calculations impossible, but does leave room for those who wish to 'slant' the numbers. One example of this is the claim by the tobacco lobby that smuggling constituted 40% of total tobacco consumption in Canada in 1993. In fact, this claim was reiterated as fact by Canada's Prime Minister in justifying the decision to cut tobacco taxes.

It is easy to show that such a figure was a gross exaggeration. To begin with, the highest estimate of smuggling for 1992 was that it constituted about 16% of the Canadian market. This estimate came from the tobacco industry and was almost certainly an exaggeration. But even if we accept this high estimate for 1992, we find that the only way smuggling could have increased from 16% of the total market in 1992 to 40% in 1993 would be if total tobacco consumption had actually increased by more than 20% in a single year. Instead, various surveys, including those reported on by the tobacco industry, show that tobacco use actually continued to fall in that year!

Smuggling did become a serious problem in some parts of Canada. However, it was not as serious as many in the tobacco lobby and the Canadian government have maintained. It is our estimate that the highest credible estimate one could maintain for smuggled tobacco in 1993 is that it may have constituted 25% of the total Canadian market. Given the numerous factors that were promoting smuggling, it is significant that the problem was not worse.

IV THE 1994 FEDERAL TOBACCO TAX ROLLBACK

In February of 1994, the Government of Canada reduced federal tobacco taxes by $5.00 (CDN) per carton of 200. It also offered to match reductions in provincial tobacco taxes by a further reduction in the federal tax (up to an additional $5.00) in provinces that reduced their tax by more than $5.00. Québec, where smuggling had become a serious political issue, immediately lowered its tax by $11.00 per carton, triggering a decline in the federal tax of $10 in that province. As a result, the legal selling price of cigarettes in Québec fell by more than 50%.

The effect of this massive price decline in Québec put tremendous stress on nearby provinces. It also caused great outrage from other provinces since the federal scheme had the effect of creating the potential for a significant smuggling problem within Canada. In fact, we can find no precedent for a policy of significantly different federal tobacco taxes in different parts of the same country. Despite strong initial opposition (an opposition based on both health and revenue reasons) Ontario, New Brunswick, Prince Edward Island and Nova Scotia were forced to lower taxes to avoid being flooded by tobacco smuggled from Québec.

The tobacco companies appear convinced that the remaining Canadian jurisdictions will be forced to reduce tobacco taxes. To date, the other five provinces and the northern territories have not. In fact, the Northwest Territories increased its tobacco tax by $5.00 per carton to prevent the federal tax reduction from actually lowering retail prices.

V THE HEALTH COST OF THE TOBACCO TAX ROLLBACK

There is a considerable body of academic research on the relationship between price and consumption for tobacco products. This work has been reported in many places, including a summary in the 1992 Report of the U.S. Surgeon General. It is well recognized among those who have studied this relationship, that a reduction in price will spur consumption to the same extent that an increase in price will reduce consumption.

In the case of Canada, it appears that the rapid increases in tobacco taxation during the 1980's led to price increases which reduced consumption well beyond that which would have otherwise been achieved. Considering the extent of the reduction in Canadian tobacco consumption, and the proportion of this drop attributable to price increases, Canada's tobacco tax policies looked set to reduce overall tobacco-caused deaths by hundreds of thousands among Canadians currently alive. For a country with a population of less than 30 million, this was a truly significant development for public health.

The tobacco tax rollback has dramatically changed the anticipated trends in tobacco-caused morbidity and mortality. In public health terms, the decision to reduce smuggling from the United States to Canada by reducing cigarette prices to a U.S. level is equivalent to the reintroduction of smallpox. Using standard estimates of price-responsiveness, Professor Robert Allen of Harvard University's Department of Economics forecasts an increase in the total number of smokers in Canada of 840,000. Teenagers in Canada are expected to experience a 50% increase in tobacco consumption. If we apply World Health Organization estimates of tobacco-caused mortality, this one policy decision could result in over 250,000 more deaths from tobacco products than would otherwise have been the case. In a very real way, the combination of low U.S. tobacco taxes, the willingness of tobacco companies to exploit the situation, and the Canadian government's lack of imagination in dealing with this problem, will result in the unnecessary premature deaths of an additional 1% of the Canadian population.

VI THE ORIGIN OF TOBACCO SMUGGLING IN CANADA

As the price of cigarettes in Canada increased over the past decade, a market for substitute products emerged. Products such as tobacco 'sticks' and fine-cut tobacco (roll-your-own) represented the tobacco industry's attempt at exploiting loopholes within the existing tobacco laws. By promoting cheaper substitutes (as they were taxed at lower rates, if at all), the tobacco industry managed to retain smokers who would have otherwise left the market. The task at hand for health groups and governments was to ensure that these loopholes, which would have otherwise undermined health and fiscal policy measures, were dealt with accordingly. While some of these substitute products have disappeared from the market, others such as fine-cut tobacco (or roll-your-own tobacco) have remained. By the end of 1993, the fine-cut tobacco market represented roughly 12% of the total Canadian tobacco market. While some provincial governments have attempted to equalize taxes on this form of tobacco with taxes on cigarettes, others still offer a financial incentive for smokers to switch to fine-cut tobacco.

By the end of the 1980's, health groups were still trying to have these tax loopholes on cigarette substitutes addressed in government budgets. During this time, the tobacco industry looked to another tax loophole which eventually earned them great fiscal returns while paralysing health and fiscal policies in Canada: tobacco exports to the U.S.

Exporting to a non-existing market...

Prior to the 1994 Federal tax rollback, exports of Canadian tobacco had been increasing at an alarming rate since the late 1980's. By nature, exports are not taxed by Canadian governments though they must comply with tax laws within the importing countries. Whereas cigarette exports represented only 2.6% of total Canadian cigarette shipments in 1986, by the end of 1993 these exports represented more than **37%** of total shipments. Most of these exports went to the United States.

Studies conducted by the Royal Canadian Mounted Police (RCMP) and the tobacco industry in Canada confirmed that the vast majority of these 'exports' were simply re-entering Canada illegally. There was never a significant market for Canadian tobacco outside our borders, yet the tobacco industry had continuously and successfully argued against any initiative that would control the flow of these 'exports'.

In February of 1992, on recommendation from the RCMP and health groups, the federal government imposed an $8 a carton export tax. The objective of this initiative was to eliminate the financial incentive for smugglers created by the 'tax exempt' status of export shipments. As there existed no significant legitimate market in the U.S for Canadian style tobacco, this 'export tax' would be ultimately penalizing those who would traffic in Canadian tobacco contraband.

Following the imposition of this tax, export shipments of Canadian cigarettes plummeted by 67%. Eight weeks later, the government repealed the export tax (April 8, 1992) and export shipments of Canadian tobacco once again surged by 145%. It is now well documented that the government, in killing this successful anti-smuggling measure, bowed to pressure from the tobacco lobby.

VII FACTORS WHICH PROMOTED TOBACCO SMUGGLING AND THE TOBACCO TAX ROLLBACK IN CANADA

1. THE ROLE OF THE UNITED STATES

1.1 The U.S. / Canada and the U.S. / Mexican Border

The nature of the border between Canada and the United States creates a situation that makes smuggling relatively easy. The contrast with the border between the

U.S and Mexico, for example, is dramatic. It is the longest undefended border in the world, about five times the length of the U.S. land border with Mexico, with innumerable legitimate and not-so-legitimate crossing points. The border can be crossed by car, boat, snowmobile, etc. The border is not highly patrolled, and, geographically, would be virtually impossible to guard effectively. Consequently, large quantities of goods can cross virtually unhindered.

A further complicating factor for potential smuggling problems is the nature of Canada's population settlement patterns. Whereas the vast majority of Americans live quite a distance from the Mexican border, the vast majority of the Canadian population lives within a two hour drive of the U.S. border.

Border crossings between Canada and the United States are incredibly frequent by international standards. Statistics Canada figures[1] indicate that there were over 130 million crossings by Canadian residents between Canada and the United States in 1993. There were also about 65 million crossings of this border by Americans and millions more by nationals of other countries. Most of this traffic is by private automobile. There is also tremendous trade between Canada and the United States, with Canada being a much greater trade partner with the United States than even Japan.

Other factors also add to the potential for smuggling. One that has received a great deal of attention is the Akwesasne Indian Reservation, which includes part of New York State and parts of the Canadian provinces of Ontario and Québec. Movement through this reservation is not seriously constrained, allowing it to serve as a major conduit for smuggled goods. New York sought the authority to control the level of cigarette shipments into Indian Reservations but was tied up in legal procedures. New York did win the right to control these shipments in a decision handed down by the U.S. Supreme Court in mid-1994, a few months after Canada rolled back tobacco taxes.

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[1] Statistics Canada, Catalogue 66-201.

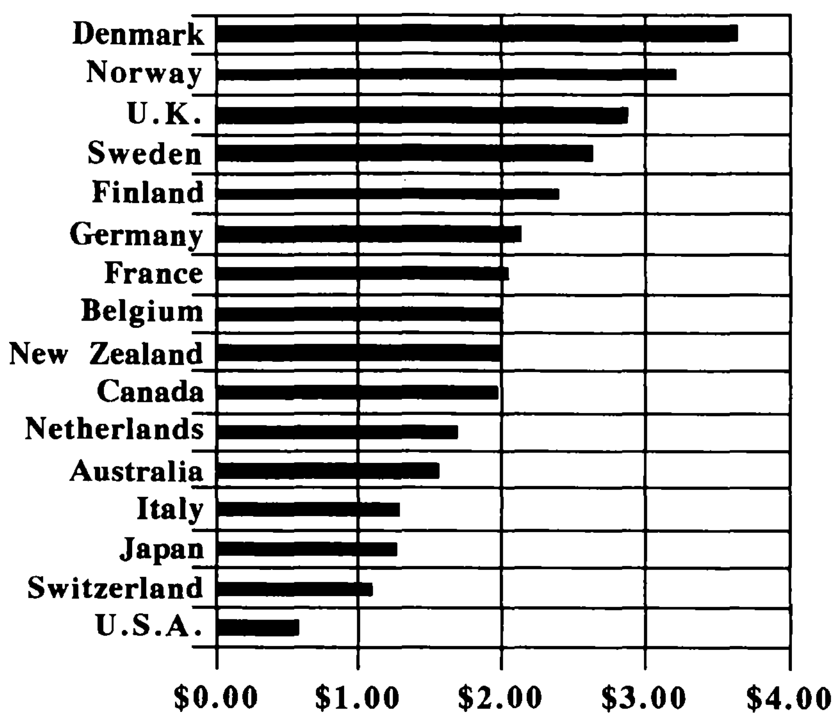
The nature of Canada's border with the United States made smuggling much easier than would be the case for other borders, such as the U.S. border with Mexico. Tobacco companies are seeking to promote the view that a similar problem could arise with the Mexican border if the United States raised tobacco taxes to the level of other industrialized nations. This comparison ignores significant differences in geography, demographics, trade and politics between the U.S./Canadian border and the U.S./Mexican border.

