

EFFECTIVE DEVELOPMENT POLICIES REQUIRE POLITICAL WILL: THE EXAMPLE OF TOBACCO CONTROL IN SOUTH AFRICA¹

Corné van Walbeek
Applied Fiscal Research Centre
School of Economics
University of Cape Town

INTRODUCTION

After many years of international isolation, the 1994 democratic elections ushered in an era of change in South Africa. The new government was faced with many challenges. Amongst other things, the community was deeply divided, income distribution was extremely unequal, and government expenditure was aimed at maintaining the security of the state rather than on meeting the needs of the poor and needy.

Through legislation and a redirection of government spending, the government has attempted to address many of the imbalances and wrongs of the past. It would be far too ambitious and well beyond the scope of this paper to attempt to evaluate the performance of the government in dealing with these historic disparities.

One of the areas in which the government brought about major changes was in the provision of public health services. Under the former government the provision of public health services was aimed specifically at whites. The medical needs of other population groups weighed significantly less. Expensive, state of the art medical interventions were performed in South African state hospitals as a matter of course².

The 1994-elected Government of National Unity took a different view to the provision of public health. Rather than focusing on (high-tech) curative treatments, it shifted its focus to primary health care. For example, the new government ordered that all children under five years and pregnant mothers are provided free medical care. Given the redirection of the health budget, many of the specialised units were forced to close or scale down their activities. This was, possibly unfairly, perceived as a lowering of standards. A more objective evaluation would probably be that this reflected the reprioritisation of government spending³.

As part of its public health care strategy, the newly appointed Minister of Health, Dr Nkosazama Zuma stated in 1994 that the government would implement policies to reduce tobacco consumption. She was extremely effective in implementing a strict tobacco control policy. If it were not for her tenaciousness, the government would almost certainly not have implemented the tobacco control policies that are currently in place.

¹ Presentation prepared for seminar at the International Development Research Centre, Ottawa, Canada, on 13 June 2001. This paper is based on research funded largely by Research for International Tobacco Control.

² As a glaring example, the world's first successful heart transplant took place in a South African state hospital in 1969.

³ However, this does not imply that the average standard of health care in the non-specialised divisions has improved as a result of the expenditure reprioritisation. Unfortunately, there is a growing public opinion that the quality of care in the country's state hospitals has deteriorated much over the past years.

The aim of this paper is to discuss South Africa's tobacco control policy as it developed over the past seven years. In the first part of the paper the focus is on the measures that the government took in curbing tobacco consumption, specifically on tobacco control legislation, as well as the tax increases. In the second part of the paper the results of the government's tobacco control policy are evaluated, specifically in terms of their impact on cigarette consumption, smoking prevalence, and cigarette taxes and prices.

TOBACCO CONTROL IN SOUTH AFRICA

Before the 1990s tobacco control was not a priority in South Africa. This is illustrated by the fact that between 1970 and 1990 the excise tax on cigarettes fell by more than 70 per cent in real terms⁴. Excise tax as a percentage of the average retail price of cigarettes fell from 50 per cent in 1970 to 20 per cent in 1990. No health warnings were required and no legal restrictions were placed on tobacco advertising⁵.

The tobacco producing and cigarette manufacturing industries carried a disproportional amount of political weight. The dominant cigarette manufacturer, Rembrandt, was founded in the late 1940s and had strong ties with the National Party government. At the time of its founding and during the 1950s and 1960s it symbolised a highly successful response by Afrikaans-speaking population to the economic power of the English-speaking business community, and the mining houses in particular. The firm relationship between the government and the tobacco industry was maintained throughout the period of National Party rule.

Based on research on the economic costs of tobacco smoking (SAMRC, 1988 and 1992), and much lobbying by the National Council Against Smoking and the medical profession, the first tobacco control legislation was passed in 1993. The Tobacco Products Control Act (Act 83 of 1993) introduced health warnings for the first time and prohibited smoking in public transport. However, the regulations giving effect to the law were promulgated only in 1995. Compared to current best practice in tobacco control, the restrictions were very mild, but it nevertheless represented a schism between government and the tobacco industry, and the cigarette manufacturing industry in particular.

