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Published in:
Milieu & Recht

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2020

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
Weishaar, S. (2020). EU Law limits to climate transition in EU Member States. *Milieu & Recht*, *2020*(1), 2-11. Article MenR 2020/2.

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Download date: 26-02-2024

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EU Law limits to climate transition in EU Member States

M en R 2020/2

The Member States of the European Union have stepped up their ambition to significantly reduce greenhouse gas emissions. Member States have to respect EU law when taking national measures such as carbon taxes. This paper examines the discretion of Member States to introduce national measures to foster a domestic climate transition with particular attention to State aid rules.

1. Introduction

Over the last decades concerns about climate change have been intensifying as Greenhouse gas (GHG) concentrations in the atmosphere continued to increase. Despite international efforts such as the Kyoto protocol and its Doha amendment[2] and various national or multijurisdictional measures including carbon taxation or emissions trading systems, GHG concentration in the atmosphere have increased by 41% between 1990 and 2017.[3] Alarmingly also the annual rate of increase in atmospheric carbon dioxide over the past 60 years is about 100 times faster than previous natural increases.[4]
In the Paris Agreement signatory countries agreed to strengthen the global response to climate change by keeping a global temperature rise well below 2 degrees Celsius above pre-industrial levels and vowed to strive to limit the temperature increase even further to 1.5 degrees Celsius.[5] Even if all Intended Nationally Determined Contributions submitted in the running up of the Paris Agreement were introduced and maintained, global temperature rise is likely to reach 3.1 – 5.1 degrees above pre-industrial levels by 2100.[6]
Jurisdictional climate change ambitions and approaches developed in the aftermath of the Paris Agreement differ markedly and so does their pathway towards de-carbonization of the economy. Also the European experience is very rich and versatile.

Climate change efforts in the European Union (EU) date back to the early 1990s. The European Commission tried to introduce a carbon tax[7] but it was not supported by Member States. In the context of the Kyoto Protocol discussions, the European Climate Change Programme was established in 2000 in order to support Member States to realize their climate goals and to help them realize the commitments under the Burden Sharing Agreement which redistributed the EU 8% reduction target among the EU Member States in accordance with their capabilities.[8] The EU legislator has inter alia, introduced the EU Emissions Trading System[9] and linked it to the Kyoto Protocol offsets,[10] proposed the ratification of the Kyoto protocol[11] and regulated fluorinated gases.[12]

The 2030 climate and energy framework includes EU-wide targets and policy objectives for the period from 2021 to 2030 and envisages at least a 40% reduction of greenhouse gas emissions (below 1990 levels), a 43% reduction of GHG emissions covered by the EU ETS (below 2005), at least a renewable energy share of 32% and at least an energy efficiency improvement of 32.5%. The targets for EU wide GHG reductions for 2050 are even more ambitious: 80% reduction below 1990 and a reduction of EU ETS covered emissions of 80% to 95% (below 2005 levels).

The European Union has assumed the task to significantly reduce greenhouse gas emissions and EU Member States have taken similar targets. Those targets are requiring a fundamental transformation of the underlying economies. Policy makers can design various policy instruments that can have important interaction effects. For example, the EU's Emissions Trading System's (EU ETS) functioning is increasingly undermined by Member State policy measures such as carbon tax schemes that threaten to reinforce the ETS waterbed effect,[13] indicating tension between national measures and EU policies. In order to rise to the challenge of realizing a climate transition, policy makers need economically efficient and environmentally effective measures at their disposition.

This article examines the discretion of Member States to introduce national measures such as carbon taxes or support

1 Stefan E. Weishaar is Professor of Law and Economics at the University of Groningen.
2 See T.J. Thurlings, Gevolgen van het Doha-amendement op het Kyoto-protocol voor het EU-ETS en de Effort sharing agreement, *M en R* 2015/147.
3 https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide, last viewed on 26th of November 2019.
4 The carbon dioxide concentrations measured by the Mauna Loa Observatory on Hawai'i measured in parts per million (ppm) have increased steadily and reached 409 ppm (August 2019) see https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide.
5 The Paris Agreement entered into force on 4th of November 2016, and is signed by 185 out of 197 parties to the UNFCCC convention.
6 Reilly et al., *Energy & Climate Outlook Perspectives from 2015*, Massachusetts Institute of Technology 2015.
7 Proposal for a Council Directive Introducing a tax on carbon dioxide and energy. *COM*(92) 226 final, 30 June 1992.
8 Document 9702/98 of 19 June 1998 from the Council of the European Union.
9 *COM*(2001) 581 final. This later gave way to Directive 2003/87/EC.
10 Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms *OJ* L 338, 13.11.2004, p. 18-23.
11 *COM*(2001) 579 final.
12 *COM*(2003) 492 final.
13 The water bed effect describes the situation where emission reductions of covered entities under a fixed emissions trading system that are attributable to a particular policy measure do not affect the overall emissions of the ETS. This is because the allowances that are not used by these entities will be used by other covered entities. See S.E. Weishaar, *Emissions trading design – A Critical Overview*, Cheltenham: Edward Elgar 2014, p. 68.

schemes to foster a domestic climate transition. Particular attention is of course paid to State aid rules as they constitute an important impediment in this respect.

In section 2 the article first presents the current (EU) targets that Member States have to attain. Section 3 briefly presents the relevant legal framework that constitutes indispensable background information as it governs the relationship between the EU and its Member States. Section 4 looks at State aid and section 5 at State aid examples and resulting legal constraints and implications for transition. A conclusion and reflection highlights the main points (section 6).

