

Death and taxes: a response to the Philip Morris study of the impact of smoking on public finances in the Czech Republic

Action on Smoking and Health

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Summary

A study, *Public finance balance of smoking in the Czech Republic*, commissioned from consultants Arthur D Little by tobacco multinational Philip Morris has caused great controversy. It can be viewed by clicking: [\[PDF for formatted printing\]](#) or [\[HTML for browsing\]](#).

The study was widely reported as showing that the savings arising from early deaths of smokers (pensions, health care, housing) outweighed their extra costs while alive (health care, absenteeism, fires). This is wrong and dangerous – a self-serving rationale for addicted smokers or pro-tobacco politicians. In fact the study itself shows the opposite: that the costs outweigh the savings by 13 times. Smoking is a considerable net burden on the Czech public finances – some US\$372 million (CZK 14.5 billion) per year.

Despite this the study does conclude, incorrectly, that smoking is a net benefit. It achieves this by including tobacco taxation on the benefits side. This is cheating. In the absence of tobacco in the Czech economy, the government's revenue needs would be met because consumers would be spending on other goods and services that would be taxed, and in a full adjustment, the government would be taxing other things to raise the budget it requires.

There *is* a benefit to tobacco taxation because it is good economic policy to tax things that have no productive value. However, this benefit equates only to any costs or inefficiencies that would be associated with raising the same sum on different tax bases – for example, VAT, incomes, profits, fuel, alcohol, waste, or energy – and that would be a small second-order benefit. This is also the reason why increased tobacco taxation is a good government policy – both economically and for health.

Media focus on 'benefit' of dying early

The focus of media commentary and response has been on the idea that the early death of smokers is an advantage and creates savings through reduced health care expenditure, pensions and housing costs to the state. For example:

- [Smoking deaths 'can help your economy'](#) (Daily Telegraph, 18 July 2001)
- [Smoking is cost-effective, says report](#) (BBC, 17 July, 2001)
- [Smoking can seriously aid your economy](#) (Guardian, 17 July 2001)
- [Czechs Debate Benefits of Smokers' Dying Prematurely](#) (New York Times, 18 July 2001)

The initial response to the report was one of condemnation of the approach. But further scrutiny reveals that the report actually shows smoking to be a considerable burden.

Condemnation based on 'repellent' idea of valuing early death

Most of the commentary has (rightly) focussed on the repellent concept of selling the value of early death to a government. For example, ASH said that Philip Morris is selling the Czech government "*an extermination service for the recently retired*" – see [press release](#). Nevertheless the sense that there might be a net benefit from early death lingered. This is a concern, because it offers a rationalisation for smokers and governments that are pro-tobacco for other reasons.

Cost benefit analysis reveal smoking costs more

However, the study shows the exact opposite. On its own terms, the study shows the costs of smoking (health care, absenteeism, fires etc) are actually **13 times greater** than the purported 'benefits' from early death (savings in pensions, health care and housing).

In the study, the total costs (in million CZK) attributed to smoking are given as:

| Cost | Million CZK |
|-------------------------------------|---------------|
| Health care costs | 11,422 |
| Lost income due to higher mortality | 1,367 |
| Absence from work | 1,667 |
| ETS related health care costs | 1,142 |
| Fire | 49 |
| Total | 15,647 |

1 US\$ = [38.8](#) Czech Koruny (CZK)

The 'benefits' due to early mortality are given as follows:

| Benefit | Million CZK |
|-------------------------------|--------------|
| Health care savings | 968 |
| Pensions and social cost | 196 |
| Housing costs for the elderly | 28 |
| Total | 1,192 |

1 US\$ = 38.8 Czech Koruny (CZK)

Thus the cost burden of smoking is CZK14,455 million greater than the savings - in this tobacco industry study. *The health costs of smoking outweigh the 'benefits' of early death by a factor of 13.* It is definitely not true to say – on the basis of the Philip Morris study - that the savings from dying early outweigh the costs imposed by smokers while still alive.

