ENVIRONMENTAL TAXATION IN FLANDERS
An Economic Assessment
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INTRODUCTION

Environmental charges have become important policy tools in the Flanders region in Belgium since their introduction in the late ‘80s. The revenue of the two most important charges - the wastewater charge and the waste disposal charge - rose from 40 million ECU in 1989 to 350 million ECU in 1997 and now accounts for more than 60 percent of total environmental expenditure by the Flemish region, compared to 23 percent in 1989.

These charges however pose several serious problems from an economic perspective, mainly as a result of the framework in which they operate. We believe neither these problems nor the framework are well understood outside Flanders. OECD and EU studies on environmental taxation generally contain little detailed information on the Flemish experience. They furthermore assume the overall concept that is being used in Flanders is more or less the same as in other European countries. But this is not the case.

This article therefore wants to provide an insight into the use of environmental charges in Flanders and into the most important problems. It builds on earlier work by the Social and Economic Council of Flanders (SERV). Part one describes the financial framework and the way charges fit into that framework. It shows that the Flemish concept differs from the situation in most other countries. Part two presents a general assessment of the framework. It demonstrates the framework is not compatible with the OECD Polluter Pays Principle. Part three elaborates on some important problems with the Flemish environmental charges. We use recommendations set forth in a recent OECD report on implementation strategies for environmental taxes to illustrate the current debate in Flanders. A conclusion summarises the most important issues.

ENVIRONMENTAL EXPENDITURE AND ENVIRONMENTAL TAXATION IN FLANDERS

Environmental spending in Flanders was only of minor importance in the ‘80s. This situation has changed sharply after the ‘88 institutional reform in Belgium, which assigned the responsibility for environmental policy almost entirely to the three regions (Flanders, Wallonia, Brussels). Furthermore, is was decided to speed up water

purification investments. The quality of surface waters had been deteriorating for years due to the poor efforts of local communities who were formerly responsible for the construction and operation of waste water treatment infrastructure: in the early ‘90s only 29% of the total population in Flanders was served by waste water treatment plants, while the average for all EU member states was around 70% at that time\(^2\).

The new authority of the Flemish region for environmental policy together with the necessary expansion of water purification investments caused a sharp increase in total environmental expenditure by the Flemish government. Environmental spending grew from 170 million ECU in 1989 to 570 million ECU in 1996 and is expected to rise further to 580 million ECU in 1997 and 715 million ECU by 2001\(^3\).

In order to finance growing environmental expenditure, the Flemish region introduced environmental charges and created the so called “MINA-Fonds”. This environmental fund has three main characteristics\(^4\). First, all revenues from environmental taxes and charges (e.g. the waste water charge, the waste disposal charge, the tax on manure production, the charge for groundwater extraction, several administrative charges) are to be allocated to this fund. Second, these revenues, together with some additional resources from the general budget, are used to finance a broad range of environmental projects in various sectors (land, water, air, waste, forest, wild life, ...). Third, there are no direct links between e.g. the costs of waste water treatment and the revenue of the waste water charge. The MINA-Fonds is a general fund with entirely separated accounts for revenues and expenses.

Within this framework, environmental charges have been (and still are) modulated to keep the MINA-Fonds in balance\(^5\). Between 1991 and 1997 the tax base of the waste disposal charge and the waste water charge has been extended and rates raised to keep revenues in line with expanding financial needs. The revenue of these two charges was increased from 40 million ECU in 1989 to 350 million ECU in 1997 and now accounts for about 70% of total expenditure of the MINA-Fonds. The MINA-Fonds finances about 90% of current total environmental expenditure in Flanders\(^6\). Hence, environmental charges have become important policy tools in Flanders, at least from a financial point of view.

