Introduction of Waste Charges and Public Resistance

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Introduction

This paper reviews the potential for problems regarding public acceptability of environmental taxes. It examines the issue through a case study of the municipal waste charge protests in Ireland in 2003 and 2004. The example of these public protests against new waste charges demonstrate the necessity for good advertisement and PR when introducing a new tax. Rather than explain the polluter pays principle and simultaneously providing a good selection of options for recycling and composting, some municipalities moved straight into the new tax (for a service that had originally been free of charge and covered by general taxes). Outbreaks of public revolt occurred, with people blockading the streets and refusing to let the collection trucks down their road. Thus, even the people who had paid up were not getting their waste collected. The paper, which is part of ongoing work this area, seeks to identify the reasons why there was so much resistance to this charge and examine the lessons for the introduction of other environmental taxes and charges in the future. The literature on the various types of municipal waste charge is discussed with a view to seeing if pay-by-weight tends to be more politically acceptable as there is a real incentive and control over the amount of waste collected for landfill or incinerator.

The key figures on both sides in the Irish waste charge revolt (city council official, resistance leader, random selection of 8 protestors) were interviewed in an attempt to gain insights into their reasoning about the acceptability failure of the charge and design measures that could have been taken to avoid this outcome. Reasons for the revolt included: that protesters missed the point of local authorities being recently made responsible for covering the costs of municipal waste (rather than central government); they did not see the polluter-pays principle as related to the public; they felt the government was attempting to double-tax them; they were worried that privatisation meant that the charges could be free to rise exponentially in the future. The findings of the study are analysed to see what, if any, international lessons can be learned from the problems with public acceptance of this environmental charge. The following should be in place to encourage the success of new public taxes and charges: Good alternatives for the taxed behaviour; justification for the tax; terminology of the tax; trust in government; administrative simplicity; gradual introduction; willingness to fine-tune and adapt; community group leader support; and professional marketing and advertising schemes.

Policy Instruments

As various policy instruments and environmental taxes and charges grow in frequency and duration of implementation, the body of knowledge grows and ensures that future policy makers can learn from the mistakes of others. Presently, there are a variety of examples of

instruments that have 'worked', that is: they have been accepted by politicians, policy makers and industry; been implemented; have had some environmental and/or economic effectiveness; and are still in place. Some good recent examples are the Irish Plastic bag tax, the London congestion charge, the German Environmental Tax Reform (which recycles a tax on energy through employers social security tax) and the Swedish NOx charge (this tax on Nitrous Oxide emissions is fully redistributed to industry depending on the amount of emissions to energy they produce). See www.economicinstruments.com for a full listing of economic instruments, design and lessons.

However, we can also learn from initiatives that had problems or been unsuccessful. For example, the fuel protests in parts Europe in 2001 implied that there is a level above which it may be unacceptable to raise fuel prices. If this turns out to be true, future policy may need to consider other incentives instead of, or in addition to, taxes to reduce emissions from transport. In terms of choice of instruments, large industry tends to find emissions trading more flexible and thus more acceptable than taxes and as industry almost always receives such generous exemptions from taxes, this is a more effective tool. Improving efficiency by various means; negotiated agreements, R&D investment and regulations may also be a way of improving acceptability and effectiveness of a tax. From an administrative point of view, however, it is more difficult to apply an instrument mix to the general public. For this reason, taxes, charges and levies are still the most common instrument for the public. Regarding waste issues specifically, municipal waste charges are increasingly being introduced over Europe, and the latest European Directive has encouraged the use of the 'polluter pays' principle in relation to household waste.

Waste

As space for landfills becomes increasingly scarce, existing landfills come to the end of their life and there is still unease about incinerators in some places, the issue of reducing waste is fast becoming one of the more pressing environmental problems in many countries. This has been recognised in both the EU and the US. The EU has called for application of the polluter pays principle to all waste, and in the US by 2000 there were 4032 communities in 43 states with pay-as-you-throw (PAYT) programmes (USEPA, 2000). Collectively, these communities serve about 10% of the US population.

