

**Designing Carbon Taxes
Is Not an Easy Task**

Legal Perspectives

Irene Burgers, Stefan E. Weishaar

Designing Carbon Taxes Is Not an Easy Task Legal Perspectives

Irene Burgers, Stefan E. Weishaar

WIFO Working Papers, No. 559

February 2018

Abstract

The aim of this paper is to map legal aspects that should be taken into account in designing a carbon tax. The survey of the legal literature concludes that many different aspects have to be taken into account in designing a carbon tax, both with respect to the kind of legal instruments to be used and the actual design of the tax. It is analysed how these legal concepts relate to economic theory. This overview of legal considerations may help in creating a sustainable, effective and efficient regulatory system for reducing emissions, as carbon taxes can play a crucial role for achieving long-term emission reductions.

E-mail address: s.e.weishaar@rug.nl
2018/068/W/8815

© 2018 Österreichisches Institut für Wirtschaftsforschung
Medieninhaber (Verleger), Hersteller: Österreichisches Institut für Wirtschaftsforschung • 1030 Wien, Arsenal, Objekt 20 •
Tel. (43 1) 798 26 01-0 • Fax (43 1) 798 93 86 • <http://www.wifo.ac.at/> • Verlags- und Herstellungsort: Wien
Die Working Papers geben nicht notwendigerweise die Meinung des WIFO wieder
Kostenloser Download: <http://www.wifo.ac.at/www/pubid/60978>

Designing Carbon taxes is not an easy task: legal perspectives

February 2018

Irene Burgers and Stefan E. Weishaar

Abstract

The aim of this paper is to map legal aspects that should be taken into account in designing a carbon tax. The survey of the legal literature concludes that many different aspects have to be taken into account in designing a carbon tax, both with respect to the kind of legal instruments to be used and the actual design of the tax. It is analysed how these legal concepts relate to economic theory. This overview of legal considerations may help in creating a sustainable, effective and efficient regulatory system for reducing emissions, as carbon taxes can play a crucial role for achieving long term emission reductions.

JEL codes

K34

Keywords

climate policy, carbon pricing, instrument choice, environmental tax reform, law and legislation

1 Motivation

Carbon taxation can play a crucial role in achieving (long-term) emission reduction targets. The legal aspects of carbon taxes come into question after the need for carbon limiting measures is established. Taxation may be used as an instrument of putting a price on emissions. Economic theory is readily transferable to different countries as it is based on specific assumptions. It is therefore possible to generalize and abstract from the underlying theoretical concepts. The legal approach differs in that it is strongly entrenched in its particular jurisdiction. Insights developed in a jurisdictional context may not be easily transferrable to other jurisdictions. However, some common issues can be identified, that are presented below in the next sections of the paper. These include:

1. the legal justification for levying a carbon tax;
2. preventing multiple environmental policy instruments, multiple taxation and high administrative costs;
3. legal and economic principles that should be taken into account in the design of the tax;
4. the issue whether the legal instrument used for implementing carbon measures is a tax, a fee or a levy;
5. when is the fiscal measure an 'environmental' tax/fee/levy;
6. in case the legal instrument used is a tax whether this tax should be designed as a direct or an indirect tax;
7. common elements with respect to taxable subject, taxable object, tax rate and tax facilities;
8. applicability of relevant European law: the Treaty for the functioning of the European Union, the Energy Taxation Directive and the Excise Duty Directive and state aid case law;
9. constitutional considerations regarding the design as tax or levy;
10. the level of government implementing the fiscal measure.

2 Legal justification for levying carbon taxes

Alongside the economic justification of carbon taxes, legal reasons for carbon taxes can be identified in that states can be legally required to limit carbon emissions by European law or International law. Carbon taxes are an example of measures states implement to fulfill those legal requirements. A useful overview of the relevant legislation is provided by the Dutch Lower Court Rechtbank Den Haag in its decision in the Urgenda Climate

Case, brought to the Court by the Dutch foundation Urgenda and 900 co-plaintiffs¹. The Lower Court The Hague judged that the Netherlands should reduce its emissions by 25% within five years in order to fulfill the requirements. As to the Lower Court, a legal obligation of the State towards Urgenda cannot be derived, neither from Article 21 of the Dutch Constitution, nor from the 'no harm' principle, the UN Climate Change Convention, with associated protocols, Article 191 of the Treaty for the Functioning of the European Union (TFEU) with the Emissions Trading System (ETS) Directive and Effort Sharing Decision based on TFEU, or the Articles 2 and 8 of the European Convention on Human Rights (ECHR). Nevertheless the regulations still hold meaning, namely in the question whether the State has failed to meet its duty of care towards Urgenda. From these rules can be derived what degree of discretionary power the State is entitled to in how it exercises the tasks and authorities. The objectives laid down in these regulations are relevant in determining the minimum degree of care the State is expected to observe. Therefore, in order to determine the scope of the State's duty of care and the discretionary power it is entitled to, the Lower Court also considered the objectives of international and European climate policy as well as the principles on which the policies are based. The Lower Court decided that the State has acted negligently and therefore unlawfully towards Urgenda by starting from a reduction target for 2020 of less than 25% compared to the year 1990. The Lower Court also ruled that the aspects associated with the trias politica in general do not constitute an obstacle to allowing one or more components of the claim. The hearing at The Hague Court of Appeals is scheduled for 28 May 2018.

3 Preventing multiple environmental policy instruments, multiple taxation and high administrative costs

Carbon pricing can be part of a larger taxation system regarding the use of energy. Kettner and Kletzan (2018) provide an overview of energy taxation in EU Member States. Sweden and Slovenia are examples of countries that have a carbon tax as a part of a larger energy taxation scheme.² The consumption of energy is taxed as well as the emissions connected to using the amount of energy.

Emission trading systems are non-fiscal instruments used to price carbon emissions. A cap and trade scheme like the EU ETS limits the total amount of possible carbon emissions and creates emission allowances. Allowances can be traded among emitters

¹ ECLI:NL:RBDHA:2015:7145 (Urgenda).

² Lag (1994:1776) om skatt på energi (Sweden); Uredba o okoljski dajatvi za onesnaževanje zraka z emisijo ogljikovega dioksida (Slovenia).

and the market-based price that results from the trade is the price that is put on carbon emission.³ As a result, an ETS is a regulatory instrument but not a tax.

In designing a carbon tax it is important whether an ETS is in place. If, for instance, putting a price on carbon emissions is one of the justifications for imposing a tax, the existence of an ETS might lead to pricing the same carbon emission twice: once by the ETS and once again by the carbon tax. Countries may decide not to levy carbon taxes on emissions that are covered by the ETS (e.g. Denmark).