2. Member State's targets

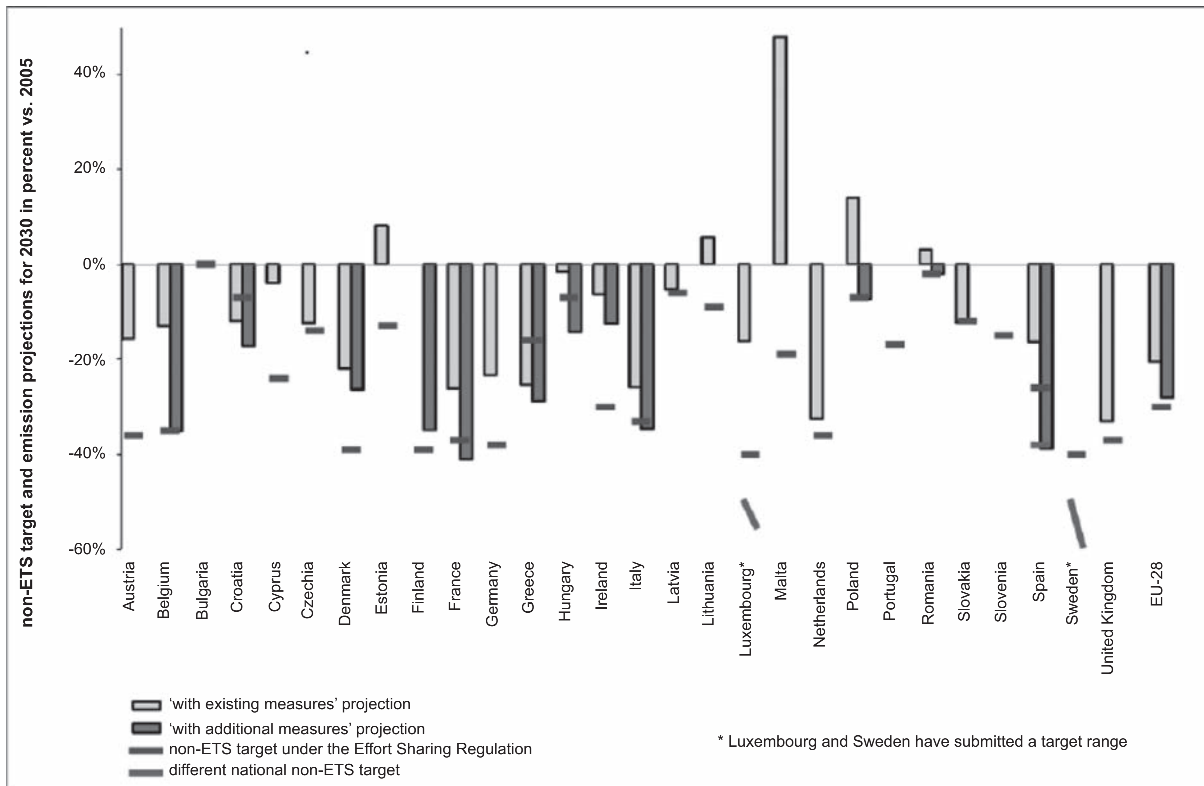
This section briefly presents the Climate change targets and what this entails for the economy. The EU ETS covers more than 40% of the EU's GHG emissions. Emissions from most sectors that are not covered by the EU ETS (e.g. transport, buildings, agriculture and waste) are falling under the EU 'effort-sharing' decision. The Effort Sharing Decision (ESD)[14] specifies binding Member State emissions targets for 2020 (below 2005 levels). According to the Effort Sharing Decision Member States must collectively reduce GHG emissions in sectors falling under the ESD by 10% below 2005 levels.

The 2018 Effort Sharing Regulation (ESR),[15] sets binding targets for EU Member States to reduce GHG emissions in the effort-sharing sectors by 30% by 2030 in accordance with the principles of fairness, cost-effectiveness and environmental integrity.[16] Reflecting different per capita income levels and hence different abilities of Member States to fight climate change, the ESR sets different targets for Member States. Targets range from 0% to 40% reductions below 2005 levels. The regulation continues the flexibility mechanisms that were already part of the ESD including banking, borrowing and transfers of emission allocations between Member States. However, it does not permit the use of international credits after 2020. Member States are allowed to use emissions removals in land-use sectors towards attaining their obligations.[17] Eligible Member States are also allowed to use a limited number of European Emission Allowances (EUAs).[18] Targets must be viewed in relation to the position of Member States in order to assess if they pose real challenges or not. EU Member States over all are projected to over achieve the 2020 target of a 10% reduction goal below 2005 levels and realize an overall reduction of 16%.[19] Ireland, Cyprus and Malta are projected to fail to meet their 2020 ESD targets by 20%, 12% and 11% while Belgium, Germany, Luxembourg, Austria and Finland will fall short by a narrower margin.[20] The Netherlands is projected to achieve its 2020 target.[21] Some other Member States, Spain, Luxemburg and Sweden, have decided to go beyond EU targets and set more ambitious national targets for their non-ETS sectors.[22] Overall the EDS goals appear to be realistic.[23]

The legally binding emission reduction under the ESR for 2030 (set at -30% below 2005 levels by 2030) by contrast poses a big challenge because the 2030 projections based on existing and projected measures are significantly falling short (only a 21% reduction below 2005 levels based on existing measures and only a 23% reduction with planned measures).[24] Strong member State efforts are therefore necessary to reach the targets. Under the Regulation on the Governance of the Energy Union and Climate Action Member States are obliged[25] to adopt integrated National Climate and Energy Plans (NCEPs) for the period 2021-2030. Member States submitted draft plans by the end of 2018 and are obliged to submit their final plans by the end of 2019. On the basis of the currently planned national measures contained in the draft NECPs the Union could already achieve a -28% emission reduction in non-ETS sectors (figure 1).[26] This constitutes significant progress compared to the projections reported above.

