From the Emissions Trading System to the Role of Private Law in Environmental Protection. Notes for Research

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Abstract

The essay moves from a description of the emission trading system, as regulated by international agreements and European directives, focusing on the measures contemplated therein.

Starting from these premises, two aspects come to attention: first, the interaction between private and public law instruments in the construction and functioning of the market mechanisms; second, the effective suitability of such mechanisms to pursue the environmental purposes which, ultimately, represent (or should represent) the end purpose of the regulatory provisions.

There is, however, a problem of value consistency between the environmental purposes underlying the regulations of this market. Actually, the importance of the environmental issue seems to require more incisive forms of regulation than those that can be ensured by market dynamics.

I. Air Pollution and the Strategy to Contain Greenhouse Gas Emissions; Summary of the Regulatory Framework

In this contemporary era, the question of the contamination of the ecosystem and its consequences has reared its head in a sudden and even dramatic way. After decades, if not centuries, during which certain activities – industrial activities, transport services, etc – have been performed without particular concern for the environment, society today finds itself having to face new, unexpected events and phenomena, such as rising temperatures, the alteration of the normal hydrological cycle and sudden extreme weather phenomena, which sometimes place under great stress the structure of the terrain, as well as local infrastructures that man has constructed.

It is an obvious, but not irrelevant, observation that the extent of the above-mentioned events is indeed global, in the sense that they transcend national borders. Therefore they require a reaction and, more generally, the adoption of strategies which – at least in the first instance – must be on the level of international public law, which therefore develop into international agreements

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and – when possible, as in the case of the European Union – into regulatory acts of supranational scope. With reference to the specialised literature on the subject, one must perforce mention the Kyoto Protocol, dating back to 1997 and subsequently amended by the Paris Agreement of 2015,[1] as well as certain European directives and regulations;[2] the former (directives) have later been implemented in Italy.[3]

Said initiatives aim to limit the release into the atmosphere of so-called greenhouse gases, ie polluting emissions which – due to the 'greenhouse' effect – lead to the overheating of the earth's surface and oceans and, consequently, to alterations in the ecosystem. The pursuit of the aforementioned aim requires intervention *a posteriori* in anthropogenic activities that have now become consolidated practices, which often generate wealth and well-being for the subjects who control them or who, in any case, are involved in the same in various capacities (entrepreneurs, shareholders, workers, financiers, etc).

In an attempt to summarise extremely briefly a scenario that is sometimes very complex from a technical viewpoint, for the aforesaid purposes a programme of regulatory measures has been drawn up featuring a mixture of elements of private and public law,[4] with the intention of thus maintaining the reference to the traditional categories recognised by classical legal experts. This approach stems from the belief that purely authoritative tools will be insufficient and/or useless, and that it is therefore necessary to also adopt reward mechanisms, or incentives, based on market logics and, therefore, of a contractual nature.[5]

[1] See M. Montini, 'Riflessioni critiche sull'Accordo di Parigi sui cambiamenti climatici' *Rivista di diritto internazionale*, 719 (2017). See also A. Chiappetta and A. Gaglioti, 'Sviluppo sostenibile ed Emission Trading Scheme. Ipotesi ricostruttive per il mercato europeo della CO2' *Amministrazione in cammino*, 10 (2011).

In literature, the problem known as carbon leakage has quite rightly been pointed out; it refers to the re-location of companies from a regulated area to an unregulated part of the world, which leads to the risk of distorting the system itself. On this subject, see B. Pozzo, *Il nuovo sistema di Emission Trading comunitario* (Milano: Giuffrè, 2010), 83; G. Lo Schiavo, 'Emission trading e tutela dell'ambiente: quali obblighi per le imprese in vista dell'entrata in vigore della terza fase?' in G. Alpa et al eds, *Rischio di impresa e tutela dell'ambiente* (Napoli: Edizioni Scientifiche Italiane, 2012), 267; K. Peterková Mitkidis, 'Using Private Contracts for Climate Change Mitigation' 2 (1) *Groningen Journal of International Law*, 55 (2014).

[2] European Parliament and Council Directive 2003/87/EC of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC [2003] OJ L275/32; and European Parliament and Council Directive 2009/29/EC of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community [2009] OJ L140/63.

[3] See decreto legislativo 13 March 2013 no 30; decreto legislativo 4 April 2006 no 16. On the implementation of the directives in question under Italian law, see F. Giglioni, 'The Allocation of CO2 Emission Permits in Italy', in P. Adriaanse et al eds, *Scarcity and the State II* (Cambridge: Intersentia, 2016), 123; see also F. Gaspari, 'Tutela dell'ambiente, regolazione e controlli pubblici: recenti sviluppi in materia di EU Emission Trading Scheme (ETS)' *Rivista italiana di diritto pubblico comunitario*, 1155 (2011).

