



**ACCOUNTANCY  
EUROPE.**

# **SUSTAINABLE TAX SYSTEMS**

Environment

**IDEAS.**

**TAX  
OCTOBER 2022**

## **HIGHLIGHTS**

This paper highlights key points from tax leaders' contributions to our [Sustainable tax systems project](#) on the environment.

Taxes can play an important role to reduce greenhouse gas emissions and pollution. Contributors to our project consider how to best deal with the issues arising from those taxes to better change behaviour and increase public acceptance.

In this paper, we examine ideas such as progressive consumption taxes and sector specific taxes as a means to change behaviour. However, behaviour can also be changed by incentivisation. This summary presents innovative ideas to improve investment in green technology and encourage global consumers to switch their purchase power to green alternatives.

Finally, contributors examine how increasing green taxes could help cut taxes in other areas, thereby promoting employment, investment and, ultimately, the circular economy.

## FOREWORD – OLIVIER BOUTELLIS-TAFT

As we start to measure the environmental crisis' magnitude, there is growing interest in tax policy as a tool to transform the economy and adapt our behaviours. Climate change alone can make our planet inhabitable and, according to scientists, it is happening much faster than anticipated. On the [off chance](#) that we remain below the 1,5° threshold of the Paris Agreement, what will it be like to live in a world where water is running out, pollinators have disappeared, soils are exhausted, air has become poisonous and waste subsumed oceans and earth?

Against such a backdrop, one would think that all possible tools must be leveraged, especially one such as tax policy. However, this is still far from being the case.

The unfortunate truth is that tax policy continues being rooted in a mythical world of abundance. The prevalent ideas underpinning tax policy development are still attracting investment income and pursuing infinite material growth - whilst using political processes that have only adapted marginally in the past 200 years. In the European Union, tax policy requires unanimity – a political agreement between all Member States including those actively promoting fossil fuels or taking an ideological stance.

This paper's contributors demonstrate that we are not short of thought-leadership. They provide inspiration and proposals on how tax policy can help address today's defining challenges. Brilliant ideas and motives to change are not missing in the world of researchers, practitioners and citizens. In contrast, awareness, imagination and courage from our political leaders seem to be in scarce supply.

All too often, ideological disagreements, political pressure, and assumptions on citizens' aversion for change is used as an excuse for the lack of reform. The [Citizens' Convention on Climate](#) in France is one of many examples showing that many citizens are ready for change.

The lack of political awareness on environmental issues mirrors the lack of real understanding of citizens readiness to change, provided that social justice is fully integrated in environmental transition policies, as rightly outlined in this paper's contributions. The two cannot be separated. There is no single planet for finance, another one for the "real economy" and yet another one for social inclusion. There is only one planet, and we must stop developing policies in silos.

Among all policymakers, the European Commission appears to be exhibiting the strongest commitment to fight climate change. It needs to be commended for its Green Deal and proposals on tax. The debate on the taxation of super profits is another sign of the unthinkable becoming thinkable in EU policies. We urgently need to move from debate to implementation. That is where unanimity will at best slow us down if not stall us all together. The magnitude of the challenges we collectively face must drive us to go beyond our outdated beliefs and habits rooted in our self-interests.

I hope this paper will further stimulate a much-needed debate on how to harness new tax thinking and technology to reinvent tax policy in a defining century for humankind's survival.

## INTRODUCTION

Since we launched our [Sustainable Tax Systems project](#), global events have only further highlighted the need for national and global tax systems fit for the 21 Century.

However, with the pressures of economic recovery after the global pandemic and energy price increases, the climate crisis is being side-lined. Commitments to increase energy taxes are being shelved or reversed and fossil fuel energy still receives subsidies across the world.

*If you want more of something, subsidize it; if you want less of something, tax it."*

*Ronald Reagan*

We should not forget the urgent need to fight climate change and the important, multi-faceted role, that taxation can play.

We invited experts to share with us their views on tax and the environment. This paper will collate the key messages from their contributions, highlight common themes between them and consider what issues remain to be dealt with. All contributors' views can be found in full on the page [Sustainable tax system: taxes and the environment – external contributions](#).