The democratic election of the Government of National Unity in 1994 changed the tobacco landscape dramatically. The new government, in contrast to the National Party government, had no long-term ties with the cigarette manufacturing industry. The new Minister of Health quickly made it clear that tobacco control would be one of her priorities. The first shots were fired at the reading of the Budget in 1994, when the Minister of Finance announced that the government would increase the excise rate on cigarettes to 50 per cent of the retail price (Budget Review, 1994). This would be phased in over a number of years. The primary rationale was not to raise revenue, but to reduce consumption.

⁴ Between 1970 and 1990 the inflation rate fluctuated between 10 and 20 per cent per year. The cigarette excise tax, being a specific tax, would have had to be adjusted by the inflation rate to maintain its real value. This did not happen. In fact, between 1970 and 1990 the average annual increase in the excise tax was only 5.6 per cent, against an average inflation rate of 12.5 per cent.

⁵ Even though it was not legislated by government, the public broadcasting corporation did not allow cigarette advertising on television. Also, smoking on the airlines was prohibited in the late 1980s.

Subsequently the original target that excise taxes should comprise 50 per cent of the retail price was watered-down somewhat. The target was reinterpreted to imply that all taxes on tobacco products (i.e. including value added tax) should equal 50 per cent of the retail price. In each of the Budget Speeches after 1994 the excise tax was increased by substantially more than the inflation rate. In 1997 the Minister of Finance announced that the 50 per cent target had been achieved. In subsequent Budget Speeches the excise rate was adjusted to account for cigarette price changes of the previous year.

The excise tax increases had a marked impact on the retail price of cigarettes. Between 1993 and 1999 the real price of cigarettes increased by 85 per cent. Approximately half of this increase can be ascribed to the increase in the tax rate; the remainder was the result of the industry's pricing strategy aimed at increasing its profitability⁶. In the following section the impact of the price increases on cigarette consumption and smoking prevalence is discussed.

Although econometric studies elsewhere (Chaloupka and Warner, 1999) and in South Africa (Van der Merwe and Annett, 1998 and Van Walbeek, 2000a) have shown that tax increases have the single biggest impact on cigarette consumption, tobacco control legislation attracted significantly more media attention and vocal opposition by the tobacco and related industries. In 1998 the Minister of Health introduced the Tobacco Products Control Amendment Bill, which intended to prohibit the following:

- smoking in public and work places,
- all tobacco advertising and sponsorships,
- the distribution of free cigarettes,
- the sale of cigarettes to people younger than 16 years,
- the sale of single cigarettes

Also, the Bill aimed to empower the Minister of Health to set the maximum permissible levels of tar, nicotine and other constituents.

The proposed legislation was met with strong resistance from the tobacco growing, cigarette manufacturing, advertising, hospitality and related industries. It was clear that the legislation, if passed, could have serious detrimental consequences to their industries. Both protagonists and antagonists of the Bill lobbied heavily with government.

The build-up to the public hearings, which were held in October 1998, was critical. The opponents' main argument was that the economic costs of the proposed legislation outweighed the benefits. However, their arguments were countered by the research performed by the researchers of the Economics of Tobacco Control (ETC) Project. The ETC Project was largely funded by the International Tobacco Initiative, the forerunner of RITC. Amongst other things, the Project showed conclusively that excise tax increases increase government revenue, something that the industry had been downplaying (Republic of South Africa, 1986). The Project also showed that a reduction in tobacco demand would not increase overall unemployment. The argument was that if people reduce their tobacco purchases, the money is not lost, but spent on other, probably more labour-intensive, goods and services. The net employment effect of the hypothesised shift in expenditure was shown to be positive.

⁶ See Van Walbeek (2000b) for a comprehensive discussion of the industry's reaction to the excise tax increases. It is evident that the industry increased the real retail price of cigarettes by substantially more than the real increase in the excise tax. This strategy was apparently driven by a desire for increased profits, rather than a response to increased input prices.

