The Subsidization of Renewable Energy in the WTO: Issues and Perspectives

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Abstract

This article attempts to answer various questions. It starts by asking whether renewable energy, which plays a crucial role in the mitigation of climate change, is in need of public support, and, if so, what guidelines should be followed to ensure its efficiency in relation to its goals. Assuming that certain subsidies to support renewable energy may be ‘good’, the central question, which occupies much of the analysis, is whether the current regulatory framework, notably WTO subsidy disciplines, does recognize appropriate autonomy to domestic measures of support. The scenario is one of diffuse legal uncertainty. On the one hand, for various reasons, some of the most common measures of support of renewable energy still have an unclear status under the legal definition of subsidy of the SCM Agreement. Further, energy markets are significantly regulated and distorted, which adds up to the difficulty of determining whether a certain action does confer a benefit or may cause adverse effects. A crucial claim is that the uncertainty of the legal assessment produces a constraint on policy space. Further, beside legal uncertainty, some of the legal standards show how the perspective of trade rules, based on principles of general applicability, neutrality and non-discrimination, may be different from, and indeed at odds with, the policy and best practice prescriptions which seem to favour specific and targeted interventions.

The conclusion is that the current WTO subsidy rules are not satisfactory. This conclusion supports the case for a legal shelter that, in a clear and positive way, would define what types of government interventions are legitimate and what are not. In the absence of specific rules, the applicability of GATT Article XX to such measures has emerged as a credible but controversial alternative. Only a new discipline of legitimate renewable energy subsidies, however, would enable to tailor the new exceptions to the needs of justification in the most appropriate way. In this regard, a blueprint for law reform and few guidelines (transparency, synergy of hard and soft governance, sense of community) have been sketched, and the possibility of using the EU law on State aid as source of inspiration considered.

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I. INTRODUCTION

Almost two-thirds of greenhouse gasses (GHGs) come from energy. A comprehensive strategy to reconcile growing energy needs with carbon pollution reduction is required. On the one hand, energy efficiency – the ‘low-hanging fruit’ of the carbon reduction debate - should be increased. At the same time, the dependency of the modern economy on heavily polluting, and significantly subsidized, fossil fuels should be tackled. The possibility of reducing and eventually replacing this dependency is an important element of any rational and effective climate change strategy. Energy from renewable or alternative sources plays a key role in this regard. A recent study of the Intergovernmental Panel on Climate Change (IPCC) suggests that, if sustained by the right policies, energy from renewable sources could satisfy all energy needs. It is often noted that renewable energy faces various obstacles and that, under certain conditions, public action may be necessary to support and complement the market.

In this context, trade and trade rules play a crucial role. On the one hand, more trade in renewable technology and energy entails more efficiency to the ultimate benefit of the environment. On the other hand, the policies that are increasingly used to support renewable energy may run counter WTO rules. Against this scenario, the goal of this paper is to enquire whether, assuming that governmental intervention is needed, the WTO regulatory framework, and in particular the discipline of subsidies, offer appropriate policy space, and, if not, what directions law reform should take.

II. ARE RENEWABLE ENERGY SUBSIDIES GOOD OR BAD?

Several policies can be deployed to support a greener economy and renewable energy in particular. The usual tool-box of incentive and disincentive measures comes into play. A tax can be imposed on carbon emissions. The disincentive to emit, and hence the incentive to be more efficient and invest in more cost-effective green technologies can also be achieved through market-based instruments where a price is put on emissions and linked to tradable permits. Alternatively, economic resources can be transferred to firms that invest in renewable energy or to consumers that buy it. Governments thus use, for example, grants, loans and loan guarantees, tax incentives and a variety of regulatory schemes which guarantee minimum demand or price support.

But is public support, in general and more specifically in the form of subsidization, needed? What are its effects? Is the desired goal to support renewable energy and,

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2 As of the year 2000, of global GHGs emissions, mostly CO2, 65% were attributable to energy (with the remaining 35% respectively deriving from agriculture, 14%, land use, 18%, and waste, 3%). See N. Stern, The Economics of Climate Change: Stern Review (Cambridge: Cambridge University Press, 2007, executive summary, iv.

3 Renewable energy comes from renewable natural sources. The definition of renewable energy is broad, encompassing bioenergy, direct solar energy, geothermal energy, ocean energy and wind energy. In terms of use, these sources of renewable energy are used to produce electricity, thermal or mechanical energy and generate fuel.


6 Although ‘stick’ and ‘carrot’ should not be seen as mutually exclusive but, quite often, synergetic.
through this, mitigate climate change achieved? In simple terms, are renewable energy subsidies ‘good’ or ‘bad’?

Subsidies may add distortions to the market functioning rather than removing them, can encourage inefficiency and rent-seeking behaviour, when introduced are difficult to be removed, and may ultimately be ineffective towards their stated aims, or, more simply, may not be needed in presence of altruistic and environmental friendly behaviour.\(^7\) The minimum suggestion coming from this array of concerns is that, if the decision to grant subsidies is taken, they should be properly designed in relation to their objectives so that their incentive effect is maximized and its costs and distortions are kept to the minimum. But, more radically, there is a need to enquire the justification of the decision to subsidize itself.

Standard economic analysis posits that public intervention may be warranted whenever the market fails to provide desirable public goods or to tackle externalities of various kind. According to the Stern Report, climate change is the ‘greatest and widest-ranging market failure ever seen’.\(^8\) The development and deployment of renewable energy faces various obstacles which may justify the use of subsidies. There are financial and market, infrastructural and regulatory, information-related barriers.\(^9\) For example, we have the typical externality scenario of R&D where firms do not invest in innovation because other firms could free-ride and rape the benefits without sharing the costs. With the exception of biomass, another financial barrier is the high capital investment (as opposed to low input cost) required by renewable energy plants. The centralized character of existing grid-infrastructure is also a structural obstacle to the deployment of renewable energy which often requires small-scale technology, in remote locations and capable of handling large fluctuations of electricity generation. Insufficient or incorrect information, as well as lack of social acceptance and entrenched behaviours, are among other hindrances. Further, some renewable energy technologies, like some types of bioenergy or geothermal energy, are not technically mature or commercially available yet.\(^10\)

One of the most significant obstacles is constituted of the pricing externalities of renewable energy and fossil fuel. Indeed,

neither the benefits of [renewable energy technologies] nor the true costs of fossil fuels are included in their prices, making [renewable energy electricity] relatively expensive and fossil fuel relatively cheap from a perspective of net societal good.\(^11\)

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7 For a review of the literature outlining these problems see SZ Bidgeli, ‘Resurrecting the dead? The Expired Non-Actionable Subsidies and the lingering question of “green space”’ (2011) Manchester Journal of International Economic Law, 2-37.
8 Stern, n. 2 above, executive summary, i.
10 IPCC Special Report on Renewable Energy Sources (SRRES), May 2011, Summary for policy-makers, Box SPM.1.
11 Beaton and Moernhout, n. 9 above, 8.
In this regard, apart from the costs of high GHGs emissions, the costs of the often significant and deep-rooted subsidization of fossil fuels should be considered. In other words, it is the lack of internalization of all positive and negative externalities that is often making renewable energy less competitive than fossil fuel.

