


ECONOMIC INSTRUMENTS

SUSTAINABILITY BRIEFING PAPER 2



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ACCOUNTING AND ECONOMIC INSTRUMENTS

Economic instruments can provide an efficient and effective way of achieving sustainable development policy objectives

Society and policy makers are becoming increasingly aware that finding solutions to sustainability issues requires the participation of many stakeholders, and the use of a wide range of mechanisms. Regulation is only one approach and is not always the best. This awareness is reflected in a growing number of national and international agreements (including EU directives) using economic instruments related to sustainability.

Economic instruments affect the decisions, budgets, and management of enterprises through attaching economic incentives and disincentives to elements of behaviour. Economic instruments can provide an efficient and effective way of achieving sustainable development policy objectives. Accountants, through their role as both technical adviser and internal decision maker, have a key role to play in understanding how economic instruments affect, or potentially could affect, their organisation.

Accountants need to be aware of the short term financial risks and opportunities such instruments present, as well as their potential to provide incentives for more sustainable longer term business models. Instruments such as carbon trading have placed new demands on the accounting profession, and these will only increase as more and more economic instruments are built into the architecture of sustainability management.

“Carbon trading will influence the decisions of our customers and therefore promote change in our business model”

Anonymous FD surveyed by Financial Director magazine



ECONOMIC INSTRUMENTS AS DRIVERS OF SUSTAINABLE DEVELOPMENT

Businesses, policy makers and accountants need to have a clear idea of not only each individual instrument, but also of how the instruments interact

The management of sustainable development objectives and economic policy are becoming more closely connected. Carbon emissions, environmental degradation, depletion of limited natural resources, public health concerns and demographic changes are all issues in which there is a cross-over between economic and public policy. They therefore require a re-alignment of resource allocation in line with society's interests. Economic instruments are popular with policy makers as a way to achieve policy objectives without the need for hard regulation. Economic instruments can help achieve policy objectives by:

- changing to more sustainable behaviour
- discouraging excessive resource use and waste generation
- stimulating cost-saving innovation addressing sustainability issues
- creating new sustainable business opportunities
- adapting to differing circumstances and sustainability issues
- implementing the 'polluter-pays' and 'user-pays' principles to help get prices right
- generating revenues that can be used to shift the burden of tax towards more unsustainable practices.

Several types of economic instruments are used to build sustainability into organisational and operational decision making. These can be framed in a number of ways, but for clarity this paper divides them into three categories:

- **sticks:** designed to change prices and thus the behaviour of producers and consumers, as well as raise revenues to cover the costs associated with addressing sustainability issues
- **carrots:** designed to stimulate development of new technologies, help create new markets for environmental goods and services including technologies, encourage changes in consumer behaviour through sustainable procurement, and to temporarily support the achievement of higher levels of sustainability when this is needed
- **trading:** designed to achieve reductions in pollution (such as carbon dioxide emissions) or use of resources (such as fish quotas) in the most effective way through the provision of market incentives to trade. This usually involves an element of both carrot and stick.

“If it is feasible to establish a market to implement a policy, no policy maker can afford to do without one”

Dales, 1968

STICKS

Accountants need to be aware which 'sticks' affect or could affect them. This means understanding how they can adapt organisational practice in order to become more sustainable

Taxes

The main role of taxation is to raise revenue to finance agreed public policies. The primary purpose is not to change behaviour. However, policy makers also use taxes to help achieve policy objectives without regulation. The balance between the importance of revenue generation and meeting policy objectives is variable, and many argue that taxes often do little to address sustainability issues.

Sustainability taxes (often also referred to as green or eco taxes) aim to internalise negative environmental externalities by shifting the costs to the polluter or user, thereby providing a financial incentive for behavioural change. Although such costs are hard to assess, the tax rate of such schemes tries to capture the external costs arising from environmental impact. While the rhetoric around green taxes certainly appears on the increase, green taxes actually declined as a percentage of GDP by 0.2% on average between 1995 and 2005, according to the OECD.

