

**Demand Elasticities, Taxation of Tobacco Products
and Economic Consequences:
A Developing Economy Perspective**

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*This paper is prepared for: International Conference on Sustainable Structure for Better Health;
Budapest, Hungary, between 29 May and 2 June, 2000.*

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ABSTRACT

It is generally recognised that the curbs on the demand side of the tobacco epidemic are far more immediate and effective; particularly in the short term. To this end, the most effective short-term interventions that governments can make are those that affect the price of cigarettes. Excise taxes are obvious measures in this regard. In terms of economic theory and well-established empirical research, there exists an inverse relationship between the price and consumption of any good; including cigarettes. This negative relationship is further affected by other factors such as income levels and the degree of addiction. Nonetheless, there is no short-term substitute for this type of intervention. This is particularly important for the poorer countries, because consumption of tobacco amongst the poor is far more price elastic than for the rich.

The relatively elastic demand means price increases are likely to reduce tobacco consumption amongst the poor more proportionately than in the case of the rich. For such policy to be effective, however, it is important that the new taxes are imposed on all tobacco products simultaneously and equo-proportionately. In other words, increasing the price of cigarettes and not the price of other substitute tobacco products will in all probability lead to a 'substitution effect' with little or no public health gains.

More often than not the reason put forward for not taxing tobacco products is the potential loss of fiscal revenues. This is by and large a flawed argument. In almost all countries for which data are available, increases in tobacco taxes have led to a rise in fiscal revenues. The explanation lies in the inelasticity of tobacco consumption, caused mostly by the addictive properties of the substance. Of course, taxes cannot continue to rise indefinitely without affecting consumption at some point. But given the low base of tobacco taxes in almost all the developing countries, and taking into account the demand inelasticities, there is much scope for sustained tobacco tax increases in the developing world.

The paper would provide empirical results, explore overall public policy, and likely economic consequences of sustained tobacco taxation in developing countries.

Demand Elasticities, Taxation of Tobacco Products and Economic Consequences: A Developing Economy Perspective

I. INTRODUCTION

Some of the stylized facts of tobacco consumption include the following:

- (a) Epidemiological studies have established beyond any doubt that prolonged smoking has startlingly large health hazards¹. The developed nations have responded to the scientific research, and have introduced public health policies accordingly. The level of tobacco consumption in the developed world has been declining steadily.
- (b) Yet the governments of the poorer nations have failed to act upon these scientific warnings. Meanwhile, smoking prevalence in the developing countries has been rising considerably. Aggressive investment and marketing by the tobacco industry, alongside with passive or inappropriate national public policy responses, have been the main contributing factors to the phenomenon. The majority of humanity is thus exposed to unprecedented, albeit preventable, risks. The projected casualties of the present-day global public health policy paralysis is a staggering 10 million deaths per year by the year 2030. Seventy percent of such deaths will occur in the poorer countries.
- (c) The prevalence of cigarette (as opposed to tobacco) smoking is positively related to income levels in the developing nations. This may be attributed to the perceived 'superior behaviour' of cigarette smokers. Whatever the psychoanalytic roots of the phenomenon, the fact is that this tends to glamorize the habit and entrench the pattern of smoking amongst the young men and women who are the most productive segment of the workforce with rising income levels.
- (d) Increasingly, tobacco advertising targets women world-wide. With the rising prevalence of smoking among women, children and the youth become even more exposed to the habit. This is particularly pronounced in the developing world.

¹ For the first time Philip Morris via its website openly admits the ill-health consequences of smoking in October 1999.

- (e) With the rapid globalization, and the removal of barriers to capital mobility, the tobacco industry finds it convenient to penetrate the markets in the developing countries. The transnationalisation of the industry, in turn, consolidates its relative power vis-à-vis the national governments of the poorer nations; hence the industry assumes inordinate impact on public health policies in such countries.