## TAXATION AS A TOOL TO CHANGE BEHAVIOUR

Tax policy can change behaviour. Its influences are multifaceted. Appropriate environmental taxes have the potential to change the behaviour of both businesses and consumers.

As highlighted by [Angela Köppl and Margit Schratzenstaller](#), whilst insufficient as a stand-alone measure, a "large majority of empirical studies suggest that carbon taxes are an effective carbon emission reducing tool which does not negatively affect economic growth and employment."

Francesco Orsi [suggests](#) that ultimately individuals could be taxed partly on their capital and income and partly on the consumption of goods and services that have detrimental consequences on the environment. For him, "this would be the practical implementation of the Polluter Pays Principle and a giant stride on the path to sustainability."

## WHAT DO WE NEED FOR CARBON TAX TO BE EFFECTIVE?

Angela Köppl and Margit Schratzenstaller state that studies indicate that the impact of environmental taxes on reducing GHG emissions is rather modest and insufficient on its own to meet current and medium-term emission goals.

They suggest that "getting the long-term pricing of carbon right will be more effective in reducing emissions than short term price fluctuations arising from cap-and-trade systems", and that carbon pricing is more effective when emitters can see that the price is stable and rising. However, they also highlight that obtaining the optimal price for carbon is difficult for several key reasons.

Estimates of the true cost of carbon emissions vary widely, for example between [USD 40 and USD 400 per ton](#).

Kyle Pomerleau of the American Enterprise Institute states in his [contribution](#) that "an ideal carbon tax would be levied on the content of all greenhouse gases" and that carbon taxation has [significant advantages](#) over other policies that aim to reduce carbon emissions, such as regulation. Carbon taxes, provide an "an incentive for producers to find and utilize the most effective carbon-efficient technologies that reduce emissions" and are the only means by which producers and consumers are persuaded to move away from dirty sources of power.

He also points out that another advantage of a carbon tax over regulation is that it raises revenue.

## CARBON TAXES AND PARTICULAR INDUSTRIES

Current carbon taxes generally scope out certain industries and carbon cap-and-trade systems frequently only cover businesses involved in energy production or those which are heavy users of energy. Many believe that this scope needs to be extended to fight climate change. Additionally, as Phil Hall of the AAT [highlights](#) that some national governments are cutting back on existing taxes or levies on polluting industries such as air travel – a trend that may increase if the current cost of living crisis worsens.

The transport industry is one which many highlight as requiring further attention. A frequent flyer levy is proposed by [Alethea Warrington of Possible](#) and [Francesco Orsi](#).

### TRANSPORT

Technical issues mean that the airline industry cannot easily switch to potentially greener forms of fuel (such as hydrogen and electricity) in the near future. Subsidies, either direct or in the form of reduced fuel taxes, mean that air travel is cheap, and, as Francesco Orsi mentions, “air traffic is projected to triple by 2050 compared with 2015.”

Contributors see the need for a progressive frequent flyer levy that would increase with the number of flights and / or distance flown by the individual. Whilst contributors see ending the tax exemption on aviation fuel as a positive step, they emphasise that such flat rates taxes are generally regressive in nature – i.e., they affect lower income household more than those with higher income.

Both mention that the airline industry is uniquely placed to introduce a progressive tax due to existing security related passenger identification data requirements and, consequently, it is well within the technical capabilities of existing information technology systems.

Phil Hall also highlights that existing information technology systems can be applied to a ‘pay as you drive’ approach to taxing motor vehicle use. This would help reduce non-essential travel, thereby reducing its other externalities- such as noise pollution or fiscal loss through congestion. It may provide a more socially acceptable alternative to increasing the carbon cost of fuel usage as many people that rely on motor vehicles (in say, rural areas) often make shorter journeys on less congested roads.

## FUNDING INNOVATION

The approach to using the tax system to change behaviour is often a carrot and stick approach. In terms of environment taxes, the stick is taxing undesirable behaviour – be it emissions of GHG or other forms of pollution or the extraction of resources.