This framework and the use of charges in environmental policy differs from the situation in other countries\(^7\). In most European countries user charges for example

\(^6\) SERV. *Onderzoek naar de financiering van het Vlaamse milieubeleid.* Brussels, SERV, 11 October 1995 and COECK, C., PEETERS, C. e.a. Landenvergelijking ter aanvulling van het rapport
are common to allocate the cost of the collection and treatment of effluents to those connected to the public sewerage and sewage treatment facilities. Revenue is used to finance (part of) the services rendered. Those charges do not exist in Flanders. There is no linkage between the rates of the Flemish waste water charge and water purification costs and revenue is not used to finance waste water treatment, but for a variety of environmental projects. Revenue cannot be allocated to specific purposes. There is of course neither a separation between user charges on the one hand and waste water effluent charges on direct discharges only on the other. Contrary to European countries where such charges exist, these two types of charges are mixed.

Studies commissioned by the OECD or the European Commission don't always seem to be clear on this subject. The 1996 OECD report on the use of economic instruments in member countries for example suggests that there are user charges for waste water treatment in Flanders and states that in all countries, revenue of waste water effluent charges is spent on water quality policy and/or subsidies to firms for pollution abatement. The 1995 RIZA study concludes i.a. that in the countries of the European Union with schemes for indirect discharges the revenue is used to finance communal sewerage and treatment plants to some extent and that the charges levied can be considered as user charges with an financing objective. These conclusions do not hold for the Flanders region.

**GENERAL ASSESSMENT OF THE FRAMEWORK**

Like in most other OECD countries, the initiatives to introduce environmental taxes in Flanders have arisen because of the need to find revenue sources which can be assigned to finance environmental expenditures, rather than for their incentive value. To defend these charges, Flemish government referred to the Polluter Pays Principle. It is interpreted as a principle requiring environmental expenditure to be financed as much as possible with environmental taxes and requiring revenues from environmental taxes to be earmarked for environmental purposes.
This interpretation however is not consistent with economic theory on environmental taxation nor with the OECD Guidelines on the Polluter Pays Principle. In economic theory, the basic objective of economic instruments is to ensure an appropriate pricing of environmental resources in order to promote an efficient use and allocation of resources. If the environment is priced correctly, environmental goods and services are treated equal to any other production factor in the marketplace and an economically efficient allocation of production factors is ensured. In other words, environmental taxation is used to internalise environmental costs\(^\text{13}\). The OECD equally stated that the Polluter Pays Principle is, in fact, no more than an efficiency principle for allocating costs in order to ensure that prices of goods and services reflect more closely their relative scarcity and that economic agents act accordingly\(^\text{14}\). Therefore a polluter, in principle, has to bear all the costs of preventing and controlling any pollution that he originates\(^\text{15}\).

The Polluter Pays Principle thus endeavours correct prices and does not imply environmental expenditures to be financed by environmental taxes or revenues to be earmarked for environmental purposes. The only exception are levies related to a service delivered. Given their cost recovery nature, they are a direct application of the Polluter Pays Principle\(^\text{16}\). The revenues raised are used (earmarked) to provide the service. For all other environmental taxes, there is no a priori correct use of the revenues. They can increase expenditure on particular public programmes, reduce budget deficits, reduce other taxes or be assigned to the general budget. The most appropriate use will vary with the particular circumstances concerned. In any case, these environmental taxes should be used first and foremost for environmental purposes, and their introduction should not rest on financial objectives. The availability of revenues is not an argument in itself for introducing a new environmental tax.

It should now be easy to see that the Flemish framework and use of environmental charges are not compatible with the economic and OECD interpretation of the Polluter Pays Principle. Costs are not borne by those who originate them, but are financed by

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The interpretation of the Commission of the European Communities is similar. See e.g.: “Commission environmental policy is founded on the “polluter pays” principle. The effectiveness of the principle depends in particular on the proper operation of the price mechanism, which ought to translate into costs the negative effects of a particular process on the environment, so that prices can perform their signalling function which forms the basis of the market economy”. COMMISSION OF THE EUROPEAN COMMUNITIES, \textit{Competition Report 1992; Competition Report 1993}.