1.2 The Price Differential Between Canada and the U.S.

Tobacco taxes in the United States have consistently ranked lowest among the major industrialized nations of the world (see graph 3).

Graph 3

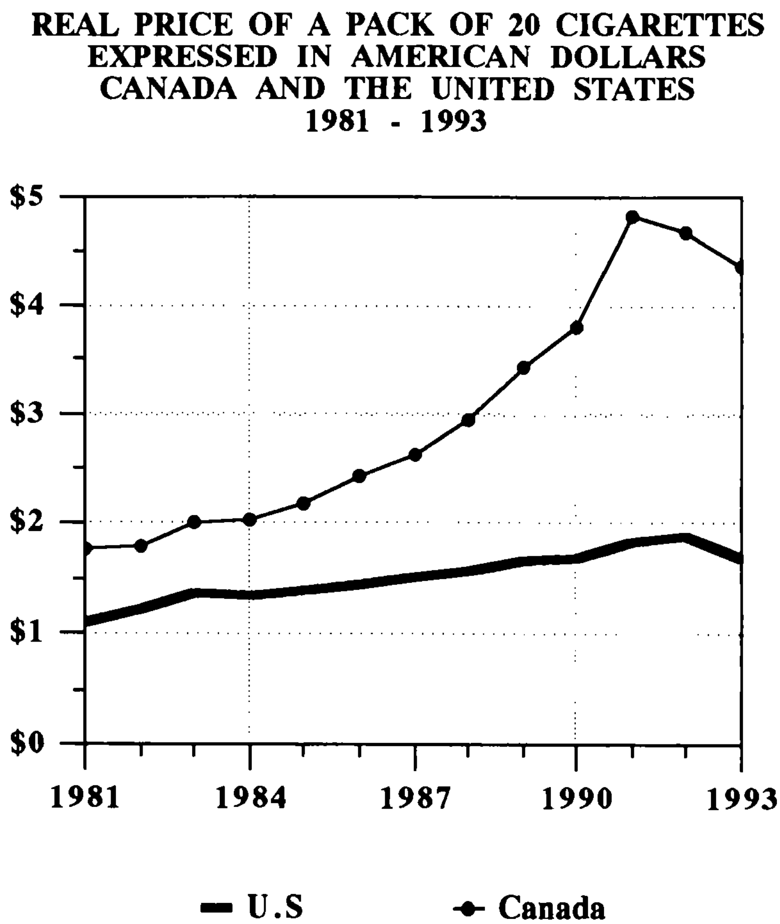
TAXES IN AMERICAN DOLLARS ON A PACK OF 20 CIGARETTES IN VARIOUS COUNTRIES - MARCH 24, 1994



Canada, in contrast, raised its tobacco taxes substantially between 1982 and 1993. As a result, by 1990, a pack of cigarettes in Canada cost more than twice as much as in the U.S. In dollar terms, the price differential reached nearly $3.00 (US) per pack in 1991 (see graph 4). This cross-border price differential between Canada and the United States had become, by this time, the largest in the world.

There was no significant smuggling from the U.S. into Canada until the 1990's, despite the fact that a significant cross-border price differential had existed since the early 1980's. While the cross-border price differential was a factor, other factors also played a major role in increasing the level of tobacco smuggling in Canada.

Graph 4



2. THE ROLE OF THE CANADIAN GOVERNMENT

2.1 The Reluctance to Deal With Tobacco Industry Misbehavior

A strong case existed for the Canadian government to attack the tobacco companies for their complicity in the smuggling problem. But the government was reluctant to confront the tobacco industry. Part of this reluctance stemmed from the fact that a political decision was made to end the smuggling situation in Québec as expeditiously as possible and nothing would get rid of smuggling as quickly as simply lowering the legal price to American levels. Another difficulty was that there is a considerable concentration of tobacco manufacturing activity in Québec and any attack on the industry could be responded to by the closure of factories, or large scale lay-offs of workers, at a politically inopportune time. A further complication was the fact that the political leaders in Ottawa, and those now running the Québec government, were very new in their positions and were probably unable to assimilate all the relevant information as quickly as was necessary.

The tobacco lobby was also very active in putting its 'spin' on the situation and using its resources to convince governments that there was no alternative to lowering taxes. Although the industry largely won its fight on taxes, it did not escape all responsibility for the problem.

The Canadian government, as part of its announcement of the tobacco tax rollback, also placed a 40% corporate tax surcharge on tobacco companies as a way of punishing the industry for its misbehaviour. This tobacco company tax increase was linked to the funding of, among other things, a $185 million three year national tobacco control effort.

Although the acknowledgement of tobacco industry involvement in Canada's smuggling problem was a significant move, it by no means adequately compensated for the harm to public health of the tax rollback. It is significant, however, that the Canadian government was not entirely 'taken in' by the tobacco lobby's extensive propaganda campaign.

2.2 The Ineffective Differentiation Between Legal and Illegal Cigarettes

2.2.1 Tax-Paid and Other Markings

In many European countries, there are prominent 'tax-paid' markings affixed as stamps under the cellophane wrapping on cigarette packages. Canadian health groups urged our federal and provincial governments to implement similar schemes as a way of clearly distinguishing between legal and illegal cigarettes. Such markings make it less likely that a consumer would unwittingly purchase smuggled cigarettes, and makes detection and enforcement easier. Efforts to improve Canadian 'tax-paid' markings were begun by health groups by 1988 in an effort to prevent future smuggling. The tobacco industry forcefully opposed such efforts. The result was that the governments reached a 'compromise' with the tobacco industry and the markings were incorporated as a tear strip on the cellophane wrapper. These markings are easy to counterfeit and disappear as soon as a package is opened.

There was also a marking system, implemented by the tobacco industry, that consisted of small print on the side of export packages, saying that these cigarettes were for export only. This system was fundamentally flawed. The markings were too small to provide for easy recognition by all but the well-trained.

There was another major flaw in the plan to mark 'exports' during the smuggling crisis in Canada. While a country has every reason to differentiate between legal and smuggled products, the decision to mark products that might become illegal rather than those we know to be legal appears to be unique. Canada could exert legal control over all products legally sold in the country. It could not, by definition, control the illegal market. One fatal flaw in this approach had already revealed itself. RJR-Macdonald Inc. had already shifted production of 'border sale' cigarettes to the United States. As a result, an 'end run' had been made around the 'export' marking agreement made between the government and the industry even before the system could be implemented.

Neither the existing tear strips nor the export markings were sufficient to deal with the problem Canada faced with cross-border traffic in tobacco products. The markings on the legal product were not sufficiently prominent. The markings on the 'exports' were also insufficient.

2.2.2 Product Identification Codes

In place of the export tax, repealed on April 8, 1992, an official announcement detailed other anti-smuggling measures the government was about to undertake in conjunction with the tobacco industry. The anticipated cooperation of the tobacco industry was expressed in the remarks of then Minister of Revenue Otto Jelinek.

A major part of the announcement was as follows:

> **Product Identification Codes**
>
> "As a means of assisting law enforcement agencies with tracking and controlling the flow of illicit tobacco products, tobacco manufacturers will place identification codes on cartons of Canadian brands sold into the duty-free and export markets."

The intention of this provision was to make clear what was being sent to the various U.S.-based purchasers, so that intercepted smuggled goods could be linked to those who were supplying smugglers.

On March 12, 1993, the Non-Smokers' Rights Association (NSRA) had found additional evidence of Canadian tobacco companies thwarting the anti-smuggling measures announced by Revenue Canada.

The tobacco companies, NSRA had learned, pulled a fast one on the government. After making this agreement they arranged to send all of their U.S.-bound shipments to a single warehousing operation. As a result, any product identification system would be rendered useless. There was no way for the government to know the destination and/or recipients of tobacco products once they left the central warehouse in the U.S.

At that time, Imperial Tobacco (Canada's largest tobacco company) had a complex tobacco ordering system. In asking about purchasing Canadian tobacco for sale in the U.S., NSRA was told that duty free retailers would order directly from Imperial. For duty-paid sales in the U.S., orders for "Players" brand tobacco would go through Philip Morris in Virginia and orders for "DuMaurier" or "Matinee" would go through UST in Connecticut. NSRA then found out that no matter what was ordered, it was all shipped from the same warehouse in Syracuse, N.Y. Everything Imperial sent to the U.S. went to this warehouse, according to NSRA contacts at Imperial Tobacco Ltd.

NSRA called the warehouse. Someone there confirmed that not only was this warehouse the sole recipient of Imperial's tobacco sent to the United States, but it also performed the same role for RJR-Macdonald (Canada's third largest tobacco company). NSRA was told that this arrangement had been in place "for about a year". It looks as if the industry moved to a single outlet system at precisely the time it was supposed to be working with the federal government on an anti-smuggling measure that depended on the maintenance of a multiple outlet system.

The use of a single U.S. outlet eliminated any ability to use product identification to determine who was actually supplying smugglers. The tobacco companies had, once again, effectively undermined an anti-smuggling measure while continuing to vigorously lobby governments in Canada to reduce tobacco taxes as the only way to deal with smuggling.

The tobacco industry continued to benefit from tobacco smuggling. They supplied an estimated 94% of the tobacco smuggled back into Canada, they stimulated demand through lower priced tobacco and they then used the smuggling problem to lobby for lower taxes.

2.2.3 Package Design

Under the Tobacco Products Control Act (TPCA - 1989), tobacco companies in Canada are required to print health warnings on their products for sale in Canada. On a pack of cigarettes, the warning is found at the bottom of the pack in a light reflective colour. A thin line separates the warning from the rest of the pack design.

For their products shipped out of Canada, the tobacco industry must comply with the laws regulating tobacco in the importing countries. The vast majority of Canadian tobacco exports is sent to the U.S. In terms of health warnings, tobacco companies in Canada must place a small Surgeon General's warning on the side panel of the packages being shipped to the U.S. When this cigarette pack, originally meant for sale in the U.S., illegally crosses the Canadian border, the 'missing' much larger Canadian health warning on the bottom of the pack helped to differentiate the legal from the illegal product.