The fact that the ETC Project was based at a reputable institution (the University of Cape Town) added to its credibility. The director of the project had good contacts in the Departments of Health and Finance, as well as with the media. The former contacts ensured that the research had very definite policy implications. The latter contacts ensured that the research of the ETC Project was well publicised.

In February 1998 an international conference entitled *The Economics of Tobacco Control: Towards an Optimal Policy Mix* was held in Cape Town. This conference was the first to examine the economic issues pertaining to tobacco control across both developed and developing countries. It also played an instrumental role in the conceptualising of the widely publicised World Bank publication *Curbing the Epidemic* (1999). Other than generating much media attention, it armed the Minister of Health and the South African tobacco control lobby with economic arguments against opponents to the proposed legislation.

The public hearings were held in October 1998. While it is impossible to summarise two days of testimony in one paragraph, most of the submissions that argued against the proposed legislation can be categorised into one the following arguments⁷: (1) the induced reduction in cigarette consumption and the banning of cigarette advertising would have detrimental economic consequences, not only for the tobacco industry, but to a range of associated industries, (2) the advertising ban is unconstitutional because it impinges on the right to free speech, (3) the ban on smoking in public amounts to unnecessary criminalisation, and (4) given that the academic literature does not find a consistent relationship between total advertising expenditure and cigarette consumption, imposing an advertising ban is unjustifiable.

Submissions in favour of the proposed legislation generally based their arguments on the following: (1) tobacco is a major, yet totally preventable, cause of sickness and premature death, (2) the negative economic implications of the proposed restrictions, and especially the impact of the clean air policies on the hospitality industry, are exaggerated; in places where such restrictions were implemented, the economic impact was negligible, (3) rather than providing objective information about the product (as the industry asserts) advertising glamorises a dangerous and addictive product, and (4) people's right to healthy and clean air are more important than smokers' right to smoke.

The legislative process received substantial coverage in the press. Although some sections of the media expressed support for the proposed legislation, the majority of the media, while expressing support for the ultimate aims of tobacco control, were against the means to achieve these goals. While economic interests certainly would have played a part, media attention was focused on the fact that the advertising ban would be an infringement of the right of free speech, and that the clean indoor air legislation amounted to unnecessary interference in people's private lives. Given South Africa's history of suppression and censorship before the 1990s and the fact that the South African constitution, passed in 1996, is very liberal and emphasises numerous freedoms, the media's reaction is understandable. It was argued that if the government could pass legislation restricting certain behaviour, it would be easy to restrict other behaviour (including political activities) and the press as well.

⁷ A draft copy of a fairly detailed collation of the arguments for and against the proposed legislation can be obtained from the author.

The definition of public places also received much media attention. Given that public places were defined to include work places, it was argued that, in certain situations, the definition would extend to people's private homes. This was presumably not the intention of the legislation. In fact, the definition of public places was subsequently altered to specifically exclude private homes.

At the time, economic arguments did not feature strongly in the media. The relative lack of publicity could be ascribed to the fact that the media may have felt that (1) relative to issues of personal rights and freedoms, the economic implications of the proposed legislation are unimportant, (2) the public is not particularly interested in economic issues; and (3) the hospitality and tobacco industries' claims about the detrimental consequences of the proposed legislation are exaggerated and difficult to measure⁸. However, the demise of some major sporting sponsorships was lamented⁹.

Despite the opposition, the Bill passed into law in 1999. The regulations to the Tobacco Products Control Amendment Act (Act 12 of 1999) were promulgated in September 2000 and came into effect on 1 January 2001. Under pressure from the hospitality industry, the government agreed that restaurants and bars were allowed to designate at most 25 per cent of their floor space as smoking areas, but that this area would have to be separated by a solid partition and have separate air ventilation. The 25 per cent "concession" was derived on the grounds that approximately 25 per cent of adult South Africans smoke. Hospitality establishments were given to the end of June 2001 to make the necessary structural changes.