the MINA-Fonds which in turn allocates environmental expenditure to various revenue sources. The choice of revenue sources is not based on any economic efficient cost recovery strategy, but is entirely based on political considerations. An example is the increase in the rates of the waste disposal charge in 1995 in order to keep the share of environmental taxes in the MINA-Fonds at their level of 1994. Because rising expenses were almost entirely due to payments for investments in waste water treatment, it is fair to say that the cost of water purification was at least partly allocated to the producers of solid waste. Hence there are cross-subsidies between different business sectors (and, especially for the waste water charge, also between business and household taxpayers, see below). In these circumstances environmental taxes in Flanders cannot succeed to reflect accurately the costs of pollution prevention and control measures in the cost of goods and services which cause pollution in production and/or consumption. The logic of the Polluter Pays Principle is therefore violated in Flanders.

**OTHER IMPORTANT DEFICIENCIES**

The argument raised above is not only formal or academic. The current situation in Flanders leads to several important deficiencies\(^\text{17}\). This section elaborates on the existing problems and compares Flemish policy with some (in particular for Flanders relevant) general OECD recommendations presented in the 1996 report on implementation strategies for environmental taxes\(^\text{18}\). These recommendations are printed italic.

**Clear objectives and appropriate information**

*Appropriate information should accompany the introduction of the tax to ensure polluters understand why the tax is being introduced (...). Taxes might be introduced to reduce consumption of the polluting good down to a level considered “sustainable”. Other taxes might be implemented primarily to raise revenues.*

As noted before, the primary objective of the Flemish charges is keeping the environmental fund in balance. However, this is not admitted by government. Formally, the charges are intended to reduce pollution. The justification for introducing new charges or changing existing charges is (for some years now) limited to the same phrase: “the new charges and/or higher rates are necessary to obtain a further reduction in pollution”. This is clearly not the kind of *appropriate information*

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the OECD recommended. The argument is merely used to generate greater political support for the measures than if it was acknowledged the main purpose of the charges is financing environmental expenditure.

**Choosing a tax rate**

*Full internalisation of social costs requires more information than a tax designed to change behaviour or the reach a certain environmental goal.* A second-best approach, then, is to set a target for environmental improvement based on anticipated responses to changes in relative prices. (...) As elasticity’s can only be estimated, and may differ in the short- and long-run, tax rates may have to be adjusted in the light of experience, with the optimal rate reached only after some time. (...) Future increases could be made conditional on whether an intermediate environmental goal is reached. (...) Caution should be exercised with automatic indexation procedures (...). A periodic revision of rates may be sufficient.

New charges or increases in existing charges in Flanders are said to be necessary to obtain a further reduction in pollution. Government has however never specified a clear or quantified environmental goal to be reached by the charges. This proves again the incentive function of the charges is a political argument in the first place and not their real purpose. The automatic indexation of the rates of the Flemish charges confirms this. The incentive effect of taxes may indeed be eroded in times of inflation, but automatic indexation is not a necessity. Environmental taxes should be regularly reviewed to assess the extent to which they fulfil their purpose. Even without changes in the general price level, the specific rate may be readjusted periodically to reflect changes in the external costs of pollution. Instead, automatic indexation in Flanders is used to help to keep revenues stable without the more transparent and political more difficult increases in tax rates.

**Implementation strategy**

An early announcement and a gradual introduction is essential. If implementation is pre-announced, polluters may be able to reduce tax payments immediately on introduction with forward-planning. This avoids potential financial difficulties, as high investment costs and high tax payments do not occur simultaneously. For example, with enough advanced notice, polluters may be able to modify their production processes, and producers of substitutes can ensure an adequate supply. It may also be feasible to schedule a phase-in period. The reason for phasing in taxes is to reduce adjustment costs. The more gradual the pace of change in policy, the more likely it will be that environmental tax policies can be implemented without major transitional costs falling in any segment of the population. Much of the economic burden of adjustment arises when a large amount of adjustment is required in a short
period of time, straining the natural capacity of the economy to absorb change and create new employment opportunities. However, policy makers should also (...) indicate how the tax might change over time. The tax should ideally be predictable and relatively stable to allow producers and consumers to adjust more easily to the new tax and plan future investment. The effectiveness of the tax will not depend only on its current level; it will also depend on expectations about its persistence and future expectations as by the existing level of the tax. Unforeseen changes in rates create uncertainty for taxpayers and so should only be made when necessary.