RJR Macdonald Inc., the third largest tobacco company in Canada, eventually modified its package design on its tobacco aimed at the 'cross-border' market. The modifications included adding 'information' in a light reflective colour at the bottom of the packs. A thin line separates this message from the rest of the pack design.

The colour and size of this new feature are quite similar to the health warnings on tobacco products for sale in Canada. At counter-length distance, this design is not quickly distinguishable from the Canadian health warning design. As of September 1994, this tactic would have been rendered useless, as significantly larger and more prominent health warnings will be required on cigarette packages for sale in Canada.

2.3 Canada's Inability to Influence U.S. Tobacco Tax Policy

For many other countries, the presence of a neighboring country maintaining tax policies that undermine domestic health and fiscal goals would provoke active lobbying to change these policies. This, however, was not the type of relationship that existed between Canada and the United States as tobacco companies and smugglers sought to exploit the tobacco tax differences between the countries. Canada is very much a junior partner in its relationship to the United States, a situation often compared to a mouse and an elephant. Whereas the United States has the ability to ensure its interests are protected internationally, Canada perceives that it has little ability to influence U.S. policy.

During the height of the smuggling problem, Canadian health groups such as NSRA sought the assistance of the Canadian government in supporting tobacco tax increases in the United States. No assistance was forthcoming, and its absence was explained by the fear of making the United States angry at Canada. Even efforts to at least have the Canadian government assist efforts to counter inaccurate statements of the Canadian situation, which were being made by the Tobacco Institute in the U.S., were rebuffed due to a concern about becoming involved in the domestic affairs of the United States.

3. THE ROLE OF THE TOBACCO INDUSTRY

Canada provides an important lesson in the role that the tobacco industry can play in promoting, while seeking to benefit from, a smuggling problem. The tobacco industry in Canada, as previously discussed, supplied the vast majority of all the tobacco that was being smuggled into Canada. The industry also started a major campaign in 1991 to use the threat of smuggling as a basis for reducing tobacco taxes.

It is hard to determine to what extent the tobacco industry was merely warning of the potential for smuggling as opposed to actually promoting it. For instance, the tobacco lobby ran newspaper advertisements across Canada in 1991 saying that the Minister of Finance (the politician in charge of the budget which raised federal tobacco taxes) "wants you to step outside for a cigarette". On the ad was a picture of a sign which read "Welcome to the USA" (Appendix A)

The tobacco industry also consistently over-estimated the size and growth of the tobacco smuggling problem and paid lobbyists to travel the country talking about how "everybody" was buying smuggled cigarettes. The promotion of the idea of a widespread problem predated evidence of the problem itself and, among smokers, may have promoted the acceptability of purchasing illegal cigarettes.

Despite the dire warnings of a flood of illegal U.S. cigarettes into Canada, there was still little indication of a serious smuggling problem until Canadian cigarettes started showing up in large quantities. This trend was linked to increasing "exports" of Canadian cigarettes to warehouses in upstate New York. These cigarettes were then shipped back into Canada, often avoiding not only Canadian, but also U.S. taxes.

The three Canadian-based tobacco companies (each of them affiliated with one of the three largest U.S. tobacco companies) were, according to contacts in the federal revenue department, responsible for over 90% of all the tobacco being smuggled into Canada. The best that the Canadian tobacco lobby could do to rebut the obvious questions of complicity was to claim that they were only responsible for supplying 70% of the contraband. There was no denial of the fact that the Canadian operations of the multinational tobacco companies were sending billions of cigarettes into the United States in full knowledge that there was no legal market for these products.

The incentives that tobacco companies have to either promote or combat smuggling are of critical importance. In Canada, the domestic tobacco manufacturers were supplying the vast majority of the tobacco smuggled into the country. From a pure profit maximization standpoint, the companies were doing very well. Sales were higher than would otherwise have been the case and there was little outside competition for this 'market'. There was a strong business incentive to supply the smuggling market and little incentive to try to interfere with the contraband trade.

There is a significant difference in a market where the contraband products are provided by some entity other than the local tobacco companies. In such a case, the domestic manufacturers are losing sales and market share. This means a loss of potential profits and gives a strong incentive to the local companies to fight smugglers.

If the local companies wish to combat smuggling, there are many ways in which they can act. The sale of contraband cigarettes by normal retailers (something which became a significant problem in Canada) can be detected by domestic manufacturers by monitoring the legal purchases made from them and looking for any unusual reduction in these purchases. Suspicious situations can be monitored by the army of sales representatives tobacco companies have visiting retailers. In fact, tobacco companies can be great allies of smuggling control efforts if there is a strong economic case for cooperation.

There is clearly a case for ensuring that local tobacco companies are excluded from supplying the smugglers. This immediately gives the tobacco industry an incentive to cooperate in fighting smuggling. Canada did not do this and was faced with a situation where tobacco companies were noticeably absent from efforts to control smuggling, and in fact impeded anti-smuggling activities.

3.1 The Tobacco Lobby Misinformation Campaign

The tobacco industry clearly is concerned about the impact of tobacco taxes on tobacco consumption. By 1993, as the tobacco tax campaign was reaching a critical point in Canada, the Canadian tobacco industry began contradicting a decade of public statements it had made suggesting that tobacco taxes had a significant negative effect on tobacco consumption in Canada. Quotes taken from annual reports and other tobacco company sources outline the tobacco industry's earlier position that tobacco taxes in Canada indeed had a negative effect on consumption (Appendix B). The following statements were made by the previous and current president of the Canadian Tobacco Manufacturers' Council:

> **"Let me make it clear - there is no use kidding anyone on this - - it works. That is, taxes do impact on consumption".**
>
> (William Neville, president of the Canadian Tobacco Manufacturers' Council, 1991 - Testimony before a House of Commons committee on Bill C-10, an Act to amend the Excise Tax Act).
>
> **"It is not the case that increasing price leads to a decrease in consumption"**
>
> (Robert Parker, president of the Canadian Tobacco Manufacturers' Council - quote from an article in The Canadian Tobacco Grower magazine, July 1993, p.25)

Various methods were used by the tobacco lobby to try to convince Canadians that tobacco tax policy was not reducing smoking, that tobacco smuggling was out of control, and that the only realistic policy alternative was to reduce tobacco taxes. We will examine the three most significant efforts.

3.1.1 The Early-1993 Comparison of U.S. and Canadian Consumption Trends

Around the beginning of 1993, reports began circulating about a tobacco industry study being used in closed door meetings to persuade politicians that Canada's tobacco control policies had not worked. In particular, this study was reputed to show that the significant tobacco tax increases since 1982 had not accelerated the rate of decline in tobacco use and had not led to any more rapid a decline than that experienced in the United States (which, to the considerable consternation of public health officials in the United States, is often used by the Canadian tobacco lobby as a "control case" - a country where no significant policy interventions have occurred).

We were initially thwarted in our efforts to obtain a copy of the tobacco industry numbers. In April of that year, we succeeded in getting a copy from the Canadian Tobacco Manufacturers' Council. What we found were tobacco industry numbers which closely approximated the analysis done by government and health agencies.

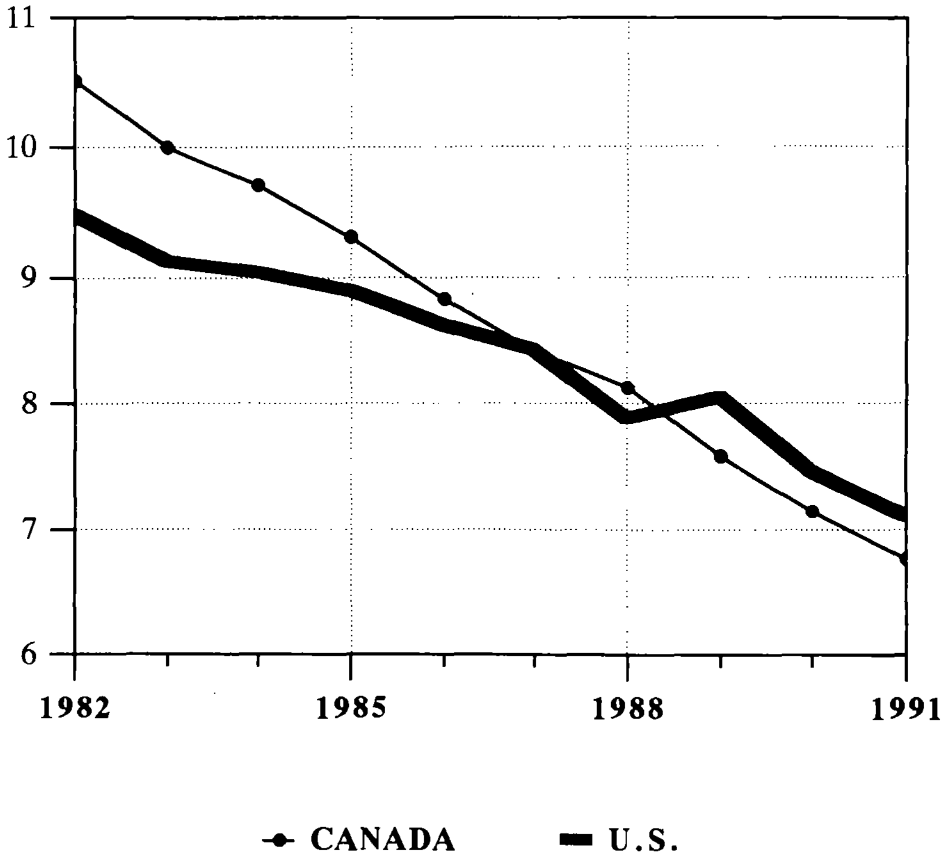
The tobacco industry was apparently waving their numbers (a copy is reproduced as Appendix C) in front of those it sought to influence while stating that tobacco consumption had been declining in both the United States and Canada at roughly the same rate since 1961.

It was no surprise that the industry did not want to have these numbers critically examined. When graphed (following page), the tobacco industry's own numbers, including its own exaggerated estimate of smuggling into Canada, show that the drop in tobacco consumption in Canada was much more pronounced than in the United States.

In fact, from 1982 to 1991 the tobacco industry's own numbers showed that cigarette use was falling about 50% faster than in the United States.

Graph 5

DAILY CIGARETTE CONSUMPTION PER CAPITA 15+
CANADA AND THE UNITED STATES
1982 - 1991



1982	10.52	9.49
1985	9.32	8.90
1988	8.13	7.87
1991	6.76	7.10
% CHANGE 1982 - 1991:	-35.74%	-25.18%

3.1.2 Tobacco Industry Estimates of Smuggling

The Canadian Tobacco Manufacturers' Council (CTMC), the lobby group for the tobacco industry in Canada, released a major report on the contraband tobacco market in Canada on April 13, 1993. Having previously been denied this report, for review, health groups finally obtained a copy on April 23, 1993.