14 Decision 206/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of the Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, *OJ* L 140, 5.6.2009 p. 136.
15 Regulation (EU) 2018/842 of the European Parliament and the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (*OJ* L 156, 19.6.2018, p. 26).
16 Regulation (EU) 2018/842, Article 4.
17 Regulation (EU) 2018/842, Article 7.
18 Report from the Commission to the European Parliament and the Council EU and the Paris Climate Agreement: 'Taking stock of progress at Katowice COP (required under Article 21 of Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC)', *COM*/2018/716 final, 26.10.2018, p.5.
19 Report from the Commission to the European Parliament and The Council, *COM*(2018) 716 final, 26.10.2018, p. 6.
20 Report from the Commission to the European Parliament and The Council, *COM*(2018) 716 final, 26.10.2018, p. 9.
21 Report from the Commission to the European Parliament and The Council, *COM*(2018) 716 final, 26.10.2018, p. 9.
22 Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions, United in delivering the Energy Union and Climate Action – 'Setting the foundations for a successful clean energy transition', *COM*(2019) 285 final Brussels, 18.6.2019, SWD (2019)212final-SWD(2019)213final, p. 6.
23 The EEA coordinates the annual ESD review of Member States' greenhouse gas inventories, enabling the European Commission to assess on the basis of reliable data if the ESD targets have been reached. The latest data has been published on 31st of October 2019 and is available at https://www.eea.europa.eu/data-and-maps/data/esd-2.
24 See Report from the Commission to the European Parliament and The Council, *COM*(2018) 716 final, 26.10.2018, p. 6 and Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions, United in delivering the Energy Union and Climate Action – 'Setting the foundations for a successful clean energy transition', *COM*(2019) 285 final Brussels, 18.6.2019, SWD (2019)212final-SWD(2019)213final, p. 6.
25 Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, Article 9.
26 Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions, United in delivering the Energy Union and Climate Action – 'Setting the foundations for a successful clean energy transition', *COM*(2019) 285 final Brussels, 18.6.2019, SWD (2019)212final-SWD(2019)213final, p. 6.

Figure 1: Member States' 2030 Effort Sharing targets and greenhouse gas emissions with existing and planned measures



Source: European Commission COM(2019)285 final, p. 6

Moreover, the Renewable Energy Resources Directive[27] obliges Member States to attain a national renewable energy share in their gross final energy consumption in 2020 so that the EU reaches its 20% renewable energy target. Directive 2018/2001 introduced the 2030 EU target of at least 32% renewable energy share and Member States shall set national contributions to meet collectively the binding Union target.[28] Moreover, Directive 2012/27/EU set a Union-level target for energy efficiency improvements in 2030 to at least 32.5%.[29]

The above shows that Member States have to take action to meet their binding climate change reduction targets. Such action may give rise to tensions between EU and Member State approaches. These can for example derive from the interaction between national measures and the EU ETS. The introduction of carbon taxes for example can lead to a reduction of GHG emissions in the energy sector and hence reduce demand for emission allowances. This will give rise to two effects. Firstly, given the emissions cap, emission allowances that are not used in one Member State can be used by installations in other Member States. This displacement of emissions is called the waterbed effect. Secondly, it can give rise to a lower price of emission allowances which will reduce the attractiveness investing in alternative energy sources including renewable energy in sectors and jurisdictions not covered by a carbon tax.

The waterbed effect will in part be mitigated by Directive 2018/410 which substantially strengthens the Market Stability Reserve (MSR)[30] by temporarily doubling the feed-in rate of allowances. Until 31st of December 2023 the feed-in rate will be 24%.[31] From 2023 onwards the amount of allowances that can be held in the MSR will be restricted to the auction volume of the preceding year and any access will be cancelled.[32]

The above has shown that Member States need to take action to decarbonise their economies. Undoubtedly, the task of a climate transition is a daunting one as it requires a fundamental overhaul of the way the economy and society works. Member States will need to raise towards meeting

27 2009/28/EC, Article 3 and Annex I.

28 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, Article 3.

29 Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, as amended, (*OJ* L 315, 14.11.2012, p. 1).

30 Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC (*OJ* L 264, 9.10.2015, p. 1).

31 Article 2 of Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814, *OJ* L 76, 19.3.2018, p. 3-27.

32 Article 2 of Directive 2018/410 of 14 March 2018.

this new challenge set by the ESR until 2030 and to meet the much more ambitious 2050 targets and this might also entail the taking of novel policy approaches. Novel policy approaches will in particular be essential when the ambitious targets of the European Green Deal[33] of attaining 50% to 55% reductions by 2030 and carbon neutrality by 2050.

3. Relation between Member States and the EU

The ability of Member States to take measures for fostering a climate transition is determined by the legal relationship between them and the EU. This section of the article therefore briefly presents this legal relationship and shows how far the freedom of Member States to legislate in the area of climate change is constrained by EU law.

The restraints on Member State discretion to take measures for decarbonizing their economies derives from the distribution of competences but also from state aid rules which require that national measures (including fiscal measures) must be fully compliant with.

In the landmark case of Van Gend en Loos the ECJ established that Member States had created a special legal order that limited their sovereign rights.[34] In Costa v ENEL the ECJ clarified that domestic legal provisions cannot call Community law into question.[35]

Member States are required under Article 4(3) TEU to fulfil their obligations under EU law and to refrain from taking any measure that could jeopardize the realization of Union objectives – this is referred to as the principle of sincere cooperation. It also bears mentioning that the principle of conferral (Article 5(2) TEU) restricts Union action to the competences that were conferred upon it by the Member States. The principle of subsidiarity (Article 5(3) TEU) requires the Union to only act in areas of shared competences if and in so far as the objectives of the action cannot be sufficiently achieved by Member States.

EU law distinguishes between exclusive competences where only the Union has the right to act and shared competences where both the EU and Member States can act. Pursuant to Article 4(2)(e) TFEU environment is a shared competence. In this policy domain Member States can take action insofar as the Union is not exercising its competence (Article 2(2) TFEU). Member States are thus allowed to go beyond Union measures in the area of climate change provided that they do not undermine the efficacy of EU measures.