Until now, an early announcement has never occurred in Flanders. Plans for new charges or modifications of existing charges are commonly first announced around October and are voted in parliament as a part of the budget of the Flemish region at the end of each year (i.e. the second half of December). The new regulations are published a few days later, usually one of the last days of December (or even later) and are implemented January 1

The explanation of this situation is, again, the framework in which the charges operate. Government first decides on the level of expenditure for the next year. It then decides how much revenue the environmental charges (together) have to raise. This decision depends on the amount the environmental fund receives from the general budget. In 1994 only the contribution of the general budget was increased. In 1995 it was decided to increase the charges as well as the contribution of the general budget by an equal share. In most recent years (1996, 1997) there was almost no additional general funding available and nearly all extra expenditure had to be financed by an increase in the revenue of the environmental charges. Finally government decides which charge(s) will be modified or introduced and how (increase of the tax rate or broadening of the tax base) in order to raise the necessary revenues. Here the criteria are even less transparent. In some years the waste disposal charge is adjusted (1995), in other years the waste water charge (1992), and sometimes both (1993, 1996, 1997). A new ground water charge has been introduced in 1997. In any case, it is clear these decisions are based on arbitrary political grounds and that environmental effectiveness and economic costs for polluters receive little attention. An early announcement, a gradual introduction and predictability reduce the revenue raising capabilities of environmental charges and therefore are not political priorities.


20 The new reglementation for 1997 e.g. was published January 14 1997.

**Earmarking**

Specific or general environmental funds should be seen as transitional measures. Maintaining such funds over a lasting period would eventually result in economic inefficiency. It could prevent governments from optimising the composition of government spending. In the long term, it could create inefficiencies and rigidities, and reduce the options in priority setting.

Earmarking revenues to a general environmental fund is perceived in Flanders as an instrument to increase the acceptability of environmental charges, and help draw political support. Experience shows however that one disadvantage of earmarking is that government officials are now counting on environmental charges to raise sufficient means. A proposal to introduce very high rates for the waste disposal charge in order to generate a substantial incentive effect for example has been dropped because of the decrease in revenue that would result. Clearly, the need for revenue rather than environmental effectiveness dictates the choice of tax rates. In the present political climate, it does not yet seem feasible in Flanders to follow the general trend to move away from earmarking tax revenues for specific purposes, and to treat environmental taxes in the same way as other taxes.

**The special case of user charges**

Earmarking is most common (...) when there is a direct relationship between the charge and the service provided. In fact, earmarking is a necessity in the case of user charges - as taxpayers expect a service in return. User charges are payments related to the service delivered. Only those connected to the relevant public service are charged. It is expected and non-controversial to allocate revenues from user charges in order to cover the cost of providing a level of service. If users need to consume more of the service, then they must pay for the additional units of service. Given their cost recovery nature, user charges may be characterised as a direct application of the polluter(pays)-principle.

In Flanders, user charges only exist in some local communities for waste removal. There are no user charges on the level of the Flemish region. The cost of public waste water treatment is financed by the MINA-Fonds, and is not allocated to those connected. There is however a waste water charge, but it makes no difference between direct discharges in surface waters and indirect discharges in sewerage.