In terms of measuring the effectiveness of the Act, it is still too early to comment. Media and outdoor advertising has ceased since January 2001. To date there have not been any publicised infringements by the tobacco industry. However, the concession to the hospitality industry has effectively delayed the implementation of the clean indoor air policies to June 2001. With the deadline rapidly approaching, the hospitality industry seems to be playing for time. It has stepped up its media campaign against the implementation of the regulations, arguing that it is impractical, too expensive and does not reflect customers' profiles¹⁰.

⁸ Research by the Economics of Tobacco Control Project (Phase I), funded by the International Tobacco Initiative, dispelled many myths that the industry was advancing till then. Some of the myths that were dispelled were the following:

An increase in the excise tax could result in a decrease in government revenue;

Increasing excise tax differentials between countries leads to increased smuggling; and

A decrease in tobacco consumption will increase unemployment in the economy (see ETCSA, 1998).

⁹ While the prohibition of sporting sponsorships was widely lamented in the media and may have caused problems for some disciplines, the effect was generally exaggerated. An interesting case concerns the sponsorship of the Rothmans Cup, the richest competition in South African football. Coca-Cola and one of the South African cellular phone companies offered to take over the sponsorship under exactly the same conditions. However, the South African Football Association (SAFA) turned the offer down on the basis that the football season was too congested. This suggests that the banning of sponsorship by the tobacco industry was a blessing in disguise for SAFA.

¹⁰ For example, on 31 May 2001 the results of an opinion survey, commissioned by the hospitality industry, was published that suggested that 67 per cent of people, including non-smokers, agreed that owners of establishments should decide whether smoking should be allowed or not (Business Day, 2001). According to the hospitality industry these results indicate that there should be a "more flexible and reasonable approach to the regulations on smoking in the hospitality industry". However, this result deviates dramatically from other research that indicates that there is strong support, also amongst smokers, for clean indoor air policies (NCAS, 1998). The schism between advocates in favour of the legislation and those against is so large that there is no middle ground.

In their presentations to the parliamentary committee in September 1998, opponents to the legislation said that the legislation would be impossible to police. However, the Ministry of Health is of the opinion that the legislation will largely be self-policing. To date there have been no media reports of people that have been prosecuted for smoking-related offences.

In a country with overstretched police resources and plagued by unacceptably high levels of violent crime, one can understand why the Minister of Health has taken a soft approach to the policing of the Act. At the time the regulations were promulgated, this soft approach was ridiculed in the press. However, the important thing to bear in mind is that the legislation passed rights from smokers to non-smokers. Non-smokers may now demand the right to clean air, and many of them do. A large number of shopping malls, restaurants and business have become completely smoke-free. Furthermore, using the legislation as their backup, tobacco control organisations (especially the National Council Against Smoking) and individuals in South Africa aim to enforce compliance to the legislation.

HAS TOBACCO CONTROL BEEN SUCCESSFUL IN SOUTH AFRICA?

The short-term aim of tobacco control policies is to reduce tobacco consumption. The long-term aim is to reduce tobacco-induced morbidity and premature mortality. While comprehensive tobacco control policies could have other positive consequences (such as an increase in government revenue, through the excise tax increases), many tobacco control advocates regard this as a peripheral issue.

As pointed out previously, econometric evidence has generally found that the single most important determinant of cigarette consumption is the price (Chaloupka and Warner, 1999). This was also found to be the case for South Africa (Van der Merwe and Annett, 1998 and Van Walbeek, 2000a). In fact, for every 10 per cent increase in cigarette prices, the demand is likely to decrease by about 4 per cent in developed countries and by about 8 per cent in developing countries. The latter result applies to South Africa as well (Van Walbeek, 2000a). This being the case, it follows that rapid increases in the excise tax will have a pronounced effect on tobacco consumption¹¹.

How successful is tobacco control *legislation*, specifically advertising bans and the enforcement of clean indoor air policies, vis-à-vis tax increases?