The carrot usually takes the form of incentives. These can be consumer focused – such as government subsidies for purchasing [electric vehicles](#) or for installing solar panels and [connecting them to the grid](#). Such incentives can be made through the tax system or by lump-sum payments or rebates – higher earners typically benefit from tax reliefs more than lower earners.

In respect of businesses, there may be incentives to embrace energy efficient buildings and plant and equipment and incentives to invest in research and development of green products and processes.

These tend to be introduced at a national level and there are often significant differences in the approaches taken.

### GREEN IMPACT FUND

Thomas Pogge proposes a [Green Impact Fund](#) (GIF) for patentable green technology. This would involve using emissions taxes to finance a (preferably) global fund that rewards green innovators. In return for surrendering the right to monopoly profits by patenting the innovation, the innovator would receive a profit on their innovation sooner than under the patent system.

The GIF concept should promote innovation for environmentally beneficial products that would be unprofitable to develop under the current patent scheme or that would mainly be used in lower income countries.

## **BANK FUNDING**

In respect of funding innovation there is also a question of the role of bank funding. As we mentioned in our publication on the [long-term policy changes for a sustainable economy](#), more subsidies were paid to fossil fuel companies than to those involved in green energy. Banks as well [continue to support fossil fuels](#), although there are [indications](#) that this may be starting to change.

Thomas Pogge has proposed [the Painless Penalty Pact \(PPP\)](#). This suggests levying a penalty on (European) banks that invest in high emission projects in countries without an emission trading system (ETS), or have one that utilises a carbon price less than that of EU's ETS.

This would potentially leave banks subject to the levy at a commercial disadvantage. Thomas Pogge's response to this problem is to "fully rebate the penalty to the banks that are subject to it", less administrative costs. Those banks that finance projects with high emissions receive back proportionately less – so whilst the whole banking system is not affected, there is an incentive for some banks to stop financing high emission projects.

## **A CIRCULAR ECONOMY**

Walter R. Stahel [contends](#) that "sustainable framework conditions should aim to promote sustainable activities and discourage non-sustainable ones." Sustainable taxation and a circular industrial economy are one way to encourage an optimal use of resources in the economy, fulfilling these objectives.

He highlights the difference between our current 'linear economy' and a 'circular economy' that is local, labour intensive and concentrates on extending the lifetime of existing products and assets.

He argues that the "caring services of the circular economy should not be subject to VAT because they maintain the value and utility of assets, a quality they share with activities maintaining natural, cultural and human assets in circular societies."

He stresses that "taxation is only one, but a key, factor to accelerate the shift from a linear industrial economy [...] to a sustainable circular industrial economy". Furthermore, "a disruptive pull taxation, such as taxes on CO2 emissions [...] could now be used as a tool to create a sustainable and resilient world."

[Ecopreneur.eu](#) also emphasises that the VAT system can be used to help the circular economy – calling for "low VAT rates for sustainable products and services." They highlight that "given the choice between two otherwise equal goods or services, even a moderate VAT difference can effectively nudge consumers to purchase the circular option rather than the linear one."

They are calling for further [flexibility](#) of VAT rates to include reduced rates "for Cradle-to-Cradle products, goods with recycled content, and lease or rent with product-return and recycling provisions" and, ultimately, to all sustainable products and services.

## **PUBLIC SECTOR**

Many environmental taxes, especially emissions-based taxes, target businesses and their customers. But, as Melinda Maupeu states in her [contribution](#), the public sector has an essential role to play in environmental taxes.

The public sector provides many services to its citizens (and to businesses) that have potentially an adverse impact on the environment. She draws attention to fossil fuel and other natural resources, water supply and management and waste disposal as areas that should be subject to a usage tax and, that although these have been introduced by some countries, a complete overhaul is required.

Walter R. Stahel also addresses other aspects of the role that the public sector can have in promoting sustainability and the circular economy. He highlights that public sector procurement policies can help to promote desired changes in industrial processes and promote sustainability. He also shines a light on certain

regulatory actions that can be made by governments to require the maintenance of assets (thereby prolonging their useful lives), banning food waste and fighting against planned obsolescence by introducing a 'full producer liability' for products.