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22 Although earmarking has advantages and is widely used, overall the experience of most countries suggests that earmarking should generally be viewed only as a second best and transitory solution when environmental taxes have not yet reached their efficiency level enabling the achievement of environmental objectives. OECD, *Taxation and the environment*. Complementary Policies. OECD, Paris, 1993. For more information see also OECD, *Environmental Funds in Economies in Transition*. OECD, Paris, 1995, and e.g. OATES, W.E. Pollution Charges as a source of public revenues. Discussion paper QE92-04. Washington, DC, Resources for the Future, 1992.

systems and sewage treatment plants. Revenue is used to finance the broad range of environmental programmes of the MINA-fonds, and not to finance waste water treatment in particular. The rates are entirely based on political considerations (see above). They do not intend to cover the cost of providing the service of waste water treatment, which, in fact, proved to be very controversial in Flanders because it would alter the “balance” of tax payments between business and household taxpayers.

Balance of tax payments between business and household taxpayers

An issue which often arises as a matter of policy concern is the possibility that an environmental tax might alter the balance of tax payments between “business” and household taxpayers. In terms of final incidence, the notion of a tax burden which is borne by business is difficult to sustain. Ultimately, taxes levied on businesses are borne by individuals, either in their role as shareholders of the business, as customers, or as employees. Distributional issues could still, of course occur in the sense that the final incidence of an environmental tax might be unevenly distributed, and might fall particularly heavily on groups of households of particular concern. However, the concern would then relate to the dimensions of the household distribution (...), rather than to the balance between business and household taxpayers, as an issue of specific concern in its own right.

The balance of tax payments between business and household taxpayers has indeed been a matter of high policy concern in Flanders. In the early ‘90s, government has even quantified this balance for the waste water charge: 60% of the revenue had to be paid by industry, 40% by the households. The basis for this arbitrary balance however has never been specified. In more recent years, a proposal to introduce user charges for waste water treatment in order to obtain a better application of the Polluter Pays Principle provoked a lot of controversy, particularly because it would, at that time, result in relative higher tax-increases for households than for industry\textsuperscript{24}.

CONCLUSION

This article aimed to provide an insight into the purpose and use of environmental charges in Flanders. It showed that the environmental charges in Flanders have on the one hand become important policy tools since their introduction in the late ‘80s, but pose several serious problems on the other.

Most important observation is that the environmental charges in Flanders are not compatible with the Polluter Pays Principle. The Polluter Pays Principle as defined by the OECD requires that a polluter should, in principle, bear all the costs of preventing and controlling any pollution that he originates in order to promote an efficient use and allocation of resources and to ensure that the environment is priced correctly. In

Flanders it has however been interpreted as a principle requiring environmental expenditures to be financed as much as possible by environmental taxes and requiring revenues from environmental taxes to be earmarked for environmental purposes. Costs are not borne by those who originate them, but are financed by a general environmental fund which in turn allocates environmental expenditure to various revenue sources. The choice of revenue sources is not based on any economic efficient cost recovery strategy, but is entirely based on political considerations.

Government officials moreover pretend environmental charges in Flanders are introduced because of their incentive effect. They are designed to reduce pollution. Evidence shows that this is not the case:

- Government has never specified a clear or quantified environmental goal to be reached by the charges;
- The need for revenue and the balance of tax payments between business and household taxpayers rather than environmental effectiveness dictates the choice of tax rates;
- An early announcement, a gradual introduction or predictable rates and schedules, which are essential not only to reduce adjustment cost but also for the dynamic incentive effect of charges, do not exist in Flanders.

Environmental charges have instead been introduced because of their revenue raising capabilities. They still are modified each year in order to raise money for a variety of new and growing environmental expenditures. This obviously leads to several important deficiencies. It should therefore not come as a surprise that the acceptability of environmental charges in Flanders is very low, not so much because of the level of the charges but because of implementation issues.

There are however some signs that government is willing to correct the present situation. For the first time in five tears, there has recently been a debate on environmental taxation in parliament and the new environmental policy plan 1997-2001 shows government recognises some of the existing problems. But the main issues (correct implementation of the Polluter Pays Principle, revenue raising charges vs. user charges and incentive charges, earmarking, ...) have not yet been questioned by government officials.

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