Although the presence of these obstacles may justify, at least in principle, public support to renewable energy, what is not clear is what type of action is best. The complexity of the scenario certainly warrants a comprehensive approach. Carefully designed and targeted subsidies can play a significant but only a partial role. The policy action in support of renewable energy should have a programmatic character where all individual policy tools work in synergy with each other.

Public support of clean energy finds its justification in a mix of policy objectives: environmental goals connected to the mitigation of climate change, social and economic goals (like job creation and industry support), energy security. This variety of goals is of importance not only when it comes to test the cost-effectiveness of the policy in relation to its aims but also, as we are about to see, in the context of its legal assessment.

The question of the desirability and effectiveness of public support to renewable energy is a question of industrial policy. Harvard economist Dani Rodrik has noted how in many respects the institutional framework is more important than the specific policy tool chosen. This does not certainly mean that the choice and design of the instrument of intervention is not relevant. But that certain conditions of the institutional and procedural framework are of essential importance for the success of any policy intervention. Rodrik identified information and coordination externalities as the two biggest obstacles to industrial policy. This is arguably true also for renewable energy. Two of the policy prescriptions indicated are that policies should be targeted on activities rather than sectors, and that, since market failures (and hence the policies to target them) may be difficult to identify and quantify, private and public should cooperate in a discovery process. The quest for better policy is continuous.

12 See Untold Billions: Fossil-fuel subsidies, their impacts and the path to reform, a series of papers produced in April 2010 by the Global Subsidy Initiative of the International Institute for Sustainable Development. One of the best policies in support of renewable energy, and to the more general benefit of the mitigation of climate change, would consist in the dramatic reduction—or if not elimination - of the support to fossil fuel. In this regard it is interesting to note the proposal to link the issue of fossil fuel subsidization to the negotiations on Environmental Good or Service (EGS), considering fossil fuel subsidies as non-tariff barriers to the circulation of renewable energy as an EGS. See R. Howse, ‘Climate Change Mitigation Subsidies and the WTO Legal Framework: A Policy Analysis’, 2010, International Institute for Sustainable Development, 22-23.

13 See Sovacool, n. 9 above, 1537-1539.

14 Beaton and Moernhout, n. 9 above, have crucially noted how most studies analyze the cost-effectiveness of subsidies with respect to deployment, as opposed to their ultimate objectives. See also R. Bridle and C. Beaton, The cost-effectiveness of solar PV deployment subsidies (2011) NCCR Working Paper 2011/31.


17 ‘Hence the right way of thinking of industrial policy is as a discovery process—one where firms and the government learn about underlying costs and opportunities and engage in strategic coordination. The traditional arguments against industrial policy lose much of their force when we view industrial policy in these terms. For example, the typical riposte about governments’ inability to pick winners becomes irrelevant. Yes, the government has imperfect information, but as I shall argue, so does the private sector. It is the information externalities
In sum, the main guidelines for a sound and effective policy of support of renewable energy are proper institutional framework, comprehensive and synergetic policy programme and careful design of the measures of support (including subsidies).

If properly designed, carbon taxes or market-based mechanisms are more cost-effective in terms of GHGs offset. The second-best solution of subsidies is however often easier to implement and hence more attractive to governments.\textsuperscript{18}

Subsidies to renewable energy can operate at different stages, supporting capital and R&D, or production (at the level of equipment, inputs, installation, generation, etc). R&D subsidies are generally viewed positively, provided that they are subject to conditions that ensure they are not distracted from their intended use and the research results are disseminated.\textsuperscript{19} Subsidies in support of production, which may take various forms, are subject to most criticism, being regarded as the most economically distorting.\textsuperscript{20} In certain settings, they may however be important when the immediate goal is to promote production.\textsuperscript{21} When comparing specific types of support measures with each other, there is a growing consensus that feed-in tariffs (FITs), which provide for a fixed minimum price for renewable energy electricity, often combined with a purchase obligation, have performed well historically.\textsuperscript{22}

A crucial distinction when assessing the cost-effectiveness of a subsidy is whether it is assessed in relation to the simple deployment of renewable energy or rather, and more appropriately, to what are normally the ultimate and intended outcomes expected from public support, that is the reduction of GHGs, job creation and/or energy security. Bridle and Beaton have thus recently found that it cannot be established that current spending for the support to solar photovoltaic (PV) deployment in Germany and Spain generated by ignorance in the private sector that creates a useful public role—even when the public sector has worse information than the private sector. Similarly, the idea that governments need to keep private firms at arms’ length to minimize corruption and rent-seeking gets turned on its head. Yes, the government needs to maintain its autonomy from private interests. But it can elicit useful information from the private sector only when it is engaged in an ongoing relationship with it—a situation that has been termed “embedded autonomy” by the sociologist Peter Evans’ (Rodrik, see n. 16 above, 3-4).

\textsuperscript{18} This is clear if one considers that rather than imposing a cost on emissions and on the polluting activity, subsidies confer an economic advantage.

\textsuperscript{19} It is noted that money is fungible and there is no guarantee that it will be used for the desired objective. Further, results should be disseminated to maximize the positive spillovers.

\textsuperscript{20} Subsidies that support demand for technology and energy, at both distribution and final consumption, or its price, in effect support production. See R. Steenblink, ‘Subsidies in the traditional energy sector’ in J. Pauwelyn (ed), Global Challenges at the Intersection of Trade, Energy and the Environment (Geneva: Centre for Trade and Economic Integration, 2010) 186, who uses a broad concept of production subsidies, broad enough to cover most of the measures of support currently used.

\textsuperscript{21} IPCC Special Report on Renewable Energy Sources (SRRES), full report, section 11.5.2.

\textsuperscript{22} FITs are the policy tool behind what is often considered the success of the renewable energy sector in Germany, Spain, Denmark and other countries. Denmark, for example, generates 20% of its electricity from wind power only. In Germany, the use of renewables prevented the emission of 83 million tonnes of CO2 in 2005 only. Official figures (German Federal Environment Ministry) show that in 2006 renewable’s share of total electricity consumed in the country amounted to 11.8%. In the same year, the renewable energy industry generated a turnover of €21.6 billion and employed 214,000 people. Figures in relation to following years are higher (in 2008 the sector’s turnover rose to €30 billion and employment to almost 300,000).
is cost-effective.\textsuperscript{23} In presence of scarce resources and competing priorities, a proper methodology which analyzes and compares benefits and costs in relation to the intended goals is crucial.