The report revealed the following:

- The tobacco industry estimate of smuggling was based on a false assumption that all Canadian tobacco exports went to the United States and (with the exception of a small amount consumed there) eventually re-entered Canada.

- The tobacco industry had, meanwhile, reported to Statistics Canada that about 1.6 billion cigarettes and cigarette-equivalents were exported in 1992 to countries outside of North America. According to Revenue Canada officials, these overseas shipments were legitimate and were not re-entering Canada.

- The industry had over-estimated smuggling (and Canadian consumption) by at least 1.6 billion cigarettes for 1992. Interestingly enough, the industry arrived at this estimate by ignoring its own publicly reported export data.

- This misinformation led to the industry estimate of a 1992 contraband tobacco market of 9.7 billion cigarettes. Even if we accepted the rest of the assumptions in this report, this estimate represented an over-statement of the problem by about 20%. It also gave the impression of a smuggling problem that was growing much more rapidly than was the case.

- Tobacco industry estimates of cross-border traffic in tobacco products, as a result of this exaggeration, eventually became absurd. Their report estimated that 7.35 billion Canadian cigarettes were smuggled in from the United States, that another 740 million were consumed there by Canadians, and that another 1.78 billion were brought in by cross-border shopping. This totalled 9.87 billion cigarettes. Meanwhile, only 7.6 billion cigarettes were exported to the United States in 1992, and one billion were sent to the duty-free market. The industry was suggesting that substantially more Canadian cigarettes re-entered Canada from the United States than the total shipped there during this period.

- Adjusting tobacco industry estimates of the Canadian tobacco market, to account for this over-estimate of smuggling, produced interesting results. The CTMC estimate of total Canadian tobacco sales (including contraband) in 1991 was 51,735 million cigarette equivalents. For 1992, this CTMC report showed domestic sales of 40,151 million cigarettes and equivalents and "contraband" of 9,743 million cigarettes and equivalents, for a total market of 49,894 billion cigarettes and equivalents. Before taking into account the over-estimation of smuggling, this represents a decline of about 3.6%. But after accounting for the inflated contraband estimate and removing these 1,600 million cigarettes from the 1992 consumption total, the size of the total market is about 48,294 million cigarettes and equivalents. This represents a decline of about 6.7% in the total Canadian tobacco market in 1992. This was the biggest one year decline in Canadian history.

NSRA went to great lengths to inform the Canadian Tobacco Manufacturers' Council and the accounting firm of these errors. Over a period of five months, NSRA wrote a total of six letters to both the Canadian Tobacco Manufacturers' Council and the accounting firm of Lindquist Avey Macdonald Baskerville Inc.

These letters outlined in detail the specific errors within the original document, informed them that there were other "significant" errors which further exaggerated their smuggling estimate, offered additional information and restated the seriousness of the issue at hand.

Initially, both the sponsor and the author of the contraband report questioned the accuracy of NSRA's findings. In early June of 1993, the accounting firm finally acknowledged the existence of one of the errors, and pledged to deliver, within days, a corrected report and public statement on the issue. Two and a half months later, neither a corrected report nor a public statement materialized.

Having no other recourse left, NSRA filed a complaint with the Professional Institute of Chartered Accountants of Ontario on September 15, 1993. The complaint outlined the numerous inaccuracies and, by necessary implication, the lack of professional ethics involved on an issue of great public health importance. Two weeks following this complaint, the accounting firm of Lindquist Avey Macdonald Baskerville Inc. forwarded a copy of the corrected report to NSRA's Ottawa bureau. The updated report took into account one significant error initially reported by NSRA in May of 1993, but overlooked other significant errors. (a detailed chronological chart of events can be found in Appendix D)

In the opinion of NSRA, the accounting firm had also failed in its professional obligation to promote this partially 'corrected' document as much as it had promoted the original findings of its contraband report. While representatives of the accounting firm had publicized and promoted their original findings within the highest levels of government and the national media, not even a news release accompanied the corrected version.

3.1.3 Post-Rollback Analysis By The Tobacco Industry

The tobacco industry has not given up on claiming that tobacco tax increases do not reduce tobacco use. In May of 1994, months after the tax reductions, the Canadian Tobacco Manufacturers' Council released a study that it had commissioned from a private consulting group (*Smoking Trends Among Canadians: A Look at Public Data*, by Informetrica Ltd. and Jacobson Consulting Inc.). This study attempts to reach the same conclusions as the industry attributed to its data from the previous year, but now tries to back up its conclusions with prevalence data. This study also attacks, out of context, some of the graphs produced by NSRA.

This most recent analysis is likely intended more for an international audience, and has indeed appeared in many other jurisdictions. Like the earlier attempt to misrepresent the effectiveness of tobacco taxes, this study is greatly lacking in credibility. In fact, Dr. Tom Stephens, the most recognized expert on Canadian smoking statistics, and one cited several times in this tobacco industry study, simultaneously was analyzing the Canadian data. Not surprisingly, the Stephens analysis came to exactly the opposite conclusion of the tobacco industry consultants.

NSRA responded to the tobacco industry's attack in a memo to Dr. Tom Stephens and members of Canada's national health community on May 13, 1994, a day after the release of the tobacco industry report. The NSRA memo details the refusal of the tobacco industry and its consultants to have their analysis reviewed by independent parties. This memo also points out that the consultants who prepared this report also prepared a report for the same Canadian Tobacco Manufacturers Council in 1990. That report found a much greater price responsiveness to tobacco tax increases than health groups and governments were estimating. But that was in the days before the tobacco industry stopped arguing that tax increases devastate sales and are unreliable revenue raisers. The NSRA memo is attached as Appendix E.

4. THE QUÉBEC SITUATION

One of the long term certainties in Canadian politics is the uncertainty of Québec's future. There is a real possibility that this province could decide to separate from the Canadian confederation. This concern, naturally, has substantial ramifications for the future of Canada and has been a dominant national issue for many years.

In terms of the governing party's (Liberals) position on tobacco taxes, it is important to note that many important changes occurred rapidly between November 1993 and February 1994. During this 4 month-period, Gérard D. Lévesque, Québec's experienced Finance Minister and supporter of tobacco taxes, had died. While the new Finance Minister kept a senior advisor from Lévesque's staff to help in her own team's transition, much of the work, experience and liaison which had been done with the Finance Ministry in Québec was gone.

Within the next two months, the new Premier of Québec, Daniel Johnson, again replaced the Finance Minister. This time, the new Finance Minister hurriedly brought in an entirely new staff. This shuffling of Finance Ministers, especially at a point when the smuggling issue in Québec had gained such momentum, led to Québec's retreat on its fiscal policy on tobacco. Those bureaucrats and politicians who had worked on the tobacco tax issue in Québec and could have offered invaluable experience in understanding the issue at hand had been reassigned.

In working with the new Cabinet of the Liberal Party and the Opposition Party, one troubling fact surfaced. No study had ever been undertaken to measure the impact of Québec's tax policy on tobacco consumption. While the Revenue Department could offer rough data as to the retail sales of cigarettes in the province, no government work had been done on estimating the contraband market and its true social and financial cost to the province.

The contraband market data that the government and the Opposition were using in the ensuing debate were derived from a report commissioned by the tobacco industry (*1992 Contraband Tobacco Estimate* - March 31, 1993 Lindquist Avey Macdonald Baskerville Inc.).

The government did not question the accuracy of this data and unfortunately worked with an outdated and misleading report. This report contained significant errors which ultimately overestimated the illegal market in Canada and Québec, and consequently underestimated the impact of Canadian fiscal policies on tobacco consumption. Although an updated (partially corrected) version of this report had been available as early as September of 1993, the Québec government was unaware of its existence.

It is important to recognize what the tobacco lobby accomplished by having the bulk of Canada's smuggling problem concentrated in Québec. The governing party in Québec began 1994 with a new leader and with the prospect of having to call a provincial election later in the year. In public opinion polls, they were also well behind the Opposition party, the Parti Québecois, which advocates sovereignty for Québec. The separatists were attacking the government on its apparent inability to deal with various problems, and tobacco smuggling was constantly used as an example.

With the re-election of the Liberal Party as the federal government of Canada in the national elections of late 1993, there was a refocusing of attention on how to help Québec's Liberals defeat the separatists. It was reported that the decision to cut tobacco taxes was designed to deal with the political problems faced by the Québec government. Cutting taxes was also seen as an easier option than dealing with smuggling in other ways (see "Killing Taxes and Canadians", Canadian Journal of Public Health, March-April, 1994, Appendix F).

VIII CONCLUSION

Canada's tobacco tax policies over a ten year period led to a dramatic reduction in tobacco consumption. At the same time, a significant proportion of this remaining consumption transferred to smuggled cigarettes, the vast majority of which were produced in Canada and funnelled through the United States due to the open border and low U.S. tobacco taxes.

A number of factors led to the decision to reduce tobacco taxes in Canada. The combination of these conditions is extremely unlikely to develop in the United States or any other major wealthy country. Furthermore, the Canadian experience provides insights that other countries can use to make a similar smuggling situation even less likely.

An examination of the factors, which promoted Canada's smuggling situation and eventually led to the decision to reduce tobacco taxes, yields the following conclusions:

1) The very low tobacco taxes in the United States were critical to the development of smuggling in Canada.

2) The Canadian border, in terms of length, lack of defenses, existence of an Indian Reservation straddling it, and the proximity of the Canadian population, is unlike any other border in the world. Those who attempt to portray the U.S./Mexican border as being analogous to the Canadian/U.S. border are either intentionally seeking to mislead, or wilfully blind to the existing geographical realities.

3) The Canadian government allowed the smuggling problem to worsen by refusing to control or punish the corporate misbehavior of the Canadian operations of the transnational tobacco companies, which were supplying over 90% of the smuggled tobacco. The

government also failed to institute effective package markings to differentiate between legal and illegal cigarettes, and allowed itself to be outmanoeuvred by tobacco companies in other efforts to combat smuggling. Finally, the government was unwilling to try to influence U.S. policy in a way that could have eliminated the United States as the staging ground for smuggling operations.

4) The tobacco industry played a critical role in the development of the smuggling problem, the thwarting of anti-smuggling strategies and the creation of political pressure for a tobacco tax reduction. The tobacco lobby engaged in massive misinformation campaigns concerning the extent and growth of smuggling, which promoted a tobacco tax reduction as the only way to deal with the problem. These misinformation campaigns also sought to convince key decision-makers that Canada's public policy interventions had not resulted in any reduction in tobacco use, despite overwhelming evidence that these policies were very effective.