In the area of environment Article 193 TFEU allows Member States to take more stringent protective measures than those adopted under Article 192 TFEU, provided that they are compatible with the Treaties and notified to the Commission. The measure must fall within the field of application of a Union measure based on Article 192.[36] In addition the measure must pursue the same environmental and non-environmental objectives as the Union measure, be compatible with and of the same type as the Union measure, and pursue a higher goal than the Union measure or establish a stricter means.[37] In practice going beyond a Union measure can be difficult. The application of the national gift tax to the free allocation of Emission Allowances Units for example has been held not to fall within the scope of Article 193 TFEU because it pursued other objectives than the EU ETS directive.[38]

By contrast to climate change, competition policy is an area of law where the European Commission enjoys exclusive competence (Article 3(b) TFEU) entailing that the Commission is in the driving seat. Of relevance for the restriction of Member State policies in the area of climate change is in particular the application of a special area of competition law called EU state aid law. Broadly speaking, state aid rules prohibit Member States from granting 'aid' to economic actors unless such support is declared to be compatible with EU Law. National climate change measures must therefore comply with the general division of competences under EU law and respect State aid rules.[39]

Should a Member State not comply with its obligations under the Treaty, the European Commission is entitled to start an infringement procedure (Article 258 TFEU). The Commission does enjoy discretionary powers and can, for example, decide not to bring a procedure if there is sufficient evidence that the Member State has undertaken measure to remedy the breach. It is important to point at the margin of discretion because binding Climate law rules must be enforced in order to ensure their effectiveness.[40]

Should the Member State fail to comply with a judgement of the CJEU, the Commission can take further action under Article 260 TFEU and bring a case before the CJEU. The Court may then impose a fine. The fine may take the form of a lump sum payment in combination with a periodic payment.[41] This underscores that if Member States do not take action to attain their targets and foster a climate transition they can be forced to do so.

33 See *COM*(2019)640 final, Annex to the European Green Deal.
34 Case 26/62, Van Gend en Loos v Nederlandse Administratie der Belastingen (1963) ECR 1.
35 Case 6/64, Flaminio Costa v ENEL (1964) ECR 585.
36 L. Squintani, *Gold-Plating of European Environmental Law*, Groningen: University of Groningen 2013, p. 10.
37 L. Squintani, *Gold-Plating of European Environmental Law*, Groningen: University of Groningen 2013, p. 19.
38 HvJ EU 26 februari 2015, ECLI:EU:C:2015:120, *M en R* 2015/74, m.nt. M.G.W.M. Peeters.
39 S. van Hees also discusses the subject of environmental goals, state aid and other European subject. See S. van Hees, *Innovative Ocean Renewable Energy & EU Law; Towards the Integration of the EU's Environmental Economic and Renewable Energy Policy Areas*, 2018.
40 Marjan Peeters, 'EU moet Klimaatwetten ook handhaven', *NRC* 08.12.2019.
41 See Communication from the Commission - Application of Article 228 (now Article 260 TFEU) of the EC Treaty /* SEC/2005/1658. In case a Member States fails to communicate implementing legislation for a new Directive within the deadline, the Commission can already ask the Court to set a fine within the framework of the 258 TFEU proceedings, see also Communication from the Commission — Implementation of Article 260(3) of the Treaty 2011/C 12/01.

4. State aid rules

As mentioned above, State aid legislation is an exclusive competence of the Commission. It was introduced by the Treaty of Rome (1957) to prevent Member States to grant any aid to companies that would distort competition between companies and hence impair the functioning of the then so called Common Market.[42] Member State measures taken to foster a climate transition will therefore be examined under State aid legislation. In the past State aid has proven to be a substantial restraint of Member State ability to take action. Not only regarding measures falling within the area of environmental policy but even in the area of fiscal policy that is generally subject to Member State sovereignty.[43] This section of the paper briefly presents the State aid legislation before examining concrete cases where this area of law restrainted Member State actions.

Article 107(1) TFEU prohibits as being incompatible with the internal market any aid that is granted by a Member States or through state resources which distorts or threatens to distort competition through favouring certain undertakings or the production of certain goods in so far as it affects trade between Member States.[44]
All criteria listed below must be fulfilled in order to fall within the scope of State aid rules and the last two criteria are generally assessed jointly.
1) Transfer of a benefit or an advantage (notion of aid)
2) Aid favouring a certain undertaking over others (selectivity principle)
3) Granted by the state or through state resources
4) It should be an undertaking or production
5) Distorts or threatens to distort competition
6) Union dimension: aid which is capable of affecting trade between Member States.

The aid is prohibited unless it is accepted by the Commission to fall under one of the existing derogations (discussed below). The first three elements are likely to be more contentious in practice when Member States take environmental measures.

4.1 *Notion of aid*

State aid is a broad concept and is not defined as any attempt by the legislator would be self-defeating in the sense that it would restrict its scope.[45] Aid is assessed by means of an objective test of a transfer of an advantage[46] and is hence not measured or examined by means of the proclaimed aim of a particular State measure.

42 The granting of aid was also already prohibited under the 1951 Paris Agreement establishing the European Coal and Steel Community, Article 4.
43 H.C. Luja, 'Do State Aid Rules Allow European Union Member States to Claim Fiscal Sovereignty?', *EC Tax Review* 2016/5-6, p. 324.
44 See Article 107 TFEU.
45 A. Evans, *European Community Law of State aid*, Oxford: Clarendon Press 1997, pp. 484, p. 27.
46 T-67/94 Ladbroke Racing Ltd. V. Commission (1998) ECR II-00001, par. 52.

Aid is broader than subsidies as it also encompasses any intervention which mitigates charges that are normally due,[47] any tax exemptions,[48] exemptions from para-fiscal charges, preferential interest rates or loan guarantees,[49] the granting of preferential terms for goods, services or personnel,[50] etc. It also encompassing both direct aid to beneficiaries as well as aid indirectly granted to entities e.g. via support of personnel.