Accountants need to be aware which taxes affect or could affect them. This means understanding how they can adapt organisational practice to reduce their tax burden, and, in doing so, contribute to becoming more sustainable. This requires improved information flows internally and externally, in order to anticipate and prepare for changes. An emerging expectation is that businesses and their accountants also need to think about whether their wider tax policy is in line with other responsible business commitments and policies.

Charges

Charges are fixed payments for the use of resources, infrastructure and services and are much more like market prices for private goods than taxes. Their price is not determined by the market but by government agencies or regulators. Charges are often extra-budgetary and aimed at cost recovery for a specific public investment, or to pay for associated management and clean up measures. As charges such as the congestion schemes in London and Stockholm can add regular costs to everyday business activities, accountants need to be aware of them in order to adapt behaviour and therefore minimise the potential financial impact.





Liability and compensation schemes

Liability legislation places the responsibility for impacts on the polluter. As such, it is consistent with the polluter-pays principle, which states that the polluting organisation should bear the cost of measures to reduce pollution according to the extent of either the damage done or the acceptable level of pollution. Major accidents have raised awareness of the need for liability and compensation schemes. A number of countries already have schemes in place. The use of compensation funds relating to oil spills and contaminated land/soil liability regimes are in place in many countries, including Denmark, Finland, France and Ireland. National governments in the EU are also in the process of building the Environmental Liability Directive into national law. With increases in liability schemes, accountants and their organisations need to clearly understand their responsibilities and obligations and take action to limit risks in this area.

Carbon Tax British Columbia, Canada


The carbon tax will apply to virtually all fossil fuels, including gasoline, diesel, natural gas, coal, propane, and home heating fuel. It started on July 1 2008 at a rate based on C\$10 per tonne of carbon emissions and rises C\$5 a year to C\$30 per tonne by 2012. It works out to an extra 2.4 cents on a litre of petrol, rising to 7.24 cents per litre by 2012. Corporate and personal income tax rates will drop to help make the tax revenue neutral. Estimates suggest businesses will pay two thirds of the carbon tax, and will receive only one third of the refunds. This increased focus on business contribution means accountants will need to play a crucial role in ensuring their organisation is best placed to deal with the changes.

Product Stewardship Oil Levy, Australia

The product stewardship oil levy is a levy on domestic oil producers and importers for petroleum-based oils as well as synthetic equivalents. Exported oil is not subject to the charge. The levy currently stands at 5.449 cents per litre. The levy offsets the costs of benefits paid to oil recyclers under the Product Stewardship for Oil program, which incentivises increased recycling of used oil. This ensures that some of the costs of used oil recycling are covered by the markets that benefit from the initial production and use of that oil.

CARROTS

Accountants should be aware of the opportunities and risks arising from this shift towards mechanisms such as tax credits and price supports.



Economic instruments can offer positive incentives for change in the form of subsidies, grants and tax allowances. These instruments aim to encourage business to make sustainable investments and create new business models and markets. It is important that accountants are aware of where these incentives exist, as they can be an easy way of accessing capital for sustainability-related investments, saving costs or even identifying opportunities for new business models.

Subsidies are an economic 'carrot'. The use of subsidies to address sustainability issues has increased in recent years, highlighting the shift in government policy towards more sustainable management. Accountants should be aware of the opportunities and risks arising from this shift towards mechanisms such as tax credits and price supports. According to the Worldwatch Institute, global subsidies for renewable energy capacity, plants and R&D passed the \$100 billion mark for the first time in 2007. The trend towards new sustainability subsidies is, in some instances, also supported by small declines in subsidies on more harmful products and services. However, perspective is needed as the subsidies for low carbon energy are still dwarfed by the global subsidies allocated to fossil fuels.

In many areas, the solutions to sustainability problems do not yet exist and significant innovation is required. This is why policy makers develop grants and tax breaks relating to research and development as well as the usual investments in products and services. These instruments are used as incentives for businesses to investigate new technologies and new ways of operating. Businesses and their accountants need to be aware of the possible opportunities for tax breaks and subsidies and how a change in the way their business operates, or the initiation of a new project, can make a positive financial impact on their firm. This requires regular information flows to highlight any opportunities and enable the organisation to act when appropriate.

