

The background of the page is a black and white photograph of a cable-stayed bridge. The image is split horizontally by a red band. The top half shows the upper part of the bridge with many cables fanning out from a central point. The bottom half shows the lower part of the bridge, including a concrete pier and a section of the bridge deck with a decorative railing. The overall composition is geometric and architectural.

# Green taxation in a recession

## About ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants. We aim to offer business-relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. We believe that accountants bring value to economies in all stages of development. We aim to develop capacity in the profession and encourage the adoption of consistent global standards. Our values are aligned to the needs of employers in all sectors and we ensure that, through our qualifications, we prepare accountants for business. We work to open up the profession to people of all backgrounds and remove artificial barriers to entry, ensuring that our qualifications and their delivery meet the diverse needs of trainee professionals and their employers.

We support our 154,000 members and 432,000 students in 170 countries, helping them to develop successful careers in accounting and business, with the skills needed by employers. We work through a network of over 80 offices and centres and more than 8,400 Approved Employers worldwide, who provide high standards of employee learning and development.

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This paper addresses some of the issues surrounding environmental taxation in the light of the current global financial situation. It provides recommendations for policy-makers on the following areas:

- environmental taxation around the world
- environmental taxation and the financial crisis
- the fatal flaw in environmental taxation
- does environmental taxation achieve environmental goals?
- designing future environmental taxation
- other solutions.

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## Executive summary

Government borrowing around the world has rocketed since 2008, due to bank bailouts, currency stabilisation measures and continued weakness in tax revenues, resulting in sharp rises in public deficits and debt. Governments around the world are aware that they need to tackle these issues quickly.

As a result, many governments are looking at environmental taxation as a possible way to make up the shortfall from declining tax intake due to the recession in the developed economies. Before they do this, they will need to ensure that business and their electorates support this approach and are able to see what the environmental taxes are achieving. Government and policy makers need to maintain the trust of business and the public by striking a balance between the need to raise revenues and the environmental objective underpinning the policy.

There is also a need for global coordination of this kind of policy where environmental impacts are global. If environmental taxation lacks international coordination, it will not impact global pollution levels, as companies will simply relocate and move the pollution problem with them. An additional frequent complaint by business is that, if measures such as these are implemented unevenly, in one country and not another, it leads to a loss of international competitiveness.

ACCA is therefore calling for global coordination to maximise the impact of environmental taxation and reduce the likelihood of businesses shifting location to avoid the tax.

A key point though is that politicians should not see environmental taxation as a panacea. Tax shifting to environmental taxation cannot both solve the environmental crisis and raise significant income via taxation in the long-term. This is because a system aimed at reducing what it is taxing, if successful, will destroy its own tax base. Therefore the way forward may be through a well-balanced and broad tax base as well as relying more on regulation to drive down pollution. Environmental taxation should be seen as one tool to be used alongside other policy measures including regulation, voluntary agreements and other instruments.

In all of this, the design and implementation stages of environmental taxation are key, both to ensure that the measures are having the desired environmental impact, but also to ensure that business is able to continue to operate effectively. Politicians need to ensure that they consult widely before a policy decision is taken to make a change or introduce a new tax and throughout the design and implementation stages, both with business and with tax professionals.

Governments also need to ensure that the implementation, monitoring and analysis procedures are as thorough as possible, to improve the transparency and effectiveness of such taxes. Where unintended consequences occur that may damage business competitiveness, governments must also ensure that such consequences can be addressed as quickly as possible.

The global business community understands that 'business as usual' is no longer an option. Scrutiny of their environmental performance will only increase in the future and all have a duty to play their part in moving to a low-carbon economy. But businesses need policies that are transparent, clear, credible and certain in order to achieve carbon reduction goals.

Finally, the pursuit of economic growth at the cost of everything else cannot continue, and ACCA recommends that governments respond to the recession by implementing measures that will encourage environmental investment and ultimately, a more sustainable approach.

ACCA will continue to engage with and lend our expertise to governments around the world in order to assist in finding effective solutions to climate change.

## Introduction

The tax system can be a powerful device for changing behaviour. Consequently, environmental taxation, which was almost unheard of 25 years ago, is now being widely used to assist in the fight against climate change, with taxes around the world on everything from emissions trading, plastic bags to energy consumption, car use and waste disposal.