So how do Philip Morris and AD Little manage to claim a net benefit of 5,815 million CZK from smoking? Simple! The difference is made up of taxes raised on tobacco. The argument is that smokers put more into the economy than they take out.

| Tax income | Million CZK |
|-----------------|---------------|
| Excise tax | 15,648 |
| VAT (sales tax) | 3,521 |
| Corporate taxes | 747 |
| Customs duty | 354 |
| Total | 20,270 |

1 US\$ = 38.8 Czech Koruny (CZK)

If the tax revenues are included, then the cost benefit analysis looks as follows

| Cost or 'benefit' | Million CZK |
|----------------------------------|---------------|
| Cost of smokers while alive | -15,647 |
| Savings from smokers dying early | +1192 |
| Taxes paid by smokers | +20,270 |
| Net | +5,815 |

1 US\$ = 38.8 Czech Koruny (CZK)

The claimed net benefit is thus CZK5,815 or US\$150 million.

This is flawed because including taxes in this calculation is not appropriate – this is discussed below.

Why it is wrong to count taxes in the analysis

Who said Philip Morris could include taxes in the benefit side?

The costs and 'benefits' of smoking itself are real economic impacts (although highly disputable) – hospital have to be built, doctors trained, drugs purchased etc. Taxes are quite different. They represent a transfer from one part of the economy to another.

If the Czech government didn't have tobacco in its economy, there would be two main differences:

1. Consumers would be spending on goods and services other than tobacco – and these expenditures would be generating taxes. This would not fully replace the tax raised on tobacco because tobacco taxes account for a high fraction of expenditure.
2. The Finance Ministry would raise its budget from *different* tax bases - income, profits, inheritance, capital gains, alcohol, fuel, waste, carbon emissions etc. There are many available tax bases.

The total tax burden would be unchanged, but raised in a different way. More accurately, without tobacco, the total tax burden (raised from all sources) would be reduced by the CZK14,455 million net burden arising from smoking. This would be good for the economy.

Finance Minister's perspective

It might be argued that the study was not looking at a societal perspective (ie. the overall impact on society), but strictly at the public finances. In a societal view, taxes are irrelevant in assessing the impact of smoking, as they are transfers from one part of society to another.

But in a public finance view, one has to adopt the perspective of a Finance Minister when valuing the tobacco tax. Looking from the public finance perspective is the purpose of the AD Little study. The Finance Minister sees over CZK 20 billion in taxes from tobacco coming into state coffers. Surely to the Minister this is a genuine benefit?

In fact, the tax revenue stream cannot be counted as a benefit even to the Finance Minister. This is because the taxes can be raised in different ways without an increase in the total tax burden. The choices facing the Minister are how to draw up a budget to raise the finances the state needs. The impact on the Minister of the different choices is the consequence of raising a given sum in different ways – the consequence of choosing one set of tax bases compared to another.

The value of tobacco as a tax base is going to be a much smaller 'second order' effect compared to the tax revenue itself. It is difficult to calculate this and no attempt is made in the Philip Morris analysis.

Value of tobacco tax base

There is a 'second order' value to tobacco tax: but it is not the tax revenue itself, rather the value that tobacco has to the Finance Minister as a convenient tax base, compared to other tax bases.

The true benefit, therefore, of the tax revenue from tobacco is any cost, efficiency loss, or other impacts that would arise from raising the same sum in the next best way using tax bases other than tobacco. These costs might be political or might be due to impacts arising from increases in other taxes.

Tobacco is a particularly good tax base – often known as a ‘sin tax’. It is preferable to raise taxes on tobacco because it does nothing for the economy, productivity or competitiveness – whereas some taxes (for example taxes on income or investment) do harm the economy.

The real-world relevance of this to the Czech Finance Minister is that raising tobacco taxation is a good policy. Raising tobacco taxes increases revenues with least disruption to the economy. It also reduces tobacco consumption, and therefore begins to tackle the net health impact, which the Philip Morris study shows to net drain on the public finances and economy.

How are the numbers calculated?