If a carbon tax would be levied as an EU-tax – implying not only unification, but also an EU-tax administration and a tax that either would flow into the European budget, or would be divided amongst the Member State on the basis of factors to be decided upon – this would prevent double taxation within the European context. An EU Carbon Tax Directive would harmonize the carbon tax. Non-harmonization/unification of carbon taxes not only implies multiple taxation but high administrative costs for companies operating cross-border. This underlines the importance of preventing multiple taxation in the design of a carbon tax.

³ Directive 2003/87/EC; see also European Commission website on EU ETS, https://ec.europa.eu/clima/policies/ets_en.

Carbon Added Tax

The Carbon Added Tax proposed by Courchene and Allen (2008), for instance, would prevent potential double taxation in an international context. The carbon added tax paid in one country would be rebated when the product is exported to another, and the importing country would apply its carbon tax to the cumulative carbon footprint of the product at the time of importation, similar to the operations of the VAT. In this system national environmental policies do not discriminate arbitrarily between foreign and domestic products, or between products imported from different trading partners, discrimination of domestic and foreign products containing a CO₂-element and double taxation is prevented.

In order to prevent double taxation and discrimination Metcalf and Weisbach (2009) propose an origin-basis system for trade with countries that have an adequate carbon tax, and a system of border taxes for imports from countries without a carbon tax. They suggest a system that imposes presumptive border tax adjustments, but allows an individual firm to prove that a different rate should apply.

However thus far no legislation prescribes countries to adopt such an origin-basis system. Article II.2 and Article III.2 of the General Agreement on Tariffs and Trades of permits countries to impose taxes or charges on imports, provided: 1) that the Border Tax Adjustments are imposed on products which are 'like' the domestic products that are subject to the tax in the first place; and 2) that the amount of the Border Tax Adjustments are imposed on the imported goods does not exceed the amount of the tax on the domestically-produced 'like' products (see Hillman, 2013).

4 Legal principles for the design of (carbon) taxes

Tax systems should reflect the general principles of law: legality, equality, legal certainty and legitimate expectation, fair play, public trust in tax administration, good faith, transparency, proportionality, non-retroactivity and estoppel (Vanistendael, 2000; Romano, 2002).

With respect to carbon taxes special focus should be on transparency. It should be clear who is taxable (the taxable subject also referred to as taxpayer), what is taxed (the tax base), what exemptions are provided (tax incentives) and what the costs to the polluters will be per unit of pollution generated (tax rate). Taxpayers should not be confronted with uncertainty about whether or not and to what amount they should pay the tax. The tax should both in design and execution be proportional in that taxpayers feel that it is fair that the tax is levied; that the tax is not excessive; and that taxpayers are not

confronted with high administrative costs. Another relevant issue is that carbon taxes, like any other environmental tax increase the cost of particular products and activities in a fairly direct and generally predictable way, thus providing cost certainty. But this only counts if the taxpayer can be certain that there will be no or only limited changes to the law thus providing legal certainty and legitimate expectation.

The legal principles partly overlap with the more economically oriented OECD Ottawa Taxation Framework Principles.

- **Neutrality**
Business decisions should be motivated by economic rather than tax considerations. Taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation. Taxation should seek to be neutral and equitable between forms of electronic commerce and between conventional and electronic forms of commerce.
- **Efficiency**
Compliance costs for taxpayers and administrative costs for the tax authorities should be minimised as far as possible.
- **Certainty and simplicity**
The tax rules should be clear and simple to understand so that taxpayers can anticipate the tax consequences in advance of a transaction, including knowing when, where and how the tax is to be accounted.
- **Effectiveness and fairness**
Taxation should produce the right amount of tax at the right time. The potential for tax evasion and avoidance should be minimised while keeping counter-acting measures proportionate to the risks involved.
- **Flexibility**
The systems for taxation should be flexible and dynamic to ensure that they keep pace with technological and commercial developments (OECD, 2015).

In its policy document of 23 June 2015 'Fiche 6, Carbon/CO₂ Tax Based Own Resource' the High Level Group on Own Resources reflected on these principles, as well as on the principles of Sufficiency and Stability; Democratic Accountability and Budgetary Discipline; the Subsidiarity principle; and Fiscal Sovereignty of Member States (European Commission, 2015). According to this Group the "introduction of a carbon tax would:

1. allow Member States to apply a CO₂ tax to meet their effort sharing targets, without fear of jeopardising their competitiveness within the EU and vis-à-vis third countries;
2. prevent different national policies from creating obstacles and distortions in the Internal Market; and
3. be applied to the sectors that are not currently covered by the EU ETS (an equitable tax burden would require that it is similar to the price of the emission permit).

4. give economic actors more legal certainty; and
5. reduce compliance costs, in particular if such tax would replace the various environmental tax policies in Member States”.

In respect of efficiency the Group acknowledges that in all approaches to tax carbon/CO₂ complementarity and/or compatibility with the ETS (scope, incentives, economic incidence) would have to be ensured in order to avoid double-taxation or contradictory objectives. These issues were not sufficiently addressed in the 2011 Commission proposal for a revision of the Energy Taxation Directive, which distinguished between sectors covered by the EU ETS and those outside it.

5 Is the charge a levy, a fee or a tax?

Whether a fiscal measure is a tax, a fee or a levy is of relevance for the legal design and legal implications. Thus it is of relevance to provide for definitions.

5.1 Definitions

Unsurprisingly legal scholars rely upon definitions proposed by international bodies or institutions when conducting comparative analysis. The OECD published a glossary of tax terms on the internet. The OECD defines taxes as “any compulsory, unrequited payments to general government. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments” (OECD, 2013, p. 314). Examining this definition, it therefore appears that taxes are characterized as compulsory and unrequited payments to the general government. Despite also having regulatory and redistributive tasks, taxes are predominantly instruments to raise revenue.

By contrast to taxes, fees “are compulsory, requited payments to either general government or to bodies outside general government” (OECD, 1999, p.9), thus emphasizing that amounts paid should be for services rendered and consequently should also be in proportion with the costs incurred. A fee is a payment used to fund the service, whereas a tax is used to fund various public expenditures.

Fees charged by central or local governments can be distinguished from taxes when they are charged as payments for the supply of particular services by the authorities (OECD, 1999).

Levies are temporary measures to raise revenue and provide for a social purpose or mitigate a crisis. This is generally supported and understood by society. Levies are seen as ‘soft’ charges that usually escape the age old negative view of taxes. According to Taylor (2012) this is why so many ‘new’ charges are called levies rather than taxes. However, as levies tend to become permanent charges the definitional line between a levy and a tax is blurred.