The international literature on the relationship between advertising expenditure and aggregate cigarette consumption is not conclusive (High, 1999 and Chaloupka and Warner, 1999). However, it has been argued that the relationship between advertising expenditure and consumption is not linear and as such cannot be identified using standard regression techniques (Saffer and Chaloupka, 2000). It is argued that complete, rather than partial, advertising bans are likely to be more successful in reducing consumption. However, relative to price increases, the impact of an advertising ban is limited. The evidence suggests that tobacco consumption could be expected to fall by about 5 per cent as a result of a complete ban (Chaloupka and Warner, 1999).

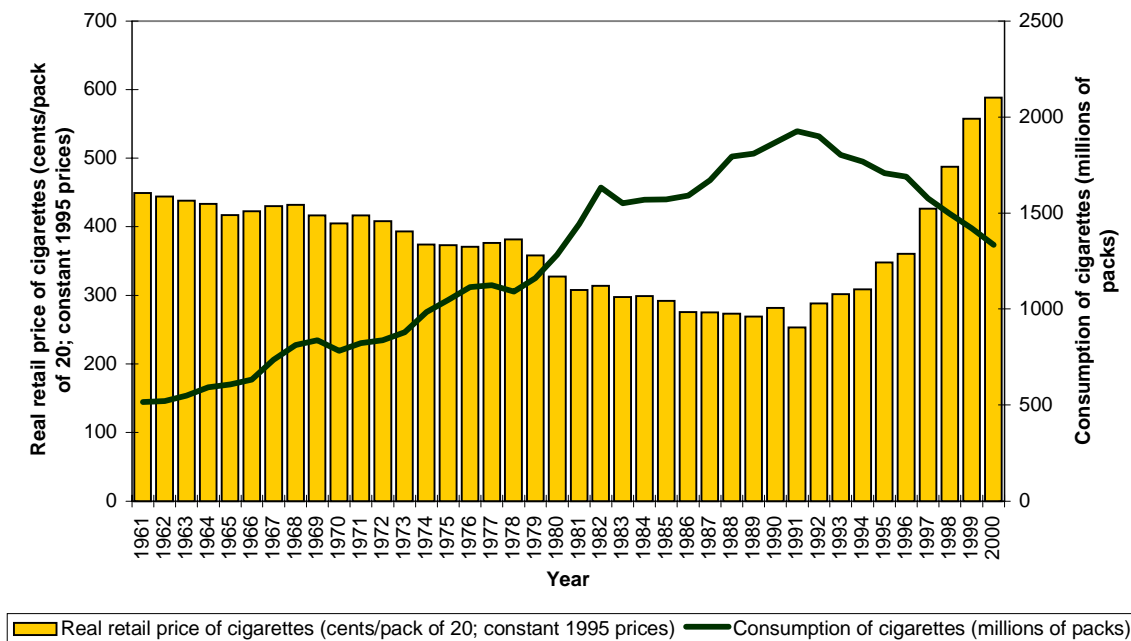
¹¹ The international literature indicates that the youth's responsiveness to price increases (i.e. the price elasticity) is much higher than that of older people (Lewit and Coate, 1982 and Chaloupka and Grossman, 1996). Given that the youth is such an important focus group in tobacco control, this is a good result.

Similarly, Chaloupka (1992) finds that clean indoor air policies tend to reduce cigarette consumption. However, he finds that past a certain point, tightening the legislation further is unlikely to reduce smoking by a significantly greater amount.

To separate the impact of the different tobacco control interventions, one requires very detailed and disaggregated data. Unfortunately, these do not exist in South Africa. Furthermore, the legislation has only been (partially) implemented in 2001, and its impact on tobacco consumption must still be measured. However, using time-series data for the period 1970 to 1998, it was found that non-price factors (i.e. the effects of the 1993 legislation, the media coverage around the 1999 legislation, and increased awareness about the detrimental impact of smoking) resulted in a 5 per cent decrease in tobacco consumption since 1994 (Van Walbeek, 2000a).

The negative relationship between aggregate cigarette consumption and the real price is clearly illustrated in Figure 1. The sharp decrease in consumption since 1992 is explained largely by the very rapid rise in cigarette prices. This graph is certainly encouraging from a tobacco control perspective.