[4] On this subject, V. Jacometti, *Lo scambio di quote di emissione* (Milano: Giuffrè, 2010), 26.

[5] See C. Camardi, 'Cose, beni e nuovi beni, tra diritto europeo e diritto interno' *Europa e diritto*

Again extremely briefly, the public authority, specifically identified in advance by the legislator, establishes the maximum limit of emissions that can be allowed over a given period of time (the calendar year) in the area under its competence (generally determined on a national basis). Said limit is then distributed among the operators which, in the area in question, carry out the activities that generate the polluting emissions. As a result, each operator is assigned a certain annual emission allowance, which is to say a certain quantity of polluting emissions that may be produced by the activity of each single operator. If the established limit is exceeded, the operator in question will be fined by the competent authority.

However, a single operator does not necessarily produce the maximum amount of its allowed emissions. In fact, the emissions attributable to an operator's activity may remain below the established threshold if, for example, the operator has made investments to reduce emissions. In such a case, the operator in question does not take avail of its full 'allowance' of emissions produced by the relative polluting activities, and the surplus can be made available to other operators, which – *viceversa* – produce higher levels of pollution and find themselves unable to comply with the limits assigned to them by the competent authority. Thus, a demand for additional allowances is created by such operators, which can be met by the offer of allowances by a less-polluting operator.

In this way, a market for emission allowances arises,[6] in which, on one hand, there is a demand from the 'polluters' (ie, those who fail to respect the threshold set by the competent authority) and, on the other hand, an offer by the more 'virtuous' operators (ie, those who keep their emissions below their thresholds, due to their pollution-reducing efforts).[7] The mechanism is therefore designed to encourage operators to reduce greenhouse gas emissions, since they can thus monetise the reduction obtained, making it available to other operators.[8]

The description of the theoretical model can then be completed with the case in which, in addition to or as an alternative to the prior assignment of pollution rights, the competent authority organises an auction system, in which it is precisely the emission allowances that are for sale. In this scenario, the individual operator is

privato, 974 (2018); as well as M. Clarich, 'La tutela dell'ambiente attraverso il mercato' *Diritto pubblico*, 220 (2007). On this subject, see also M. Cecchetti and F. Grassi, 'Le quote di emissione', in R. Ferrara and M.A. Sandulli eds, *Trattato di diritto dell'ambiente* (Milano: Giuffrè, 2014), II, 304, which recalls the preceding preference for a system of environmental taxation and the successive evolution towards the current framework, which should balance the counter-posed needs of protecting the environment and of achieving sustainable development. Also mentioned by G. Mastrodonato, 'Gli strumenti privatistici nella tutela amministrativa dell'ambiente' *Rivista giuridica dell'ambiente*, 710 (2010).

[6] On this subject, F. Annunziata, 'L'atmosfera come bene negoziabile. I contratti di cessione di quote di emissione tra tutela dell'ambiente e disciplina del mercato finanziario', in M. Lamandini and C. Motti eds, *Scambi su merci e derivati su commodities* (Milano: Giuffrè, 2006), 778.

[7] See B. Pozzo, n 1 above, 5.

[8] On this subject, with clarity, see C. Camardi, n 5 above, 973.

faced with a choice: either to invest in pollution reducing technologies, or to allocate financial resources in order to purchase additional allowances and thus avoid the penalties otherwise applied for exceeding the limit.[9]

At this point, the system described above hinges entirely on the emission allowance, the legal nature of which has been the subject of discussion from the viewpoint of both private and public law. Recalling the literature already published on the subject,[10] it would seem that a solution to the question has been found by an arrangement in accordance with Commission Regulation (EU) no 1031/2010 of 12 November 2010 on the timing, administration and other aspects of auctioning of greenhouse gas emission allowances pursuant to Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowances trading within the Community [2010] OJ L 302/1, which leads to the probability of emission allowances, once created, being assimilated to financial instruments. This, in turn, leads to their inclusion within the scope of application of the Markets in Financial Instruments Directive[11] and Markets in Financial Instruments Directive II[12], with all the consequences of the case in terms of the obligations of information, transparency and professional correctness on the part of the intermediaries involved in the individual transactions.[13]

In this way, a process has been completed which, from the outset, had recognised the need to develop a secondary market for the allowances.[14] In other words, a clear regulatory plan can be recognised, aimed at ensuring that emission allowances are considered 'liquid' assets, which is to say assets that can easily be traded on the market. It should be noted, not only between operators

[9] On this subject, V. Jacometti, n 4 above, 9, as well as M. Cecchetti and F. Grassi, n 5 above, 305.

[10] The debate is summed up by F. Giglioni, n 3 above, 126-127, where ample references are given; see also F. Gaspari, n 3 above, 1164.