From a theoretic perspective environmental taxes, environmental fees and environmental levies differ in determining the price for pollution. The value of an environmental fee would relate the price to the benefit provided (Milne, 2014). This suggests that for fees 'benefits' for services rendered are an important element for price setting. An important feature of fees is that it is possible to determine with a certain amount of accuracy what the price of the service is.

Taxes may also reflect the benefit taxpayers receive from the government, as leading principles of welfare economics and the 'optimal tax policy' theory are based on the benefit principle. This may be one of the principles underlying a specific tax. The benefit referred to here is, however, not linked to a concrete service, but the benefit a taxpayer receives from the government in a more general sense. The price for such benefits is difficult to set. Thus the level of taxation is determined differently.

Pigouvian taxes would determine the value of social costs to be internalized – something which is inherently difficult to calculate. Baumol-Oates (1971) seek to circumvent this problem and propose as a second-best policy, a tax which would be set at prices so as to achieve environmental standards and thus would qualify as an 'incentive (regulatory) emissions tax'.

5.2 Legal implications

From a legal perspective whether a charge is a levy, a fee or a tax has consequences for the democratic procedure required to introduce the charge (for taxes generally applies: 'no taxation without representation'⁴); whether or not lower levels of government may introduce and adapt the charge or only the central government;⁵ and for possibilities of delegation. The difference in qualification also has implications on whether or not the rules included in the Treaty for the Functioning of the European Union, the Energy Directive 2003/96/EC and the Excise Duty Directive 2008/118/EG are applicable.

Whether or not the charge is a fee or a tax furthermore has implications for the protection of payers' rights. Generally, the rights of taxpayers are better protected than those of the payers of a fee or a levy.

⁴ A phrase, generally attributed to James Otis about 1761, that reflected the resentment of American colonists at being taxed by a British Parliament to which they elected no representatives and became an anti-British slogan before the American Revolution; in full, 'Taxation without representation is tyranny', <http://www.dictionary.com/browse/taxation-without-representation>. Most Constitutions require Parliament to be involved in respect of a tax, whereas this is not required for fees, being a payment for a government service.

⁵ To ensure the effectiveness of the fiscal measure it may be required that the tax base can be adapted by the competent authority. See Rodi and Ashiabor (2012), p. 70.

It also may have consequences for the political strategies for enactment, constitutional constraints⁶, method of payment, exemptions provided, recovery of payment and legal remedies. As other laws apply legal principles such as equality, certainty, non-discrimination, reciprocity and good faith may have different implications for fees and levies than for taxes.⁷ Moreover in case of taxation double taxation may occur: more than one tax administration may want to tax the same taxable object/event. This is unlikely in respect of fees, as there is a direct relation between the fee and the government service.

5.3 Statistical implications

For statistics the difference in labelling has consequences in terms of allowable government expenditure. Revenue derived from fees is labelled. Tax revenue generally may be used for any government expenditure. However, constitutions may also pose limitations to the use of tax revenue. Milne (2017) for example reports that the state of Oregon limits policymaker's flexibility to decide how to use the revenue from a carbon tax as the Oregon Constitution provides that revenue from taxes on oil and natural gas must be used for financing school systems (Milne, 2017). Milne also reports the Oregon constitution provides that the maximum tax rate on the sale or use of oil and natural gas is six per cent of the market value of oil and natural gas produced in the state. This cap also applies if the carbon charge is drafted as a tax.

Moreover, in respect of the design as a fee or a tax as mentioned the OECD gives guidance to tax design with its (economic) Ottawa Taxation Framework Principles, whereas for fees up to our knowledge no similar principles have been drafted, although it may be argued that these principles should also apply to fees. Some indication for this can be found in the International Solid Waste Association (ISWA) in its November 2011 Report 'How to design an appropriate waste fee Principles, Practices and Applications of Waste Management Fees'. ISWA refers to Fairness, Simplicity and Efficiency.

5.4 Is the fiscal measure an 'environmental' tax/fee/levy?

It also has to be defined which type of taxes are subsumed under the term 'environmental'. Are these taxes on pollution or also on resources, products and materials? 'Environmental' could also allude to the behavioural incentives created, the tax base, the use of the tax revenues or simply the name of the tax.

⁶ For an example see Milne (2017).

⁷ The scope, focus and design of these instruments differ. The tasks, responsibilities and competences of the competent authority charged with its implementation may differ as well.

National laws and the underlying definitions differ across jurisdictions. Several European jurisdictions use the term *levies* to refer to economic instruments addressing the environment, e.g. the Netherlands ('heffingen'), Germany ('Abgaben') and France ('redevances') (Von Weizsaecker and Jesinghaus, 1992). Therefore it is not possible to present a uniformly applicable definition of the legal terminology.

The early academic literature did not provide for a clear cut definition of the term environmental charges (tax or fee). A categorization made in the early academic literature is that in emission charges, user charges and product charges. However, other authors made a different categorization. For example Johnson and Brown (1976) use the term 'user charges' for a service rendered such as for example for wastewater treatment. They use the term 'effluent charge' for a financial payment that is levied for a discharge or emission independent of any abatement effort on the grounds that the environment is being polluted.

In line with the early academic literature, the OECD referred to charges categorized them according to their design characteristics. It differentiated between emission charges, user charges and product charges. The OECD also recognized the relevance of the environmental intent of the fiscal measure, whether it is revenue raising or seeking to set incentives for an environmentally positive behaviour. Categorizing fiscal instruments on the basis of its underlying intent is, however, not practical as the differentiation is not clear cut. Distinguishing taxes on the basis of their tax bases is the only objective basis for identifying environmental taxes for the purpose of international comparisons. In 1997 the European Union's Eurostat, the European Commission, the OECD and the International Energy Agency addressed this issue by focusing on the nature of the tax base rather than the environmental effect or intent.⁸ This approach is therefore to be taken as the basis for the classification of environmental taxes such as energy or carbon taxes. In particular the practical application of institutions such as Eurostat is important as its approach is followed by Member States within the European Union in practice. Eurostat published a detailed manual and guideline on environmental taxation.⁹

6 Taxable subject, tax base, tax rate and tax facilities

The taxable subject is the person who is legally obliged to pay the tax to the authority if a taxable event occurs. 'Taxable event' is a term used to define an occurrence that affects the liability of a person to tax. The tax base is the thing or amount on which the tax rate is applied.

⁸ Milne and Andersen (2012), p.21 and Eurostat (2013), p. 3.