In the US, PAYT resulted in an average reduction in land filled waste of 28% (Miranda *et al.*, 1994) and encouraged recycling. However, there is a lack of consensus on PAYT policy work. Bauer and Miranda (1996) conclude that experts disagree about the effect of variable collection fees on household waste disposal behaviour, as well as the seriousness of possible side-effects. There is still scepticism regarding whether variable rates can be successful everywhere, or if they are suitable only for certain types of communities. Fullerton and Kinnaman (1996) found that the economic costs of introducing a PAYT system in Virginia did not justify the social costs. However, their case study was a small, educated, middle-class community which may have been reducing their waste as much as possible before the PAYT system came in. They found waste weight reduced and recycling weight rose only slightly (-10% and +16% respectively).

Reschovsky and Stone (1994) surveyed households in New York County to examine whether PAYT waste disposal encouraged recycling. They found the tag system did not affect reported recycling in isolation of either mandatory recycling or kerbside pick-up. However, they found

it increased participation in the composting programme. Miranda *et al.* (1994) found, in their study of 21 smaller cities with unit pricing, that waste generation went down by 30%, tons landfilled went down by 40%, and tons recycled increased by 12% after adoption of the system. A national survey of US PAYT policies was conducted by Skumatz (1996). She found that variable rates helped to increase recycling by 8-11%, and that diversion rates were higher in cities with smaller population, higher median incomes, and among those that offered kerbside recycling. They concluded that variable rates were the single most important factor in contributing to higher levels of recycling. In a follow-on study, she estimated that 5-7% of municipal waste reduction was attributable to having a variable rate policy after accounting for the impacts of recycling and garden waste programmes (Skumatz, 2000).

Kinnaman and Fullerton (2000) examined the impact of user fees on waste generation and recycling for 114 US cities with PAYT systems. They then collected data from 845 cities that offered kerbside recycling but had no PAYT policies. They attempted to find out if PAYT policies tended to be adopted by cities whose citizens were more receptive to 'green' policies, in which case the policy impact would be overstated, or whether the likelihood of adopting these policies was a positive function of the volume of waste generated in the community, which could understate the effects of PAYT policies. They found some support for the latter idea and estimated that implementation of a PAYT policy reduced waste generation by 412 pounds (187 kg) per person per year and increased the quantity of materials recycled by 30 pounds (14 kg) per person per year.

Folz and Giles (2002) surveyed waste managers and recycling coordinators in 2096 US cities, of which 79% offered kerbside recycling and 25% had some type of PAYT policy. They found modest evidence that a PAYT policy is an incentive for modifying waste disposal and recycling behaviours. They found that (in PAYT cities) households dispose of less solid waste and set out larger quantities of recyclables irregardless of other policies or demographic features. PAYT has the highest incentive effect in areas with kerbside recycling. In Varberg (SW Sweden) a weight-based billing system was introduced in 1994, charging 1 Swedish kronar (approx. €0.11) per kilogram. Recycling centres were set up at the same time and the combined programme resulted in a 35% reduction in waste within a few years (Sterner and Bartelings, 1999).

Folz and Giles (2002) point out that if officials can show residents that it is possible to reduce or control their waste with a PAYT policy, they can demonstrate how much local property tax can be reduced or what residents might save over a flat fee — thus reducing political opposition. They believe there should be some explicit quid pro quo communicated to citizens so that they don't just see it as a new tax. When Athens-Clarke County in Georgia implemented PAYT policies, the residents were promised that the revenue would finance popular local projects (Dickerson, 1999). Aberg (2000) questions the common belief that economic incentives are a simple way of achieving change towards sustainable waste behaviours, showing that in addition to purchasing and waste behaviours, habits, knowledge and physical opportunity have a explanatory value. The drawbacks of PAYT initiatives include waste compaction (where PAYT is by volume), the impact of fees on low income residents, undesirable diversion, service to multi-unit housing, and unstable hauler revenues (Miranda *et al.*, 1996), whilst waste managers need to consider higher costs, illegal disposal and the impact of fees

on low income residents, the degree of popular and political support for unit pricing, customer resistance, aesthetic community benefits, and the need for education and enforcement mechanisms.