The main lesson coming from empirical studies is that, assuming the need for public support, the effectiveness of the measure of support seems to ultimately depend on the specifics of the case, and crucially on the design of the measure and its synergy with other policies.\textsuperscript{24} It does not seem correct to predicate in general terms that one type of subsidy is better (or worse) than another if crucial factors like its actual design, the context in which it operates and the interaction with other policy instruments are not factored in.\textsuperscript{25} What in theory and isolation may seem distorting, may turn desirable in the actual context of the real scenario. Further, to be effective, subsidies should be \textit{as much targeted as possible}. The precision of the target (activity, technology, etc), subject to continuous monitoring and adjustment, is pivotal in addressing the relevant market failure. Moreover, subsidies should be \textit{transitional}. To avoid opportunistic behaviour, unnecessary distortions and spending, they should be granted only insofar as they are necessary to produce the incentive effect and only until the market failure justifying them is present.\textsuperscript{26} A continuing discovery process between public and private sector will assist in tuning the subsidy to the changing needs and removing it when it becomes unnecessary.

Finally, it is worth reminding that, although the previous guidelines are followed, this does not exclude that the subsidy does not cause any distortion, particularly trade ones. As noted above, production subsidies are the most economically distortive, followed by subsidies for capital and R&D.\textsuperscript{27} But, from a policy-making angle, trade distortion is not necessarily the ultimate baseline. If it is accepted that public support is needed to complement market and that certain subsidies are cost-effective in achieving the desired goal, certain distortions can be accepted. Subsidies do come at a price. The question is whether this price is worth being paid, in consideration of the preferences and choices of the granting constituency.

What underlies any policy decision and any legal compromise is a trade-off. Economic distortions are accepted if it is expected that the benefits will be greater. Clearly, there is no precision or inevitability in where the line is drawn. What sound policy practice requires is regular monitoring of the effects of the measure and, if necessary, changes and adjustment, always having in mind the ultimate goals pursued. The main difficulty however comes when negative and positive effects are produced in different countries since transnational trade-offs are difficult to be made and accepted. In these cases, the policy discourse clearly trascend the domestic and local level to reach the international and global one. Complex issues of settlement of conflicts of interests and multilevel governance enter into play.

\textsuperscript{23} See n. 14 above.
\textsuperscript{24} IPCC Special Report on Renewable Energy Sources (SRRES), May 2011, Summary for Policy-makers, 24.
\textsuperscript{25} Hence, to say that production subsidies are more economically distorting than capital formation or R&D is partial, and possibly true from a theoretical perspective only. In practice, context, broadly intended, matters, much more than the effects of a measure considered in isolation. In the bigger picture, any measure in support of renewable energy should also be coupled with the reduction of fossil fuel subsidies and the promotion of energy efficiency.
\textsuperscript{26} The recent US debate on federal policies in support of ethanol is instructive in this regard. See \url{http://www.reuters.com/article/2011/06/16/us-usa-senate-ethanol-idUSTRE75F5IN20110616}.
\textsuperscript{27} See Steenblink, n. 20 above, 186.
III. WTO SUBSIDY DISCIPLINE AND THE QUESTION OF POLICY SPACE

After outlining the economic background of the measures of support of renewable energy, in this section we assume that some of them may be ‘good’ and accordingly analyze the current subsidy discipline to assess the degree of autonomy or policy space it offers.

After a brief exposition of the main rules applying to subsidies in the WTO, we analyze the steps of the legal analysis that need to be followed to determine whether a certain form of renewable energy support does amount to an objectionable subsidy. We first address the issue of whether tax incentives and quantitative and pricing requirements can constitute a form of financial contribution or of price support. For its complexity and relevance, this will constitute the main part of the section. The focus then shifts to the difficulties of the determination of the benefit in the energy sector. We finally jointly address the specificity test and the adverse effects. We conclude the section with a paragraph delving on the case of discriminatory subsidies.

A. An overview of the rules

The Agreement on Subsidies and Countervailing Measures (SCM Agreement) develops the ‘unilateral’ and ‘multilateral tracks’ of Articles VI and XVI of the General Agreement on Tariffs and Trade (GATT) by providing detailed rules on i) the power to unilaterally impose duties to counteract subsidized imports, and ii) the obligations on WTO Members when granting subsidies.

The legal analysis of a measure of support under WTO subsidy rules follows certain steps.

It is first necessary to determine whether the measure is a subsidy. It is important to immediately note that this legal definition does not necessarily coincide with any economic notion of subsidy, predicated on the basis of the economic effects of the conduct of the government, but rests on the presence of well-identifiable (albeit not always clear) legal requirements. The definition of subsidy can be found in Article 1 of the SCM Agreement which provides that a subsidy shall be deemed to exist if there is a ‘financial contribution’ by the government or ‘any form of income or price support’ and, as a result, a ‘benefit’ is conferred.

The second step of the analysis is the specificity test under Article 2 of the ASCM. This means that, in order to be actionable or countervailable, the subsidy needs to be ‘specific’ to certain enterprises or industries. Once it has been established that the measure constitutes a specific subsidy, it is necessary to assess whether it causes ‘adverse effects’ to the interests of one Member or ‘material injury’ to the domestic industry of a Member (the third step). If this is the case, the subsidy will respectively be actionable before the WTO dispute settlement (and should be withdrawn or its effects removed) or countervailable in the affected domestic jurisdiction. Subsidies that are contingent on exportation or on the use of domestic inputs (called local-28

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29 The SCM Agreement identifies three types of adverse effects: injury, serious prejudice (arising in case of various forms of displacement and price effects in various markets, or in the case of an effect on world market shares) and nullification and impairment of benefits, in particular tariff concessions.
content or import-substitution subsidies) are simply prohibited. Unless they are subject to countervailing duty action, there is no need to prove specificity or negative effects, and, if granted, the only alternative is withdrawal.

This is not the final step of the analysis though. An otherwise objectionable subsidy could crucially be justified if the legal system provides some form of exception or carve-out. We analyze this issue below in sections V and VI.

B. Form of governmental action: the case of tax incentives and regulatory measures

The first question is the determination of whether the measure of support at issue constitutes a subsidy under the SCM Agreement. The first step of the legal analysis is whether this measure does constitute ‘a financial contribution by a government or any public body’ (which should be intended to include any public body with regulatory powers) or ‘any form of income or price support’.

According to Article 1.1(a)(1), a financial contribution exists if

(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);

(ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits) [footnote omitted];

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

While forms of support of renewable energy like grants, loans or guarantees do not raise any particular issue, and readily amount to ‘transfer of funds’ under letter (i), it is the legal classification of tax incentives and regulatory measures that poses more problems and thus deserves more attention. These measures represent two good case-studies to test the amount of policy space granted by the definition of subsidy for renewable energy measures.

Tax incentives: the quest for the general norm, the role of the objectives

We commence with tax incentives, which include tax exemptions, tax credits and any other form of favourable tax treatment, by firstly outlining the conceptual framework of analysis and then testing it with few examples.

30 See Appellate Body, US – AD/CVD, paras. 282 et seq.
31 While tax exemptions involve a dispensation from tax liability, tax credits operate as offsets against tax owed. Although they operate differently they both result in the collection of less fiscal revenue, the only exception being refundable tax credits which actually involve direct payments (see note 48 below). Tax incentives can affect direct taxation (like income tax) or indirect taxation (like VAT, sales or excise taxes) alike.
What is ‘otherwise due’? Inherent instability and objectives scrutiny

According to letter (ii) of Article 1.1(a)(1) of the SCM Agreement, the determination of whether a tax incentive constitutes a form of financial contribution depends on a positive finding that the measure involves the foregoing of government revenue which would otherwise be due. As shown by the US – FSC litigation, this determination is inherently unstable because of the difficulties of the ‘otherwise due’ language. To determine what is ‘otherwise due’ requires a complex counterfactual analysis that ultimately rests on whether the measure under examination is a derogation from the otherwise (sic) applicable benchmark norm.