Enhanced Capital Allowances, UK

The Enhanced Capital Allowances (ECA) scheme was introduced by the UK government in 2001 as part of its Climate Change Levy Programme to meet Kyoto targets, reducing carbon emissions by 20%. ECA aims to encourage businesses to invest in low carbon, energy-saving equipment by giving tax incentives. The ECA encompasses three schemes which provide enhanced tax relief for organisations making use of environmentally-friendly equipment. These three schemes cover energy-saving equipment, water-efficient equipment, and low carbon emission cars. By investing in eligible products, businesses are allowed a 100% first-year capital allowance against taxable profits of the period when the investment was made. There has been a recent redesign of the allowance which came into effect in April 2008.

Cleaner Energy and Transport, Germany

Germany has a strong track record of using incentives to promote more sustainable practices. Germany's transport ministry has recently announced further subsidies to encourage a shift to the use of cleaner vehicles in the heavy goods transport sector. A support fund of €100m launched in 2007 has been topped up with a further €85m in 2008. Vehicle buyers can choose between cheaper loans or direct grants of up to €4,250 per truck, as long as vehicles meet the EU's Euro V or EEV Class 1 emission standards. Incentives to buy even cleaner Euro VI vehicles are likely to become available once the standard is incorporated into German law. This subsidy should be a key consideration for businesses in this sector in Germany and outline how subsidies can significantly influence procurement decisions.

SELF-REGULATION

Although not an economic instrument, self-regulation has been used to prevent or influence poorly conceived and potentially damaging regulatory or economic instruments. A criticism of some regulatory and economic instruments is that they don't match or suit the position or abilities of the business and as a result prove disadvantageous to the point where organisational objectives are not met. The threat of enforced measures and other pressures have led to many instances of voluntary self-regulation. Such action can often produce outcomes. Examples from company-specific cases include Nike's voluntary code in response to labour allegations, to industry examples such as when the EU demanded car manufacturers reduce emissions or face regulation.

Accountants should be aware of when self-regulation may produce better outcomes for both business and society and participate in collaborative initiatives to this end. This requires understanding of both the wider context and how to implement it internally. However, they must also be aware of the obvious criticisms of this, as many stakeholders view it as avoiding necessary obligations. Therefore widespread engagement and transparency, as well as genuine ongoing commitment, is required to ensure the widespread acceptance of self-regulation mechanisms.

TRADING

Accountants and businesses need to assess the costs of permits against the costs of changing business processes to reduce use or output of the traded commodity

The trading of the right to access resources or the right to emit pollutants is a market-based instrument that presents both risks and opportunities. Such trading schemes, although most commonly associated at the moment with emissions trading relating to greenhouse gases, can be used to address a wide range of environmental issues. Trading is not a new idea. Using tradable rights as a means for pollution control was suggested as far back as 1968, and the first trading scheme, set up to reduce air pollution, was set up in the United States in the 1970s. In trading systems, policy makers establish caps and trading certificates or permits allow holders to emit pollutants or to use resources up to the defined maximum of the cap. Firms may only emit pollution for which they hold certificates. If a firm finds that it has or will emit more pollutants than is allowed by the cap, it will need to buy the necessary rights or permits. The quantity of certificates is limited and therefore traded in market schemes. Trade aims to ensure pollution abatement occurs at the lowest cost. Accountants and business need to assess the costs of permits against the costs of changing business processes to reduce use or output of the traded commodity. As

prices vary significantly over time, these decisions must be regularly re-evaluated. The carbon emissions trading system in Europe alerted financial directors to the impact on costs of a price for their carbon dioxide emissions. Overnight, the environmental externalities of climate change have been made transparent and brought onto the bottom line of companies.

As the EU emissions trading scheme expands and new schemes are established, an increasingly key challenge for accountants will be how they record emissions allowances for accounting purposes. Companies can hold allowances and forward contracts to obtain allowances in the future, so it is necessary to consider the accounting implications for both situations. Accounting for greenhouse gas emissions remains a challenge and accountants are waiting for clear guidance from accounting standards setters. IAASB's current project on carbon emission accounting should provide further insight and guidance. Verification on emissions is likely to become an increasingly important consideration as carbon trading becomes more sophisticated and potentially lucrative.