5) Québec's unique political environment was also a necessary component of Canada's capitulation to the tobacco companies. Due to the concentration of smuggling in the province of Québec, the tobacco companies benefited from the facts that an election was due, that the governing party appeared inept in the face of smuggling, and that a political opposition party campaigning for the break-up of Canada was leading in Québec's public opinion polls. While public health, revenue and public policy arguments strongly favoured an alternative to a tobacco tax reduction, the politics of national unity argued for an immediate end to the smuggling situation in Québec.

Without the unique combination of factors outlined above, the level of smuggling and the inability to contain it without reducing tobacco taxes would not have arisen. At the same time, Canada provides key lessons for other countries wishing to avoid even a fraction of the problems faced by Canada. Countries clearly can realize substantial health and revenue gains through raising tobacco taxes, provided they are willing to tackle the threats of smuggling.

Perhaps the single most important lesson from Canada is that tobacco companies are willing to engage in activities that other industries would find repugnant. These companies will pursue the maximization of profits, even at the cost of undermining health and fiscal policy. Governments must be prepared to deal firmly and effectively with the tobacco industry.

APPENDIX A

MICHAEL WILSON WANTS YOU TO STEP OUTSIDE FOR A CIGARETTE.

Finance Minister Michael Wilson's latest increase in federal tobacco taxes is driving many smokers over the line.

Literally.

With the latest hike of 3 cents a cigarette, Mr. Wilson has helped to boost the average price of a package of 20 cigarettes to anywhere from \$4.20 to \$5.10. The same pack, with all U.S. taxes paid, is available right across the border for anywhere from C\$2.25 to C\$3.10.

The result? More and more Canadians are buying their cigarettes south of the border. Even worse, cigarette smuggling has become a \$500 million a year business.

That means lost income and lost jobs for Canadians. Not just the 60,000 Canadians who depend on the tobacco industry for their livelihood. But also the Canadian producers and thousands of retailers who lose millions of dollars that Canadian smokers spend on other goods in the United States.

Perversely, Mr. Wilson's high taxes lead to lost Canadian tax revenue, too — as much as \$350 million alone on black market cigarettes smuggled into Canada with no taxes paid to Ottawa or the Provinces.

We believe that this is bad tax policy for Canada. We also think it is blatantly unfair to place a \$4 billion tax burden — \$7 billion if you count the provinces — on a single group of Canadian consumers, many of whom cannot afford it.

If you agree with us, please take a moment to phone or write to Mr. Wilson.

You can reach him at (613) 996-7861, or postage-free c/o The House of Commons, Ottawa K1A 0A6; and while you're at it, let your Member of Parliament know as well.

THE COMMITTEE FOR FAIR TOBACCO TAXATION

Ontario Flue-Cured Tobacco Growers' Marketing Board. Office des producteurs de tabac jaune du Québec. New Brunswick Flue-Cured Tobacco Growers' Association. Nova Scotia Flue-Cured Tobacco Growers' Marketing Board. P.E.I. Tobacco Commodity Marketing Board. National Association of Tobacco and Confectionery Distributors. Bakery, Confectionery and Tobacco Workers International Union. Smokers' Freedom Society. Canadian Tobacco Manufacturers' Council

APPENDIX B

QUOTES FROM IMASCO LTD.

Annual Report 1983

...taxes levied by both levels of government were increased significantly; and for the first time in over a decade industry shipments of cigarettes declined as consumers reacted to the escalation in tobacco retail prices...(p.4)

Annual Report 1984

It is evident that the level of federal and provincial taxation is crucial to the industry's future. Favourable results from the task force review, and a reduction in provincial tobacco taxes will allow the industry to return to a pattern of modest but stable growth. (p.6)

Interim Report - April to December 1985

The tax increases of the federal and Quebec governments in April and May 1985 are continuing to have a depressing effect on tobacco industry sales. Industry shipments for the nine months of fiscal 1986 were 45.2 billion cigarettes down 5.4% from the comparable period a year ago.

Annual Report 1986

Excessive cigarettes taxation continued to be the industry's major problem in fiscal 1986. Substantial increases in taxes at both the federal and provincial levels resulted in a further slowing of unit sales. (p.2)

Interim Report - April to Sept 1986

Industry shipments of cigarettes in the six months were down 4.5% compared with those of the same period last year. Heavy federal and provincial taxation rates on cigarettes have had a depressing effect on sales.

Annual Report 1987 (for the nine months ended December 31, 1897)

Cigarette taxes increased moderately in 1987. With the exception of Alberta and Nova Scotia, consumers were not faced with the levels of federal and provincial tax increases that characterized previous years. As a result, the tailor-made cigarette industry slowed its rate of decline to 5.3%, with shipments totalling some 52.4 billion cigarettes. (p.10)

QUOTES FROM IMASCO LTD.

Annual Report 1988

As the year progressed, five provinces increased taxes, the most notable being Ontario where taxes increased by 35%. As a result, industry volume declined further. Volume for the year totalled 51.1 billion cigarettes, a decrease of 3% from 1987. (p.10)

Interim Report - Jan to June 1988

Also, a decrease in consumption related to the April provincial tax increases is expected, particularly in Ontario.

Interim Report - Jan to Sept 1988

As mentioned in previous reports, this level of performance is not expected to continue. The impact of a round of provincial tax increases in the spring is only now starting to affect industry shipments.

Annual Report 1989

Canadian cigarette manufacturers were expecting a modest decline in consumption in 1989. However, the April federal budget struck a major blow to industry forecast. The excise duty on manufactured cigarettes increased by an incredible 161% and on fine cut tobacco, by 654%. Seven provinces also raised tobacco taxes and Canadian smokers faced overall price increases of up to 35% on manufactured cigarettes and 89% on fine cut tobacco. Industry volume of manufactured cigarettes fell 7% to 47.6 billion units and Imperial.s volume dropped 4% to 27.5 billion units. (p.8)

Interim Report - Jan to March 1989

There is little doubt that the exorbitant tobacco tax increase in the recent federal budget will affect industry volumes for the balance of the year. Total consumption will most certainly decline at a faster rate than previously estimated.

Interim Report - Jan to Sept 1989

The higher revenues are principally due to the large tax increase imposed by the Federal government in the spring of 1989. As expected, the resulting higher retail prices are affecting consumer demand. Industry shipments of manufactured cigarettes in the third quarter were 12.3 billion, a decrease of 10.1% from the comparable period of 1988. Imperial's shipments were 7.1 billion, down 8.5%.

QUOTES FROM IMASCO LTD.

Annual Report 1990

Federal and provincial government tax policies over several years have pushed the retail price of cigarettes to extraordinary levels. The very high retail prices, more than any other factor, account for the decline in domestic industry sales. (p.6) Significant tobacco tax increases by both the federal and provincial governments in past years have adversely affected unit sales volumes. (p.23)

Investor Update- Jan to March 1991

The exorbitant tobacco tax increase in the February federal budget and increases from the provinces will undoubtedly have a strong impact on this year's industry's volume. (p.2)

Annual Report 1992

The smuggling problem is due solely to the very high level of tobacco taxes in Canada. The rationale for these taxes is that they discourage smoking while generating substantial government revenues. **However, there is no evidence that the policy has had a measurable effect on the incidence of smoking by Canadians....** (p.4)

Investor Update - Jan to Sept 1992

While the heavy taxation of tobacco products in Canada has not materially affected total smoking, it has had an impact on the nature of the market. (p.8)

QUOTES FROM ROTHMANS LTD.

Annual Report 1983

The decline in industry shipments is primarily the result of large number of tax - induced price increases to the consumer. The indexing of tobacco taxes at the federal level and in five of the provinces has led to substantial increases in the proportion of taxes in the consumer selling price....The inevitable result of these actions is a reduction in consumer demand....The unprecedented series of tax increases poses a significant threat to the long term well-being of this important Canadian industry and its suppliers, customers and shareholder. (P.5)

QUOTES FROM ROTHMANS LTD.

Annual Report 1984

The Company's cigarette volume declined 5.6% while the total market for cigarettes showed a decrease of just under 4% during the year. As indicated in last year's annual report, the excessive cigarette tax increases introduced by both Federal and Provincial Governments in recent years have been the major factor contributing to the industry decline. (P.4)

Annual Report 1985

Industry cigarette sales have now declined for three consecutive years, primarily because of the large number of tax-induced price increases during that period. (P.4)

Annual Report 1987

While federal tobacco tax increases were more moderate by comparison with the significant increases in recent years, accelerating increases in Alberta and Manitoba represented a disturbing trend, and tax increases overall again were the main contributor to declining industry volumes. (P.4)

Rising taxes are the main contributor to volume declines. (P.10)

1st Quarterly Report- For The 3 Months Ended June 30, 1989

Because of recent tax increases that raised the cost of a carton of cigarettes by four to seven dollars and the cost of a tub of tobacco by a similar amount, we are forecasting a market decline for the current year of 8 to 10%. (P.2)

Annual Report 1990

Since 1982, tax increases at far above the inflation rate have made it increasingly difficult for consumers to afford the enjoyment of our products, resulting in a downward trend in tobacco sales. (P.5)

The Corporation expects that future earnings performance will be affected by two major factors: declines in the total market caused by continued excessive taxation; and , constraints on reversing negative market share trends due to increasingly stringent government controls over the sale of tobacco products. These factors may result in lower net revenues and earnings than might otherwise have been realized. (P.7)

QUOTES FROM ROTHMANS LTD.