There is no single definition of an environmental or green tax, but the UN, OECD and the European Commission have agreed upon their definition:

*A tax whose tax base is a physical unit (or a proxy of it) that has a proven specific negative impact on the environment. Four subsets of environmental taxes are distinguished: energy taxes, transport taxes, pollution taxes and resources taxes. Taxes should not be confounded neither with payments of rent nor with purchase of an environmental protection service. (OECD 2005)*

The most prominent policies at the moment are market-based instruments such as emissions trading schemes, with the Intergovernmental Panel on Climate Change (IPCC)'s *Fourth Assessment Report*, published in 2007, concluding that most actions proven to reduce greenhouse gas emissions involve regulation, tradable permits and carbon taxes (IPCC 2007). A tax on carbon

content, for example, could combat global warming by substantially reducing the use of commercial carbon fuels and create price-incentives for transition to sustainable energy sources, such as wind, solar and geothermal power (Turkenburg 2000). If phased in over twenty years or more and coordinated with other public policy measures, the tax could promote a steady transition to sustainable energy alternatives.

But what of more general environmental taxation? Can it achieve behavioural change in areas that impact on the environment while also raising significant amounts for government coffers? How should governments around the world move forward when bringing in new environmental taxes? Will business and the public continue to support environmental taxation in a time of financial upheaval, or will it come to be viewed as a vehicle that is merely increasing the size of the overall tax burden?

One important initial point is to note that in this paper, where the term 'environmental outcomes' or similar is used, it refers to reducing carbon emissions or implementing measures to tackle climate change. Many environmental issues are localised – this paper relates to global issues such as climate change.

## Environmental taxation around the world

Many governments already aim to achieve environmental goals through tax policy, by levying environmental taxes in areas such as energy consumption, the disposal of waste and on transportation, for example:

- Sweden, which has taxes aimed at reducing energy consumption and additionally provides subsidies or exemptions for energy derived from sustainable or renewable sources.
- In 1990, Finland became the first country to introduce a carbon tax.
- The US has implemented tax measures to increase investment in renewable energy sources enacting tax credits for the expansion of wind, solar, biomass and other renewable energy technologies. President Barack Obama has increased the impact of these measures in the recent US economic stimulus package. The US administration is also now committed to negotiating a new climate change treaty and introducing a 'cap and trade' system.
- China taxes the disposal of household and commercial waste and has a further tax on the disposal of waste water, while companies that reduce their water consumption are offered corporate income tax allowances. China's Ministry of Finance is also drawing up plans for an environmental taxation system for polluting companies.
- Germany has implemented taxation on emissions on transport, which are calculated directly on the level of emissions.
- Australia introduced a small levy on fertiliser as early as 1986. Although this does not raise significant amounts in tax revenues, it has had an impact on the type and amount of fertiliser used.
- In Denmark 5.9% of tax revenues are made up of environmental taxes, according to Eurostat (2012), by far the highest proportion in the EU and arguably the highest in the world.
- The UK has implemented a range of environmental taxes, including the Climate Change Levy, a tax on the end-use of 'taxable commodities' (principally electricity, gas and coal) by commercial customers, and the Landfill Tax, which taxes people and organisations when they discard waste in landfill sites.

## The fatal flaw in terms of environmental taxation

The fatal flaw in terms of environmental taxation would be for politicians to view it as a panacea. Tax shifting to environmental taxation cannot both solve the environmental crisis and raise significant income via taxation in the long-term.

Taxes on polluting activities and products are small and have not increased significantly over the past 15 years, despite growing concern about the environment and growing enthusiasm for market-based environmental policies.

Take the EU-25 as an example. In 1997, environmental taxation made up slightly less than 3% of total revenues at 2.7%. By 2010, this was actually lower at 2.4% (see Table 1).

A significant shift in the tax base which places a great deal of reliance on environmental taxes will probably prove unsustainable in the long-term. This is because, where such taxes are imposed on emissions and general pollution a successful system will destroy its own tax base. By reducing the tax base through decreasing pollution, environmental taxation revenue yields dwindle, creating a problem for policy-makers. Therefore the way forward may be through a well balanced and broad tax base as well as relying more on regulation to drive down pollution.

**Table 1: Environmental taxation within the EU-25 shown as a percentage of total revenues**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU-27 averages																
Weighted	-	-	-	-	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.5	2.4	2.3	2.4	2.4
Arithmetic	-	-	-	-	3.0	2.8	2.7	2.7	2.8	2.9	2.8	2.7	2.6	2.5	2.6	2.6
EU-25 averages																
Weighted	2.7	2.7	2.7	2.7	2.8	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.4	2.4
Arithmetic	2.7	2.8	2.8	3.0	2.9	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.6	2.5	2.6	2.6

Source: Eurostat 2012.

## Does environmental taxation achieve environmental goals?

Environmental taxes are an efficient but controversial way for governments to raise revenue, and most policy makers now agree that making the polluter pay should be one of the principles of an effective modern tax system.