[11] European Parliament and Council Directive 2004/39/EC of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC [2004] OJ L145.

[12] European Parliament and Council Directive 2014/65/EU of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU [2014] OJ L173/349.

[13] A clear illustration is given by F. Mocci and J. Facchini, 'La nuova disciplina delle quote di emissioni tra MiFID II e MAR' *Rivista di diritto bancario*, 11-14 (2016).

The evolution of the emission allowances market in the financial sense has been outlined perspicaciously by F. Annunziata, n 6 above, 778.

On this subject, see also V. Jacometti, n 4 above, 121.

[14] See M. Cecchetti and F. Grassi, n 5 above, 308, who observe that the negotiable allowances can, alternatively, be held as reserves (banking), or for borrowing (as assets to be borrowed/loaned) between different periods of regulatory obligation compliance. On this subject, see also G. Lo Schiavo, n 1 above, 270; as well as F. Mocci and J. Facchini, n 14 above, 2; V. Jacometti, 'La direttiva Emissions Trading e la sua attuazione in Italia: alcune osservazioni critiche al termine della prima fase' *Rivista giuridica dell'ambiente*, 280 (2008).

directly involved in the aim of reducing pollution and the greenhouse effect, but also among third parties,[15] such as financial intermediaries and, above all, their customers, ie private and public investors which – in this way – bet on the trend in the reduction of emissions and, therefore, on the impact of said emissions on the ecosystem.[16]

Before closing this technical description, it may be worth recalling that a system similar to that illustrated above also exists in other sectors,[17] such as that of renewable energy in which incentives exist for the use of energy that is 'clean' from an environmental viewpoint.[18] In this case, the relative legislation pursues the aim of inducing operators (ie, producers and importers of electricity) to ensure that a certain amount of energy produced or imported comes from renewable sources.[19] Once the target has been set, the operators in question can either produce renewable energy themselves or buy the equivalent quota from companies that carry out this activity. In this case, therefore, the quantity of renewable energy used is certified by the so-called green certificates, which therefore become a 'commodity' to be traded between electricity producers and industrial operators burdened by the obligation of introducing renewable energy into the system. The operators are thus called upon to choose whether to produce this energy due to their own structural investments, or to buy it from subjects which already produce it, and which will therefore be encouraged to produce more.

Also in this sphere, therefore, suppliers and customers of renewable energy quotas become counterparties, and the consequent trading of the quotas is fostered, in order to achieve the goal pursued by law which is, namely, an increasing use of renewable energy sources featuring modest environmental impact.

[15] On this subject, F. Giglioni, n 3 above, 128.

[16] On the secondary market which is thus generated, and on the relative functioning, see F. Mocci and J. Facchini, n 14 above, 7. Considerations on this point are expressed by B. Pozzo, 'Le nuove regole dello sviluppo: dal diritto pubblico al diritto privato', in *Benessere e regole dei rapporti civili. Lo sviluppo oltre la crisi* (Napoli: Edizioni Scientifiche Italiane, 2015), 97. The author specifies that the emission allowance instrument functions efficiently when the number of companies operating on the market is high; the presence of a limited number of operators could lead to a paralysis of the circulation of pollution rights, since companies could decide not to exchange rights, thus preventing new companies from entering the market.

[17] At this point, it is necessary to mention the extension of the scheme to air transport (European Parliament and Council Directive 2008/101/EC of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3, implemented in Italy by decreto legislativo 30 December 2010 no 257), which has given rise to a lively dispute with overseas countries; on this subject, for an initial view, see F. Gaspari, n 3 above, 1156.

[18] See *amplius*, M. Clarich, n 5 above, 232-234.

[19] Extensive analysis in V. Colcelli, 'La natura giuridica dei certificati verdi' *Rivista giuridica dell'ambiente*, 179-181 (2012).

II. Issues: 1) The Role of the Public Entity

The system briefly described above reveals interesting aspects from a legal viewpoint, which, for that matter, becomes apparent from an examination of the literature on the subject. In particular, with regard to private law, attention is focused on the legal nature of the emission allowances and on the fact that the allowances can represent tradeable assets.[20]

This path of research confirms the sensitivity that contemporary civil scholars show towards the concept of the market and its dynamics, thus developing a profitable dialogue with other disciplinary fields, also outside legal science in the strict sense.

Starting from these premises, a different research path is illustrated below, focusing essentially on two aspects: first, the interaction between private and public law instruments in the construction and functioning of the market mechanisms resulting from the legislative framework.[21] Second, the effective suitability of such mechanisms to pursue the environmental purposes which, ultimately, represent (or should represent) the end purpose of the regulatory provisions.