4.2 *Aid favouring a certain undertaking over others (selectivity principle)*

This criterion assesses if a measure favours certain undertakings or the production of certain goods over others which are in a comparable legal or factual situation, hence if a measure constitutes a selective State aid or if it's a general economic measure.[51] Laws and especially tax provisions are drafted in general terms so it is important to analyse the respective impact on a case by case basis.[52] Distinguishing between general and selective measures is complicated by the fact that it is not trivial to identify a 'general tax system' and its objectives that one could use as a benchmark to identify deviations. Moreover the actual number of beneficiaries covered by a particular measure can be very large and cover various sectors and still be selective. Measures are also selective if authorities enjoy too much discretion in granting aid.[53]

Measures that affect sectors differently are selective if the effects are not inherent in the tax system or cannot be justified on the basis of the nature or general scheme of the system.[54] As a derogation, this is interpreted narrowly. Considerations such as tax neutrality, tax avoidance, accounting requirements, the particular nature of a sector or activity or the redistributive nature of a tax have been accepted while enhancing competitiveness has not.[55]

In practice the selectivity criterion remains a stubborn and difficult to predict point in the State aid assessment. Clearly, a too wide interpretation of the concept of general economic measures would in essence create a 'derogation' to state aid rules that are assessed only after State aid has been established and provided in Articles 107(2) and 107(3) TFEU. Though of course it needs to be pointed out that if a Member State should be wrong in its interpretation and grant aid unduly, it can be ordered to recover all aid and interest up to

47 C-387/92 Banco de Credito Industrial SA v Ayuntamiento de Valencia (1994) ECR I-00877, par. 13.
48 C-387/92 Banco de Credito Industrial SA v Ayuntamiento de Valencia (1994) ECR I-00877, par. 14.
49 C-305/89 Italy v. Commission (1991) ECR I-01603, par. 18.
50 C-241/94 France v. Commission (1996) ECR I-04551, par. 35-37.
51 Case 173/73 Italy v Commission (1974) ECR-00709, par. 15 and C-487/06 P, British Aggregates Association v. Commission (2008) ECR I-10515, par. 82.
52 C. Micheau, 'State aid and taxation in EU Law', in: Erika Szyszczak (ed), *Research Handbook on European State Aid Law*, Cheltenham: Edward Elgar 2011.
53 C-241/94 France v Commission (1996) ECR I-04393, par. 23-24.
54 K. Bacon, 'The Concept of State aid: The Developing Jurisprudence in the European and UK courts', *European Competition Law Review* 2003, Issue 2, p. 59 and Case 173/73 Italian Republic v. Commission (1974) ECR-00709, par. 15.
55 See C. Micheau 2011, p. 203 and references therein.

10 years.[56] Recovery is very strict and will be effective even if it brings most dire consequences upon the aid recipient.

4.3 *By the state of through state resources*

In order to constitute aid within the meaning of the state aid rules, aid must be granted by 'the state' (including national, central, regional or local authorities and private bodies established by or appointed by the State to administer the aid)[57] or directly or indirectly constitute a burden on public accounts and hence be financed 'through state resources'.[58] For example, tax breaks encouraging certain entities to invest in environmentally technology will therefore constitute state aid as monies that are normally levied are not due.

Importantly an advantage granted through State action which does not entail financial burdens upon public authorities, does not constitute State aid.[59] According to *Preussen Electra*, the principle of sincere cooperation (now 4(3) TFEU) cannot be used to extend the scope of Article 107 TFEU to include measures that are decided upon by Member States but financed by private undertakings and are hence not directly or indirectly financed through state resources.[60] Therefore state measures which do not entail a transfer of state resources do not constitute State aid.

It also bears mentioning that the potentially positive effect a tax reduction or aid scheme might have on a Member State's budget is of no relevance within the context of the State aid evaluation.[61]

4.4 *It should be an undertaking or production*

EU Competition law uses the term undertakings to refer to entities which are engaged in an economic activity. The legal form or the way they are financed are not relevant for the assessment if an entity is falling within the ambit of Article 107(1).

4.5 *Distorts or threatens to distort competition*

If a state measure's introduction renders the competitive position of an undertaking more favourable in relation to actual or potential competitors, then the aid is held to constitute a distortion of competition within the meaning of Article 107(1) TFEU. In this context the direct and immediate effects of the aid measure on competition are examined. For assessing distortions of competition, no motivations or justifications for the state measure are considered.
Pursuant to Regulation 1407/2013 – the so called *de minimis* rule - Member States can grant up to €200.000 in aid to undertakings over a period of 3 consecutive years without being deemed to affect competition and hence not creating conflict with State aid rules.[62]

4.6 *Union dimension: aid which is capable of affecting trade between Member States.*

The EU law prohibition on State aid only applies in so far as it relates to trade between Member States. Consequently only distortions of competition relating to trade between Member States will be caught.

4.6.1 *Derogations*

Once a State measure falls within the ambit of State aid rules, it is prohibited as incompatible with the EU law unless declared otherwise.
Pursuant to Article 108(3) TFEU Member States have to notify all State aid to the European Commission and are prohibited to implement it unless approval from the Commission has been attained. An important derogation to the State aid restrictions is the General Block Exemption Regulation (GBER)[63] which declares certain categories of aid compatible with the Treaty if they meet clear conditions and exempts these measures from the requirement of prior notification and approval by the Commission. Member States are thus allowed to implement aid measures directly if they are in compliance with the GBER.

The GBER permits investment and operating aid for environmental purposes. It also allows reductions of environmental taxes under the Energy Tax Directive (ETD) (Directive 2003/29/EC) provided that the minimum tax levels of the ETD are levied and be selected on the basis of transparent and objective criteria.[64] Thus safeguarding that companies in a similar factual situation are treated the same.[65] Moreover the requirements of chapter I of the GBER need to be satisfied which includes especially the publication requirements of Article 9 GBER as the incentive effect as well as transparency requirements are presumed to exist (Article 6(5)(e) and 5(1) GBER) in the context of an energy tax measure.