For an environmental tax to work, it must punish the polluter and encourage less environmentally damaging behaviour. Such taxation should therefore be based on environmental criteria, ie the relative damage of substitute products, processes or fuels, in order to provide incentives to polluters to switch to less environmentally damaging products. These taxes in turn should stimulate the development of new, less environmentally damaging products. But there are still questions that need to be answered in terms of environmental taxation.

- Should the money raised be used to implement environmental projects?
- Will taxes be used creatively as agents to modify and change behaviour, or imposed in a blunt manner to penalise 'bad' environmental practices?
- Is taxation a less effective way of achieving environmental outcomes than regulation?

### USING THE REVENUE GENERATED

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There are those that claim that environmental taxes are stealth taxes used to milk the taxpayer without generating any environmental benefit. The public do not always trust governments to implement such taxes in a fiscally neutral way – they instead identify them as a 'stealth' form of taxation to fund other political priorities

(Ekins 2009). But should revenue generated through environmental taxation have to be used for environmental benefit?

If used effectively, revenue from this form of taxation could create substantial environmental and other benefits. But the question of revenue usage raises an important political issue, in terms of public and business buy-in. Environmental taxation is only successful if the

government in question is fully committed to creating beneficial environmental results with at least a large proportion of the revenue gained from it.

ACCA warns against a situation whereby environmental taxes merely become a way of raising revenues. Governments around the world need to maintain the trust of business and the public in government policy by striking a balance between the need to raise revenues and the environmental objective underpinning the environmental policy. There has to be some form of understanding between governments and the private sector to promote greater long-term investment into environmental issues. Consider the contrast between the perceived willingness of governments to support the banking sector and what sometimes appears to be a reluctance to pay comparatively small sums to support renewable energy projects.

### GLOBAL COORDINATION

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In addition to this and the global nature of the climate change threat, it is vital that environmental taxation is developed on a global basis so as to avoid producers shifting production

away from countries with these taxes to countries without them or at lower levels. ACCA therefore calls for global coordination of this kind of policy. If environmental taxation lacks international coordination, it will not impact global pollution levels, and may simply lead to the creation of structural unemployment and a loss of international competitiveness.

### THE IMPACT OF ENVIRONMENTAL TAXATION

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One of the problems with environmental taxation is that its actual environmental impact is often uncertain, and there is little direct experience to evaluate the efficacy of the measures.

Evaluations of the environmental impact of such taxation are not carried out often, partly because it is difficult to isolate the tax's impact from other elements of a policy package on consumption and production. A lack of data on emissions and the means to measure the longer-term impacts of taxes on technological change also complicates the measuring of environmental effectiveness (OECD 2001).

ACCA recommends that governments around the world consider the implementation and monitoring procedures, to improve the transparency and effectiveness of such taxes and to ensure that, where unintended consequences occur that may damage business competitiveness can be addressed as quickly as possible.

## Environmental taxation in a recession

As economies struggle to protect jobs and incomes and governments wrestle with the short-term fallout from the economic recession, there is a risk that attention will shift away from the need to tackle climate change.

The financial crisis has had implications for the environmental cause, and for public and business support for environmental taxation.

But financial difficulties have actually compounded how moving to a low-carbon economy can be beneficial, with businesses becoming more resource efficient and streamlined by reducing carbon emissions. At its most basic level, energy costs money – improving energy performance reduces money waste and can increase cash flow.

Cutting carbon usage can also create competitive advantage for business. Even in the midst of a financial crisis, consumers view environmental issues as important to their purchasing decisions. A business's credentials on

environmental issues has a significant impact on consumer buying choices. Consumers are keen to see companies continue building their environmental credentials. For example, 37% of Americans indicate that they would go as far as to boycott businesses which made misleading environmental claims (Cone 2007), and in a survey carried out in the UK, 62% of consumers stated that environmental concerns still influence their purchasing decisions (Carbon Trust Standard 2012)

Government balance sheets have suffered a succession of shocks due to the financial crisis. The severity of the slowdown is affecting tax revenues and resulting in sharp rises in public deficits and debt. There are also questions about the growth potential of some countries now, and about the negative consequences for governments' tax raising abilities. Further, politicians will not be forgiven if liabilities and obligations incurred in this financial crisis are swept under the carpet and have to be dealt with at a later date.

All of this may make increasing environmental taxation seem like an attractive idea. Governments around the world are looking at environmental taxation and are balancing the temptation to use these taxes to make up the shortfall from declining tax intake due to the recession, with the fact that environmental taxation may prove difficult to sell to electorates during a recession.