- (f) This is further reinforced by the global pressures for privatisation of state monopolies, amongst them, the state-owned public cigarette manufacturing companies. In pursuit of higher production efficiency, and in anticipation of larger foreign investment, governments in the developing countries have followed privatisation and commercialisation policies that have further entrenched the tobacco industry's socio-economic position.

- (g) The transnationalisation of, *inter alia*, communication has undermined the sovereignty of governments in areas such as access to information, advertising control, and even retail products distribution. In effect, tobacco advertising has become a transnational issue that requires a global response.

In essence the changing pattern of tobacco consumption together with a large array of global structural developments have turned the smoking epidemic to a transnational problem with public health and economic dimensions.

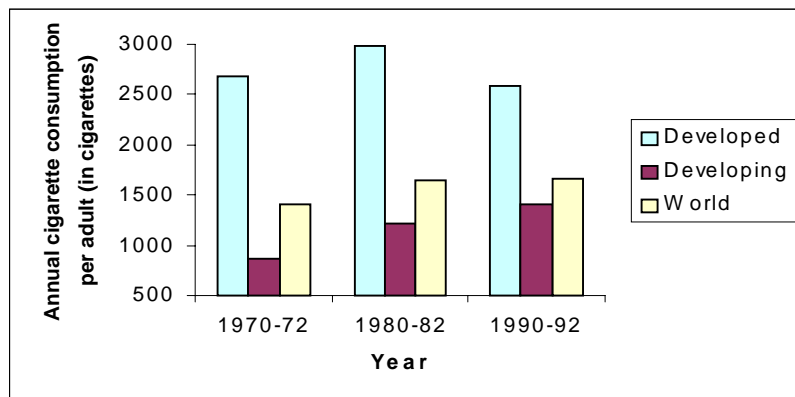
The reality is that tobacco, its production and its consumption, is as much a health issue, as is an economic issue. To be effective, increasingly the global focus of tobacco control needs an economic-analytic approach. Both the industry and the public policy makers express great concerns over the economic aspects of tobacco control. These concerns need to be addressed effectively.

Against this backdrop, this paper is set to provide an overview of the World Bank's policy document, and highlight the necessity for WHO's critical championship of a global tobacco control strategy. The structure of the paper is as follows: Section 2 will provide a brief overview of smoking and the developing nations. Section 3 will examine controlling tobacco consumption. Section 4 will conclude with a summary of key observations.

II. SMOKING AND THE DEVELOPING NATIONS: AN OVERVIEW

Nowadays, it is beyond any doubt that smoking is a lethal habit. Even the tobacco industry no longer refutes the health hazards of smoking. Equally true is the fact that smoking is increasingly a developing country phenomenon. In terms of the 1996 statistics, the three countries of China, India and Indonesia alone consume 44% of the world tobacco. (*Chaloupka and Corbett 1998*) Over the past two decades the rapid rise in smoking prevalence among the poorer nations has increased their share of smokers to 70% of the total in the world. As importantly, the level of smoking, as measured by cigarettes per capita, has risen in the developing countries. Figure 1 below illustrates the overall pattern of per capita adult cigarette consumption in developed as well as developing countries.

*Figure 1:
Smoking is increasing in the developing world
a) Trends in per capita adult cigarette consumption*



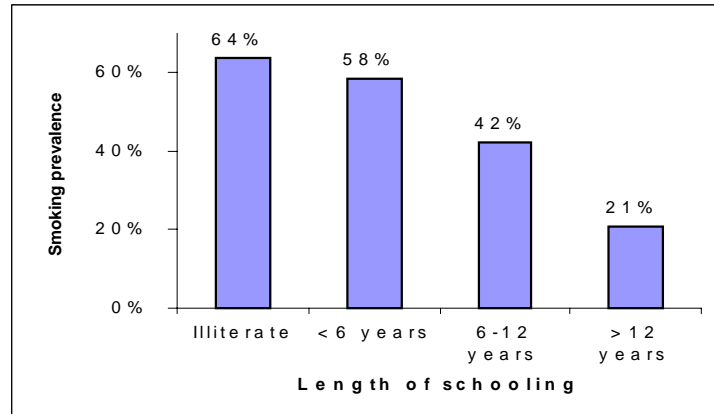
Source: WHO (World Health Organisation), 1997