But how can we identify the relevant norm in the field? How can we determine what is general and what is exception? Taxation, in particular, is notorious for targeted interventions and fast-changing pace. Complexity is pervasive, coherency rarely reached. The search for the general tax rule is therefore often difficult.

If mechanical approaches and formalistic tests are to be avoided, what should be looked at is the substance. Only a substantive analysis can show whether the tax incentive under examination is in line with the relevant general tax rule or in fact constitutes a deviation from it. But, and this is the crucial point, to look at the substance of (tax) norms crucially means to consider their objectives and evaluate how they actually relate to the (tax) measure at issue and to the broader (tax) system. If a tax incentive is designed and applied in such a way that it is fully in line with and implements, without exceeding, the objectives of the relevant general tax rule, there is no financial contribution. There are no ‘otherwise’ applicable alternative scenarios which have not been considered or have been deviated from.

The reference to the objectives of the measure when it comes to assess whether a certain provision has been breached is not new. It can be found in provisions that establish obligations, like non-discrimination, or in justification provisions. The controversy surrounding the ill-fated ‘aims-and-effects’ doctrine under Article III of the GATT is known. The understandable fear of the critics of this approach was that any allegation based on the legitimacy of the public policy goals of the tax and regulatory measure could pass muster with the risk of excluding protectionist conduct from the scope of a crucial GATT obligation. Despite the awareness of this danger, the Appellate Body has not however rejected that objectives can play a useful role in the analysis of the differential treatment under Article III of the GATT. This is the message famously conveyed in the early Japan – Alcohol II dispute: ‘[w]e believe it is possible to examine objectively the underlying criteria used in a particular tax measure, its structure, and its overall application to ascertain whether it is applied in a way that affords protection to domestic products’. What the Appellate Body is doing is simply to ring-fence such analysis and exclude that each and every argument based

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32 The panels and the Appellate Body used no less than four different tests to approach this language. See Rubini, n. 28 above, 263-274.
33 The Appellate Body warned that, apart from the possibility to give wrong results, a formalistic test like the ‘but for’ test may be easy to circumvent. See Appellate Body, US – FSC, paragraph 91; id, US – FSC (Article 21.5 DSU), paragraph 91.
34 A recent example is the Panel’s interpretation of the national treatment obligation of Article 2.1 of the TBT Agreement in DS 460, US – Cloves Cigarettes, paragraph 7.80 et seq.
36 Appellate Body, Japan – Alcohol II, page 29. See also Appellate Body, Chile – Alcohol, paragraph 62.
on any objective could be relevant. The key is distinguishing between objectives, taking into account only those that relate to the measure, and assessing the relation between those objectives and the same measure. These remarks can be safely transposed to the context of subsidy rules.

In common with other provisions regulating economic conduct, however, in subsidy law the relevance of the objectives of the measure depends on the specific provisions and on the steps of the analysis at issue.

Thus the objectives may be a useful indicator of whether differential taxation is in fact justified\(^\text{37}\) or of whether a subsidy is specific of not.\(^\text{38}\) By contrast, the assessment of market scenarios, which is typical of the determination of whether the subsidy confers a benefit, does not leave room to non-commercial considerations, the only relevant perspective being that of a comparable private agent in the same circumstances. Even more strictly, the evaluation of the effects on trade does fully abstract from aims and expectations of whatever, even commercial, nature, and is just limited to the actual, potential or presumed effects of the subsidy – and, crucially, to the negative ones only. The natural place for assessing a potentially broad group of socio-economic objectives, and balancing them with the detrimental effects on trade, then becomes that of any exception or justification provision that may be available.

At the time of writing, there is no WTO case-law on the role played by objectives in the subsidy analysis of tax measures. It can however be safely expected that future litigation will have to focus on this issue. Since the analysis of the ‘otherwise due’ jargon unveils tests and issues that are essential when it comes to establish whether a tax incentive is a tax subsidy, a foretaste of what we can expect can be found in the rich EU case-law and practice in the State aid field.

Some inspiration from the EU

Since the seminal Italy v Commission case of the European Court of Justice of 1974, the same tension of the GATT ‘aims-and-effect’ debate can be found in the case law on the definition of State aid (which is the EU law jargon for ‘subsidy’ in WTO law). On the one hand, it is consistently repeated that the notion of State aid is objective. In order to define a State aid one does not need to look at aims or causes but only at the effects. On the other hand, and often at the same time, the analysis seems more subjective, being substantially focused on the rationality of measure in terms of its goals. It is thus noted that a finding of differential treatment does not necessarily lead to a State aid determination if it can be explained by the ‘logic on the system’. The Court of Justice noted that to conclude that we have a State aid, we have to establish whether a State measure favours certain undertakings ‘in comparison with other undertakings which are in a legal and factual situation that is comparable in the light of the objective pursued by the measure in question’.\(^\text{39}\) This is the same application of the principle of equality that has been followed also by the Appellate Body in the US – FSC case when it concluded that, in order to determine whether a tax measure involves the foregoing of revenue otherwise due, it is necessary ‘to compare the fiscal treatment of legitimately comparable income’.\(^\text{40}\)

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\(^{37}\) See below for a thorough analysis.

\(^{38}\) See Appellate Body, EC – Aircraft, paragraphs 1050. See also, Rubini, n. 28 above, 375.

\(^{39}\) Case C-143/99, Adria-Wien, paragraph 41.

\(^{40}\) Appellate Body, US – FSC (Article 21.5 DSU), para. 91.
The EU jurisprudence highlights two points. First, only those objectives that are inherent in the type of measure at issue, their true justification, do matter in this assessment. By contrast, the objectives that are not directly connected to the natural purpose of the tax but rather pursue different policy objectives are not taken into account. For example, in the case of an energy tax, any distinction or differential treatment between taxable situations should be justified only on the basis of the environmental objective pursued by the tax, ie pollution reduction. Exemptions from the tax burden justified by competitiveness concerns would clearly be extraneous to this assessment and, present all State aid requirements, would lead to a positive determination. This distinction between ‘internal’ and ‘external’ objectives is the fundamental divide to determine whether a tax measure with a differential treatment or impact is ultimately a State aid or not.\(^{41}\)

Second, the assessment of the objective at the level of the definition of State aid involves what is essentially a proportionality test. The discipline must be designed in true pursuit of that objective and any distinction should be capable of being objectively explained in its light.

We can now review few examples of this case-law.