ACCA recommends though, that these measures are not implemented rashly and that they are not implemented where other solutions may be more effective. We also question how resilient environmental taxes will prove to be in a recession. Is there a greater propensity for businesses, and individuals, to reduce polluting activities which hence adversely affect revenue from this tax area than others such as value added tax?



## Other solutions

Environmental taxes do have the potential to be used to change behaviours, but can also be blunt instruments for achieving environmental outcomes.

There often appears to be little cost-benefit analysis to support the use of tax over other possible measures; and where a tax-based approach is favoured, the extent to which it is in line with, and does not duplicate other levers is not always evident.

Other measures that should be considered include the following.

### REGULATORY MEASURES

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Many countries have implemented regulatory measures and standards on environmental issues, which provide certainty of outcome. However, their effectiveness depends on how stringently they are implemented and enforced. Many argue that too much regulation can be expensive to monitor, difficult to update quickly in response to changing situations and can hinder economic growth and undermine competitiveness. Requiring all companies to change their behaviour equally may, in some instances be less efficient than other mechanisms.

The strong argument remains that if something is wrong, the simplest way of dealing with it is to ban it. Consider the mandatory fitting of all new cars with catalytic converters in several countries, including the UK, and regulations introduced to ban the use of CFCs, which was identified as something which had to take place quickly. ACCA believes that if environmental taxes are to be effective, they should be supported by a strong and well thought out regulatory regime and 'good science'.

### VOLUNTARY AGREEMENTS

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Voluntary agreements can be seen as a more flexible mechanism that can increase the responsibility on producers, while also leaving room for individual solutions that may improve efficiency. Voluntary agreements have a number of potential benefits, including stimulating a pro-active approach by industry in advance of legislation, reducing the volume of regulatory and administrative costs, and faster achievements of environmental targets.

However, environmental agreements are not a panacea any more than environmental taxation is. They need to be applied in a mix of policy instruments, ie as a supplement to legislation and environmental taxes.

### CARBON TRADING – THE MARKET SOLUTION

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Carbon trading is something that can be used alongside environmental taxes. The EU ETS is the best example. Although the first phase saw only a small reduction in emissions, the second phase (2008–12) has a tighter cap on allowable emissions and so is expected to reduce emissions more significantly. ACCA argues that there is a need for global carbon markets. A well-functioning global carbon market would have the benefit of allowing emissions reductions to be achieved at a lower cost. It would set a cap on total emissions, thereby providing greater certainty about the environmental outcomes that can be achieved and establish a price signal that will provide certainty to the private sector.

While the market can deliver change, without clear leadership, this change may come too late. For example, in the US, President Obama has given the

market and investors clear signals that this will be an area of growth over the next few years and a priority for Government. Other governments around the world should look to do the same.

Without a global solution we will find the export of carbon dioxide producing production from one country to another country that has lower environmental taxes and regulation. Known as carbon leakage, some would say this has already happened and will continue to be the case such as the wholesale production shift of resource intensive goods from the United States to China. A carbon trading system which has excluded China and other less developed economies may only intensify this type of production shift and could result in an adverse reaction to the export of jobs in the developed countries.

### TAX INCENTIVES

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Environmental goals can also be achieved by incentivising business and the public to take the right steps, using levers such as reducing VAT on sustainable products. The Stimulus Bill in the US has used similar measures. For example, anyone purchasing a solar powered system this year will receive a 30% tax rebate on the product. In many countries, tax incentives and credits are available to anyone renovating their homes with energy-saving technologies such as energy-efficient boilers or windows. The Japanese government like other governments, offer tax exemptions to those purchasing Toyota's new Prius hybrid car, and the Japanese Parliament has approved a cash-back rebate for trading in cars 13 years or older for greener cars.

## **ACCOMPANYING MEASURES**

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There is a need for Government-run public information campaigns to influence and speed up behavioural change, especially on issues such as improving the energy efficiency of buildings, fuel efficiency of vehicles and to introduce an Energy tax alongside minimum efficiency standards. A signal from the Government that this tax will be around for a long time will encourage people to take action.

## **DIRECT INVESTMENT BY GOVERNMENTS**

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As the financial crisis continued, many governments injected large amounts into their economies in the form of fiscal stimuli. This is where the need to address the financial crisis comes together with the need to tackle climate change. As investments in things such as infrastructure and new technologies become available at lower cost and greater benefit than before and governments are looking towards large-scale investments in the light of the recession, there is an increasing move toward direct investment approaches to tackling climate change. ACCA supports this approach. Ultimately, both the global financial crisis and the environmental challenges have been caused by inconsiderate human behaviour. The pursuit of economic growth at the cost of everything else cannot continue, and ACCA recommends that governments respond to the recession by implementing measures that will encourage environmental investment and ultimately, a more sustainable approach.