This is an abstract exercise, an attempt to look at a phenomenon (smoking) and to try to decide what impact it has on the Czech economy or finances. To assess the impact of tobacco on the Czech economy, we need something to compare with – an imaginary Czech economy without tobacco. By looking at what would happen in the imaginary ‘No-Tobacco-World’ and how this would be different from the real ‘Tobacco-World’, we can gauge the impact of smoking.

In No-Tobacco-World there would be differences included in the study:

- Less health care costs
- Less absenteeism and lost productivity
- Less fires
- More pension expenditure
- More housing costs

No-Tobacco-World would also be different in ways not properly reflected in the study:

- Taxes would be raised differently (not lost)
- Consumers would spend differently – the tobacco money would not disappear
- Different firms would be operating and meeting different consumer demands
- Costs, benefits, risks associated with different consumer spending may be different

These theoretical constructs are used to assess the impact of smoking in the real world, but they are not intended to be a blueprint for change. It is unrealistic to expect or hope for an immediate elimination of tobacco from the Czech economy.

Is the Philip Morris analysis useful to the Czech government?

There is little of value in the Philip Morris analysis, except as an attempted (and failed) propaganda coup – the ability to say ‘tobacco is good for the Czech economy’ when it plainly is not. In fact, it has offered a coup to Philip Morris’s opponents. The summing of total tobacco costs, benefits and tax revenues does not tell the finance or health ministry anything useful about any of the realistic public policy choices they face.

The most important analysis would be assessments of the impacts of different policies, for example:

- Increase in tobacco tax rates
- Ban on tobacco advertising,
- Reduction in consumption through mass-media campaigns
- Improved quit rates through health care system expenditure on cessation

These would have costs and benefits that could be analysed for their impact on the Czech economy or public finances. This approach is set out in general terms in the World Bank report: [*Curbing the Epidemic: governments and the economics of tobacco control*](#).

This would be a better source of advice than Philip Morris for any government.

Other criticisms of the Philip Morris study

This paper concentrates on deconstructing the idea that the Philip Morris study shows smoking to be a net benefit to the Czech economy or public finances, and to show instead that even in this study the cost of smoking exceeds the benefits by 13 times. However, the study is open to challenge on many other grounds. Here are some:

Questioning the numbers

There are many numbers assumed in the study and each could be questioned individually. The consultants have included figures generally based on the peer reviewed literature and have included impacts that Philip Morris does itself recognise – such as damage arising from ETS.

It is not our intention debate individual numbers used.

Whole society perspective is more important

The analysis looks only at the perspective of the Finance Minister – but a proper cost-benefit analysis would consider the impact on individuals as employers as well. This would very substantially increase the net cost attributable to smoking.

Non-monetary costs not included

The analysis only looks at financial flows, not at 'costs'. Costs are not always measured directly in money. For example, to the relatives of a deceased smoker there is a cost of grief and loss. To the smoker there is a loss of opportunity and experience. In some economic assessments, a monetary value is placed on life by assessing societies willingness to pay to reduce risks. Two examples:

- In assessing the cost of climate change, the Intergovernmental Panel on Climate Change (IPCC) Second Assessment 1995 [see [Summary for Policymakers](#)] used a figure of US\$3.5 million per life for developed countries (Box 6.1 p.197 Economic and Social Dimensions of Climate Change, WMO/UNEP, Cambridge University Press).
- In the UK, in the assessment of road building schemes lives saved due to road safety improvements are valued at around £1 million each.

These figures are very large compared to the sums under discussion in the Philip Morris report. The report assumes 22,000 deaths per year in the Czech Republic. Using the IPCC figure above this would be a social cost of US\$77 billion – almost 3 *trillion* CZK. Even adjusting for age at death and development status of the Czech Republic, the implied cost of the loss of life will greatly exceed taxes, and health care costs or savings.

This is an important message – the cost of smoking is not what burden it places on health care systems, but the loss and grieving of loved ones, the loss of opportunity and fulfilment for those whose lives are lost early; and the pain and suffering involved in death by the diseases brought on by tobacco. It is in this area that the Philip Morris study has really departed from reality.