Therefore, starting from the first of the theoretical issues, the debate that has developed so far on the subject aims to emphasise the artificial nature of the market that legislation has intentionally created progressively around emission allowances.[22] It is a market which, in fact, does not exist in nature, in the sense that it does not arise spontaneously from the relationships between individuals and/or other subjects recognised by the legal system. On the contrary, this market necessarily requires the existence, upstream, of an action carried out on the initiative of a public authority, which first and foremost defines the total amount of pollution allowances which it then distributes among the potential polluters.

It can be seen, however, that the role of the public authority goes much further, since it regulates the functioning of the market in an incisive way. It is sufficient to consider, at this point, the choices regarding the criteria for assigning the allowances to the various operators involved,[23] and in particular, the adoption of a system based on the previous industrial history of each specific operator (known as *grandfathering*), or the preference for an auction system,[24] therefore a

[20] See, in particular, C. Camardi, n 5 above, 972; as well as E. Lucchini Guastalla, 'Il trasferimento delle quote di emissione di gas serra' *Nuova giurisprudenza civile commentata*, 290 (2005).

[21] Considerations in P. Lazzara, 'La regolazione amministrativa: contenuto e regime' *Diritto amministrativo*, 342 (2018).

[22] See C. Camardi, n 5 above, 975; as well as M. Clarich, n 5 above, 225. On this subject, see also V. Jacometti, *Lo scambio* n 4 above, 9; M. Cecchetti and F. Grassi, n 5 above, 305.

[23] Extensively illustrated by V. Jacometti, *Lo scambio* n 4 above, 103-105, in which the so-called cap-and trade systems are examined, as well as the baseline-and-credit systems. On this subject, see also M. Cecchetti and F. Grassi, n 5 above, 306-307, as well as F.L. Gambaro, 'Il recepimento della direttiva "Emissions Trading" ' *Contratto e Impresa Europa*, 537 (2007).

[24] Which ought to be the preferable system, at least when functioning regularly; on this subject, A. Gratani, 'Le "quote" per inquinare: a titolo gratuito o oneroso?' *Rivista giuridica*

system based mainly on a competitive logic.[25]

The market mechanisms, ie, the private law provisions on which the market is based, gain relevance only after the decisions have been adopted by the aforementioned authority. For example, in a system of competitive auctions the commercial attractiveness of the 'legal asset' represented by the emission allowance is strictly linked to the way in which the public authority has calibrated the competitive value of the allowance.[26] In particular, it is linked to its capacity to render effectively comparable the alternatives of investing either in the financial instruments represented by the allowances or in the technologies that reduce polluting emissions.[27]

Therefore, it can be said, perhaps provocatively, that the market exists if, and to the extent that, it is made possible by the decisions adopted by the administrative authority.[28] This statement leads to considerations regarding a particularly delicate matter which, in essence, concerns the extent to which the decisions taken by the public administration in this specific sphere should be subject to control and review.[29] From an examination of case records, it appears

dell'ambiente, 396 (2013).

[25] This point is of particular importance, both in the relationship between companies competing on the same market and in the relationships between States with different levels of development. On this subject see F. Giglioni, n 3 above, 133; as well as V. Jacometti, *Lo scambio* n 4 above, 114. With regard to this second aspect of the problem, interesting considerations can be found in K. Peterková Mitkidis, n 1 above, 57.

[26] This point is illustrated by V. Jacometti, *La direttiva* n 14 above, 278.

[27] Discussed by B. Pozzo, *Le nuove regole* n 16 above, 97. The author states that the instrument of pollution rights minimises the individual and collective costs of reducing emissions, since reductions occur when their cost is lower. In addition, it represents an effective incentive for technical progress in the field of pollution control technologies. The public authority, in fact, cannot keep updated on all the technical possibilities available to individual plants, while the flexibility of tradable pollution rights makes it possible to exploit the full potential of the technological initiative of private operators, which is a strong stimulus for innovation. See also V. Jacometti, *Lo scambio* n 4 above, 108.

[28] C. Camardi, n 5 above, 975 and 987, focuses on the central role played by the discretion exercised by the appointed authority. On this subject, see also M. Cecchetti and F. Grassi, n 5 above, 305, in which the functions performed by the public authority in this sphere are illustrated in depth.