In response to nearly three decades of anti-tobacco public policies, the developed world is beginning to experience a decline in smoking prevalence. The public health consequences in these societies are thus likely to decrease accordingly. Meanwhile, the rise in smoking in the developing world may be attributed to two sets of internal and external factors. Chief amongst the internal factors are:

(a) *Illiteracy and Low Literacy*: It is generally recognised that consumer's knowledge is a key determinant of consumption choice. Moreover, in the case of a hazardous item such as

smoking, the level of literacy and education in general plays a major role in consumer choice. A case in point is an empirical study in India, as illustrated in Figure 2 below.

Figure 2:
Smoking is more common among the less educated
Smoking prevalence among men in Chennai (India) by education levels



Source: Gajalakshmi and Peto 1997

To the extent that illiteracy, or literacy, is widespread in the developing countries, it predisposes the population to higher prevalence of smoking. Rising literacy on its own, however, does not guarantee lower consumption of tobacco. In fact, in many developing countries with rising literacy and higher income, smoking prevalence tends to increase. South East Asia over the 1980s and 1990s is a case in point. This is driven mostly by the ‘income effect’ and the ‘impact of advertising’; in the absence of an effective public awareness programme. Low literacy, at the same time, undermines public health campaigns that rely on health warnings, and other forms of health education that require literacy.

- (b) Lack of public education and awareness.** Developing nations commonly lack adequate public health facilities and in general do not pay sufficient attention to preventive measures in the form of public education and awareness programmes. In the case of an addictive substance such a tobacco, this is a major drawback. The challenge is to avoid smoking habits to begin and prevent addiction to set in. Developing countries are generally least equipped to provide an effective and sustained public awareness programme. The population is thus left exposed to the health hazards of a variety of preventable diseases, including tobacco addiction.

(c) *Lack of political will*: Societal issues ultimately require political will to resolve. The public health hazards of smoking are no exception. Much too often the political leadership in the developing nations ‘politick around’ the health aspects of smoking as opposed to dealing with the hard choices that would provide effective solutions to the problem. One of the contributing factors in this regard is the short-term time horizon of political office bearers. Tobacco control policies pay off in the medium to long run. Meanwhile the politician’s concern is mostly driven by short run prospects. In part this has to do with the issues of accountability and democratic governance as incorporated in the socio-political superstructure of the country. In some cases, lack of public resource availability is also a contributing factor. Whatever the cause roots of the phenomenon, the outcome is disastrous from a public health perspective.

Amongst the external, or global, factors that have raised the level of smoking in the developing world are the following:

- i. *Rapid pace of Globalization*: Freer transfer of goods and easier availability of cigarettes have provided accessibility that did not exist before.
- ii. *Trade Liberalisation and international Capital Flows*: Trade liberalisation has led to lower than otherwise prices for cigarettes. This in turn increases demand and consumption. Rising demand in the meantime provides the production scale that is needed for efficient local/regional manufacturing enterprises. Closely interrelated with this are the pressure for privatisation and the quest for foreign capital inflows. In a number of the developing countries, the manufacturing of cigarettes has been privatised, using foreign capital. This leads to a more efficient production, hence lowering of the price with a concomitant rise in consumption.
- iii. *Lack of Co-ordination among Multilateral Institutions*: Historically, the tobacco policies of the multilateral institutions such as the WHO, the UN agencies, the World Bank and the IMF have not been co-ordinated. This lack of policy co-ordination has in some instances led to contradictory policy prescriptions and investment strategies. Of late, however, there has been a rising level of co-operation among these institutions. In addition to the close

collaboration between WHO and the World Bank, there is growing recognition that the UN agencies need to harmonise policies and practices if the massive global human losses of tobacco smoking are to be averted. To this end, the UN Economic and Social Council resolution 1999/56 of 30 July 1999 is a critical achievement. In terms of the resolution, A UN Ad Hoc Interagency Task Force is established as a focal point for global tobacco control. The WHO leads this task force. This augurs well for not only international policy co-ordination, but also for the success of the WHO's Tobacco Free Initiative.