Annual Report 1991

The Corporation continues to expect that future earnings performance may be adversely affected by two major factors: declines in industry volumes caused by continued excessive taxation; and, constraints on market share imposed by increasingly stringent government controls over the marketing and sale of tobacco products. (P.11)

Annual Report 1992

Excessive taxation continues to be a major factor that could adversely affect our operating performance in future years. (P.9)

APPENDIX C

15+

Per Capita Consumption Cigarettes/Day Per Day				US Taxable Cigarette Consumption	CDN Cigarette Sales Incl Fine Cut	CDN Cigarette Market + Contraband	Canandian Contraband
Date	CDN - Legal	CDN - Total	U.S.				
1961	11.24	11.24	10.84	488119	48093	48093	
1962	11.54	11.54	10.85	494463	50283	50283	
1963	11.39	11.39	10.97	509566	50521	50521	
1964	11.11	11.11	10.53	497446	50378	50378	
1965	11.28	11.28	10.66	511463	52288	52288	
1966	11.65	11.65	10.71	522532	55397	55397	
1967	11.33	11.33	10.64	527800	55367	55367	
1968	10.63	10.63	10.37	523007	53292	53292	
1969	10.40	10.40	9.96	510532	53401	53401	
1970	10.79	10.79	10.20	532767	56745	56745	
1971	10.79	10.79	9.94	528858	58054	58054	
1972	10.96	10.96	10.16	551016	60270	60270	
1973	11.07	11.07	10.68	590342	62227	62227	
1974	11.06	11.06	10.23	576175	63829	63829	
1975	10.90	10.90	10.24	588345	64515	64515	
1976	11.10	11.10	10.56	617892	67320	67320	
1977	10.98	10.98	9.93	592006	68099	68099	
1978	10.63	10.63	10.11	614208	67258	67268	
1979	10.71	10.71	9.93	613530	69087	69087	
1980	10.51	10.51	9.86	620565	69278	69278	
1981	10.60	10.60	9.99	638114	71325	71325	
1982	10.52	10.52	9.49	614017	71692	71692	
1983	10.00	10.00	9.13	597454	69140	69140	
1984	9.72	9.72	9.04	597893	67898	67896	
1985	9.32	9.32	8.90	594922	65821	65821	
1986	8.81	8.83	8.62	583020	62851	63047	196
1987	8.36	8.43	8.43	577008	60475	60985	512
1988	8.08	8.13	7.87	543378	59062	59644	582
1989	7.44	7.59	8.05	561021	55352	56414	1062
1990	6.97	7.14	7.45	523094	52573	53842	1269
1991	5.92	6.76	7.10	516338	45309	51735	6427

Sources: Statistics Canada
Survey of Current Business, U.S. Dept of Commerce
Lindquist, Avey Macdonald Baskerville Inc.

APPENDIX D

A CHRONOLOGY:

April 13, 1993

Commissioned by the Canadian Tobacco Manufacturers' Council, the Forensic & Investigative accounting firm of Lindquist Avey Macdonald Baskerville Inc. releases a major report on the contraband market in Canada, entitled: 1992 Contraband Estimate. They seek and attain major media coverage.

This report is to be used as a lobbying tool by the tobacco industry in informing politicians of the extent of the smuggling problem in Canada, in an effort to lower Canadian tobacco taxes.

April 22, 1993

The Non-Smokers' Rights Association, having previously been refused a copy of the report, analyzes it and notices significant errors.

One of these errors overestimates the smuggling problem by 1.6 billion cigarettes. This error is sufficient to create an overestimate of the rate of growth in the smuggling problem in the previous year by 50%.

This is a critical factor for legislators who are considering decisions as to whether or not to maintain tobacco tax levels or to roll them back.

April 23, 1993

NSRA sends a letter to Robert Parker, president of the Canadian Tobacco Manufacturers' Council. The letter outlines the errors found in the tobacco industry's document. The letter seeks an explanation from Mr. Parker as to how such errors could have come about.

May 18, 1993

Having received no response from the tobacco industry, NSRA sends a second letter to Robert Parker, president of the Canadian Tobacco Manufacturers' Council. This letter reiterates the seriousness of the issue at hand and requests once more an explanation for the substantial errors in the tobacco industry's contraband report.

May 18, 1993

Robert Parker, president of the Canadian Tobacco Manufacturers' Council, responds to both of NSRA's letters. Mr. Parker suggests that NSRA's findings are "inaccurate". Mr. Parker has, however, forwarded our concerns to the accounting firm Lindquist Avey Macdonald Baskerville Inc.

May 25, 1993

NSRA sends a letter to Mr. Tedd Avey, president of Lindquist Avey Macdonald Baskerville Inc.

NSRA's concerns over the inaccuracy of the smuggling report is reiterated. An explanation, as to how such significant errors could have resulted and what the accounting firm intends to do to rectify this situation, is requested.

May 28, 1993

Mr. Tedd Avey, president of Lindquist Avey Macdonald Baskerville Inc., responds to NSRA's letter. Mr. Avey suggests that NSRA's basic information may be factual but that the conclusions are inaccurate. <u>Mr. Avey suggests that the firm will be making a statement with respect to this matter shortly</u>.

June 2, 1993

NSRA sends a letter to Mr. Rod Stamler, principal author of the Lindquist Avey Macdonald Baskerville Inc. smuggling report.

NSRA:

- reiterates its concerns over the significant errors found in the smuggling report,
- reminds Mr. Stamler of the importance of this issue as the report in question is currently being used as a lobbying tool by the tobacco industry and still frequently promoted by the accounting firm,
- and asks what steps Mr. Stamler is planning to take to correct for the errors

June 9, 1993 (On or about)

Mr. Rod Stamler, following his receipt of NSRA's June 2 letter, telephones NSRA's Senior Legal Counsel David Sweanor. Mr. Stamler agrees with NSRA's findings and acknowledges other errors in the report. Mr. Stamler informs Mr. Sweanor that a revised estimate is being prepared by the accounting firm, independent of the tobacco industry. The draft of this new report will be completed within a few days and forwarded to NSRA for review.

June 30, 1993

NSRA sends a second letter to Mr. Rod Stamler. Three weeks have passed since Mr. Stamler promised to deliver the 'new' report. NSRA has heard nothing from Mr. Stamler or the accounting firm of Lindquist Avey Macdonald Baskerville Inc. The letter seeks an explanation for the delay in taking corrective action on this matter.

July 7, 1993

Mr. Stamler responds to NSRA's June 30 letter. Mr. Stamler confirms that the accounting firm is currently in the process of "finalizing a final report for its client". The report will address NSRA's concerns and will be completed as soon as possible.

August 6, 1993

NSRA sends a letter to Mr. Tedd Avey, president of Lindquist Avey Macdonald Baskerville Inc.

NSRA reiterates its concerns of having an erroneous smuggling report still widely circulated in government and the media. NSRA requests an explanation as to why there has yet been no public corrective action taken.

August 31, 1993

NSRA files a complaint with the Institute of Chartered Accountants of Ontario, in light of the accounting firm's lack of professional ethics in this matter.

September 15, 1993

The Institute of Chartered Accountants of Ontario responds to NSRA's August 31 letter.

The Institute has contacted Mr. Edward Avey of Lindquist Avey Macdonald Baskerville Inc. for his comments on this matter.

They will be in further contact with NSRA at the direction of the professional conduct committee.

September 30, 1993

Mr. Tedd Avey, president of Lindquist Avey Macdonald Baskerville Inc., sends an updated version of the initial contraband report to NSRA. This update, Mr. Avey suggests, is a result of 'new information provided by our client'.

This update takes into account one significant error initially reported by NSRA to the accounting firm on May 25, 1993, but overlooks other errors.

****

In the Opinion of NSRA, the accounting firm has failed in its professional obligation to promote the corrected error as publicly as it promoted the original findings of its contraband report.

The accounting firm of Lindquist Avey Macdonald Baskerville Inc. has spent considerable time promoting their original findings within the highest levels of government and in the national media. Their corrected report, to date, has received no publicity.

APPENDIX E

NON-SMOKERS' RIGHTS ASSOCIATION
L'ASSOCIATION POUR LES DROITS DES NON-FUMEURS

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MEMORANDUM

TO: Tom Stephens, NCAT

FROM: David Sweanor

RE: CTMC Attack on Tobacco Consumption Data

DATE: May 13, 1994

The Canadian Tobacco Manufacturers' Council yesterday tabled before the Parliamentary Committee on Health, a document prepared by M.C. McCracken of Informetrica Ltd. and Paul M. Jacobson of Jacobson Consulting Inc. It purports to show that tobacco consumption in Canada has been unaffected by the public policy interventions of the past decade.

I understand that a thorough review of this document may be forthcoming from Tom Stephens (who is sourced at least half a dozen times in this tobacco industry report). I would like to comment on the analysis of graphs prepared by our organization (Appendix B of the tobacco industry document), the approach of the tobacco industry in the preparation of this report and the inconsistency with a report done by the same authors, for the same client, four years ago.

A) THE ATTACK ON THE NSRA GRAPHS

1) They attribute one of the two graphs to the Canadian Cancer Society. In fact that graph was produced by our office, but, like many of our graphs (we have almost 200 on various tobacco issues) it has been reviewed and used by many others.

2) They claim our studies have all used "taxable sales" as the measure of consumption. In fact this accusation is mentioned three times. But even the graphs they reproduce both adjust for smuggling. These graphs are not based only on tax paid sales.

3) They say we "have ignored the fact that the share of smokers in the population was declining, along with their intensity of use of tobacco products". This is simply untrue. In fact per capita consumption information (as presented in the graphs in question) show the combined effects of reduction in the prevalence of smoking and the reduction of smoking intensity among those who continue to smoke. It is the tobacco industry consultants who seek to hide the overall reduction in tobacco use by focusing only on prevalence.

4) They claim our graph scales are distorted because neither vertical axis starts at zero. This is a laughably stupid accusation. It is normal practice in the presentation of data to illustrate changes and to highlight the relevant change. This does not change the results but makes them more apparent. It is standard practice for economists, statisticians and epidemiologists. In fact changing the axis to start at zero (as the tobacco industry consultants do) can distort findings by making significant changes much harder to spot. One would think that even tobacco industry people would recognize that such things as graphs of the indexes of stock exchanges (which appear daily in our papers) would be much less meaningful if the axis started at zero.

5) They attack the graph attributed to the Canadian Cancer Society because it uses "total population as a base". This is a criticism of the fact that babies and children are included in the population base. But the tobacco folks do not say why such a graph was needed by health groups. The reason, which they would obviously prefer not to discuss, is that we need to compare sales trends with the data prepared by the United States Tobacco Institute (the U.S. counterpart of the CTMC). It is the United States tobacco industry which uses this measurement of consumption in its annual book on tax and consumption statistics (see Tax Burden on Tobacco, Volume 28, pages 3, 6 and 188-238, published by the Tobacco Institute). In fact this is the only measure of consumption used by this major tobacco industry document. Then when we produce equivalent data for Canada for comparison with tobacco industry numbers in the United States, the tobacco industry accuses us of using a lousy measure. Better that they call their parent companies in the United States.

6) We are accused of using an inaccurate number to reflect the non-taxed portion of the market. In fact we chose to use numbers based on the Canadian tobacco industry's own analysis in order to be above reproach by those we assumed would want to attack us. So in attacking us they attack their own data. But even if their own data left out other sales as they claim, the overall readjustment necessary would be small and not affect the dramatic shift to lower consumption.