The GBER is not the only state aid derogation available. Environmental aid can also be declared compatible with the internal market by the European Commission, e.g. on the basis that they further important projects of European interest (107(3)(b) TFEU) or that they support the development of certain economic activities or certain economic areas (107(3)(c) TFEU). In practice, the Commission relies on its guidelines which clarify how it intends to interpret these Articles.

56 See Articles 16 and 17 of Council Regulation 2015/1589 of 13 July 2015, *OJ* L 248/9 of 24 Sept. 2015.
57 Case 78/76 Steinike & Weinlig v. Germany (1977) ECR 00595, par. 21.
58 Case 82/77 Openbaar Ministerie v. Van Tiggele (1978) ECR 00025, par. 23-25.
59 T-613/97 Ufex and others v. Commission (2000) ECR II-4055, par. 108-110.
60 C-379/98 Preussen Elektra v. Schhleswag AG (2001) ECR I-02099, par. 59 and 63-65.
61 See C. Micheau 2011, p. 197.
62 Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid, *OJ* L 352, 24.12.2013, p. 1-8.
63 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, *OJ* L 187 26.6.2014, p. 1.
64 GBER Article 44(2).
65 L. Cazorla Prieto, 'Tax Incentive Schemes in the European Energy Electricity Sector', in: M. Villar Ezcurra (eds), *State Aids, Taxation and the Energy Sector*, Aranzadi Thomson Reuters 2017, p. 169.

For state aid concerning important projects of common European interest (107(3)(b) TFEU) the Communication on important projects of common European interest (IPCEI)[66] list several climate and energy related projects including:

- Energy 2020 — A strategy for competitive, sustainable and secure energy;[67]
- A policy framework for climate and energy in the period from 2020 to 2030;[68]
- European Energy Security Strategy;[69]
- Europe 2020 Flagship Initiative — Innovation Union;[70]
- A resource-efficient Europe — flagship initiative under the Europe 2020 strategy;[71]
- An Integrated Industrial Policy for the Globalisation Era — Putting Competitiveness and Sustainability as the Centre Stage;[72]
- Roadmap to a Resource Efficient Europe.[73]

Regarding Article 107(3)(c) TFEU (aid facilitating the development of certain economic activities or certain economic areas) the 'Environmental Protection and Energy Guidelines' (EEAG) are important as they specifically mention several climate and energy related derogations and offer legal certainty as to the interpretation of this provision.[74] The guidelines promote the introduction of auctioning and competitive bidding and encourage the market based approach to stimulating renewable energy.[75]

The above mentioned GBER, EEAG and IPCEI are all due to expire in 2020. In January 2019 the Commission declared its intention to extend them till the end of 2020 while evaluating them within the framework of the State Aid Modernisation Package.[76]

5. Constraints on transition

Previous sections have shown that Member States need to step up their efforts to reach the ambitious climate targets they have either assumed voluntarily or that directly follow from EU law. Member State actions are constrained by general EU law but also by State aid rules. This section of the paper reviews cases which highlight the tension between environmental measures by Member States and State aid rules and outlines how this affects the margin of discretion of Member States to take measures to foster transition processes. The first case regards Swedish biofuel taxation and the second one the Dutch NOx trading scheme.

In June 2017 the Swedish Parliament decided that the nation's net GHG emissions would be net-zero by 2045 and that by 2030 emissions from transports (excluding aviation) would be reduced by 70% vis-à-vis 2010.[77] The transport sector remains a challenge as also the vehicle fleet needs to adapt to the national ambition and support the attainment of the obligations under the ESR.

Sweden was one of the first countries to introduce a tax on the CO2 content of fossil fuels in 1991 and has achieved significant emission reductions. Because only fossil fuels result in net GHG increases the Swedish CO2 tax only extended to the fossil fuel carbon content of fuels. The Swedish CO2 tax was therefore levied on the carbon content in fossil fuels. The Swedish CO2 tax also applies ordinary tax rates to biofuels from non-sustainable sources even if they are GHG neutral.[78] This is motivated by Directive 2009/28/EC which obliges Member States to reach their renewable energy target in 2020 and that the renewable energy sources in all forms of transport must at least be 10%.[79] Since only biofuels that meet the specified sustainability criteria[80] can be counted towards this objective, only sustainable biofuels[81] are exempted from the CO2 tax.

According to the current Swedish rules, fuel suppliers are obliged to blend petrol and diesel with sustainable low blended biofuels.[82] Moreover, low blended biofuels and non-sustainable biofuels are subject to the same tax rates as fossil fuels. By contrast high-blended biofuels[83] are exempted from any CO2 tax (as of 1st of July 2018) in order to allow them to become a competitive alternative to fossil fuels and to incentivise the market penetration of high-blended biofuels.

The Commission held that exempting high blended bio fuels from CO2 taxes reduces tax income and constitutes a selective benefit to biofuel producers because other fuel producers are not freed from paying the tax.[84] Since the measure is also viewed to be capable to distort competition and to affect trade between Member States, the Commission decided that it qualifies as State aid.