- iv. *Communication Revolution:*** Unprecedented inventions and innovations in the communication technology has transnationalised, among others, cigarette advertising. National controls over the content and other aspects of advertising have diminished. As a result market penetration is made much easier and cheaper for the tobacco industry.

The above list is by no means exhaustive. Yet it illustrates the fact that the combination of internal and external factors have created a global social milieu in which tobacco use has reached epidemic proportions. In terms of the most recent estimates:

- At present, over one billion people world-wide are addicted to smoking. This number is expected to rise to 1.6 billion over the next 25 years.
- Approximately 80,000 to 100,000 young people become addicted daily; the majority of these are in the developing countries.
- Within the next thirty years, tobacco is likely to be the single biggest cause of death world-wide, killing about 10 million per year. About half of these deaths will be in the working age of 35 to 69.
- It is estimated that about 500 million people alive today will eventually be killed by tobacco use. More than half of these will occur among today's children and teenagers. (*The World Bank, 99b*)

The picture is particularly bleak for the developing countries. The estimated casualties of tobacco addiction are further compounded by the lack of social security systems, adequate public health facilities, and a pervasive general poverty. What these figures fail to show however, is the sheer magnitude of human sufferings that afflict not only the addicts themselves, but also their

relatives and family members. It is the sum total of these personal and social costs that create a near catastrophic situation for the developing nations.

III. CONTROLLING TOBACCO CONSUMPTION

It is increasingly evident that the industry has lost the arguments related to the health hazards of smoking. The locus of arguments on the side of the industry has thus shifted to the broader issues of mainly non-health nature. As such governments and societies in general have been increasingly faced with a set menu of issues related to economics of tobacco, mostly as a counter balance to the harmful health effects of smoking. Governments are faced with issues related to potential job losses, lower growth, loss of tax revenues, and prospects of lower foreign investment. In the developing world these issues are amongst the most sensitive, socio-politically. And, the fact is that these very issues are among the least researched in the developing countries.

The tobacco epidemic may be curbed from either the supply or the demand side. The supply side pertains mainly to crop substitution, trade restrictions, and even banning of the product. Based on its research, the World Bank Report does not recommend any of these measures, mainly because they are neither effective and sustainable, nor feasible in most cases. In the short term, it is unlikely that many lives will be saved, or considerable public health gains will be made, from investing in supply side measures to combat tobacco. This is partly due to the time lags that exist between scientific research and the large-scale operationalization of research findings. However this is not to deny the need for continued research and development in order to explore viable substitutes for tobacco in the medium to long run. This is particularly significant for a number of developing countries such as China, India, Malawi, Brazil, Zimbabwe and the like. In these countries, tobacco production is so large as to constitute a potential social dislocation following any abrupt discontinuation of tobacco farming. Clearly, the transition needs to be managed responsibly, that is with least socio-economic burden.

The curbs on the demand side of the tobacco epidemic are far more immediate and effective; particularly in the short term. The most effective short-term interventions that governments can make are those that affect the price of cigarettes. Excise taxes are obvious measures in this

regard. In terms of economic theory and well-established empirical research, there exists an inverse relationship between the price and consumption of any good; including cigarettes. This negative relationship is further affected by other factors such as income levels and the degree of addiction. Nonetheless, there is no short-term substitute for this type of intervention. This is particularly important for the poorer countries, because consumption of tobacco amongst the poor is far more price elastic than for the rich. This is illustrated by the following summary of international studies as shown in Table 1.