## Designing future environmental taxation

Environmental taxation should be designed to work effectively and the level of the tax should match the cost of the environmental damage. ACCA has a number of recommendations to policy-makers in terms of the design of future environmental taxes. These include the following.

### APPLICATION ACROSS THE BOARD

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Environmental taxation is often aimed to a significant extent, at business. Although business largely accepts and supports the fact that it should be responding to the climate change issue, it often has a negative attitude towards environmental taxation. The reason for this is that environmental taxation, if applied unevenly, puts those businesses in countries with environmental taxation at a disadvantage relative to competitors in countries without comparable measures, driving costs up even further and adding to the business burden. Further, as already stated, there is little point in imposing a tax if the taxed behaviour will simply relocate to another country and continue to do the same damage. Hence the need for global coordination.

Also, adverse environmental impacts are not limited to businesses, for example, according to the UK Government (DECC 2012), 27% of the carbon dioxide (CO<sub>2</sub>) produced in the UK comes directly from the actions of individuals, such as heating homes,

while another 28% of CO<sub>2</sub> emissions come from road transport, with each household in the UK producing around six tonnes of carbon dioxide from energy use each year. It cannot, therefore, be left to business alone to reduce its carbon emissions.

### CONSULTATION

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The way to make the process effective is for governments to consult widely before a policy decision is taken to make a change or introduce a new tax and throughout the design and implementation stages, with tax professionals, businesses and other key stakeholders.

### MEASUREMENT AND ANALYSIS OF RESULTS

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Governments also need to ensure that the results are thoroughly analysed and that they are prepared to amend or reverse the policy if it has unintended or damaging consequences.

### RAISING AWARENESS

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Part of the challenge with an environmental tax is business awareness. If a company is paying environmental taxes but does not realise it, then it is less likely to change its behaviour. It is therefore vital that there is clarity in terms of what is an environmental tax and what the aim of the tax is.

ACCA recommends that modifications be made to environmental taxes to make them more explicit and transparent and to coordinate globally to cut down the burden faced by businesses and ensure that real environmental benefit is achieved. Before implementing new environmental taxes, ACCA recommends that governments around the world review:

- the effectiveness of any existing environmental taxes they have implemented against their environmental objective
- possible other approaches that may be more effective, including regulation or voluntary agreements
- the likelihood of environmental taxation achieving the stated environmental objective more effectively than other policy measures
- best practice from other countries around the world
- any impacts on the competitiveness of business and the ease of amending the situation where unintended damaging consequences are brought to light.

## Conclusion

The global business community understands that 'business as usual' is no longer an option. Scrutiny of their environmental performance will only increase in the future and all have a duty to play their part in moving to a low-carbon economy. Businesses and individuals need policies that are transparent, clear, credible and certain. Complexity of tax and the costs of compliance with tax and regulation must be kept in check to ensure a competitive and attractive economy in which to invest.

The measures that have been implemented so far go some way to achieving behavioural change, but there is a long way to go before these measures are coordinated well enough to achieve the carbon reductions that are necessary. Although the current economic policy instruments are effective in providing signals to business of the need to consider their environmental impact, more needs to be done to actually encourage behavioural change.

Environmental taxes, tax incentives, trading schemes, carbon accounting, regulation and voluntary measures all have a role to play, and a well-designed, comprehensive global climate agreement to replace the Kyoto Protocol is also essential to help the world move to a low-carbon economy.

In the future, it is likely that the range and scope of environmental taxes will increase. ACCA believes one of the most important examples of where governments should step in, is to change behaviour which can damage the environment. Accountants should play an active part in efforts to reduce global carbon dioxide emissions by increasing carbon taxes on the usage of fossil fuels while promoting their reduction for payroll, income or corporate taxes.

Governments must look to use tax policy as an instrument of positive change by incentivising investment in new cleaner technologies across a wide range of industries. When combined

with other tax reductions, environmental taxes should be seen as a positive step rather than a threat to taxpayers.

However, before implementing new environmental taxes, it is vital that governments are fully aware of both the costs and benefits of such a move and whether they will achieve the desired environmental outcome more effectively than any other measure, including regulation. Environmental taxes should not only be seen as part of a package of policy measures to change behaviour, but also as part of the solution to tackling climate change.

ACCA will continue to engage with and lend our expertise to governments around the world in order to assist in finding effective solutions to climate change.

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