Table 1: Cigarette consumption and real prices: 1961-2000



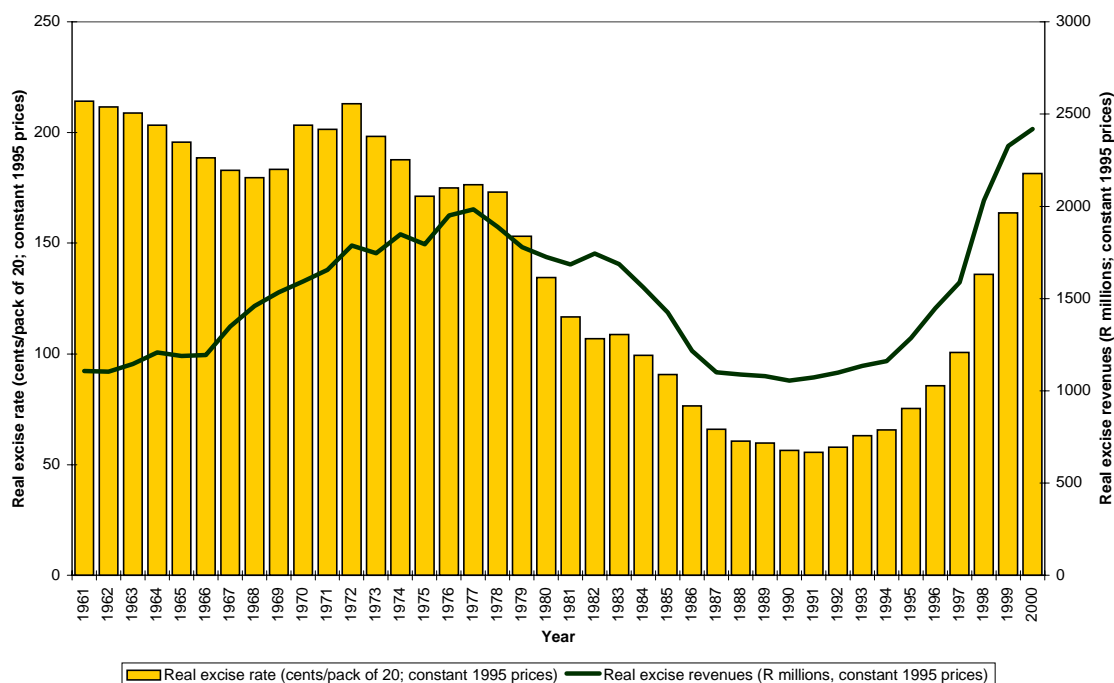
While tobacco control policies should be aimed primarily at reducing tobacco consumption, increases in the excise tax rate have the additional benefit that they increase government revenues. Given that the demand for cigarettes is relatively price inelastic¹², it follows that increases in the tax rate, while reducing consumption, will increase total government revenue.

The relationship between the real excise tax (per pack of cigarettes) and total real excise revenue is shown in Figure 2. The increase in revenues during the 1960s and 1970s, despite the moderate decrease in the real excise tax, is explained by the increase in cigarette consumption during that period. The large decreases in the real excise tax during the 1980s

¹² This means that the percentage decrease in the quantity demanded is less than the percentage increase in the price.

dominated the impact of the increase in consumption during this period. However, the rapid increases in the excise tax since 1993 has dramatically increased government revenues.

Figure 2: Real cigarette excise taxes and real government revenue



Two questions that these graphs raise but are unable to answer are the following: (1) amongst which segments of the population have the decreases in consumption been the most pronounced, and (2) what has been the impact of the increasing taxes on the poor?

In answering the first question, one requires detailed cross-section data over a number of periods. Commercially generated product usage data are available for the period 1993 to 2000 and illustrate some interesting trends (Van Walbeek, 2001). The most important findings are the following:

- Smoking prevalence among adults has decreased from 32 per cent in 1993 to 28 per cent in 2000.
- Smoking prevalence among Blacks has decreased from 28 per cent in 1993 to 23 per cent in 2000. However, smoking prevalence among Whites and Coloureds (people of mixed racial descent) has remained constant at 36 and 49 per cent, respectively.
- Among males of all races, smoking prevalence has decreased sharply from 51 per cent in 1993 to 43 per cent in 2000. However, among females, smoking prevalence has remained approximately constant at 12 per cent.
- Smoking prevalence among the poor has decreased by a greater percentage than among the rich.