Carbon Trading Schemes

EU Emission Trading Scheme: The European Union Emission Trading Scheme (EU ETS), which commenced in January 2005, is the world's largest binding multi-national, greenhouse gas emissions trading scheme. Each participating country proposes a national allocation plan (NAP), including caps on greenhouse gas emissions for power plants and other large installations. This initial allocation is currently provided free of charge. Installations may then meet their cap by either reducing emissions below the cap and selling the surplus, or letting their emissions remain higher than the cap and buying allowances from other participants.

New Zealand Carbon Trading Scheme: New Zealand has passed a climate change bill that will set up the country's first emissions trading scheme in 2009. This is the first national cap-and-trade scheme outside of Europe. The scheme will be phased in between 2009-13 and will eventually cover all sectors of the economy. Verification of reported emissions won't be compulsory but can be demanded as part of the review process.

Australia Carbon Trading Scheme: Australia has outlined a carbon 'cap and trade' scheme to be launched in 2010. The details of the scheme are yet to be agreed.

Canada Carbon Trading Scheme: Canada plans to launch a domestic carbon emissions trading scheme in 2010, however, some Canadian provinces have introduced provincial carbon taxes or have opted to join a prospective US-based trading scheme, and cast some doubt on the national scheme.

Japan Carbon Trading Scheme: In October 2008 Japan introduced a trial mandatory carbon trading scheme with a view to a permanent scheme in the future.



ROLE OF THE ACCOUNTANT

Overall, the role of the accountant is to understand the various mechanisms, not only those that are self-regulated, but also, command and control regulations and market-based mechanisms where participation (or not) in an activity will aid or damage shareholder value; where anticipating change can minimise risk and/or cost and where the influences of the mechanism may be felt across the whole of the business. Therefore, the role of accountants, within the context of economic instruments, falls into the following four areas:

Knowledge: It is critical for accountants to understand where business may be affected by economic instruments, for example through the possession of emission permits, allowances and corresponding assets and liabilities. They should understand the impact and implications of the various instruments in use and the regulatory framework within which the business is operating, both in terms of the existing environment and the compliance requirements of prospective instruments such as subsidies and taxes. The accountant must also support the business to know what its liabilities and obligations are, as well as supporting businesses that are, for example, eligible for environmental tax incentives to claim their full entitlement to allowances. There are sometimes legal considerations as well and accountants need to be fully aware of these.

Information flows: Accountants need to ensure the presence of necessary information flows to capture information for the relevant economic instruments and ensure that potential consequences are included in plans and forecasts. For example, accountants could be called upon to verify and assure the data capture and analysis to ensure rigorous carbon accounting.

Policy: Accountants must give consideration to and develop a coherent policy towards areas where there are opportunities to reduce the financial implications of economic instruments. For example, for environmental taxes the use of transfer pricing and other cross-border issues, the use of tax havens, and the position of international companies operating in developing nations, or for trade-able permits instituting an internal overall quota of emission allowances.

Liabilities and opportunities: Accountants should help their firm or client to navigate the maze of economic instruments, and provide financial advice keeping up to date on current and potential instruments that affect the business in order to manage risk. They must:

- provide management information to enable business decisions and to ensure compliance
- be in a position to give a reasoned justification of the company's approach to, for example, key tax issues such as the use of tax minimisation techniques
- reflect the company's attitude to CSR in all aspects of its activities, including emissions allowances in trading schemes, the management of their tax liability, or carbon accounting.

In order for accountants to fulfil this role, they must be aware of sustainability issues generally, and how these may lead to removal or reduction of economic instruments currently in place for their business or client. Gaining information on the variety of economic instruments operating in this arena is increasingly easy, through academic study, professional symposiums and literature. Accountants must make use of these various resources to ensure they provide the most up-to-date advice to their businesses and clients.

REFERENCES

Accountancy Age

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OECD Economic Indicators Database

ENDS Europe Daily

European Environmental Liability Directive

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