In *Adria-Wien* the Court of Justice concluded that an exemption from an energy tax in favour of undertakings of the manufacturing sector (and excluding those in the service sector) was not justified by the alleged environmental goal of the tax. In light of the environmental objective of the energy tax at issue, the distinction between manufacturing and service sectors was not tenable.\(^{42}\) On the one hand, service undertakings may, just like undertakings manufacturing goods, be major consumers of energy. On the other hand, energy consumption, whether it originates from manufacturing or service activities, is equally damaging to the environment.\(^{43}\)

Two more recent cases show the tension between a very deferential approach, where a vague reference to the objective pursued seems to be sufficient to justify differentiations, on the one side, and a more rigorous approach, where clearer evidence of the link between objective and design of the measure is required, on the other.

The *British Aggregates* case concerned a UK environmental levy on aggregates with the aim to reduce and rationalize the extraction of minerals commonly used as aggregates. To incentivize the replacement of virgin materials, an exemption was granted to recycled products or by-products or waste products from other processes. Further, the tax did not apply also to the same minerals if they were not used as aggregates. While the first exemption was justified by the contribution of the use of those materials to the environmental rationalization of the sector, the second by the sectoral approach of the tax (motivated by the desire to maintain the international competitiveness of other extracting sectors).

The Court of First Instance concluded that these exemptions did not constitute State aid. After saying that in the absence of coordination, it is for Member States to act in the field of environmental law, it noted:

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\(^{41}\) The distinction can be found in the Commission Notice on the application of the State aid rules to measures relating to direct business taxation, OJ C384, 10.12.1998, 3.

\(^{42}\) Case C-143/99, *Adria-Wien*, paragraphs 50 and 52.

\(^{43}\) In fact what emerged from the statement of reasons for the bill was that the advantageous treatment of manufacturing firms was intended to preserve their competitiveness.
Member States are free, in balancing the various interests involved, to set their priorities as regards the protection of the environment and, as a result, to determine which goods or services they are to decide to subject to an environmental levy. It follows that, in principle, the mere fact that an environmental levy constitutes a specific measure, which extends to certain designated goods or services, and cannot be seen as part of an overall system of taxation which applies to all similar activities which have a comparable impact on the environment, does not mean that similar activities, which are not subject to the levy, benefit from a selective advantage.\footnote{Case T-210/02\textit{British Aggregates}, paragraph 115.}

On appeal the decision was heavily criticized by both the Advocate General and the Court of Justice because it had granted an undue discretion to Member States to design their tax system and essentially had approved the tax solely on the basis of its stated environmental objective. The tax should have rather been scrutinized to determine whether it was properly structured around that objective. Once a certain objective is chosen, for example the prevention of a certain damage to the environment, a certain degree of rationality is requested, and this should first of all be reflected in the coverage of the measure. It is, for example, dubious to consider relevant for the application of the environmental tax not the extraction of certain minerals but rather their following use as aggregates or not. It is the former, not the latter, that has an impact on the environment.

In the second case, \textit{Dutch Nox}, the Court of First Instance had to decide whether the Dutch emission trading system for nitrogen oxides (NOx) did constitute State aid.\footnote{Case T-233/04\textit{Netherlands v Commission} (‘Dutch Nox’) [2008] ECR II-591 (on appeal, Case C-279/08P, see Opinion of the Advocate General delivered on 22 December 2010).} The core issue is similar to \textit{British Aggregates} and revolves around the definition of the material scope of the state measures – a cap-and-trade system here, an environmental tax there. The question was whether the installations with total thermal capacity of more than 20 thermal megawatts (MWth), to which the emission trading system was applicable, were comparable with those with lower thermal capacity, which were excluded. In \textit{Dutch Nox} we see the same difference of positions of \textit{British Aggregates}. The Court of First Instance concluded that the significant emissions of NOx produced by the undertakings consuming more than 20 MWth and the fact that only them had to comply with a strict emission standard, on pain of fine, was sufficient to distinguish them from those undertakings which were not covered by the system. This conclusion was rejected by Advocate General Mengozzi which noted that, from the perspective of the environmental objective of the scheme, ie the reduction of NOx emissions, all installations based in the Netherlands are comparable. NOx emissions pollute irrespective of the size of the installations that produce them.\footnote{At the time of writing the decision of the European Court of Justice is still pending.}

The question of coverage is key for policy space and a proper design of tax incentives under subsidy laws. How far shall a tax go in covering comparable situations? What differentiations can be reasonably introduced without defeating the generality of the measure? On what basis? The case-law has not answered these key questions yet. Arguably, without conferring an arbitrary discretion, which was chastized in \textit{British Aggregates}, a selective, sectoral or progressive approach may be justifiable in light of \textit{objective} considerations such as the nature or source of damage, the type or degree of risk, or even practical considerations such as the novelty of the scheme or the difficulty of its application. Despite these limitations the measure could still be considered general, self-contained and balanced.
The coverage of emissions trading system, and in particular of the criteria that can be legitimately used to determine which activities are covered and which not, was under examination in the Arcelor case. This is not a State aid case but a judicial review action where what was under scrutiny was the legality of the EU, and not a national, emission trading system set up Directive 2003/87/EC. The EU emission trading system is credited for being very innovative being probably the first of its type in the world. The Directive adopted a step-by-step approach and excluded the chemical and the non-ferrous metal sectors from its application. Did this exclusion amount to a breach of the general principle of equal treatment or could be justified by the objectives of the Directive? Both Advocate General Maduro and the Court provided a thorough analysis of the scope of the measure, in light of its objective (environmental protection) and the principle of equal treatment. In particular, it was crucially noted that the complexity and novelty of the allowance trading scheme fully justified a step-by-step approach and, in this regard, certain sectors could be excluded provided however that these decisions were based on ‘objective criteria’ based on technical and scientific information available at the time of adoption of the measure, the impact of the greenhouse effect certainly being one of them.47

Further applications of tax subsidy analysis

We continue our analysis of the subsidy status of tax incentives with two illustrations in the clean energy sector. This exercise will pave the way to some conclusions on the policy space offered by WTO subsidy rules.

One good example of the role played by the objectives of the tax measure to determine whether a given incentive is a subsidy is that of the US ‘black liquor’ tax credit. The 2005 Federal Highway Bill introduced a fuel tax credit to promote the use of ethanol and other biofuels in vehicles. Companies were eligible to a US$ 0.50 tax credit for every gallon of gasoline or diesel they used if they blended an alternative fuel with it. In 2007 the coverage of the tax credit was expanded to include non-mobile uses of liquid alternative fuel derived from biomass.