[29] Interesting statements were given, for example, by the European Court of Justice in Case C-203/12 *Billerud Karlsborg AB* v *Naturvårdsverket*, Judgment of 17 October 2013, available at www.eur-lex.europa.eu: *'27. The overall scheme of the directive is thus based on the strict accounting of the issue, holding, transfer and cancellation of allowances, the framework for which is provided for by Article 19 thereof and requires the establishment of a system of standardised registries through a separate Commission regulation. That accurate accounting is inherent in the very purpose of the directive, consisting in the establishment of a Community scheme for greenhouse gas emission allowance trading, which aims to reduce greenhouse gas emissions in the atmosphere to a level that prevents dangerous anthropogenic interference with the climate system, with the ultimate objective of protection of the environment (….). As observed by the Commission, in introducing itself a predefined penalty, the Community legislature wished to shield the allowance trading scheme from distortions of competition resulting from market manipulations.*

28. In that regard the Billerud companies' argument to the effect that they cannot be blamed for excessively environmentally harmful conduct must be rejected. Article 16(3) and (4) of the

that there have been a rather limited number of lawsuits, although the statements of principle are not devoid of interest, as will be illustrated further below.

Anyway, such cases arise from disagreement between, on one hand, the public administration vested with the power to 'set up' the market and, on the other hand, the single industrial operator which complains of prejudice to the organisation of his own productive activity. However, from the records of the (limited number of) lawsuits, a profile which would probably merit attention has not yet emerged: the reference regards the interests of the inhabitants and the consequences that they suffer – actually or potentially – as a result of the decisions taken by the public authority in this field. On further examination, moreover, the fixing of the emission allowances, both the total amount and the allowances of each single industrial plant, affects the population living in the area in which the polluting emissions occur, as well as the anthropic activities that take place in that area.

Therefore, there is some basis to the conclusion according to which society in the area concerned and/or the individual claimants have a legally relevant interest worthy of protection also as regards to the decisions taken by the public authority. Against this conclusion, it could be objected that the provisions of the competent national authority are, in fact, the 'offspring' of the system of international rules (regulations and/or agreements)[30] briefly referred to in the initial part of this contribution. The objection could have weight in a lawsuit, but – at least from the theoretical doctrinal point of view – it introduces another very delicate issue, which ultimately involves the identification of the subjects empowered to protect the environment,[31] in this specific case the atmosphere.

The subject is obviously too vast to be adequately examined here. However, at least one aspect deserves to be mentioned, namely concerning the transparency of the decision-making process through which the activity of the public entity in this field passes.[32] The assumptions and criteria that guide the authority in determining the total amount of emission allowances and their distribution should be available to and 'traceable' by the community concerned, precisely because of the direct impact of said allowances on the individuals and on their activities.

directive has as its object and effect to penalise not 'polluters' generally, but rather those operators whose number of emissions for the preceding year exceeds, as at 30 April of the current year, the number of allowances listed in the section of the surrendered allowance table designated for their installations for that year in the centralised registry of the Member State to which they report under Article 52 of Regulation No 2216/2004. This – and not the emissions which are per se excessive - is how the concept of 'excess emissions' is to be construed' (our underlining).

[30] On this subject, F. Giglioni, n 3 above, 125; B. Pozzo, *Il nuovo sistema* n 1 above, 6. Also mentioned in M. Cecchetti and F. Grassi, n 5 above, 320, who emphasise the progressively increasing role of the European Commission in respect of the Member States.

[31] The question of legitimacy with regard to private regulatory law is clearly expressed by M.W. Hesselink, 'Private Law, Regulation, and Justice' 22 *European Law Journal*, 693 (2016).

[32] On the risk of the "capture of the regulator" in this field, see F. Giglioni, n 3 above, 135; as well as P. Lazzara, n 21 above, 352.

The considerations expressed below are based on the belief that the protection of environmental assets (understood in this case – at least in the first instance – as the healthiness of the air) is a question of legally relevant interest, for the protection of which widespread legitimacy can be recognised. In my humble opinion, this is a necessary conclusion if one wishes to adopt a constitutionally-oriented interpretation of the provisions in question.

This first part of the analysis, therefore, aims to overcome the, as it were, solipsistic approach which seemed to appear in certain legal discussions on the subject. It is true that the market of emission allowances is an artificial market, based, first, on the decisions taken by the competent authority and, second, on the decisions adopted by the (industrial and financial) operators that trade on this market. The legal expert that pays attention to the system as such, however, cannot and must not forget that the ultimate reason behind the 'invention' of this market is the pursuit and, hopefully, the achievement of an environmental purpose, namely the reduction of polluting emissions and the protection of the ecosystem.

III. (Continued): 2) The Role of the Market

The time has now come to analyse more closely the role that the private law measures play in the regulatory strategy aimed at containing greenhouse gas emissions. As already mentioned, there is a tendency in specialist literature to emphasise that the implementation of these measures arises from the need to overcome the so-called mechanisms of command and control, of a purely authoritative nature.[33]

This approach is based on a certain number of needs: first, the awareness of the difficulty in altering, from the outside and during 'work in progress', the methods by which certain industrial and production activities are performed, activities that have developed (and which often prosper) due to the absence of specific provisions. Second, and relatedly, the need to avoid direct conflict with important economic operators and the consequent risk of litigation. More generally, emphasising the global, and therefore transnational, nature of the problem of atmospheric pollution, the adoption of purely authoritative instruments obviously clashes with the difficulty (*rectius*, impossibility) of identifying a recognised authority which can be considered as empowered to issue binding prescriptions to all potential polluters, regardless of their nationality and, therefore, of their respective roots in the jurisdiction of a specific national state.