⁹ Eurostat (2013), p. 13

In respect of carbon taxes the taxable subject may be the polluter. In case an environmental tax is drafted as a direct tax the polluter is the taxpayer. Economic object and legal object coincide. The taxable event is pollution, i.e. the amount of CO₂ (the tax base) this person (the taxable subject) emits (the taxable event). The tax is the price of the emissions (which is dependent upon the tax rate). As mentioned, an environmental tax may also be drafted as an indirect tax. The taxable subject in the latter case is not the person carrying the burden of the tax (compare the Value Added Tax), but for instance the gasoline company. The excise on gasoline is an example of an indirect tax containing a carbon element.

Tax event, tax base and environmental effectiveness

The tax base of a carbon tax may be related to

- the production (production process in which fossil energy is used (in general or a specific product such as coal, electricity));
- a specific purpose (transport);
- the emission of CO₂.

No matter which of the three is chosen the taxable object or taxable event must adequately reflect the definition of the tax base in order to safeguard environmental effectiveness. Herrera Molina (2012) cites the EU carbon tax proposed in 1992 by the European Commission as a good example of a fiscal measure where the taxable event is consistent with the tax base as it is inter alia focussing on the carbon content of the fuels. By contrast a fiscal measure of which the taxable event has an environmental nature (taxing polluting installations) can produce a poor environmental effect by having the wrong tax base such as for example 'property installed by the companies'. Given this tax base, the measure will disregard the actual activity level (and hence the pollution) of the installations it is taxing. Consequently the object and purpose of the measure is more revenue raising and not the environment. If the overall objective of the legal measure is not satisfied, it could contravene the constitution.

The OECD (2011) suggests that an environmental tax generally should be levied as directly as possible on the polluter or on the polluting action. The tax base should also be chosen in such way that it does not distort production technologies.

Taxable Subject

Most countries that have implemented a carbon tax collect the tax from suppliers of energy products since this can be easily implemented as an add-on to existing energy taxes and monitored.

Tax Rate

Setting the tax rates is a non-trivial endeavour. It can be guided by the environmental damage or the environmental standard (thus setting the tax rate in a Pigouvian or Baumol-Oats tradition) or by political considerations (ability or willingness to pay of the

electorate or the tax payers) or a combination of these criteria (Herrera Molina, 2012). Measuring the environmental damage is particularly difficult if the environment does not have a clear market value or if environmental degradation cannot be repaired. Metcalf and Weisbach (2009) propose to utilize a crude estimate of the optimal rate and adjust the rate as new information arises. These authors suggest a delegation or partial delegation of rate-setting authority to an expert agency, which will ensure that the tax rate is re-examined at appropriate intervals and will provide expertise in the relevant parameters for setting the rate.

OECD Governance work on the design of Environmental Taxes

In 2011 the OECD published 'Environmental Taxation A Guide for Policy Makers'. The recommendations made in this Guide are based on the 2010 OECD publication 'Taxation, Innovation and the Environment'.

The OECD gives guidance on the taxable subject, the tax base, the tax rate and tax incentives as follows:

Taxable subject and Tax Base

Environmental tax bases should be targeted to the pollutant or polluting behaviour, with few (if any) exceptions.

The scope of an environmental tax should ideally be as broad as the scope of the environmental damage.

The choice of tax base has implications for the effectiveness of the tax. A litre of diesel produces more CO₂ than a litre of gasoline. Thus mis-specification can weaken the efficacy of the carbon tax by implicitly favouring a dirtier fuel.

Tax rate

The tax rate should be commensurate with the environmental damage.

The tax must be credible and its rate predictable in order to motivate environmental improvements.

Carbon taxes can be levied directly or indirectly. Direct carbon taxes are those where the taxable object is carbon emissions and the taxable subjects are the polluters. Indirect carbon taxes are instruments that increase the price of goods or actions, mostly at sales level. This means differentiation on both the subject of taxation and the object of taxation is possible. The object of taxation can be closely linked to carbon emission, for instance carbon content of a product, but a close link is not a requirement. Excises on fossil fuels, for example, increase the price of a product that leads to carbon emission, which means the carbon emission is priced. Non-environmental legal purposes of excises, e.g. generating revenues, are not relevant; an indirect carbon tax prices carbon emissions de facto.

7 Applicability of European Law

7.1 The Treaty for the Functioning of the European Union

European law contains rules on charges (both fees and taxes) and on taxes only. Art. 110 TFEU e.g. disallows Member State to impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar domestic products. Another example is art. 113 TFEU, providing that the Council shall, acting unanimously in accordance with a special legislative procedure and after consulting the European Parliament and the Economic and Social Committee, adopt provisions for the harmonisation of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonisation is necessary to ensure the establishment and the functioning of the internal market and to avoid distortion of competition. The differentiation between taxes and fees is also closely linked to the competences of the legislating authority.

7.2 The Energy Taxation Directive and the Excise Duty Directive

The Energy Taxation Directive 2003/96/EC, providing for minimum tax rates for energy taxes, is applicable to all indirect taxes on energy with the exception of VAT. The EU excise duty rules laid down in this Directive cover all energy products used for heating and transport, as well as electricity. The Excise Duty Directive 2008/118/EC is applicable to indirect taxes on energy products. Note the Directives are not applicable to direct taxes on energy.

Energy Taxation Directive 2003/96/EC and proposed Energy Taxation Directive (COM 2011 169 final)

The aim of the Energy Taxation Directive is to guarantee the proper functioning of the internal market and to support other Community policies by requiring minimum levels of taxation to be laid down at Community level for most energy products, including electricity, natural gas and coal. The Energy Taxation Directive provides for a common EU framework for taxing motor fuels, heating fuels and electricity. It provides for minimum rates for energy products used as motor or heating fuel and minimum rates for commercial and industrial purposes, such as agriculture, stationary motors and machinery used in construction and public works (Article 8). The Directive gives some options for exemptions for use of energy products and electricity (Article 15) and provides for special provisions for commercial diesel (Article 7(2)). The Energy Directive provides for example for an exemption for energy products supplied for use as fuel for the purpose of air navigation or navigation within Community waters (Article 14(1) (b) and (c) ETD). Some of the differentiations and tax exemptions may eliminate in some cases the effective taxation of certain products. Most exemptions provided are not 'EU standard measures', but are granted at the discretion of the Member States. Member

States may apply differentiated rates when the differentiated rates are directly linked to product quality;

- when the differentiated rates depend on quantitative consumption levels for electricity and energy products used for heating purposes;
- for the following uses: local public passenger transport (including taxis), waste collection, armed forces and public administration, disabled people, ambulances;
- between business and non-business use, for energy products; provided the State respects the minimum levels of taxation prescribed by the Directive and that the differentiated rates are compatible with Community law (Article 5 Energy Taxation Directive).
- Provided the minimum levels of taxation prescribed in the Energy Taxation Directive are respected on average for each business Member States may also apply tax reductions on the consumption of energy products used for heating purposes or for the purposes of Article 8(2)(b) and (c) and on electricity:
 - in favour of energy-intensive business;
 - where agreements are concluded with undertakings or associations of undertakings, or where tradable permit schemes or equivalent arrangements are implemented, as far as they lead to the achievement of environmental protection objectives or to improvements in energy efficiency and electricity referred to in Articles 9 and 10 of the Directive.