For more than 30 years the US pulp industry has been using a carbon-rich byproduct of the wood pulping process as fuel to power its mills, known as ‘black liquor’. In a 2008 ruling the Internal Revenue Service concluded that black liquor was an alternative fuel eligible to the Highway Bill tax credit and that, to qualify for the tax credit, alternative fuels only needed to contain 0.1 percent of a taxable fuel. The economic impact of this extension was massive in a period of crisis for the paper industry.48 In 2009 alone, the US pulp industry received billions of US dollars from this tax credit (estimates indicate benefits of up to US$8 billions), more than any other industry apart from the auto sector. One company alone, International Paper, received

47 Case C-127/07 Arcelor, para 63. See also para. 46 of the Opinion of Advocate General Maduro.
48 Papermakers Dig Deep in Highway Bill To Hit Gold, The Washington Post, 28 March 2009, available at: http://www.washingtonpost.com/wp-dyn/content/article/2009/03/27/AR2009032703116.html (last access 15th September 2011). Since this tax credit is refundable, money-losing companies could qualify for direct payments from the US revenue. A little gloss here. Although tax credits are expressly named as one example of tax incentive under Article 1.1(a)(1)(ii) of the SCM Agreement, if a payment is involved they could be likened to a direct transfer of funds under letter (i) with the consequence that the ‘otherwise due’ counterfactual analysis would not apply.
as much as US$3.7 billions. The frequent assimilation of ‘black liquor’ with ‘gold’ can thus be understood.\textsuperscript{49}

This is an example of how, whether due to sloppiness of legal drafting or unwarranted administrative interpretation, the broadening of the eligibility to a tax credit resulted in a paradoxical result which clearly went beyond, indeed against the purpose of the tax incentive. The original goal of the Highway Bill tax credit was to boost the use of biofuels in the transport sector, later extended to cover non-mobile uses. The tax credit operated to create the incentive to do this by requiring companies to blend biofuels with their fossil fuels. By using their own kind of biofuel – the ‘black liquor’ – for decades, pulp companies did not need any incentive to replace, even partially, fossil fuels. Not only the subsidy was not necessary. It even created a perverse incentive to use fossil fuels. To qualify for the tax credit paper manufacturers had to add some fossil fuel, even in a negligible quantity (0.1 percent), to their alternative fuel. They were therefore induced to alter their behaviour but exactly in the opposite direction than that envisaged by the logic of the tax incentive and stated goal of the subsidy. Ultimately, the perverse effect of the extension of the Highway Bill tax credit to black liquor meant that a more polluting conduct was rewarded.\textsuperscript{50}

While the Highway Bill alternative fuel tax credit may well not have constituted a subsidy, particularly if it could be considered integral part of a general scheme to promote biofuels, the extension of the incentive to the pulp industry was clearly contrary to the purpose of the scheme. It could not escape the determination that it deviated from its logic and that, by granting it, the US government was ‘foregoing or not collecting’ revenue otherwise due under Article 1.1.(a)(1) of the SCM Agreement. It did not therefore come as a surprise that a joint letter of Canada, the EU, Brazil and Chile demanded the US to end the tax incentive threatening to commence a dispute before the WTO because ‘[f]rom a legal perspective, it is clear that these credits

\begin{quote}
\begin{itemize}
\item \textsuperscript{49} One further element can show the financial dimension of this ‘black liquor’ tax credit. The eligibility of the pulp industry to the Highway Bill tax credit expired on 31 December 2009, thus helping to cover the costs of the Healthcare law of January 2010. This was not the end of support however, since the pulp industry could inter alia benefit from a different tax credit for cellulosic biofuel for transportation for which it was eligible according to another ruling of the Internal Revenue Service. See \textit{Paper industry pushed further into the black by ‘black liquor’ tax credits}, The Washington Post, 27 April 2011, available at: http://www.washingtonpost.com/business/economy/paper-industry-pushed-further-into-the-black-by-black-liquor-tax-credits/2011/04/19/AFdkrMtE_story.html (last access 15th September 2011).
\item The ‘black liquor’ subsidy not only caused controversy within the US but prompted Canada to grant a $882 million to their domestic paper industry. See \textit{The Black Liquor War}, The Wall Street Journal, 30th June 2009, available at: http://online.wsj.com/article/SB124623488607866601.html#articleTabs%3Darticle (last access 15th September 2011).
\item It has however been noted that ‘if the subsidy is taken away from the pulp producers, you end up with a policy that rewards (with subsidies) companies who were polluting a lot but improved a bit, whereas companies who were polluting very little, on their own accord, get no subsidies’, Simon Lester, ‘Trade and the Environment and Subsidies’, International Economic Law and Policy Blog, Worldtradelaw.net, 21 April 2009, available at http://worldtradelaw.typepad.com/ielpblog/2009/04/trade-and-the-environment-and-subsidies-and-a-lot-more.html#comments (last access 15th September 2011). It is however exactly the fact that these companies already ‘pollute very little’ which should make it difficult, from an environmental perspective, to justify public support. Lester predicted that the subsidy might simply change shape with the result that the final scenario would have begged the key question of this paper: ‘do subsidies to promote a cleaner environment violate trade rules?’.
\end{itemize}
\end{quote}
amount to actionable subsidies and that any adverse effects caused by them could be subject to remedies in the WTO or through domestic countervailing duty investigations'.

Carbon taxes are one way to put a cost on GHGs emissions. Quite often the tax liability is limited through tax exemptions which specifically recognize that certain goods or activities do not emit or emit less. The use of exemptions reinforces the incentive to use those desirable goods or activities or, from another perspective, the disincentive to use others more polluting. As the review of EU case-law shows, this is indeed a common technique in environmental taxation. However, ‘a fully fledged carbon taxation system need not entail a tax exemption. In such a system, any emitter would pay a consistent rate of carbon tax according to the amount of CO2 they emit’. In other words, a carbon tax properly designed should already reflect the different impact on the environment of goods or activities by providing a different tax liability.

But different liability does not mean no liability. It is indeed difficult to identify goods or activities that do not produce CO2 or other GHGs emissions at all. Consequently, strictly speaking, no goods or activity should be exempt from the tax.

This is why tax exemptions are troublesome from a subsidy perspective. The marked differential treatment of a full exemption cannot be easily justified. Inasmuch as the mischief of the carbon tax – carbon pollution – is present, irrespective to its extent, an explicit and complete carve-out would clearly constitute a derogation from the underlying norm that ‘the polluter must pay’. Bigdeli analyzed the case of the Swiss Climate Cent tax where CHF 0.0015 per litre were paid on gasoline and diesel with a full exemption for biofuels, and made comments along the previous lines. He also interestingly noted that, if we consider the emissions generated during the life cycle of biofuels, the Swiss tax exemption lead to a contradictory result. If the exemption is a subsidy this would be greater for biofuels with a bigger life cycle and hence more polluting.

Conclusive remarks on tax incentives and subsidy rules

The previous analysis prompts few remarks on the policy space subsidy laws offer to tax incentives for renewable energy.

First, the subsidy status of tax incentives is inherently uncertain. This does not depend on how the relevant applicable rules, in this case WTO rules, are drafted. The laconic wording of the ‘otherwise due’ test is the simple and pure reproduction of the logical test which underlies any subsidy determination, which could be dubbed ‘derogation test’. It is difficult to think of a better formulation which could have been used. EU law on State aid has progressed on a much more laconic textual language which forbids ‘any aid granted in any form whatsoever’. The test used by the Commission and the Community Courts has however been the same.


Ibid, 166-167.

Like in the ‘Black Liquor’ tax credit saga.