In light of these premises, the regulatory strategy for the containment of polluting emissions was therefore developed on the basis of the introduction of measures of a consensual nature, which would allow the adoption of incentive mechanisms. In other words, instead of imposing an (impractical) authoritative

[33] See n 5 above.

reduction of emissions, a regulatory system has been created which – at least ideally – aims to reward the operator which achieves this result. The reward consists of avoiding financial penalties resulting from exceeding the limit and of (potentially) obtaining the additional economic benefits generated by the 'marketing' of unused emission allowances.

In the above-outlined scenario, the legal expert's technical work consisted firstly of precisely defining the notion of emission allowance, qualifying it as an asset that can be precisely identified and traced.[34] Second, the circulatory mechanisms of the asset thus identified were regulated; the culmination of this development was the 'arrival' of the asset within the sphere of financial intermediation, at which point complex rules became involved to regulate the functioning of a given market and to identify the behaviour which the relative players had to adopt.

It is not within the scope of this work to dwell on the technical aspects of this evolution and, above all, of the connection to the rules of financial intermediation. Nevertheless, this extension is not without consequences from a systematic point of view; the legal expert who pays attention to this perspective, therefore, must perforce make certain considerations, at least as regards the viewpoint of 'values' and 'principles'.

Proceeding step by step, it must first be emphasised that, in this way, the scope of circulation of the allowances has been extended to a wider circle of subjects than the polluters (virtuous and non-virtuous), since it also includes professional investors and third parties. This corresponds to a significant change in the overall approach of the regulatory strategy: the restricted circulation directly counterposed 'polluters' and virtuous operators, and therefore entailed easily measurable consequences at the environmental level.

However, circulation according to the techniques of financial intermediation also attracts and involves other operators, external to the environmental problem, as well as subjects with their own autonomous investment objectives.[35] At least at first sight, this extension lends itself to a double interpretation: for the virtuous operator, it fosters the circulation of the allowance, which becomes more attractive and, by effect, encourages tradeable wealth. For the non-virtuous operator, the opposite reaction is generated, since access to the allowance, as a financial instrument, is now easier and therefore more attractive, at least potentially, compared to the actual reduction of polluting emissions.

In practice, therefore, the fact that the allowances become tradeable assets introduces, within the initially envisaged incentive mechanisms, a new manner of measuring their value, which depends on their performance, as securities, on the market and, more generally, on the factors that influence investment decisions. In this scenario, the individual entrepreneur could find it more convenient to bet –

[34] On this subject, V. Jacometti, *Lo scambio* n 4 above, 428-429; M. Clarich, n 5 above, 229; F. Mocci and J. Facchini, n 14 above, 4.

[35] This point is examined by F. Gaspari, n 3 above, 1161-1162.

also in the medium-long term – on the performance of the asset instead of deciding to reduce the polluting emissions generated by his production activity.

This does not mean that market trading should be disparaged, nor the important role that it plays in contemporary society in supporting productive activities and in the creation of wealth and well-being.[36] However, there is a problem of value consistency between the environmental purposes underlying the regulations in question and the contribution that can derive from the connection with the logic and dynamics of financial intermediation.[37]

The potential conflict between the two perspectives is admirably considered by our administrative case law, with words that are useful to report in full:

> The monetisation of pollution allowances that are exceeded, through the purchase of green certificates, if it represents a legitimate alternative to the primary obligation to use renewable sources, cannot however constitute virtuous behaviour. In fact, as this Council of State has already advised (division VI, 6 July 2006, No. 4290), the behaviour of operators that have merely purchased those certificates cannot be rewarded, since this choice, in addition to being less virtuous, does not produce any increase in production capacity from alternative sources, which increase represents the real objective pursued by the legislator (European and Italian).[38]

The declaration regards renewable energy and green certificates, but there is no doubt that, in terms of value, the statement of principle contained therein can also be extended to the sphere of polluting emissions and greenhouse gases. With the intention of tracing the threads of the discussion so far, the above consideration provides food for thought on the continuing relevance of the 'polluter pays'[39] principle, according to which for some decades now has inspired the introduction of regulatory measures on environmental matters – at least at European level.[40] Already at first glance, it can be seen that the principle is based

[36] However, see the considerations of G. Ferrarini, 'Il Testo Unico della Finanza 20 anni dopo' *Rivista delle società*, 5 (2019).