In Ireland recently, a county (Monaghan) bin charge was changed from a fixed-rate to a weight-based charge in conjunction with the introduction of kerbside recycling. The reduction in waste going to landfill has been of the order of 30-40% (Dunne, 2004). About half of this can be accounted for by recycling. The other half of the reduction is probably as a result of home composting of organic waste. Some households may also have minimised their waste by changing purchasing behaviour — by buying goods with less packaging or with more recyclable packaging. The reduction in waste in County Monaghan was dramatic as soon as the weight-based system was implemented. Households are billed at exactly the cost of landfilling the waste. Another benefit to this billing system is that it produces accurate data on household waste that can aid planning and track results of new initiatives that may be introduced. The theory behind a quantity-based fee for waste disposal is that the household is forced to internalise the costs of their waste production and disposal (Ebreo, Hershey and Vining, 1999).

However, the way in which public authorities set more or less arbitrary and uniform charges for municipal waste is unsatisfactory. According to the OECD (2004):

- The charges are generally not high enough to cover local authorities' waste management costs and do not include the external costs.
- The charges do not create any incentive for citizens to reduce their own waste generation or to recycle.

Pay-by-weight is more effective for the following reasons (Ibid):

- In environmental terms it usually results in a 15-30% increase in recycling and a 30-40% reduction in waste to landfill.
- In economic terms, collection and treatment costs are adjusted according to the weight treated.
- It is the fairest system as people are billed according to what they produce.

Experience increasingly shows that weight-based waste collection charges can result in significant reductions in consumer waste, and it is hoped that charging by weight will give the consumer the sense of direct control over how much they are charged and thus make the public more amenable to waste charges generally. Existing volume-based waste collection charges work by either charging more for use of a larger bin or by selling tags to the customer that must be attached to each bin bag to be collected. This does provide some incentive for waste reduction. However, some studies indicate that customers tend to react by compressing their waste, which is of no benefit environmentally as all waste is compressed before landfilling in any case.

Environmental attitudes

In theory, pro-environmental sentiments are stronger than ever. Dunlap *et al.* (1993) reported results of a major survey of 22 countries with about 1000 subjects and in 20 of the countries a majority of respondents gave environmental protection first priority when asked to rank the importance of environmental protection relative to economic growth. In 16 of the countries

a majority even indicated a willingness to pay higher prices for goods and services if necessary to achieve environmental protection. However, values and beliefs are not necessarily reflected in answers to questionnaires and behaviour not necessarily consistent with values. Bazerman *et al.* (1996) have argued that an 'attitude/behaviour gap' exists in regard to environmental issues; most people have pro-environmental attitudes and yet engage in environmentally destructive behaviours. In Ireland, results of surveys show that people have a public and private morality, thinking one way and behaving another when it comes to the environment. The Irish public want to see the Irish Government doing more, yet few are willing to make individual sacrifices. When it comes to protecting the environment, only 20% are willing to pay higher taxes, 18% willing to pay higher prices and 12% willing to make cuts in their standard of living (Drury, 2000).

There is also a growing literature which investigates the psychology of environmental behaviour. The importance of community, community leaders and residents groups has been stressed, with the effectiveness of community leaders based on increasing the strength of norms. Social norms are the behaviours people expect of each other while internalised personal norms are the things people feel an obligation to do. Minton and Rose (1997) found the personal norm has the most influence on actual behaviour as opposed to intentions. Hopper and Nielsen (1991) carried out an experiment to test methods for encouraging participation in a ongoing recycling scheme. One group received information in the form of a flyer listing how the programme worked and giving the pick-up dates. Another group received the flyer, but also a bright prompting flyer a few days before the pick-up date. The third group received the flyer plus the prompt, but were also contacted by a block leader who talked to every household about the programme and the importance of recycling. Over the seven months of the study, the recycling rates rose to 10% for the flyer group, 21% for the flyer plus prompt group and 28% for the block leader additional information. Information given in the right social context at community level may be able to change behaviour more effectively than information without social interaction.

Schartz (1977) discusses how personal norms for pro-social behaviour are activated under two conditions:

- People must believe that an existing condition poses a threat of harm to others (awareness of consequences).
- People must believe that their personal action or inaction has the power to prevent that harm (ascription of responsibility to self).
- When a person holds both beliefs, he or she experiences a sense of obligation to act to prevent the harm.