See Rubini, n. 28 above, Chapter 9.
Second, if the determination of whether a given tax incentive constitutes a subsidy cannot escape the analysis and interplay of general rules and exceptions, the objectives underlying the measure must be interrogated and their relation with the design of the measure and the broader tax system must be assessed. If the previous lengthy analysis could show something, it is that this is an ‘uncertain exercise with an uncertain outcome’,\textsuperscript{56} which, for its complexity, inevitably impacts the policy space Members have when they decide to resort to tax incentives as tool of support.

Third, what comes out from the previous analysis is also an ambivalent relation between legal and policy perspectives. On the one hand, as the analysis of the EU case-law and the examples above shows, the legal framework performs a disciplining function inasmuch as it ensures that the stated (environmental) goals of the tax scheme are actually attained by the tax as it is designed and applied. In this regard, there is an interesting convergence between trade and environmental perspective. On the other hand, the legal assessment may be different from the policy one. Policy-wise, it may be desirable to increase the incentive (or disincentive) effect of an environmental tax by resorting to blunt techniques like exemptions. As seen, to be effective, subsidies should be as much targeted and tailored to the objective as possible. Further, other reasons not strictly linked to the environmental discourse may justify a differential approach and contribute to the effectiveness and acceptability of the measure. But the legal framework may not be so responsive, at least at the level of the definition of what is a and what is not subsidy. This is undoubtedly a constraint on policy space.

\textit{Quantitative and pricing requirements: regulatory subsidies?}

Some of the most common incentives for renewable energy are based on regulatory measures. For example, Members may decide to introduce \textit{quantitative requirements}, such as renewable portfolio standards or blending requirements, or \textit{pricing requirements}, such as feed-in tariffs.\textsuperscript{57} The goal of these \textit{minimum} requirements is to raise the demand for, or the prices of, renewable energy, thus sustaining its deployment.\textsuperscript{58}

The issue of whether regulatory measures do amount to subsidies has always been very controversial, representing a true ‘elusive frontier’ of subsidy law and policy.\textsuperscript{59} This is one of the cases where legal discourse is most clearly affected by broader constitutional and policy considerations. To define something as a subsidy, as opposed to another type of measure, has the important legal implication of subjecting it to a certain type of control, rules, procedures, etc. The need to answer the question ‘Where and how should we draw the line with regulation?’ also shows the divide between economic and legal analyses. From an economic perspective, regulatory measures do

\textsuperscript{56} I am here paraphrasing the expression ‘difficult exercise with an uncertain outcome’ used by Advocate General Jacobs in his Opinion in Case C-379/98 \textit{PreussenElektra}, paragraph 157, when he justified the need to keep regulation outside the scope of State aid, issue which is analyzed in the next paragraph.


\textsuperscript{58} This type of regulation can therefore be contrasted with for example lax environmental or labour standards which, as maximum ceilings, act to lower business costs.

\textsuperscript{59} The question itself of what is regulation is far than clear. For an attempt to distinguish measures of ‘financial assistance’ from ‘regulation’, based on the complexity of the action and financial dimension, and on the prerogatives involved, see Rubini, n. 28 above, 94-96.
amount to subsidies if they produce similar effects, i.e. interfere with costs and prices, reallocating resources from one sector to another. The legal notion of subsidy, however, is usually less inclusive and is the result of the balancing of various rationales: economic, systemic and policy ones.

Regulation is often linked to the inner prerogatives of countries to define their domestic policies according to societal choices and preferences. This explains why the language of international trade law, at least on its face, tries to avoid interference with regulatory making powers of member countries unless there are elements of discrimination that would impact competition in ways that could not be justified based on certain guidelines of rationality and proportionality. This notion of general deference towards countries’ regulatory making powers explains why, in the context of subsidy laws, the possibility of including certain types of regulation in the concept of ‘subsidy’ is rejected based on legal arguments of seemingly technical nature - for example the given language of subsidy definition - which indeed are largely based on justifications of policy or even principle.

As noted above, according to Article 1 of the SCM Agreement, a subsidy exists if, apart from conferring a benefit, there is a financial contribution by the government. This in turn may consist of the purchase of goods or services by the government itself or by a third party entrusted or directed by it.\(^{60}\) In the latter case, letter (iv) hastens to add that the ‘function’ of purchasing goods or services should be one ‘which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments’. As an alternative to the notion of ‘financial contribution’, Article 1.1 (b) provides that a subsidy is present if there is ‘any form of income or price support’.

While there has been some discussion on the meaning of ‘entrust’ and ‘direct’, with a progressively more liberal approach prevailing,\(^{61}\) the real gateway for regulation to the subsidy definition is represented by the interpretation of the two final provisos that require that ‘function’ and ‘practice’ should correspond to ‘normal’ governmental conduct. What, in our view, is clear is the goal of limitation of these two provisions: not everything which can be directed or entrusted to a third party can amount to a financial contribution\(^{62}\) These two sentences, however, do not indicate the boundaries with precision, quite the contrary. The construction of these two largely elliptical sentences cannot simply rest on arguments of technical hermeneutics but rather policy hermeneutics.\(^{63}\) One inescapable guideline prescribed by logic is that any argumentation be coherent.\(^{64}\) But, ultimately, the search for what is normal is flexible enough to give precedence to decisions informed by broader policy – we could say

\(^{60}\) Under the combined application of letters (ii) and (iv) of Article 1.1(a)(1).

\(^{61}\) See Appellate Body, \textit{US – DRAMS}.

\(^{62}\) This has been masterfully expressed by Howse: ‘[t]he requirement that a private body be performing a normally governmental function guards against the possibility that all ‘command-and-control’ regulation, which directs private bodies and which always has some distributive effect as between different private economic actors, could be deemed as subsidy’; ‘Post-Hearing Submission to the International Trade Commission: World Trade Law and Renewable Energy: The Case of Non-Tariff Measures’, 5 May 2005, Renewable Energy and International Law Project, 22.

\(^{63}\) We assume here that technical and policy arguments can in fact be distinguished in interpretation, which, as seen below, is not necessarily the case.

\(^{64}\) Thus, if the premise is that conduct under letter (iv) does not require a ‘cost to government’ (see Appellate Body, \textit{Canada – Aircraft}, para 161), it is not then possible to interpret the two provisos with a language (‘expenditure of revenue’) which refers to the public origin of financing. See Rubini, n. 28 above, 144-145.
teleological - considerations. ‘Is it appropriate that regulation, or this type of regulation, be covered?’ This judgment is not arbitrary. It depends, as noted above, on various considerations - economic, constitutional, systemic, etc – ultimately based on the telos of subsidy discipline within the broader teloi of the trade system.

In our view, it is this policy hermeneutics that underpins Howse’s suggestion that the minimum price purchase requirement of a feed-in-tariff (in the instant case the German laws discussed in the EU PreussenElektra case) ‘do not represent a delegation of a governmental function to any private body; rather they represent a regulation of the electricity market, and their directive character goes to regulating market behavior and transactions, not imposing a governmental function on a private body’.