The Energy Taxation Directive does not apply to: output taxation of heat and the taxation of products falling within CN-codes 4401 and 4402; energy products used for purposes other than as motor fuels or as heating fuels; dual use of energy products¹⁰; electricity used principally for the purposes of chemical reduction and in electrolytic and metallurgical processes; electricity, when it accounts for more than 50% of the cost of a product¹¹; mineralogical processes¹².

Minimum rates are not defined by taking into account the emissions intensity of energy products. Thus, higher taxes might theoretically be imposed on renewable energy

¹⁰ An energy product has a dual use when it is used both as heating fuel and for purposes other than as motor fuel and heating fuel. The use of energy products for chemical reduction and in electrolytic and metallurgical processes shall be regarded as dual use.

¹¹ 'Cost of a product' shall mean the addition of total purchases of goods and services plus personnel costs plus the consumption of fixed capital, at the level of the business, as defined in Article 11. This cost is calculated per unit on average. 'Cost of electricity' shall mean the actual purchase value of electricity or the cost of production of electricity if it is generated in the business.

¹² 'Mineralogical processes' shall mean the processes classified in the NACE nomenclature under code DI 26 'manufacture of other non-metallic mineral products' in Council Regulation (EEC) No 3037/90 of 9 October 1990 on the statistical classification of economic activities in the European Community (2). However, Article 20 shall apply to these energy products.

sources than on fossil fuels¹³. The European Commission recognized this¹⁴ and therefore proposed to change the Energy Taxation Directive in order to:

- encourage the consumption of energy sources emitting less CO₂;
- complement the existing EU ETS by applying a CO₂ tax to sectors that are out of its scope (transport, households, agriculture and small industries);
- encourage Member States to redesign their overall tax structures in a way that contributes to growth and employment by shifting taxation from labour to consumption; and
- help the EU meeting its targets on energy and climate change.

The European Commission proposed to split the minimum tax rate into two parts:

1. A minimum tax rate on CO₂ emissions of the energy product fixed at € 20 per tonne of CO₂.
2. A minimum tax rate on energy content, i.e. on the actual energy that a product generates measured in Gigajoules (GJ), fixed at € 9.6 per GJ for motor fuels, and € 0.15 per GJ for heating fuels. These minimum tax rates would apply to all fuels used for transport and heating.

However, no agreement could be reached. Up till the time of writing no new proposal was made.

Excise Duty Directive 2008/118/EG

The Excise Duty Directive 2008/118/EG establishes the general arrangements for excise duties which affect the consumption of amongst others energy products and electricity covered by Directive 2003/96/EC, such as that products falling under the scope of this Directive are subject to excise duties at the time of their production, including, where

¹³ As Marta Villar Ezcurra mentioned the Energy Directive has an environmentally 'light' character, which may slightly be reinforced by the Energy Efficiency Directive 2012/27/EU (Villar Ezcurra, 2017, p. 46).

¹⁴ Proposal for a Council Directive amending Directive 2003/96 restructuring the Community framework for the taxation of energy products and electricity COM 2011, 169 final, at 3. Thirdly, in spite of the growing market relevance of renewable fuels, their tax treatment under the ETD still relies on rules developed at a time when these fuels were niche alternatives without major market significance. Standard taxation of renewable fuels is based on volume and on the rate applicable to the fossil product replaced by the renewable product concerned. The lower energy content of renewable fuels is not taken into account, and thus the same tax rate leads to a comparatively higher burden compared to the competing fossil fuels. Member States can only correct this effect and, where necessary, compensate differences in production costs by applying favourable tax treatment according to Article 16 of the ETD. The standard tax treatment of renewable fuels is therefore not adapted to their characteristics and any adaptation can only take the form of optional de-taxation subject to a strict State aid assessment. Belgium included for example the optional exemption of art. 15 lid 1 jo. sub b for electricity of solar, wind, wave, tidal or geothermal origin and other renewable resources in art. 429 § 2 sub b PW 2004b (Programmawet van 27 december 2004), but the Netherlands and Germany did not. Include such rule in respectively the Wet belastingen op milieugrondslag (Wbm) and the Wet op de accijns (WA), and the Energiesteuergesetz (EnergieStG).

applicable, their extraction, within the European Union (EU) or their importation into the EU.

7.3 State Aid

State aid rules limit the freedom of Member States in the European Union to grant reductions or exemptions from carbon taxes. Aid may be declared compatible with the Union law but it requires Member States to report to the European Commission.

State Aid has the following features:

- There has been an intervention by the State or through the State resources that can take a variety of forms (e.g. grants, interest and tax reliefs, guarantees, government holdings of all or part of a company, or providing goods and services on preferential terms, et.);
- The intervention gives the recipient an advantage on a selective basis for example to specific companies or industry sectors, or to companies located in specific regions;
- Competition has been or may be distorted;
- The intervention is likely to affect trade between Member States.

The TFEU leaves room for a number of policy objectives for which State Aid can be considered compatible.

Council Regulation No 994/98 of 7 May 1998, amended by Council Regulation No 733/2013 of 22 July 2013, enables the Commission to adopt so-called Block Exemption Regulations for State Aid. With these regulations, the Commission can declare specific categories of State Aid compatible with the Treaty if they fulfill certain conditions, thus exempting them from the requirement of prior notification and Commission approval.

Exemptions from eco-taxes may be considered State Aid¹⁵ in the context of the wider system of energy taxation in a Member State. Some Member States have introduced for national reasons parallel taxes and exemptions thereof forming components of one tax for the same purpose.

The European Commission is the guardian of the legislation. It provides for Guidelines on State Aid for environmental protection and energy¹⁶. In respect of carbon taxes the 2014-2020 version gives guidance on a carbon tax levied on energy products used for electricity production in which the electricity supplier is liable to pay the tax. Such a carbon tax can be designed in a way that supports and is directly linked to the Union ETS

¹⁵ For more information see Villar Ezcurra (2017).