Table 1: Comparison of price elasticity estimates for cigarette consumption for selected countries

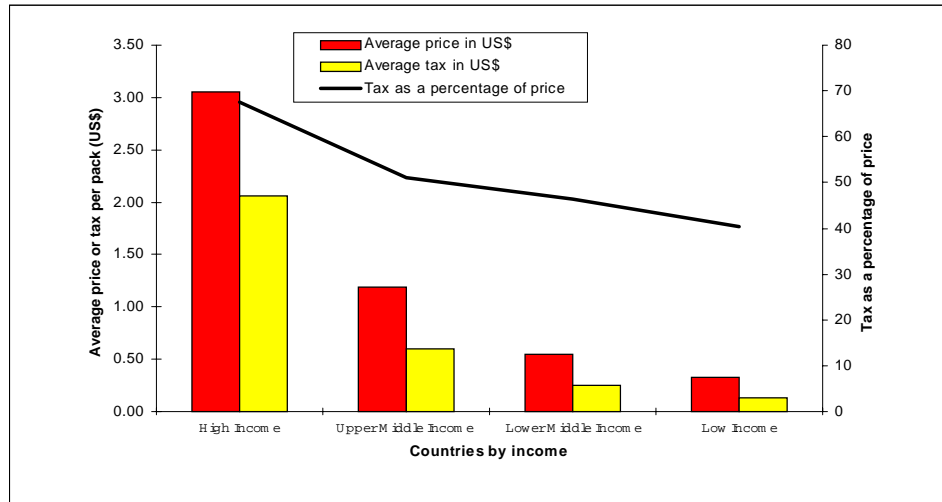
<i>Date</i>	<i>Reference</i>	<i>Country studied</i>	<i>Elasticity estimate</i>	<i>Comments</i>
1980	Fujii	USA	-0.45	Time-series 1929-73
1982	Lewit and Coate	USA	-0.42	1976 Health Interview Survey gives elasticity by age and sex
1984	Leu	Switzerland	-0.50	1954-81 sales data
1985	Bishop and Yoo	USA	-0.45	Time-series aggregate data 1954-80
1985	Radfar	UK	-0.23 (SR) -0.39 (LR)	Quarterly aggregate sales data 1965-80
1988	Godfrey and Maynard	UK	-0.56	1956-84 aggregated sales data
1990	Chapman and Richardson	Papua New Guinea	-0.71 -0.50	Excise elasticity for cigarettes and for non-cigarette tobacco 1973-86
1993	Keeler, Hu, Barnett and Manning	California	-0.3 to -0.5 (SR) -0.5 to -0.6 (LR)	Monthly time-series consumption data, 1980-90
1994	Sung, Hu and Keeler	11 US states	-0.40 (SR) -0.48 (LR)	1967-90 panel data
1994	Reekie	South Africa	-0.877	1970-89 Time-series consumption data
1995	Tremblay and Tremblay	USA	-0.4	Time-series 1955-1990
1996	Van Walbeek	South Africa	-0.32 (SR) -0.53 (LR) -0.66 (SR) -1.52 (LR)	1972-90 Tobacco Board data 1971-89 Reekie's data
1997	Economic of Tobacco Control Report (1998)	South Africa	-0.57	1970-95 Time-series consumption data, simultaneous equation modeling
1997	Economic of Tobacco Control Report (1998)	South Africa	-0.59 (SR) -0.69 (LR)	1970-95 Time-series consumption data, single equation modeling

Source: Economics of Tobacco Control in South Africa, (1998), Chap. 7

The relatively elastic demand means price increases are likely to reduce tobacco consumption amongst the poor more proportionately than in the case of the rich. It is important to underscore that such changes are effective only at the margin. Nonetheless, from a public health perspective the beneficiaries of higher cigarette prices are likely to be the lower income consumers including the youth and children. For such policy to be effective, however, it is important that the new taxes are imposed on all tobacco products simultaneously and equo-proportionately. In other words, increasing the price of cigarettes and not the price of other substitute tobacco products will in all probability lead to a 'substitution effect' with little or no public health gains.