## ISSUES RELATING TO ENVIRONMENTAL TAXES

### REGRESSIVITY AND SOCIAL EQUITY TAXES

As Chiara Putaturo states in Oxfam's [contribution](#), "we cannot confront the climate crisis without addressing inequality and we cannot confront inequality without addressing the climate crisis." Environmental taxes can have negative social effects on poorer households. Policymakers need to take this into account and adopt measures that mitigate adverse social consequences, which may otherwise undermine environmental efforts. Policymakers must take this into consideration when drafting environmental tax policies and adopt measures to avoid or compensate for any adverse social consequences.

As alternatives, Oxfam suggests that progressive environmental taxes could be applied, or emissions from luxury consumption could be targeted. Their preference is for taxes on production or investments. They further state that "if progressive environmental taxes are not possible, the regressive impact can be balanced out by other taxes or by redistribution mechanisms to compensate lower income groups for the increased costs."

Francesco Orsi also highlights that fixed-rate consumption taxes place much of the burden on low-income people. "The solution may be a progressive consumption tax, namely a tax whose marginal rates increase as an individual's consumption of a given carbon-intensive good or service increases."

Angela Köppl and Margit Schratzenstaller report that the effects are different depending on the type of tax—"taxes on fuels have a progressive effect in many countries, while taxes on heating fuels are slightly regressive and taxes on electricity are significantly regressive." They further note that that research indicates that the use of tax revenues is crucial in mitigating the undesirable effects of carbon taxes with lump-sum transfers being more effective for lower income groups, with higher income groups benefiting more from a reduction in taxes on labour.

Kyle Pomerleau discusses the concept of '[carbon tax and dividend](#).' This proposal proposes that a "\$50 per metric ton carbon tax could finance a \$1,057 rebate per person (and half of that amount for each dependent). Such a rebate would increase the after-tax income of the bottom 20 percent of households by 6.8 percent."

### PRIVACY AND OTHER ISSUES

As highlighted by Maria Volanen, taxes on '[public bads](#)' have the theoretical disadvantage from a fiscal point of view that if they achieve their objectives then the tax base would disappear.

However, the elimination of all environmental issues (and other behaviours considered detrimental to public wellbeing) is likely to be sufficiently far in the future that governments will have time to adapt and find new sources of tax revenue.

Maria Volanen highlights data privacy as one of the issues of radical new forms of taxing individuals. She states that "There must be clear rules on how the consumer data is collected and used for taxation purposes, without jeopardizing the principle of data security, for example GDPR-rules."

If governments were ever to move towards progressive taxation models based on, for example consumption or lifetime income, much work would have to be undertaken by governments to reassure citizens that the use of personal data was for their ultimate benefit and would not be used for egregious purposes.

### IMPACT ON LOWER INCOME COUNTRIES

There are significant issues when trying to deal with a global issue in a divided world.

As Chiara Putaturo illustrates that the richest 10% of the population are responsible for more than half of past carbon emissions and that the “the impact of the climate crisis is much more devastating for those living in low- and middle-income countries [...] particularly women.”

She also stresses that “at an international level, environmental taxes, like the carbon border tax, can have an impact on third countries and foster inequality if no exemptions or compensations are made.” She goes on to state that the EC’s [Carbon Border Adjustment Mechanism](#) (CBAM) could impact countries that have not received an exemption, such as Mozambique and Zambia, which are already vulnerable to climate change.

In Accountancy Europe’s [response](#) to the European Commission’s public consultation on the CBAM, we also highlighted the need for developing economies to be given time to reduce their GHG emissions before the CBAM is applied.

As Thomas Pogge notes, there is a moral imperative on high-income countries to reduce their own emissions. However, he views efforts in high income countries to prioritise their own emission reduction as inefficient compared to more cost-effective measures in poorer countries. Moreover, he believes that the disparity provides ‘perverse incentives,’ such as shifting high emission production of goods consumed within the EU to a non-EU country.

Thomas Pogge’s concept of the PPP could also help address some of the difficulties lower income countries have in greening their economy. “Assuming that competing European banks will pass on much or all of the PPP’s impact to their customers in the penalty zone, the PPP would give such customers some opportunities to get cheaper financing by turning to European banks for greener projects.”