¹⁶ The most recent are provided in the Communication from the Commission, Guidelines on State Aid for environmental protection and energy 2014-2020 (2014/C 200/01). [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0628\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0628(01)&from=EN).

allowance price by taxing carbon. However, the electricity price increases if those costs are passed on to the electricity consumer. In that case, the effect of the carbon tax is similar to the effect of ETS allowance costs being passed on and included in the electricity price, indirect emissions costs. It is irrelevant for these purposes whether the monitoring is done by a public or a private body. Therefore, if the tax referred to in paragraph (179) is designed in a way that it is directly linked to the EU ETS allowance price and aims to increase the allowance price, compensation for those higher indirect costs may be considered. The Commission will consider the measure compatible with the internal market only if the following cumulative conditions are met: (a) aid is only granted to sectors and subsectors listed in Annex II of the ETS State Aid Guidelines; to compensate for additional indirect cost resulting from the tax; (b) the aid intensity and maximum aid intensities are calculated as defined in paragraphs 27 to 30 of the ETS State Aid Guidelines. The ETS allowance forward price can be replaced by the level of the national tax; and (c) aid is granted as a lump sum that can be paid to the beneficiary in the year in which the costs are incurred or in the following year. If the aid is paid in the year in which the costs are incurred, an ex post monitoring mechanism needs to be put in place to ensure that any over-payment of aid is repaid before 1 July of the following year.

Several cases have been investigated by the European Commission. In 2002 the European Commission for example investigated the core of the Swedish energy tax system including a CO₂ tax reduction. Apart from the tax levied on fossil fuels, the energy tax was also levied on electricity. A full exemption from the energy tax used for heating in production processes to companies in the manufacturing sector and a 75% reduction was offered from the CO₂ tax for fuels used in the production processes by the manufacturing industry. The Commission accepted the Swedish argument that the CO₂ tax and the energy tax should be seen as one as they are levied on the same basis and both have an environmental steering effect. Thus they are in practice functioning as one tax with two components. Council Directive 92/82/EEC of 19 October 1992 on the approximation of the rates of excise duties on mineral oils allows Member States to add all the different taxes levied on a fuel. Moreover Sweden complied with point 51(1)6 of the then applicable environmental guidelines because undertakings pay a significant proportion of the tax (Lannering and Renner-Loquenz, 2003).

In 2016 the European Commission however did in principle consider the Swedish CO₂ tax design as a state aid to biofuels, but approved of a temporarily offered full exemption from the carbon tax for biomethane and other sustainable biofuels, for biomethane as a fuel until the end of 2020 and for other sustainable biofuels until the end of 2018¹⁷.

¹⁷ In February 2015 the Swedish government had applied for an extension of state aid approval for exemption for the Swedish tax exemption of biomethane as a fuel until the end of 2020 and for the tax exemption or tax credit of other sustainable biofuels than biomethane until the end of 2018. The European Commission

If a Member State does not change its legislation after the European Commission pointed out that a certain part of the legislation may be state aid the European Commission may start an infringement procedure, bringing the case to the European Court of Justice (ECJ). In respect of carbon taxes, tax rate reductions may be considered State Aid.

Several cases have been decided by the ECJ regarding direct and indirect carbon taxes and other energy taxes containing elements that might be considered as State Aid. To give a few examples: In the case *Adria-Wien Pipeline GmbH* C 143/99 – one of the leading cases on State Aid – the ECJ had to decide on a package of three laws adopted by the Republic of Austria, under tax reforms within the framework of the *Strukturanpassungsgesetz* (Structural Adjustment Law) 1996 (*BGBI.* 1996, No 201) and brought into force at the same time three laws, namely:

- the *Elektrizitätsabgabegesetz* (Law on the tax on electricity, 'the EAG');
- the *Erdgasabgabegesetz* (Law on the tax on natural gas, 'the EGAG');
- the *Energieabgabenvergütungsgesetz* (Law on the rebate of energy taxes, the EAVG).

The EAG provided for a tax of EUR 0.00726728 per kilowatt hour of electricity consumed. Pursuant to Article 1(1) of the EAG, the following were subject to electricity tax:

- the supply of electricity other than electricity supplied to electricity supply undertakings, and
- the consumption of electricity by electricity supply undertakings and the consumption of electricity produced by the consumer himself or imported into the territory covered by the tax.

By virtue of Article 6(3) of the EAG, the electricity supplier had to pass on the tax to the consumer. The EGAG contained similar rules for the supply and consumption of natural gas. The EAVG provided for a rebate of the energy taxes charged on supplies of natural gas and electricity under the EGAG and the EAG. Under Article 1(1) of the EAVG, those taxes had to be reimbursed on application in so far as they exceeded, in total, 0.35% of net production value. The rebate was paid after deduction of a maximum amount of the first ATS 5 000.

However, pursuant to Article 2(1) of the EAVG, only undertakings whose activity was shown to consist primarily in the production of goods were entitled to a rebate of energy taxes.

considered that the tax exemption in its entirety is an operating aid under the European Union law regarding state aid, but approved the exemption for the requested period. European Biogas Association, Sweden: Extended state aid approved for biomethane, <http://european-biogas.eu/2016/01/27/sweden-extended-state-aid-approved-for-biofuels/>.

Applications for a rebate from undertakings not satisfying the last mentioned condition – as in the case of Adria-Wien Pipeline GmbH, the first applicant in the main proceedings, whose principal activity is the construction and operation of oil pipelines – were rejected.

The ECJ ruled on the package of three laws and decided that neither the large number of eligible undertakings nor the diversity and size of the sectors to which those undertakings belong provide any grounds for concluding that a State initiative constitutes a general measure of economic policy. The Court also decided that the ecological considerations underlying the national legislation at issue do not justify treating the consumption of natural gas or electricity by undertakings supplying services differently than the consumption of such energy by undertakings manufacturing goods. Energy consumption by each of those sectors is equally damaging to the environment. There is nothing in the national legislation at issue to support the conclusion that the rebate scheme is restricted to undertakings which primarily manufacture goods is a purely temporary measure enabling them to adapt gradually to the new scheme because they are disproportionately affected by it. Thus the criterion applied by the national legislation at issue is not justified by the nature or general scheme of that legislation so that it cannot save the measure from being in the nature of State Aid.