As a consequence of the classification as 'State aid' and in order to be permitted to introduce the state aid measure, Sweden had to take various measures relating to monitoring, verification and evaluation. Annual monitoring re-

66 Communication from the Commission — Criteria for the analysis of the compatibility with the internal market of State aid to promote the execution of important projects of common European interest (IPCEI) *OJ* C 188, 20.6.2014, p. 4-12.
67 *COM*(2010) 639 final.
68 *COM*(2014) 15 final.
69 *COM*(2014) 330 final.
70 *COM*(2010) 546 final, 6.10.2010.
71 *COM*(2011) 21, 26.1.2011.
72 *COM*(2010) 614 final, 28.10.2012.
73 *COM*(2011) 571 final of 20.9.2011.
74 Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020, *OJ* C 200, 28.6.2014, p. 1–5.
75 L. Cazorla Prieto 2017, p. 171.
76 IP/19/182, 7 January 2019.
77 See European Commission SA.48069 (2017/N) – Sweden C(2017)6169 final of 14.09.2017.
78 Ministry of Finance, Annex I P.14.
79 See recital 8 and 9 of Directive 2009/28/EC.
80 See Article 17(2)-(5) of Directive 2009/28/EC.
81 See Article 17 of 2009/28/EC of 5.6.2009, *OJ* L140/16.
82 These are biofuels with a limited content of biomass.
83 High-blended biofuels are described as pure biofuels with a biomass content of 100%.
84 State aid SA 48069 (2017/N) Sweden C(2017) 6169 final of 14.09.2017.

ports have to be submitted to the Commission. These also must include updated cost calculations so as to ensure that beneficiaries are not overcompensated, i.e. that they do not receive more aid than necessary. The aid measure also necessitated the introduction of a verification system to ensure that no aid is claimed for food based biofuels that are produced by depreciated plants or by plants that started operations before 31st December 2013.[85] Where the potential distortion of competition is particularly high, the Commission can require an evaluation.[86] Given the large Swedish budget for this measure (0.35 billion Euros per year),[87] such a report will be drafted by the Swedish Energy Agency on the basis of an evaluation plan and submitted by 15 January 2020. These safeguard measures entail administrative costs for both Swedish administration and companies.

The Commission accepted the Swedish aid measure as being compatible with the internal market, but this implies that the scheme is time-barred as aid measures must also be temporary in nature. The date until Sweden can support high blended biofuels derives directly from the EEAG.[88] Pursuant to this all food based biofuels must be phased out by 2020. Therefore the extension of the EEAG to 2022 will not lead to a prolongation of the State aid measure. While there can be substantive policy reasons not to prolong the support to specific measures (as in the case of food based biofuels as discussed above), in general, one may wonder how effective aid schemes are in setting incentives for market actors for fostering a climate transition if they can only be implemented for a short period of time.

The Swedish biofuels shows that state aid measures entail a substantial administrative burden upon the Member State and also upon companies. Moreover, aid can be granted for a short period of time and only to the extent that it is necessary. The requirement to avoid overcompensation by risk of having to recover any undue aid entails that annual cost comparisons between high-blended biofuels and fossil fuels have to be conducted and that an incentive is created that fossil fuels are taxed less aggressively so as to limit the discrepancy between both types of fuel.

Similarly, the Dutch case presented below shows that the Commission is willing to use State aid rules to influence Member State's design of the aid scheme.

In 2005 the Dutch government introduced a Performance Standard Rate (PSR) System under which around 250 large installations were allowed to emit NOx emissions but they had to compare their actual emissions against a Government determined benchmark set in terms of emissions per unit of energy consumption. Companies earned 'credits' if they over-complied the benchmark and had to purchase 'credits' if they fell short.[89] The PSR system thus is similar to a credit and trade system but operated entirely by private entities; the credits were not allocated but automatically created by law in reference to the statutory benchmark.

The Commission decided that the Dutch NOx trading system constituted State aid. The Dutch government appealed. The Court of First Instance overturned the Commission's decision (T-233/04) on the grounds of selectivity, but in turn got corrected by the ECJ (C-279/08). The contentious issue was if the measure would be selective because it distinguished between large and small companies. The ECJ ruled that that the Commission did not have to show the existence of a general scheme or that small and large companies were in a comparable situation.[90] Moreover, it ruled that a differentiation between small and large emitters was not justified by the nature or general scheme and that the environmental objective was only considered in the context of State aid derogations rather than under 107(1) TFEU.[91]

The Dutch NOx case is, however, most interesting with regard to the criterion of being financed through state resources. The Commission argued that emission credits had a market value and that the Dutch Government was deliberately forgoing revenue because it chose not to sell the credits. The Commission and both European Courts were thus not following *Belgium Green Certificates*[92] where it was held that even though the certificates constituted intangible assets, the government did not forgo revenue because the certificates were mere proof of actual production which were not provided for free.[93]

The Commission and the European Courts presupposed – without examination – that the PSR system could be easily structured to incorporate the sale or auctioning of certificates. From a conceptual point of view, a PSR system is very different from a cap and trade system. One would have to decouple the creation of credits from the award of the credits. This is nonsensical because credits are created by outperforming the environmental benchmark. One would thereby disconnect the reward for environmentally friendly conduct from the actual investments undertaken by companies. It also undermines the incentives for underperforming companies to clean up. Demanding the sale of PSR credits is therefore not incentive compatible and not environmentally effective. Moreover, it is not economically efficient if

85 EEAG point 131(d).
86 EEAG point 28 and EEAG Chapter 4.
87 See State aid SA 48069 (2017/N) Sweden C(2017) 6169 final of 14.09.2017 at para 26.
88 Pursuant to the EEAG guidelines (point 113 and 121) food based biofuels can only be granted until 31st December 2020 and only until the plant is fully depreciated.
89 On this issue see R. Uylenburg e.a., *Een optimale instrumentenmix voor industriële NOx emissies*, Amsterdam: ACELS 2012.
90 Case C-297/08P, Commission v. The Netherlands (2011) ECR I-07671, par. 65ff.
91 Case C-297/08P, Commission v. The Netherlands (2011) ECR I-07671, par. 75 and 78.
92 European Commission (2001) Steunmaatregel nr N 550/2000 België Groenestroomcertificaten, SG(2001) D/290545, 25.07.2001.
93 European Commission (2001),) Steunmaatregel nr N 550/2000 België Groenestroomcertificaten, SG(2001) D/290545, 25.07.2001, pp. 5-6 and T-233/04, The Netherlands v European Commission (2008) ECR II-00591, par. 76.