The use of taxation is particularly relevant for at least two reasons: Firstly, as shown in Figure 3 below, in comparison with the developed countries, on the one hand the price of cigarettes is relatively low, and on the other hand, the tax proportion of the price is low.

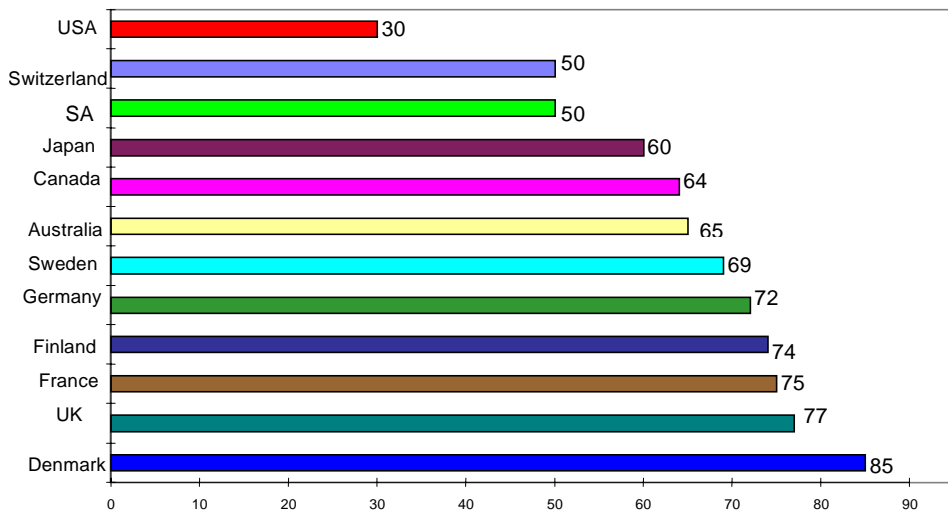
*Figure 3:
Average cigarette price, tax and percentage of tax share per pack,
by World Bank income groups, 1996*



Source: World Bank (1999), p.39, Note: Similar results arrive if adjustment for purchasing power is made.

As shown in Figure 4, with the exception of the US, in most developed countries, the tax proportion of the retail price of cigarettes is in excess of 50%. By contrast in most developing countries this ratio is substantially less than 50%.

*Figure 4:
International Comparison of Taxes as % of Retail Cigarette Price*



Source: Economics of Tobacco Control in South Africa, 1998; Chap. 7.

This suggests that governments in the developing countries have ample latitude to increase tobacco taxation and have gains with respect to fiscal revenues as well as public health insofar as higher taxes raises the price and hence lowers the consumption of tobacco products. It is this win-win combination that often scapes the governments in the developing countries. More often than not the reason put forward for not taxing tobacco products is the potential loss of fiscal revenues. This is by and large a flawed argument. In almost all countries for which data are available, increases in tobacco taxes have led to a rise in fiscal revenues. The explanation lies in the inelasticity of tobacco consumption, caused mostly by the addictive properties of the substance. Of course, taxes cannot continue to rise indefinitely without affecting consumption at some point. But given the low base of tobacco taxes in almost all the developing countries, and taking into account the demand inelasticities, there is much scope for sustained tobacco tax increases in the developing world.

The second, and no less important, reason for raising taxes on tobacco is to increase fiscal revenues and have the resources to take care of, *inter alia*, public health expenses. Often it is argued that tobacco excise tax increases are likely to lead to lower fiscal revenues due to factors such as increased illegal trade in cigarettes and or other forms of tax evasions. There is indeed a grain of truth in such arguments. Whether or not governments should worry about it depends on the following factors:

- (a) The integrity and efficiency of the custom services in the country,
- (b) The exposure of the country to the established smuggling routes,
- (c) The efficacy of the law enforcement systems,
- (d) The availability of a strong and widespread informal trading practices in the country.
- (e) The level corruption in the country, and in the region.