In its decision of 11 December 2014 in the case T-251/11 concerning parafiscal levies¹⁸ in the Austrian Green Electricity Act the ECJ also ruled that a measure introducing “differentiations between undertakings which are, as regards the objective pursued, in a comparable factual and legal situation, without that differentiation arising from the nature and structure of the system of charges at issue” is State Aid. The aid was not compatible with the common market, as it did not reflect harmonization at EU level of taxation of renewable energy.

The EU General Block Exemption Regulation¹⁹ provides a presumption of compatibility with EU State aid law.

8 Constitutional considerations

The constitution poses several requirements in respect of taxes. Constitutions generally rule that the state may not levy any other charge than a tax. Contrary to fees taxes need to be enacted. Energy and carbon taxes are not only environmental policy instruments

¹⁸ Payments that an energy-intensive business must make to the green electricity settlement center ÖMAG (Abwicklungsstelle für Ökostrom AG) were limited to an amount corresponding to 0.5% of the net value of production of the previous calendar year.

¹⁹ Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty.

but also fiscal measures and as such must comply with all legal requirements for enacting them, including statutory consultation requirements and impact assessments.

There are also constraints on earmarking the proceeds of the environmental tax. Environmental taxes and therefore also energy and carbon taxes have an environmental purpose but if designed as taxes (in contrast to fees for services rendered) are as a rule part of the general state revenue and not instruments to finance specific tasks or objectives (Rodi and Ashiabor, 2012). Domestic legislation may allow earmarking environmental tax proceeds to finance specific environmental or social policy objectives, however not if constitutional rules prevent earmarking (see Dias Soares, 2012, p. 106). Earmarking is also not feasible if this impairs the rights of the budget legislator and the function of the state budget (Rodi and Ashiabor, 2012). It may also be that the actual tax legislating body is different from the body that is by law entitled to the revenue. In such situations earmarking tax proceeds has an added level of complexity.

9 Level of government implementing the measure

The legal competence to introduce a fiscal measure can lie with a central authority (on national or supranational level) or can be decentralized and rest with subdivisions like federal states or municipalities (Rodi and Ashiabor, 2012, p. 59). The power to introduce a particular tax is often fully reserved to one specific level of government, but there can also be concurrent authorities. If so, the lower level authority can act insofar as the higher ranking authority has not acted. This power is often regulated in the constitution. Depending on the particular objective to be attained different possibilities of implementation may be available to authorities but authorities must act within the competences attributed to it. This entails that at times the legal form of a measure may be dictated by the competence the acting authority enjoys. An authority that is for example not entitled to introduce a tax measure but is empowered to introduce a fee, may seek to package its measure accordingly. If an authority violates its competences by legislating a measure without actually having the authority to do so, it can be challenged in front of the court.

In the decision making process concerning the level at which the tax should be imposed a relevant factor is the impact of the pollution. If it has a global impact, this should be addressed by a global tax. A global tax may be desirable, not alone because this would prevent tax abuse through aggressive tax planning. According to Richard Bird a “simple uniform carbon tax would be better because it would force everyone to face the real (social) costs of their decisions. But no such tax is likely to be agreed upon in a diverse world in which obligations can be imposed on a sovereign state only with its consent and distributional concerns give rise to conflicting interests” (Bird, 2017). The highest legislative level for levying taxes is the supranational level. The European Union thus far does not levy taxes at European level as states want to remain fiscally sovereign. In the

EU some taxes are unified, implying that the rules are the same in every Member State, other taxes, amongst which energy taxes, are to a certain extent harmonized. Bird points out: "Even within the EU, where concerns about global warming have had most effect on policy, the fiscally expensive (and apparently not all that effective) path of quantitative controls and regulation combined with the subsidization of supposedly more carbon-efficient alternatives such as renewable energy sources (wind, solar) was chosen rather than tackling the deep public reluctance and industry resistance to imposing carbon taxes".

10 Concluding remarks

The overview of the legal aspects to the design of a carbon tax provided above shows many different aspects have to be taken into account in designing a carbon tax, both in respect of legal instruments to be used (tax, levy or fee) and the actual design of the tax.

Taking a legal perspective we add to the design issues mapped by the OECD (2011) that:

- multiple pricing, either by multiple instruments or through carbon taxes or other fiscal charges levied by different (tax) administrations (e.g. two countries or two levels of government) should be prevented;
- legal principles – legality, equality, legal certainty, legitimate expectation, fair play, public trust in tax administration, good faith, transparency, proportionality, non-retroactivity and estoppel – and the economically oriented OECD Ottawa Taxation Framework principles – neutrality, efficiency, certainty and simplicity, and effectiveness and fairness – should be taken into account; It should be clear who is taxed (the taxable subject also referred to as taxpayer), what is taxed (the tax base), what exemptions are provided (tax incentives) and what the costs to the polluters will be per unit of pollution generated (tax rate);
- the differences in legal implications of referring to the fiscal measure as a tax, a fee or a levy should be considered;
- adding the adjective 'environmental' to the name of the tax may have legal implications, as this may imply that revenue is earmarked for environmental purposes;
- in order to prevent that the burden of environmental policy is carried one-sided by energy-intensive industry designing the carbon tax or other environmental taxes as part of a package of environmental instruments may be preferable;
- the tax base may relate to production, specific purpose or emission of CO₂;
- in order to achieve the environmental goal it is of utmost relevance that the taxable event is consistent with the tax base;
- in time there should be only predictable changes to the law thus providing legal certainty, legitimate expectation and trust in tax administration;

- the revenue of a true environmental tax should be used to reduce other taxes as its objective is not collecting revenue;
- European law influences the design of carbon taxes in that the minimum requirements of the Energy Taxation Directive and the Excise Duty Directive must be met and the tax should not contain elements that might be prohibited state aid.

Climate agreements put pressure on policy makers to draft legislation that will change behaviour. Carbon taxation can play a key role in climate policy and for achieving long term emission reduction. This overview of economical and legal considerations may help in creating a sustainable, effective and efficient regulatory system for reducing emission. Levying a carbon tax at a European level would ease the design to a certain extent as in a European context no problems of multiple taxation or state aid would be encountered.

Acknowledgements

The research is part of the project 'CATs - Carbon Taxes in Austria: Implementation Issues and Impacts' that was funded by the Austrian 'Klima- und Energiefonds' and carried out within the Austrian Climate Research Programme ACRP.