[37] On this potential conflict see F. Annunziata, n 6 above, 798; the author recognises the difficulty of attaining a balance between protection of the environment and protection of the financial market. In decidedly more explicit terms, see M. Cafagno, 'Cambiamenti climatici tra strumenti di mercato e potere pubblico', in G.F. Cartei ed, *Cambiamento climatico e sviluppo sostenibile* (Torino: Giappichelli, 2013), 115.

[38] Consiglio di Stato 17 June 2014 no 3051, in the reasons; in the same sense, also Tribunale Amministrativo Regionale Lazio-Roma 16 March 2010, nos 4086 and 4090. All these decisions are available on the electronic database dejure.

[39] M. Meli, *Il principio comunitario "chi inquina paga"* (Milano: Giuffrè, 1996) is still up to date, especially in the part in which she illustrates the historic origin of the principle and its theoretic bases (see pages 26 and 51, with specific reference to atmospheric pollution).

[40] The point is explicitly discussed by G. Conte, 'Rischio di impresa e tutela dell'ambiente. Nuovi paradigmi di governo delle decisioni e nuovi modelli di ripartizione delle responsabilità', in G. Alpa et al eds, n 1 above, XXIII. Also mentioned in F. Fracchia, 'Cambiamento climatico e sviluppo sostenibile: lo stato dell'arte', in G.F. Cartei ed, n 38 above, 22.

on the assumption that there is some kind of equivalence between environmental values and market dynamics, which inevitably leads to supposing that the former can be substituted by the latter.

Certainly, from the historic viewpoint, the idea on the basis of which the protection of the environment can be monetised has performed a merit-worthy function, as it has induced the productive and entrepreneurial classes to internalise to some extent the environmental variable within their respective cost structures. Nevertheless, the facts lead us to maintain that the environmental problems are probably more serious than we are inclined to suppose and that, as a result, more incisive regulatory measures are needed than those that can derive from the recourse, albeit 'induced', to market dynamics.[41]

IV. Prospects for Investigation

The examination carried out in the above paragraphs opens up numerous prospects for investigation and research, entrusted to the sensitivity of the individual interpreter. Within this range, the legal expert who pays attention to the system as such probably tends to question the role and function of private law in today's socio-economic context.

The historic path followed by this branch of legal science gives us the idea of a system that tends to be self-referential, and in any case certainly autonomous and independent from the other partitions of the legal system. In the legal tradition of the western world, the zenith of this path is probably the Napoleonic coding, deeply characterised by the affirmation of bourgeois individualism on the surrounding reality, including – as far as relevant in this case – that composed of the environment and natural resources. As it is well known in Italy, this approach continues to be a significant feature of university courses.

In the meantime, however, a two-fold evolutionary path can be observed. On a purely internal level, the system of private law has been progressively enriched thanks to the 'contamination' of (*rectius*, interaction with) the Constitutional Charter and, above all, with the table of values represented therein, which is still highly relevant.[42] Because of this interaction, the implementation of constitutional principles and values passes (also) through the traditional institutions of private law, as can easily be seen by an examination of the evolution of case law trends on property, contracts and civil liability, not to mention the areas regarding family law and succession. Even without wishing to enter into

[41] Consistently, M. Meli, n 40 above, 72, observes that the literature in question falls back on so-called second-best solutions: it does not aim at an optimal level of contamination, but only at an acceptable level. This assessment is linked to considerations of a political nature, which confirm the difficulty of putting into practice the theoretical model described by the economists.

[42] On this subject see P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-comunitario delle fonti* (Napoli: Edizioni Scientifiche Italiane, 3rd ed, 2006), 192.

the merits of the individual issues, one cannot help noting that the institutions of private law have become instruments for the pursuit of purposes that lie outside its historically delimited sphere, being rooted in a different text, namely the Constitution.

Taking the liberty of using a provocative expression, there is thus a sort of exploitation of private law,[43] and this phenomenon is even more evident if one considers the evolution of European law.[44] In this regard, the relationship is, indeed, no longer represented in terms of values, but becomes purely technical, in the sense that under the European unitary system the institutions of private law become functional towards the economic policy objectives expressed by its own legislative acts and, in particular, its regulations and directives.[45]

As it is well known, the institutions of private law are characterised by their (generally) consensual nature, as well as by their main aptitude to satisfy idiosyncratic interests. These elements help to explain its wide use also by public authorities in order to meet the general needs underlying their respective institutional mission.