## ACCEPTANCE BY THE POPULATION

As Possible states, “Prioritising equality and fairness will be essential to gain public support for the scale and speed of decarbonisation necessary to tackle the climate crisis.”

Angela Köppl and Margit Schratzenstaller highlight “the specific design of the policy, especially in respect to distributional effects, which significantly affect public policy” is crucial to the question of carbon pricing. They also opine that “the impact of carbon pricing could be reinforced by providing information to households and firms about emission reducing opportunities” and also by earmarking revenue to specific green programmes.

Thomas Pogge also believes that earmarking tax revenues raised from environmental taxes will help the taxes gain public acceptance – for example by using tax revenues obtained from environmental taxes to directly fund his proposed Green Impact Fund.

Chiara Putaturo also states that channelling revenue from green taxes into green purposes or compensation measures could increase public acceptance of the taxes as the public would be able to see the purpose of their taxes. She also points out the need to make alternatives available. “Tax cannot be the only solution, it must come with investments in the green transition.”

## IMPACT ON THE ECONOMY

There are many concerns about the impacts of environmental taxes on the economy. These include the costs of transitioning to the green economy, fears over loss of competitiveness and the risk of retaliatory action by other economies arising from unilateral measures such as the CBAM.

Maria Volanen underlines that there may be positive macro-economic impacts to green taxes. For the early adopter countries at least, carbon taxes will drive innovation in low-carbon technologies and products and lead to increased exports – worth €30 billion to Finland alone.

Kyle Pomerleau highlights that not everyone has found a positive impact of carbon taxes on the economy –one study that indicates that a carbon tax of USD 50 per metric ton would reduce economic output by 0.4, and also draws attention to the possibility that carbon taxes could be used to replacing other taxes as ‘no two taxes impact the economy in the same way.’



Angela Köppl and Margit Schratzenstaller highlight that environmental taxes are often discussed in the context of reform of the broader tax landscape. In particular, there has been much focus on the ‘double dividend’ that environmental taxes could produce. The first element of the double dividend is the potential for reducing environmentally damaging outputs. The second element is to use the revenue obtained from environmental taxes to reduce more distortionary taxes.

They point out that some studies link the positive macroeconomic effect from the introduction of environmental taxes to reducing social security contributions and / or income tax, and that the double dividend effect is more pronounced than when the revenue is recycled through lump sum transfers.

Ecopreneur.eu also call for “economy-wide tax measures including a tax shift from labour to resources” – such as taxes on fossil fuels, virgin materials and pollution.

In our [response](#) to the European Commission’s public consultation on revisions to the Energy Tax Directive (ETD), Accountancy Europe also suggest that the Commission should further examine the potential economic benefits that could be derived from using a proportion of the additional revenue that would be generated to reduce the taxation on payroll costs.

## TECHNOLOGY

It is often the case that making taxes more progressive and targeted requires more data.

Possible does not believe that “the data collection and processing requirements of a frequent flyer levy would pose a barrier to implementation”. Furthermore, they state that “the existing high degree of data sharing and cooperation, make the European Union the ideal region to take forward implementation of a frequent flyer levy.”

Francesco Orsi mentions that the sort of systems that could be used to make a frequent flyer levy possible could also be applied to other taxes (e.g. meat, clothing). “This would be the practical implementation of the Polluter Pays Principle”.

Maria Volanen emphasises the important role that technology has in making taxation efficient and effective. She writes “Digitalisation and automation of taxation procedures could lead to notable savings both to companies and tax administrations, as well as reduce tax gaps and tax evasion.”

She also emphasises the importance of the real-time economy (RTE) and points out the potential cost and time saving potential of the RTE, in driving innovation, as well as its role in reducing the tax gap.

Accountancy Europe has repeatedly [emphasised](#) the advantages of the RTE and digitalisation of tax systems in the fight against tax fraud and avoidance and to improve taxpayers’ experience of interacting with tax authorities.

## JOINED UP POLICY MAKING

As mentioned by Maria Volanen, “taxation is a toolkit, not a goal. We need to know the goal we are trying to reach before deciding what tax tools to use.”