According to Stern *et al.* (1986), people are more likely to support government policies for environmental protection if they believe that the conditions are harmful to people and the policies are directed to changing the behaviour of the responsible parties.

Dublin Case Study

Ireland is currently struggling with two separate but linked issues related to waste. The first is the environmental problem of sheer volume of waste to be disposed of: the majority of landfills in Ireland are near capacity and/or require upgrading to meet environmental standards,

while the incinerator debate is far from resolved. The second issue is the outbreak of public revolt in some areas against waste collection charges. These charges are essentially a service charge for the local councils and corporations to finance the costs of waste collection and landfill charges. Irish householders municipal waste accounted for 2.7 million tonnes of waste in 2001 (EPA, 2001), 74% of it going to landfill.

Three years ago, the Department of Environment and Local Government indicated that local councils and municipalities would have to cover their waste charges. Prior to this all costs had been covered by the general income tax. Ireland has had no separate rates or charges for services since a 1977 government abolished local rates and promised that 'stealth' taxes would be avoided and the income tax would cover everything. Perhaps as a result of this, Ireland is left with a legacy of suspicion that new charges and taxes are 'double taxation' and have already been paid for in labour taxes. This has implications for the future if water charges are re-introduced. In most of the country, waste charges of various designs were introduced over the past three years without incident. However, there was an organised resistance in Dublin against the charges, causing disruption for services, involving protests and huge media debate and throwing the success of the new charge into doubt. This paper attempts to outline why this happened in Dublin and discover if there are any lessons to learn for the application of new environmental taxes and charges generally.

The Dublin City municipal waste charge was actually much lower than the charges introduced in the rest of the country, where the municipalities had outsourced their waste collection and the private companies charge the full cost of disposing of the waste. In Dublin, the city employees remained as the primary waste collection service (with the recycling company outsourced) and only covered 50% of their costs. Waivers and exemptions were given to those below certain income and socio-economic levels to avoid regressivity. One of the Dublin local authorities noticed that most of the applications for waivers from the bin tax came from predominately well-off neighbourhoods. A further investigation showed that some local politicians in the lower socio-economic areas were not publicising the waivers, preferring to encourage the residents to revolt. The local authority then invested in advertising to alert people to the waiver scheme, and had 1,000 applications a week later, and waivers are now given to 13% of the residents of certain areas (Sheridan, 2003).

Discussion

The possible reasons that there was such public disruption to these charges can be divided up into a number of themes.

General Malaise

It seems that, on the part of the protesters, that while many of the arguments are trotted out almost as a chant, the real problem is a deeper and more vague malaise. 'I'm just sick of the way the country is run, sick of being got at on every side. We're the highest taxed people in Europe,' according to one protester. Another agrees that the protest is 'a bit about the bin tax, a bit about a lot of other things…People are really upset. The bin tax has just pushed them that bit further over the edge.'

Double Taxation concerns

The accusation of 'double taxation' remains a feature of the protest. However, the charge is tax deductible at the standard rate (worth around €30 to a salary of €25,000). 'Double taxation,'

as in 'we're the highest taxed people in Europe,' turns out to mean, not income tax, but the 'stealth taxes' such as road tax and VRT, which people perceive as being increased annually: ' I pay tax on my wages. I shouldn't be taxed again.'

Privatisation concerns

The ground has also been shifting around the protesters' bin charge arguments. At various times there is an emphasis on "privatisation". "The Government and councils are legislating to privatise certain services. And to make them attractive, you need to make them profitable, so the bin tax is a disguise to make them attractive to private companies," according to one protester. There are repeated references to the triumph over water charges, where protests were successful in having a potential water charge vetoed. "That battle was won in the mid-1990s in Dublin and in campaigns around the country. We knew that once they brought in this tax, the tax would go up, the service would be privatised and move out of local authority hands. Calling it an 'environmental tax' is just a ploy to get people to pay it. The basic battle here is the defence of public services, to prevent privatisation. That's where this is going."

Conclusions

The following are some of the ways identified that could have made the introduction of new waste charges more palatable. These conditions can encourage the success of all new public environmental taxes, charges or levies.