it cannot be ensured that those companies with the lowest abatement cost structure actually are able to purchase credits (this is particularly important if credits were to be auctioned since a positive market price derives from scarcity). The willingness to pay that seemed to underlie the Commission's and the Court's presumption was also present in both *Belgium Green Certificates* and in *Preussen Electra*.
It is noteworthy that the ECJ and the Advocate General distinguished the Dutch NOx case from *Preussen Electra* by reference to the fact that *Preussen Electra* was based on a statutory obligation to fix real market prices and to oblige private parties to bear the costs[94] and that the resulting lower tax revenues were an inherent feature of the legislative provision.[95] Apparently including a cost effective trading element to the benefit of covered undertakings when The Netherlands could have been designing a different system was rendering the financial burden attributable to the state and hence constituting State aid.[96]

Given the administrative burden associated with a State aid measure, the Netherlands decided to discontinue the PSR system. It also bears mentioning that in the Environmental and Energy Guidelines under point 3.10, referring to permit trading systems, it is specified that auctioning has to be used entailing that any form of credit trading is effectively forbidden as it cannot be accepted under the derogations of Article 107(3) TFEU.[97]

The Dutch NOx case shows that the Commission is willing to take a more active role by influencing Member State policy design choices. One might think that the assessment under 107(1) and 107(3) TFEU are separate and that it is the prerogative of a Member State to design an environmental aid measure and that a measure is subsequently notified to the Commission, examined under State aid rules and either prohibited or declared compatible under one of the various derogations of Article 107(3) TFEU. In light of the shared competence of environmental law, it is questionable why the exclusive competence the Commission enjoys under state aid rules should be used as a vehicle to encroach upon the tasks of a Member State and if Member States are not better placed to determine the environmental measures they want to take to create the necessary impetus to overhaul the economy within the framework of a broad transition process.

94 C-379/98 Preussen Electra v Schleswag AG (2001) ECR I-02099, par. 66.
95 Case C-279/08 P, Commission v. The Netherlands (2011) ECR I-07671, para 110-112.
96 The additional argument by the Commission that the Netherlands was forgoing penalty payments by allowing covered entities to trade instead of to pay the fine could have easily been remedied by substituting the penalty payment by other obligations as for example obliging the management board to take part in environmental trainings.
97 Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020 *OJ* C 200, 28.6.2014, p. 1-55.

6. Conclusion and reflection

The preceding sections have shown that in order to meet the climate change challenge, Member States are required to bring about a substantial transition of their economies. In the area of environmental policy, a shared competence, Member States in principle enjoy discretion in designing and selecting measures they deem fit and are mainly constrained by their obligation not to jeopardize the efficacy of EU Law. They are in principle entitled to take more far reaching measures but their discretion is limited by Article 193 TFEU. Especially in the area of (environmental) taxation, Member State sovereignty is enshrined in the TFEU.[98]

In practice, however, State aid rules hinder Member States from exploring innovative designs and taking cost effective measures in the emerging policy area of climate transitions. The Swedish case shows that there is a substantial administrative burden for governments and companies resulting from the State aid classification which all else equal, makes the measure more expensive. Cost effectiveness is important, however, because people generally seem to expect environmental policy measures to solve several problems at the same time and because unmitigated effects of such measures are often times regressive and lead to social conflict. Needless to point out that social support is a key element in fostering a lasting transition process.
Besides the cost efficiency, also the environmental effectiveness of the Swedish measure is undermined by the fact that it is time barred and phased out by the end of 2020. The measure is unlikely to trigger substantial investments if companies would not be convinced to have a successful business model within the next few years and car buyers might carefully examine their decisions as well. Market based instruments such as tax measures, need to be incentive compatible to develop their full effect and to guide transition processes and ideally would sketch a long term development path to guide investments and to avoid stranded assets.

Moreover, the requirement to avoid overcompensation in aid schemes entails that the Swedish government is incentivized to conservatively tax fossil fuels so as to mitigate the risk of overcompensation of biofuels and the threat of aid recovery. This undermines the steering effect of the overall Swedish carbon tax and its environmental effectiveness.

State aid rules do not only place a burden on the cost effectiveness and environmental efficiency of a measure, but also constitute a restraint to the design choices available to Member States, as exemplified by the Dutch NOx case. In this case a system was held to meet the State aid criteria of being financed by state resources because it was not using auctioning even though that would have been running counter the state measure's design.

98 See Article 192(2) TFEU which requires unanimity.

The above assessment has important implications for fostering climate transition and for the behaviour of Member States. In practice Member States shy away from the heavy administrative burden resulting from measures qualified as State aid. Instead they try to fit in most of their measures within the framework of the GBER, upon which around 96% of all aid measures are based.[99]
But perhaps the task of largely decarbonizing the economy in a few years time is so daunting that Member States would like to explore innovative, more efficient and more effective measures to meet the challenge.

State aid rules were introduced in the Treaty of Rome in order to avoid undue distortions of competition and welfare-decreasing aid competition between Member States and to support the creation of the internal market. State aid rules are therefore serving an important function in EU Competition law and in fostering and protecting the internal market. These rules were, however, introduced at a point in time when the realization of the gravity of the climate change problem was not yet well understood nor politically embraced. Similarly, the environmental rules such as the Energy Tax Directive that are used as a benchmark are old and reform attempts to update them towards current needs have been unsuccessful. It therefore appears that the current legal framework constitutes a conservative force in the climate transformation process that obstructs rather than enables innovation and change. In light of the grave environmental challenges, it would be useful to reassess the hierarchy of policy priorities, allowing for better guided and more effective environmental aid which allows Member States more discretion in designing cost efficient and environmentally effective long term environmental measures to guide climate transition.

99 IP/19/663 of 24 January 2019.