The climate crisis, whilst urgent, is not the only global issue that we have to deal with. Other issues, such as inequality, are also very important and concentrating only on one issue risks causing harm in others. However, as Maria Volanen says, “when planning future-proofing changes in taxation, the effect to the environment should always be taken into account in all taxation.”

The paper then goes on to identify four prerequisites for a low-carbon future over which taxation can play a role:

1. global co-operation on GHG taxes and setting a global floor carbon price to avoid carbon leakage to laggard jurisdictions
2. the development of low emission and competitive energy solutions – by incentivising low emission electricity and disincentivising fossil fuels
3. incentives to boost low carbon solutions, such as research and development tax credits
4. a stable operating environment, including a stable tax base and the use of digital tools to make taxation as simple as possible.

Angela Köppl and Margit Schratzenstaller consider that “the transition to climate neutrality requires a profound structural change that cannot be achieved through incremental (political) steps.” This, of course, will require enormous investment and a broader policy mix, including “price-based instruments, subsidies, standards and public infrastructure investments.” They also highlight the need for international, or at least EU-wide policy coordination.

Melinda Maupeu considers that it may be necessary for penalties or taxes to be imposed (or subsidies withdrawn) on nations that are not complying with minimum standards of environmental protection.

## GLOBAL AGREEMENT

As Maria Volanen writes “Sustainable tax system should be green, digital, and fair. But global co-operation should be added to the list. Always, when possible, a global tax model should be preferred and supported.”

This is especially the case with measures designed to fight the climate crisis, as it is a truly global issue.

For example, air travel and shipping are international phenomena. Whilst countries and trans-national organisations such as the EU can go it alone and introduce such measures, they could be avoided to some degree by routing and refuelling in countries with no such measures. Whilst the impact of this avoidance could be reduced by introducing a form of border adjustment duty, as with the Carbon Border Adjustment Mechanism, such measures would be vastly more effective with global agreement. This would also reduce the likelihood of a trade war.

As a global issue, the failure of some countries to take their obligations under the Paris Agreement also makes it harder to convince the public of the usefulness of measures taken at a national or trans-national level.

Maria Volanen recognises this issue : “We must have global carbon price, starting for example with a global floor carbon price, which has been discussed between the G20 countries.”

## THE RESPONSE OF THE ACCOUNTANCY PROFESSION

Environmental taxes and levies, such as the CBAM, are heavily data dependent and with their expertise in data management and analysis as well as taxation. Professional accountants are obvious partners in the development and implementation of effective environmental taxes.

Accountancy Europe has previously highlighted this role of data in our response to [the EC's public consultation on revision to the Energy Tax Directive](#). In this we emphasise how calculating the externalities of the different fuel types accurately is essential to ensure that the proposed revisions best achieve their environmental purposes. We also echo the viewpoint of several of our contributors in calling for some of the additional revenue that would arise from the revised ETD to be used to provide direct subsidies to those worst hit by the impact of increased fuel and energy prices.

In our [view](#), to be truly effective the CBAM should ultimately be applied to all goods imported into the EU and not merely energy intensive raw materials. However, we acknowledge that this would be a very complex process that requires huge quantities of data, the collection of which would require the involvement of professional accountants.

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## A BROADER APPROACH TO SUSTAINABILITY

Accountancy Europe and the profession are playing their role in the face of this today's crises. We have facilitated a genuine dialogue between policymakers and the profession as we believe collaboration is the only way to solve the problems we face. There should be no political self-interests that stand in the way of humankind's survival.

We have fostered a debate on the profession's social responsibility in tax matters, looking at what our professional ethics and commitment to the public interest should mean. The accountancy profession also has a broader involvement in sustainability matters than just taxation. For more than 20 years, we have worked on how the profession can contribute to the sustainability agenda.

We are highly active in the development of [European](#) and [international](#) sustainability reporting in the private sector, in the [public sector](#) and in the [development of high quality assurance of sustainability reports](#). We support the development of a European-wide approach to [corporate sustainability due diligence](#). We are also [working](#) with our members to assist small and medium sized entities in playing their role in making the economy more sustainable.



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