7) Our organizations are also accused of seeking to "hide the fact" that a smaller portion of Canadians have been smoking since the early 1960's. This is total nonsense. Health groups, including the Canadian Cancer Society, have been trumpeting this fact in massive public education campaigns for years. What is more important is that the declines in tobacco use accelerated dramatically as public policy measures were enacted in the last decade. This is the fact from which the tobacco industry is trying to hide while it seeks to confuse others.

B) THE APPROACH OF THE TOBACCO INDUSTRY IN THIS STUDY

We learned almost a year ago that the tobacco industry was trying to find a way to portray data on smoking in such a way as to indicate that public policy interventions had not worked. We wrote to the CTMC and suggested that any analysis be sent for peer review by acknowledged experts. We also pointed out that health groups are only interested in measures that will reduce the health toll of tobacco products and that any persuasive evidence of lack of efficacy would be welcomed. The CTMC did not respond.

When we heard that Informetrica Limited was doing such work we approached them in an effort to cooperate in the accurate interpretation of data. We reiterated the position of health groups in terms of only being interested in health and, again, we asked for independent analysis and verification of their data.

Both of these letters are attached.

The tobacco lobby's researchers did all they could to avoid any contact with any health groups, including the two groups they specifically attack. They then use graphs out of context and accuse us of ignoring measurements of consumption that we actually use. If they had contacted us, or responded to our efforts to show them the data, we could have shown them the material we have on prevalence or any other measure. We could have also pointed out the errors in their own analysis and directed them to experts who could give them background information on which measurements are used to look at the efficacy of tobacco control efforts, and why. Instead they chose to work in the shadows, to take material out of context and to ascribe some sort of horrendous plot to the NSRA and the Canadian Cancer Society. Meanwhile health groups, despite repeated attempts, could not even see the report until after it was presented to a parliamentary committee yesterday.

This was nothing but a hatchet job done for an industry with a long history of using and abusing statistics for its own public relations purposes. It is important

C) CONSISTENCY WITH EARLIER WORK BY THE SAME AUTHORS

This is not the first time the CTMC has retained McCracken and Jacobson to do work on the impact of tobacco tax increases on tobacco consumption. In 1990 they produced something entitled "Tobacco Demand Elasticity Study". This was back when the tobacco companies still acknowledged the way tax-induced price increases reduce tobacco consumption. This earlier report estimated price sensitivity in an apparent attempt to scare the federal government out of raising taxes because of the impact on sales. We obtained a copy of this study from the Department of Finance under the Access to Information Act.

The conclusions, presented on page 14 of that document are included with this memo. As can be seen they say:

> "Even a cursory comparison of price and volume data in the 1980's compared with the 1970's shows that prevalence of cigarette smoking has plunged with the price increases of the 1980's. A large measure of the price jump is due to tax increases, both by federal and provincial governments."

The tobacco industry decided to change its position on the efficacy of tobacco taxes in reducing consumption (we have lots of quotes from them on this topic over the years) when it was obvious that this was not preventing tax hikes. Governments started to show greater concern for public health and increased revenue than for maintaining tobacco sales. So the industry decided to change its position 180 degrees in spite of the facts. Then it appears they did not even have enough sense to hire consultants other than the ones who had already produced a report for them that contradicted their new position.

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August 16, 1993

Mr. Robert R. Parker
President
Canadian Tobacco Manufacturers' Council
Suite 701
99 Bank Street
Ottawa, Ontario K1P 6B9

Dear Mr. Parker:

You have over the past few weeks written, or had attributed to you, various statements with respect to trends in tobacco consumption in Canada. These statements have included assertions that tax increases have not reduced tobacco use in Canada, that tobacco consumption has been falling at a steady rate uninfluenced by legislative action in the past decade, and that Canadian tobacco consumption has fallen no faster than that of the United States during the last decade.

Based on all of the information available to health organizations these allegations are demonstrably false. Yet your continued espousal of such statements would lead us to believe that your member companies must have some factual basis upon which to base your views.We have thus far been unable to acquire any information from your organization or member companies that does anything other than confirm that your statements are erroneous.

If you are in possession of any information that would so startlingly change the interpretation of a wealth of existing information we would like to have it shared in an open and honest way with those who are experts in interpreting such data. The Behaviour Research Unit of the National Cancer Institute of Canada, the Department of Biostatistics at the University of Toronto or the Addiction Research Foundation readily come to mind.

.../2

Health organizations have no interest in measures that do not improve health. We are guided only by an interest in reducing the disease and death caused by tobacco use. If you are merely interested in confusing the public about Canada's tobacco control efforts we assume you will continue to make your allegations through the media and to government officials behind closed doors. If you actually believe there is any credibility in your assertions, and have some new data or new way of interpreting existing data, we trust you will be contacting reputable experts to have your views critically examined.

We look forward to finding which route you choose to take. We also request that you let us know your intentions.

Sincerely,

David T. Sweanor
Senior Legal Counsel

cc. National Cancer Institute
Department of Biostatistics, U of T
Addiction Research Foundation

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April 15, 1994

Michael McCracken
Informetrica Limited
11th Floor
130 Slater Street
Ottawa, Ontario K1P 6E2

Dear Mr. McCracken:

I was rather taken aback by your behaviour during our telephone conversation this afternoon when I called to see whether you would be willing to discuss your interpretation of the data concerning the relationship between price and consumption of tobacco products.

Perhaps you were having a bad day or perhaps derogatory comments followed by hanging up the phone is considered normal business practice in your office. In any event I will try not to take it personally. I also appreciate your honesty in acknowledging that your work on tobacco price and consumption is on behalf of the Canadian Tobacco Manufacturers' Council.

Since you did not wish to discuss your position, or hear mine, I thought I would say to you exactly what we have said to others who purport to have data showing that tax policy does not affect tobacco consumption.

We are not interested in tobacco tax policy for any reason other than the fact that there is overwhelming evidence that price plays a very important role in determining consumption. I have experience with health and medical organizations across Canada and around the world and I assure you that their motivations on this issue are the same.

If you have any evidence that contradicts the basis upon which we make our assumptions we are very interested in seeing it. We also suggest that, prior to public release, such information be supplied to independent experts such as the Behaviourial Studies Unit of the National Cancer Institute of Canada, Department of Biostatistics at the University of Toronto or the Addiction Research Foundation. Such a move would not only show your confidence in the quality of your work, but allow an informed discussion in health circles if indeed there is anything you might have found which all the other researchers have missed.

We look forward to hearing whether you will seek and obtain the permission of your client to discuss your research, or send it through a form of independent peer review. In the absence of such a willingness it will be hard to treat your latest work as anything more than another public relations exercise by an industry with a justifiably poor reputation.

Yours sincerely,

David T. Sweanor
Senior Legal Counsel

Tobacco Demand Elasticity Study

Prepared for:

Canadian Tobacco Manufacturers' Council

P.M. Jacobson
P.N. Rodway
Reviewer: M.C. McCracken
Informetrica Limited
January 17, 1990

Informetrica
Limited

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5 CONCLUSIONS

Even a cursory comparison of price and volume data in the 1980s compared with the 1970s shows that prevalence of cigarette smoking has plunged with the price increases of the 1980s. A large measure of the price jump is due to tax increases, by both federal and provincial governments.

This study has found that average long-run price elasticities for the period 1973-88 are around 0.7, either from the intensity/prevalence route or from using shipments data. Pooling the provincial data gives a long-term price elasticity for this period of about 0.8 (the higher elasticity provinces where population is smaller get equal weight with the more populous regions).

While Houthakker-Taylor models produce results of doubtful validity, they do point to increasing year-to-year price elasticities through the 1980s.

As for the provincial models, based on the shipments data, we see elasticities greater than 1 in the Atlantic region, dropping closer to the national average in Central Canada and British Columbia, and settling a little lower on the Prairies.

APPENDIX F

EDITORIAL/ÉDITORIAL

Killing Taxes and Canadians

On February 9, 1994, the federal government made a policy decision which could well be the single greatest blow ever to the cause of better public health in Canada. "In order to combat tobacco smuggling", they effectively lowered the price of cigarettes. If health is a major value of our country, such an approach is about as sensible as reducing impaired driving by doubling the allowable blood alcohol level. The price to be paid in terms of suffering and premature death, and added health care burden and economic losses, is staggering. The lack of attention given to the public health implications of caving in to the tobacco companies and the smugglers is extremely disappointing.

To get an idea of how horrendous a decision this tax cut represents in terms of public health we need only look at the evidence on the role of price in determining tobacco consumption. Tobacco consumption plummeted by 40% per capita — even after factoring in smuggling — as prices rose and as the estimates of price elasticity developed by economists were shown to be accurate.[1] There is little doubt that price was, by far, the most important factor in Canada's recent precedent-setting declines in tobacco consumption.[1] Unfortunately for Canada's public health, price sensitivity is a two-way street and we can now anticipate an unprecedented increase in tobacco use as tobacco becomes more affordable. Given that young people are the most price-sensitive (consumption among teens in Canada fell by about 60% per capita as prices increased in the 1980s and early 1990s), we can expect a new tobacco epidemic among our youth.

The political commentators can agonize long and hard about which straw broke this weedy camel's back. Many a doctoral thesis can be written on the relative importance of tobacco industry clout and money, the need to shore up the government of Quebec, the complications of interfering with the status of the Indian reserves, and the unwillingness to press the United States to take any sort of complementary action on tobacco taxation.

Whatever the relative importance of these factors, we know one thing for sure — forced to choose between these competing interests and the public health of Canada, sacrificing the latter was the soft option. The federal government even ignored the advice of the health community concerning ways to deal with smuggling without sacrificing health.

The public health "lobby" in Canada needs now to do two things. There is no point sitting around weeping about how the government could do such a thing — crying over slashed taxes does not do one any good. But we do need to understand why we were so easily dismissed by the government, and we need to work out how to turn the present situation to our advantage.

On the first question, I simply do not think we are acting in a way commensurate to the scale of the imminent public health disaster we spoke about. For years, action has not matched rhetoric. We say that tobacco is the biggest killer, and that high tobacco taxes are the most effective countermeasure. Yet the resources devoted by the major health charities and professional bodies, including the CPHA, have been minuscule. If effective public policy interventions for tobacco control are that far down our priority list, why should governments take such issues seriously?

We must match our rhetoric with our actions. We must put far more resources — time, energy and money — into tobacco control. We need to do that quickly because we have an unparalleled opportunity to exploit. The federal government feels shame-faced and vulnerable; they know they have done wrong. Provincial and municipal governments are coming to recognize the magnitude of the unfolding tragedy. We need now to galvanize support behind an agenda that will, once again, put Canada at the forefront of tobacco control.