11 Literature

- Baumol W.J. and W.E. Oates (1971), 'The Use of Standards and Prices for Protection of the Environment', Swedish Journal of Economics 73 (1), 42–54.
- Bird R.M. (2017), Are global taxes feasible?, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3006175.
- Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty.
- Communication from the Commission, Guidelines on State Aid for environmental protection and energy 2014-2020 (2014/C 200/01).
- Community Guidelines on State Aid for Environmental Protection (Community Guidelines on State Aid for Environmental Protection, (2008/C 82/01).
- Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.
- Council Directive 2008/118/EC of 16 December 2008 concerning the general arrangements for excise duty and repealing Directive 92/12/EEC.
- Council Directive 92/82/EEC of 19 October 1992 on the approximation of the rates of excise duties on mineral oils.
- Council Regulation (EC) No 994/98 of 7 May 1998 on the application of Articles 92 and 93 of the Treaty establishing the European Community to certain categories of horizontal State aid.
- Council Regulation (EEC) No 3037/90 of 9 October 1990 on the statistical classification of economic activities in the European Community.
- Council Regulation (EU) No 169/2011 Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity. Council Regulation (EU) No 733/2013 of 22 July 2013 amending Regulation (EC) No 994/98 on the application of Articles 92 and 93 of the Treaty establishing the European Community to certain categories of horizontal State aid Text with EEA relevance.
- Courchene T.J. and J.R. Allan (2008), Climate Change: The Case for a Carbon Tariff/Tax, Policy Options, available at March 2008, <http://irpp.org/wp-content/uploads/assets/po/obama-and-clinton/courchene.pdf>.
- Dias Soares C (2012) Earmarking revenues from environmentally related taxes, in Milne J.E. and M.S. Andersen (eds.), Handbook of Research on Environmental Taxation, Edward Elgar, Cheltenham.
- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, available at <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32003L0087>.
- European Biogas Association, Sweden: Extended state aid approved for biomethane, <http://european-biogas.eu/2016/01/27/sweden-extended-state-aid-approved-for-biofuels/>.
- European Commission (2016), Future Financing of the EU - Final report and recommendations of the High Level Group on Own Resources December 2016.
- Eurostat (2013), Environmental taxes, a statistical guide, Eurostat Manuals and Guidelines, available at <http://ec.europa.eu/eurostat/documents/3859598/5936129/KS-GO-13-005-EN.PDF/706eda9f-93a8-44ab-900c-ba8c2557ddb0?version=1.0> (last accessed 27 February 2017).
- Herrera Molina P.M. (2012), Design options and their rationales, in Milne J.E. and M. Skou Andersen (eds), Handbook of Research on Environmental Taxation, Edward Elgar, Cheltenham.
- Hillman J. (2013), Changing Climate for Carbon Taxes, Who's afraid of WTO?, <https://www.climateadvisers.com/wp-content/uploads/2014/01/2013-07-Changing-Climate-for-Carbon-Taxes.pdf>
- ISWA (2011), How to design an appropriate waste fee Principles, Practices and Applications of Waste Management Fees.
- Johnson R.W. and G. Brown (1976), Cleaning up Europe's Waters: Economics, Management and Policies, Praeger Publishers, New York.

- Kettner C. and D. Kletzan-Slamanig (2018), Energy and Carbon Taxes in the EU: Empirical Evidence with Focus on the Transport Sector, WIFO Working Paper No. 555, <http://www.wifo.ac.at/wwa/pubid/60972>.
- Lannerg J. and B. Renner-Loquenz, State aid and eco-taxes: bundling of eco-taxes for State aid Assessment, Competition Policy Newsletter, available at ec.europa.eu/competition/publications/cpn/2003_3_75.pdf.
- Metcalf G.E. and D. Weisbach (2009), 'The Design of a Carbon Tax', Harvard Environmental Law Review 33, 499–555.
- Milne J.E. (2014), Environmental taxes and fees: wrestling with theory, in Kreiser L., S. Lee, K. Ueta, J.E. Milne and A. Hope (eds.), Environmental Taxation and Green Fiscal Reform – Theory and Impact, 5–23.
- Milne J.E. and M.S. Andersen (2012), Introduction to environmental taxation concepts and research, in Milne J.E. and M.S. Andersen (eds.), Handbook of Research on Environmental Taxation, Edward Elgar, Cheltenham.
- Milne J.E. (2017), Carbon Tax Choices: The Tale of Four States, in Weishaar S.E., L. Kreiser, J.E. Milne, H. Ashiabor and M. Mehling (eds.), The Green Market Transition – Carbon taxes, energy subsidies and smart instrument mixes, Edward Elgar, Cheltenham, September 2017.
- OECD (1999), Economic instruments for pollution control and natural resources management in OECD Countries: a survey, OECD Glossary of Tax Terms, available at <http://www.oecd.org/ctp/glossaryoftaxterms.htm#T> (accessed 1 February 2017).
- OECD (2003), Implementation of the Ottawa Taxation Framework Conditions, <http://www.oecd.org/tax/administration/20499630.pdf>
- OECD (2010), Taxation, Innovation and the Environment, available at http://www.oecd-ilibrary.org/environment/taxation-innovation-and-the-environment_9789264087637-en
- OECD (2011), Environmental tax, A guide for policy makers, available at <https://www.oecd.org/env/tools-evaluation/48164926.pdf>.
- OECD (2013), The OECD Interpretative Guide, Annex A, available at <http://www.oecd.org/ctp/tax-policy/RS2013-OECD-Interpretative-Guide.pdf>
- OECD (2015), Addressing the Tax Challenges of the Digital Economy, 2015 Final Report, <http://www.oecd-ilibrary.org/docserver/download/2315281e.pdf?expires=1516180109&id=id&accname=guest&checksum=96A51C79AAB803A95DF3BDA8AFA3F5CE>.
- Otis J., 'Taxation without representation is tyranny', <http://www.dictionary.com/browse/taxation-without-representation>.
- Rodi M. and H. Ashiabor (2012), Legal authority to enact environmental taxes, in Milne J.E. and M. Skou Andersen (eds), Handbook of Research on Environmental Taxation, Edward Elgar, Cheltenham.
- Romano C. (2002), Advance Tax Rulings and Principles of Law Towards a European Tax Rulings System?, IBFD, Amsterdam, 281–384.
- Taylor M. (2012), 'Is it a levy, or is it a tax, or both?', *Revenue Law Journal*, **22** (1), Art. 7, <http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1229&context=rj>.
- Vanistendael, F., (200), No European Taxation without representation, EC Tax Review 200/3.
- Villar Ezcurra M. (2017), State Aids and Taxation in the Energy Sector: Looking for a New Approach, in Villar Ezcurra M., State Aids, Taxation and the Energy Sector, Thomson Reuters.
- Von Weizsaecker E.U. and J. Jesinghaus (1992), Ecological tax reform: a policy proposal for sustainable development, University of Chicago Press.