However, it is legitimate to ask whether this approach maintains its lasting effectiveness in the case of the protection of the environment and the safeguarding of natural resources, which – as mentioned in the introductory part of this work – call for increasingly more urgent and incisive measures. To put the question in more explicit terms, can environmental protection actually be achieved through the market (ie, the instruments of private law)? Or is it necessary to rethink the relationship between the idiosyncratic approach and the authoritative approach, moving the point of balance towards strengthening the role of the latter at the expense of the former?[46]

[43] Which, incidentally, leads to the need to rethink the fundamental categories of private law. For comments in this sense, with reference to the institution of the contract, see E. Gabrielli, 'La nozione di contratto e la sua funzione. Appunti sulla prospettiva di una nuova definizione di contratto' *Giustizia civile*, 309 (2019).

[44] Lucid considerations in G. Vettori, 'Il diritto privato europeo fra legge, Corti e diritti' *Rivista trimestrale di diritto e procedura civile*, 1350 (2018). On the difficulties, especially the methodological and interpretative difficulties, of this path, see the recent work of E. Bargelli, 'La costituzionalizzazione del diritto privato attraverso il diritto europeo. Il Right to respect for the home ai sensi dell'art. 8 Cedu' *Europa e diritto privato*, 59 (2019). In foreign literature, without pretending to be exhaustive, see H. Collins, 'The Revolutionary Trajectory of EU Contract Law Towards Post-national Law', in S. Worthington et al eds, *Revolution and Evolution in Private Law* (Oxford: Bloomsbury, 2018), 315; M.W. Hesselink, n 32 above, 683; P. Verbruggen, 'Introduction: Regulating Private Regulators: Understanding the Role of Private Law' 27 (2) *European Review of Private Law*, 177 (2019); O.O. Cherednychenko, 'Rediscovering the public/private divide in EU private law' 26 (1-2) *European Law Journal*, 6 (2019); Ead, 'Public and Private Enforcement of European Private Law: Perspectives and Challenges' 23 (4) *European Review of Private Law*, 481 (2015).

[45] Within the vast literature, see, in particular, H.W Micklitz, 'The Visible Hand of European Regulatory Private Law – The Transformation of European Private Law from Autonomy to Functionalism in Competition and Regulation' 28 (1) *Yearbook of European Law*, 28 (2009).

[46] On this subject, a clear-cut position is taken by M. Libertini, 'Persona, ambiente, sviluppo: ripensare la teoria dei beni', in *Benessere e regole dei rapporti civili* n 16 above, 481.

Although modest, it can be seen that the Italian experience provides a clearly positive answer to this last question if one merely considers the role of liability in tort, first exalted by legge 8 July 1986 no 349, strongly revised twenty years later in the Consolidated Law on the Environment,[47] in favour of the greater space given to public administration initiatives.[48] To come to the specific subject of this work, it is easy to add that the parties to a contract by which the emission allowance is exchanged (a trading scheme based on that of derivatives) simply aim to pursue their individual wealth,[49] without necessarily caring for 'external' environmental matters.

In fact, the use of a mercantile (or market-based) logic to prevent the contamination of environmental resources entails an underlying conceptual flaw, as it presupposes that environmental resources can have a cash value and, as such, can be the subject of trading transactions.[50] This conviction itself represents progress compared to an approach according to which these resources would be free for appropriation without the involvement of any counterparties,[51] as was believed for a long time, for that matter, and which continues to be maintained in many social and territorial contexts.

However, the importance, if not the urgency, of the environmental issue seems to require more incisive forms of regulation than those that can be ensured by market dynamics.[52] This opinion is also expressed by the arguments that pay attention to inter-generational balance and, therefore, to the duty of each generation to leave the 'common home' in (relative) order for their descendants.

It is therefore possible to catch sight of a *pars construens* of regulatory strategies and instruments which will inevitably also result from an in-depth review of the traditional institutions of private law. An arduous task, but certainly worthwhile, given the importance of what is at stake.

47 Decreto legislativo 3 April 2006 no 152.

48 On this subject, see U. Salanitro, 'Responsabilità ambientale: questioni di confine, questioni di sistema' *Juscivile*, 508 (2019).

49 See the clear comments of M. Barcellona, 'I derivati e la circolazione della ricchezza: tra ragione sistemica e realismo interpretativo' *Europa e diritto privato*, 1104 (2018); see also, however, the considerations of M. Pennasilico, 'Sviluppo sostenibile, legalità costituzionale e analisi "ecologica" del contratto' *Persona e mercato*, 38-39 (2015).

50 Comments in this sense in B. Pozzo, *Il nuovo sistema* n 1 above, 96. Recalling Harding's thesis notes on the so-called tragedy of the commons, the author states that the underlying idea of transferable pollution rights (economic instruments of a proprietary type) consists of the theory according to which environmental degradation is the result of the incomplete attribution of proprietary rights relating to the use of the natural resources.

51 Comments by M. Clarich, n 5 above, 219.

52 On this subject see also M. Libertini, n 46 above, 489.