Though we cannot give up on the chance of the federal government changing its position on taxation, we must also realize that tax policy may be lost to public health forces for the near future. Nevertheless, there are numerous other measures we should be pressing governments to put in place immediately, to attempt to mitigate the potential public health catastrophe for which the Government of Canada is responsible.

At the federal level, we can end the absurdity of exempting the tobacco industry from meaningful regulation. When federal officials infer that tobacco is simply too hazardous a product to be placed under the Hazardous Products Act, we must avoid the conclusion that we have walked on to the set of Monty Python. We must demand that tobacco's exemption be removed or that an alternative legislative regime be immediately implemented. This could, finally, give federal regulators control over the manufacturing of tobacco products — everything from additives to addictiveness and from fire safety to mandatory "plain packaging".

At the provincial level, we face the health consequences of the federal tax decision as well as the fact that the federal government is forcing down provincial tobacco taxes. We must implement laws that will allow provinces to maintain tobacco taxes in order to protect the public health of their citizens even if the federal government will not. We also have an urgent need to mitigate the public health problems of cheaper tobacco by implementing comprehensive provincial tobacco control laws, similar to what Nova Scotia and Ontario are doing.

At the municipal level, we need to implement policies that give much greater protection from environmental smoke and that restrict tobacco promotions. Municipalities can also propose and enforce laws preventing the supply of tobacco to young people. As with other levels of government, public health professionals must take a much higher profile in tobacco control efforts.

The events of the past few weeks illustrate the scale of the challenge we face. Dealing with tobacco is not like dealing with other public health problems. This disease vector fights back in a different way. It hires lobbyists and public relations people and is not shy of spending millions of dollars to fight health measures. At the moment, the tobacco industry believes it has secured a major victory. We need to act now to ensure that this apparent victory rates as the most pyrrhic and short-lived ever seen in the history of Canadian public health.

David Sweanor
Senior Legal Council
Non-Smokers' Rights Association

REFERENCE

1. Allen RC. *False Dilemma: The Impact of Tobacco Control Policies on Employment in Canada.* Report commissioned for the National Campaign For Action On Tobacco, February 1993.

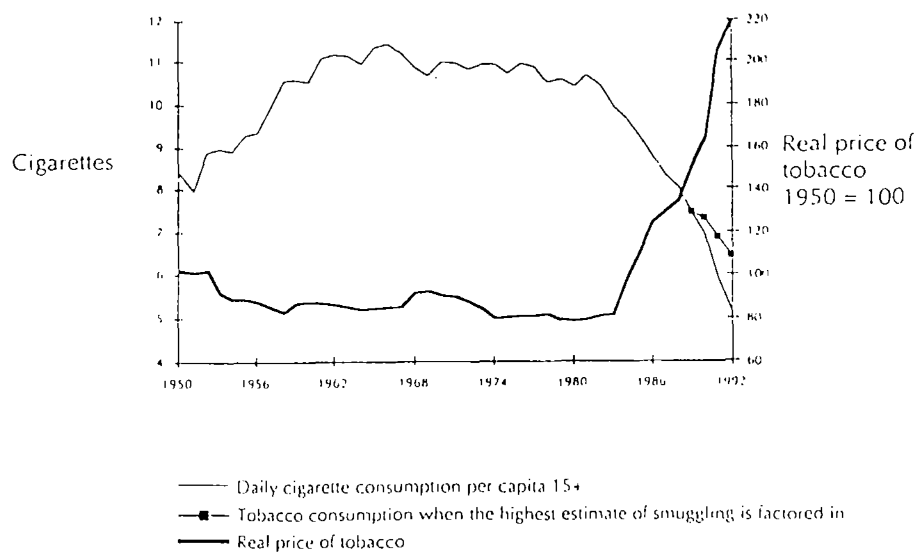

Figure 1. Daily consumption of cigarettes per capita 15+ and real price of tobacco, Canada 1950-1992

Entre les taxes et la vie des Canadiens, on a choisi

Le 9 février 1994, le gouvernement fédéral a pris une décision politique qui pourrait s'avérer être le pire coup jamais porté à l'amélioration de la santé publique au Canada. "Pour combattre la contrebande de tabac", le gouvernement a diminué le prix des cigarettes. Si la santé représente effectivement une des grandes valeurs de notre pays, une mesure comme celle-ci est à peu près aussi intelligente que vouloir prévenir la conduite avec des facultés affaiblies en doublant le taux d'alcoolémie autorisé. Le prix qui devra être payé en termes de souffrances et de décès prématurés, ainsi qu'en termes de pertes économiques et coûts de santé supplémentaires, sera énorme. Il est extrêmement décevant de noter le manque d'attention qui a été accordé aux répercussions sur la santé publique qu'entraînera cette abdication face à l'industrie du tabac et aux contrebandiers.

Pour se faire une idée du coût extrême que cette réduction des taxes représente en termes de santé publique, il suffit simplement de faire le constat du rôle que joue le prix dans la décision de consommer du tabac. La consommation de tabac a chuté de 40 % par habitant — même en tenant compte de la contrebande — à mesure que les prix augmentaient et que les estimations de l'élasticité du prix faites par les économistes se confirmaient.[1] Il ne fait guère de doute que le prix a été de loin le facteur le plus important dans le déclin sans précédent de la consommation de tabac au Canada. Malheureusement pour la santé publique du Canada, l'influence du prix n'est pas à sens unique et on peut maintenant s'attendre à une augmentation sans précédent de la consommation de tabac, à mesure que son prix deviendra plus abordable. Étant donné que les jeunes sont les plus influencés par les prix (la consommation chez les adolescents canadiens a chuté de près de 60 % par habitant avec les hausses de prix dans les années 1980 et au début des années 1990), on peut s'attendre à une nouvelle flambée de tabagisme chez les jeunes.

Les analystes politiques vont pouvoir se ronger les sangs longtemps pour savoir quelle est la goutte d'eau qui a fait déborder le vase. Bien des thèses de doctorat pourront être écrites sur l'importance relative du poids et des moyens financiers de l'industrie du tabac, sur le besoin de venir en aide au gouvernement du Québec, sur les complications de l'ingérence dans le statut des réserves indiennes, et sur la réticence à exercer des pressions sur les États-Unis pour qu'ils prennent des mesures complémentaires en matière d'imposition des produits du tabac.

Quelle que soit l'importance relative de tous ces facteurs, il est une chose dont nous sommes certains — contraint de choisir entre d'une part, ces intérêts concurrents et conflictuels et, d'autre part, la santé publique du Canada, c'est cette dernière option qui est apparue comme le moindre mal. Le gouvernement fédéral a même ignoré les conseils de la communauté de la santé quant aux différentes façons de régler le problème de la contrebande sans sacrifier la santé.

Les groupes de pression du secteur de la santé publique au Canada ont maintenant deux choses à faire. Rien ne sert de se lamenter sur le fait que le gouvernement ait pu faire une chose pareille — pleurer sur la réduction des taxes ne servira à rien. Par contre, il faut vraiment que nous comprenions comment nous avons pu être écartés si facilement par le gouvernement, et que nous découvrions comment renverser la situation actuelle à notre avantage.

APPENDIX G

Graph 1

	Cigarette Consumption Per Capita 15+	Adjusted Consumption	Pack Price (20 Cigarettes) 1993 CDN dollars
1950	3088		$2.74
1951	2946		$2.71
1952	3246		$2.75
1953	3274		$2.46
1954	3226		$2.38
1955	3360		$2.38
1956	3410		$2.35
1957	3565		$2.28
1958	3727		$2.23
1959	3796		$2.32
1960	3767		$2.35
1961	3906		$2.33
1962	4010		$2.31
1963	3960		$2.28
1964	3870		$2.25
1965	3930		$2.27
1966	4036		$2.28
1967	3967		$2.29
1968	3864		$2.47
1969	3817		$2.47
1970	3911		$2.43
1971	3862		$2.42
1972	3775		$2.35
1973	3808		$2.27
1974	3811		$2.14
1975	3758		$2.16
1976	3837		$2.18
1977	3801		$2.18
1978	3682		$2.20
1979	3711		$2.13
1980	3645		$2.12
1981	3685		$2.13
1982	3697		$2.22
1983	3507		$2.47
1984	3392		$2.64
1985	3254		$2.97
1986	3059		$3.36
1987	2898		$3.48
1988	2814		$3.61
1989	2694		$4.06

(more)

Graph 1 (continued)

	Cigarette Consumption Per Capita 15+	Adjusted Consumption	Pack Price (20 Cigarettes) 1993 CDN dollars
1990	2387	2610	$4.43
1991	2032	2487	$5.52
1992	1780	2186	$5.64
1993	1493	2139	$5.64

*Cigarette Consumption includes fine-cut tobacco (roll-your-own) equivalents (1g).

Note: Adjusted consumption (1990 -) includes all legal cigarettes and the highest credible estimate of illegal cigarettes consumed in Canada.

Sources:

1. Statistics Canada, Catalogue 32-022 Monthly and 91-002 vol. 7, no.3 and 91-512.

2. Lindquist Avey macdonald baskerville Inc. *1992 Contraband Estimate - An Update*, September 27, 1993.

Graph 2

	Domestic Sales Cigarettes (billion)	Government Revenues from Tobacco Taxes (billion $)
1981	71.26	$2.02
1982	71.80	$2.26
1983	69.00	$2.67
1984	67.80	$3.03
1985	65.70	$3.80
1986	62.80	$4.00
1987	60.40	$4.10
1988	59.00	$4.50
1989	55.40	$5.50
1990	52.60	$5.80
1991	45.30	$7.10
1992	40.14	$7.20
1993	34.05	$6.34

*"Cigarettes" include fine-cut tobacco (roll-your-own) equivalents (1g).

Sources:

1. Statistics Canada, Catalogue 32-022 Monthly.
2. Department of Revenue, Government of Canada.

Graph 3

Total tax Incidence on a Pack of 20 Cigarettes
in Various Countries
March 24, 1994

U.S.A.	30%
Switzerland	50%
Japan	60%
Australia	60%
Canada	64%
Norway	68%
New Zealand	68%
Spain	70%
Germany	71%
Netherlands	72%
Italy	73%
Sweden	73%
Finland	74%
Belgium	75%
France	75%
U.K.	76%
Denmark	84%

Note: U.S.A. (average of States), Canada (average of Provinces) following the tobacco tax rollbacks of February 1994, Australia (Victoria).

Information compiled by the Non-Smokers' Rights Association (Canada).