The second question raises an important development issue. Even though excise tax increases are effective in reducing tobacco consumption, they could hurt the poor more than the rich, given that the poor spend a greater proportion of their income on tobacco products. The industry could argue that the regressive nature of tobacco excise taxes should discourage the government to raise the tax further.

Based on household expenditure surveys, it was found that cigarette taxes in South Africa are, indeed, regressive. The excise tax proportion of the lowest income quartile is about five times more than that of the highest income quartile (Van Walbeek, 2001).

Many tobacco control advocates argue that, even though excise taxes are regressive, an increase in the excise tax is likely to reduce, rather than increase, the degree of regressiveness (Chaloupka et al., 2000). The reasoning is that the poor reduce their cigarette consumption by a greater percentage in reaction to a tax-induced price increase than the rich.

In order to test this hypothesis, one has to estimate the price elasticities of demand for different income groups. Based mainly on cross-section surveys, the evidence from developed countries (see Chaloupka, et al., 2000) generally supports the hypothesis of an inverse relationship between price elasticity and household income. However, the evidence for South Africa is mixed. Using commercially generated product usage data, there is some evidence that the recent cigarette price increases has reduced consumption among the poor by more than among the rich. However, an analysis based on consecutive Income and Expenditure Surveys, published by Statistics South Africa, did not reveal significant trends. Thus, based on the available research, it is impossible to say what the effect an increase in the cigarette excise tax has on the regressiveness of the tax.

CONCLUSION

Given the health challenges posed by tobacco, government intervention seems appropriate. Most developed countries have implemented strict tobacco control policies. Tobacco consumption in these countries has been decreasing over the past decade or two. However, at the same time there has been a major increase in smoking in developing countries. According to the World Bank (1999), 7 million of the 10 million tobacco-related deaths in 2025 are likely to occur in developing countries. Yet many developing countries are doing nothing to reduce tobacco consumption.

South Africa is one of a small number of developing countries that has implemented a strong tobacco control policy. The lessons learnt by South Africa in tobacco control, and in other development issues, are likely to have more general application in other developing countries.

South Africa's tobacco control strategy is built on two main pillars: (1) increasing excise taxes and (2) tobacco control legislation. The responsibility for excise tax rests with the Minister of Finance, while the Minister of Health is responsible for the drafting and implementation of legislation. In South Africa, both Ministries actively pursued a strong and consistent tobacco control policy. The Minister of Finance had the added benefit that his part of the strategy increased government revenue¹³.

¹³ Although it has not been publicised in the press, a conflict of interests may arise over time between the Ministries. On the assumption that the Ministry of Finance is interested in maximising excise revenues, while the Ministry of Health wants to reduce tobacco consumption (to zero, if possible), it implies that the Ministry of Finance would not want the non-price tobacco control measures to be too effective. Already there is a feeling in the Ministry of Finance that to increase the cigarette excise tax by a much larger amount is unlikely to raise revenues significantly (see Van Walbeek, 2000a). It then becomes clear where the Ministry of Finance's priorities lie.

The Minister of Health had a much more difficult task in passing the Tobacco Products Control Amendment Act. She was strongly opposed from various quarters. When the stakes are high and people believe they have much to lose, one can expect strong resistance. Government has to decide whether it is prepared to fight the resistance or back off. In the case of South Africa it is evident that the government decided that the cause was worth the fight. The Minister was hard-nosed and fervently believed in the cause.

However, a Minister cannot act alone. S/he needs backup. In this particular case the backup was provided by international organisations (WHO, in particular), domestic pressure groups (the National Council Against Smoking), and academic institutions (the Medical Research Council and the Applied Fiscal Research Centre). These organisations gave the scientific evidence to effectively counter the claims and misinformation of the industry.