Of all the above-mentioned factors, the most pernicious is corruption amongst the political and technical office bearers. In countries where corruption exists, it corrodes the governance institutions and provides a thriving environment for smuggling of, *inter alia*, cigarettes. Clearly, for smuggling to be so effective as to undermine fiscal revenues from tobacco taxation, it needs much more than higher cigarette prices. (see Luk Jossens 1998)

An increasingly important aspect of tobacco taxation is, in my view, the need for regional and or international co-ordination. Clearly when one country in a given region substantially increases the tobacco excise taxes it exposes itself to increased smuggling, larger cross border purchases, a potential loss of fiscal revenue. And as importantly it stands to gain much less in positive public health benefits than otherwise. A much superior solution would be a co-ordinated and ideally proportionate tax increases across a given region such as the South East Asia, Eastern Europe, or Southern Africa. In such cases, there is no increased threat of smuggling, every chance of substantial tax revenue gains, and a much better prospect in terms of public health. Such policy co-ordination, however, requires political championship as well as appropriate institutional structuring.

Following tobacco taxation, the next most important form of government intervention in reducing demand for tobacco products is comprehensive bans on tobacco advertising. As documented in the World Bank report, bans on advertising are effective in reducing tobacco consumption. Partial bans of tobacco advertising, however, are ineffective for a variety of reasons. The most significant aspect of comprehensive bans on tobacco advertising is the fact it effectively de-glamorises smoking. This is vital for creating a coherent milieu in which particularly the children and the youth are given a consistent message about the society's perception of smoking. This is a necessary condition for arresting the rise in the current smoking epidemic. Further reinforcement measures are needed in the form of awareness programmes based on scientific and educational research.

The debate around cigarettes advertising bans, however, invites a series of associated arguments related to human rights, the smokers' rights, and the right to advertise a legal product. Closely related to these issues is the question on whether smokers know their risks. These issues are adequately dealt with in the World Bank document and I do not intend replicating them here. However there are two political economy related aspects of these controversies that are not adequately covered in the report, and in my view merit amplification.

The most important of these issues relates to an evident 'double standard' in socio-democratic norms across countries. It is often argued that banning tobacco advertising could mark the beginning of government encroaching on socio-democratic norms in the society. The tobacco

industry and its sympathisers make a big issue out of this ideological point in the developing countries. What is often forgotten is that in the developed countries such arguments seem to arise in an inverse context. In other words, because of the very democratic norms, espoused by the society, governments in the developed countries introduce stringent measures to provide a better living conditions for all; something which may well entail a reduction in absolute individual freedoms. Such curtailments could range from the speed limits on the roads to ban on smoking in public places, or a comprehensive ban on tobacco advertising as adopted by the European Union in 1998 and is to come to full effect by October 2006. Surely, the population of the developing countries deserves a similar benefit of democratic values.

Allied with democratic values is the overarching issue of human rights. The WHO constitution states:

“The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social conditions.” (Leary, p.2)

Linking smoking with human rights is bound to invite numerous controversies. At first glance, it may be argued that the human rights aspects of tobacco use concern the freedom to smoke without interference from others including the state. (Leary 1999) However, given the irrefutable addictive nature of the product, it has to be asked: What happens to the human rights of someone who has been enticed via sophisticated advertising and led to smoking addiction in a young age? It is with regard to children and the youth that the ‘human right to health’ is of particular relevance for the global tobacco control initiatives.

A final element of containing tobacco consumption, which I believe is particularly pertinent for the developing countries and merits singling out for discussion, is the issue of jobs and tobacco control policies in the developing countries. Understandably, employment is a matter of top concern for the poorer nations. And, in the political economy discourse around tobacco control it is often taken for granted that controlling tobacco is equivalent to job losses. Governments and societies therefore react accordingly. On the face of it the argument has a strong intuitive appeal, because it posits that tobacco control will lead to less smoking, less or no advertising of tobacco products, and thus the industry will shrink, jobs will be lost and incomes will disappear

accordingly. However, such arguments are fundamentally flawed. There are good theoretical and empirical reasons for this. Here are the two main reasons why tobacco control is unlikely to lead to any noticeable reduction in employment and or income losses.