Alternatives/Pay-by-weight or -volume instead of flat fee

The charge in this case study was a flat charge, so there was neither an incentive to reduce weight nor options to reduce the charge by behaving in a pro-environmental fashion. In other parts of the country and world where weight or volume or tag systems were introduced, people immediately had responsibility and ownership of their waste and recycling and were in control of their charges. Dublin City Council is due to change the system to a per-bin billing in January 2005, which is an improvement on the flat fee, but not optimal. Good alternatives for people to reduce waste must also be in place. Kerbside recycling (a weekly or monthly home recycling collection) and access to composting information and equipment can help people understand how to reduce the weight of their waste to be collected. It is imperative to have these things in place before scheme starts. Three years into the Dublin scheme, some householders are still waiting for a recycling bin and kerbside collection service, so in a sense are not receiving the full waste service although they are paying for it. It is better to defer implementation of the payment part of a scheme until all the design and alternative aspects are in place — otherwise frustration will result and the charge gets a bad name before it is fully in.

Justify on an environmental basis

The Dublin waste charge entirely failed to appeal to people's environmental consciousness. The relative ease experienced nationwide in encouraging households to recycle has been based on convenience as well as responsibility. However, the connection between minimising waste and environmental concern was not exploited in this case. The waste charge is it was never seen as anything to do with the environment, possibly never connected to the idea of protecting the environment by reducing personal waste.

Terminology

Householders don't like and don't relate to the 'polluter pays principle'. They see themselves as receivers of waste from retailers, which they must then pass on. To them, pollution is from

factories, farms, etc. — in the more traditional sense of the word. The word tax must be avoided at all costs. Although these charges were introduced as waste charges, the protesters quickly renamed them 'bin taxes' and the media used this phrase in reporting.

Trust in Government
There must be a basic trust in national government and local government for new environmental charges, taxes and levies to be introduced. Some citizens in Dublin were suspicious about the reasons for having to suddenly pay for their waste collection and view all new charges as spurious ploys to get more money out of them. Some element of recycling of a portion of the funds to environmental causes can ease this suspicion. Dublin City Council uses the funds to cover all recycling and waste minimisation initiatives as well as waste collection. They also supplement the revenue from the charge with general revenue, but this fact is not advertised or widely known. People also need trust to believe that the waivers for lower socio-economic groups will stay in place — some people suspect they might be removed in the future.

Administrative simplicity
All billing and tagging systems should be kept as simple as possible with as many options to pay and apply for exemptions or tax back as possible. When an unwanted charge is complicated by unwieldy bureaucracy, it upsets the public more.

Gradual introduction/plenty of notice
As mentioned above, all the design and infrastructure aspects of a scheme should be in place before residents are required to pay for the service. As well as being a good ex ante data source for the level of success of the scheme, this can be a time for public debate and controversy, thus avoiding rebellion after the charges have been introduced.

Willingness to adapt
There must be an understanding on the part of policy makers that all new policy instruments need to be fine-tuned for their population and local circumstances, so can be modified and adapted over the years as problem areas are identified.

Support of Community Groups
There are many active community and residents' groups throughout the country concerned with a variety of local issues. Making contact with these group leaders and explaining the rationale and aims of the scheme in such as way as to foster their approval can facilitate this information being filtered down to the other residents. Focus groups and informal workshops with the group leaders can result in information being shared and leave the citizens feeling in greater control of the scheme.

Professional Marketing/Information Schemes and Imagination
A major flaw in the introduction of the Dublin municipal waste charge was the complete lack of marketing and information. Residents received a new bin and a bill suddenly and the scheme was started. This is in contrast to the plastic bag tax in Ireland (Convery and McDonnell, 2003), which was widely advertised and attractively campaigned and explained, and was widely accepted. No private company would attempt to market a product without a professional targeted campaign and the same should be true of environmental policy initiatives. This oversight was exploited by the organisers of the protests who focused on erroneous information, e.g., continuously saying only 15 per cent of all waste in 2001 came from households

(actually about 54% (EPA, 2001)). The city council also supply composting bins at cost price to residents to help reduce weight volumes but this is not widely known. The literature review outlines several examples of studies done in the field which may provide insight for policy makers, and more specifically, the people they employ to market and advertise schemes to promote their acceptability.

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