In the 1980s this institutional support for the Minister of Health did not exist. Had the Minister of Health attempted to draft the legislation then, s/he would have been isolated in his/her struggle. Furthermore, the close relationship between the industry and the NP government would have made tight tobacco control legislation unthinkable¹⁴. However, with the passing of power in 1994, this unholy relationship was broken. The new government came to power with a clean slate, and was not bound by previous friendships. The result was a rapid implementation of a successful tobacco control policy.

BIBLIOGRAPHY

- Business Day, 2001. "Majority not in favour of smoking law, survey finds", 31 May.
- Chaloupka, FJ, 1992. "Clean indoor air laws, addiction and cigarette smoking". *Applied Economics*, 24:193-205.
- Chaloupka, FJ, Hu, T, Warner, KE, Jacobs, R and Yurekli, A, 2000. The taxation of tobacco products, in Jha, P and Chaloupka, FJ, *Tobacco control in developing countries*. Oxford University Press, New York.
- Chaloupka, FJ and Grossman, M, 1996. *Price, Tobacco Control Policies and Youth Smoking*. Working Paper 5740, National Bureau of Economic Research, Cambridge, MA: NBER.
- Chaloupka, FJ and Warner, KE, 1999. *The economics of smoking*, Working Paper 7047, National Bureau of Economic Research, Cambridge, MA: NBER.
- Economics of Tobacco Control in South Africa Project (ETCSA), 1998. *The Economics of Tobacco Control in South Africa*, report submitted to the International Tobacco Initiative, ETCSA, School of Economics, University of Cape Town.
- High, H, 1999. *Does advertising increase smoking? Economics, free speech and advertising bans*. London: The Institute of Economic Affairs.
- Lewit, EM and Coate, D, 1982. The potential for using excise taxes to reduce smoking. *Journal of Health Economics*, 1(2): 121-145.
- National Council Against Smoking (NCAS), 1998. *Submission to the Parliamentary Committee on the Tobacco Products Control Amendment Bill*. Mimeo.

¹⁴ It seems that the main advisor to the Minister of Finance about increases in the excise tax on tobacco products, was the industry itself. For example, in 1983 the Minister of Finance said "The Tobacco Board has presented justified arguments for the maintenance of the status quo regarding the excise taxes on tobacco and I do not intend to wake sleeping dogs" (Republic of South Africa, 1983). In 1986 the industry persuaded the Minister to not increase the excise rate on the grounds that "any increases in excise duties at present could be counter-productive, since it could in fact – on account of the potentially adverse effect on consumption – lead to a reduction of revenue from this source" (Republic of South Africa, 1986). This comment has been thoroughly discredited by events in the past seven years.

Republic of South Africa, 1983 and 1986. *Budget Review*.

South African Medical Research Council, 1988. *Smoking and Health in South Africa: The need for action*. Pretoria: SAMRC.

Saffer, H and Chaloupka, F, 2000. "The effect of tobacco advertising bans on tobacco consumption." *Journal of Health Economics*, 19: 1117-1137.

South African Medical Research Council, 1992. *Smoking in South Africa: Health and economic impact*. Pretoria: SAMRC.

Van der Merwe, R and Annett, N, 1998. "Chapter 4: The effects of taxation on consumption in South Africa", in ETCSA, *The Economics of Tobacco Control in South Africa*, report submitted to the International Tobacco Initiative, School of Economics, University of Cape Town.

Van Walbeek, CP, 2000a. *Impact of the recent tobacco excise tax increases on the future government revenue potential in South Africa*. Economics of Tobacco Control Project, UCT, Research Release no. 1.

Van Walbeek, CP, 2000b. *Industry responses to the recent tobacco excise tax increases in South Africa*. Economics of Tobacco Control Project, UCT, Research Release no. 2.

Van Walbeek, CP, 2001. *Recent trends in smoking prevalence in South Africa: Some evidence from AMPS data*. Economics of Tobacco Control Project, UCT, Research Release no. 3.

World Bank, 1999. *Curbing the Epidemic: Governments and the Economics of Tobacco Control*. The World Bank: Washington, D.C.