Firstly, from an aggregate economic point of view on the expenditure side, when smokers reduce their consumption of tobacco they spend their money on some other items of consumption. There is no loss of income on the part of smokers; instead they rearrange their spending patterns. This is called 'expenditure switching'. The economy as a whole does not sacrifice any income. The question therefore is whether the new pattern of spending is more or less job creating? This is essentially an empirical issue and is dependent on the type of economic structure as well as the pattern of consumer preferences after they quit or reduce smoking. If the consumers spend their additional resources (given their less spending on cigarettes) on labour-intensive products and services this might in fact lead to more jobs and not less. Also, it would matter if they spend the extra money on locally produced goods and services as opposed to imported items. Empirical studies conducted in USA, UK, South Africa, Scotland and Canada suggest that no job losses are likely to result from a reduction in tobacco consumption in the society. Characteristically, expenditure switching by the smokers results in more spending on recreational, food and education outlays. Such production processes are commonly more labour intensive than cigarette manufacturing. Besides, switching expenditures from tobacco to other consumption items has some other advantages too. In the case of the developing countries, the majority of whom are net importers of tobacco products, such expenditure switching reduces the so-called balance of payments problem.

The second reason why tobacco control is unlikely to reduce jobs is this: in the short term tobacco control policies are more likely to reduce the rate at which people take up smoking and not reduce the absolute number of smokers. Empirical analysis shows beyond any doubt that decline in tobacco consumption is a slow process. At the global level, if the anti-tobacco policies are well co-ordinated and become effective, the current 1.1 billion smokers will grow at a lower rate than otherwise. But the current market size is unlikely to shrink over the next few years, possibly even over the next two decades. A similar argument is generally applicable to each and every country. Broadly speaking, the increase in population together with a rise in incomes over

time would ensure that the market for tobacco products would continue for another 25 to 30 years, at least. This is further reinforced by the addictive nature of tobacco products.

In general, therefore, the fear of employment losses of tobacco control policies is based on poor and partial economic analysis. The predominant majority of the countries in the world have nothing to lose from curbing tobacco products. In the short term no country stands to lose. However there are a handful of countries that need to manage the long term very carefully. These are the countries for which tobacco constitutes a major economic activity or a major source of foreign exchange earnings. Zimbabwe is a case in point insofar as its export is heavily dependent on tobacco; e.g. nearly 98% of the annual tobacco production is exported earning 25% of the country's foreign exchange earnings. The same is true for Malawi where tobacco export is major source of national foreign exchange earnings. Countries such as China, India, and Brazil need to take careful measures not so much because of export earnings, but mainly because of the large number of farmers and their dependants involved in the activities related to the tobacco industry. Part of the long-term management of the situation for these countries may well lie in a co-ordinated and collaborative international pact in search of a global solution for the problem.

IV. CONCLUDING REMARKS

This paper has argued that tobacco consumption is increasingly a developing country problem and if unchecked it could have catastrophic human consequences. Containing smoking requires a multi-prong policy package to deal with its root causes over time. In the short term, the demand related factors are far more likely to be effective. This is particularly true given that the empirical evidence suggests that demand elasticities are relatively higher in the developing countries. This means consumption is more likely to respond to price increases. Governments in the developing world can therefore increase tobacco taxation, raise sales prices and contain consumption at the same time that they generate additional fiscal revenues. This win-win situation provides an effective policy framework in the short term. Furthermore, the paper has argued that there are no adverse economic consequences following such policy framework. Neither employment, nor national income, is likely to be negatively affected. While taxation offers a short term solution, the overall framework, however, should include subsequent measures to deal with issues such as tobacco advertising, general education about smoking, and the supply related aspects. **- END-** *IA/University of Cape Town/South Africa/15March2000*

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