Accepting the conclusion that the pricing law of feed-in-tariffs may not easily be caught under the precise concept of financial contribution of Article 1 of the SCM Agreement, Bigdeli then suggested that such a regulation could well fall within ‘any form of price support’ under the same provision. With a clear expression of the said teleological hermeneutics, Howse replied:

In my view, price regulation by government, in the context of utilities as well as network industries more generally, ought not to be considered price support under Article 1.1(a)(2). Because such utilities are often characterized by elements of monopoly provision, and price regulation reflects a variety of public policy goals, including universal service and incentives for appropriate investment in infrastructure, it would be difficult and very intrusive into the operation of the democratic regulatory state for the WTO dispute settlement organs to assess whether, against some hypothetical model of a perfect market, the tariffs in question constitute price support.

This statement clearly shows the various policy arguments which outline the unique nature of regulatory measures such as feed-in tariffs, quotas and blending requirements, and which would justify their shelter from the intrusiveness of subsidy laws.

That said, from an economic perspective it is not difficult to see that these measures may produce similar if not identical effects to more traditional forms of subsidies and in that sense are comparable to them. Although appealing, Howse’s abstract distinction between ‘delegation of function’ and ‘market regulation’ is not an easy test to distinguish and classify public conduct under subsidy laws. What is, for example, the element, or the elements, telling us that a FIT scheme is ‘market regulation’ rather than ‘delegation of function’? In the common version of FIT schemes, the fixing of the price is strictly combined with a purchase obligation. In the context of the legal analysis of subsidy, it is this mandate to buy energy that comes into play as candidate for the financial contribution. But what does distinguish this mandate to buy from any other mandate to buy?

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66 S. Bigdeli, n. 52 above, ...
68 Arguably, for the same reasons why it is difficult to distinguish financial support from regulation. See note 59 above.
69 The fixing of the tariff is only relevant in so far as it confers an economic benefit to the sellers. An additional element of advantage may derive from the support of demand through the purchase obligation.
Although the legal definition of subsidy does not rest only on the economic effects of the measure and does not encompass any type of conduct liable to produce similar effects, a too restrictive and formalistic interpretation would appear to unreasonably distinguish like measures as well as offer an easy incentive to circumvent the law. Although it is not easy to draw the line, it could be suggested that measures that constitute equally direct and immediate forms of support should be covered by a legal definition of subsidy. It is therefore reasonable to conclude that feed-in tariffs and quantitative purchase requirements should amount to subsidies under WTO law.

In the EU, where the debate on regulatory State aids has been alive since the 1970s, it has been repeatedly suggested that the correct sieve to distinguish what is subject to subsidy discipline and what is not, should not revolve around definitions of the action of the government but rather the assessment of specificity of the measure. This conclusion takes stock of the difficulties and inconsistencies to operate such selection only on the basis of the form or nature of subsidy (which is partly confirmed by the present discussion), or indeed its financing, with the risk of excluding courses of governmental action that are equally distorting. Although, ultimately, the subsidy status of regulation is a policy issue, it is clear that from a legal standpoint a positive finding must find a textual basis in Article 1 of the SCM Agreement. The conclusion that there is a financial contribution depends on the existence of a normal governmental function or practice. As already noted, it is the idea of normality that is the most important legal entryway for the policy decision of inclusion. What eventually determines whether this mandate is a subsidy is the possibility of classifying the mandated purchase of goods or services as ‘normal’ governmental practice. This is an uncertain criterion which may be interpreted in various ways. In a brief paragraph, the Appellate Body has recently shed some light on its reading of the two final sentences of letter (iv) by referring to ‘what would ordinarily be considered part of governmental practice in the legal order of the

70 This is the main point of the fundamental report of the Panel, *US – Export Restraints*.
71 See Rubini, n. 28 above, 121. This would, in our view, explain why tariffs and export restraints, and in general other border measures, are not considered subsidies. Ibid, 95.
72 See the Opinion of Advocate General Maduro in Case C-237/04 *Enirisorse II*, in particular paras. 43 et seq. The European Court of Justice, however, has not accepted to defer the decision of which measures of support are covered to the determination of specificity, and insists in referring to the use of ‘State resources’ as key distinguishing factor. For the paradoxes to which this case-law has led see L. Rubini, ‘The elusive frontier: Regulation under EC State aid law’ (2009) European State Aid Law Quarterly, 277.
73 What is not fully clear is whether the word ‘practice’ should be distinguished by ‘function’, with the former referring to the scenario of delegation of the function of purchase of goods or services and the latter to the actual purchase (see Rubini, n. 28 above, 116-122). The Appellate Body does refers to them indifferently and construes both as referring to the purchase of goods or services (*US – AD/CVD*, para. 297). What is arguably clear, however, is that ‘normal governmental practice’ cannot be equated to the exercise of the prerogatives of taxation and expenditure, as seems to happen in the case-law. The main reason being that, if we did so, we would by necessity imply that financial contribution always requires a cost to government which has been rejected by the Appellate Body itself (see note 64 above). Once we put aside the clear equation with taxation/expenditure we however end up in the uncertain territory where the boundaries between delegation of function and market regulation are blurred. See Rubini, n. 28 above, 116-122.
relevant Member’ and ‘within WTO Members generally’. This seems to apparently dispose of more abstract or philosophical approaches about what government is or should be in favour of a more factual one. Crucial issues remain open though. How does one define ‘ordinarily’? What is the relevant baseline? Is there a minimum recurrence or a certain pattern that makes something ‘ordinary’? Further, moving to the interpretation of ‘practices normally followed by governments’, how do we define what ‘WTO Members generally’ do? Does this mean ‘what most governments do’? If so, is there a minimum number of governments that is required to satisfy the evidential burden? In our view, the open-ended nature of these questions shows the inherent flexibility of the concept of ‘normality’ which cannot rest on a simple examination of legal systems or on empirical surveys. A qualitative judgment is eventually called for, one which is (more) prone to conclusions based (also) on policy preferences.

The easiest technical route is however the notion of ‘any price support’ whose language is broad and unqualified. In the context of the definition of subsidy, this limb has a clear extensive function going beyond what may amount to a financial contribution. The Appellate Body expressly confirmed that this provision should regulate measures different from, and in particular additional to, those considered as financial contribution when, after outlining the various forms of governmental action discipline therein, it noted that the ‘range of government measures capable of providing subsidies is broadened still further by the concept of “income or price support” in paragraph (2) of Article 1.1(a)’. The pending Canada – RE dispute may provide an answer on these crucial issues. Although the element challenged is the local content requirement, the success of the case under the SCM Agreement initially depends on the definition of FIT as a subsidy. Hence, unless the parties are in agreement on the existence of a subsidy, the Panel will have to first establish whether the FIT is a subsidy and then determine whether it is prohibited because it is contingent on the use of local inputs.

Conclusions on forms of governmental action: legal uncertainty

It seems that some of the most common measures of support of renewable energy (tax incentives, minimum quantitative requirements and pricing requirements) still have an unclear status under the legal definition of subsidy of the SCM Agreement. This either depends on the inherent nature of the measure (tax) or the uncertainty of the legal standard (regulation). Either way, from a policy space perspective, this results in a serious situation of legal uncertainty.

C. Benefit analysis in a distorted market: benchmarking conduct, correcting failures

To qualify as a subsidy under the SCM Agreement, a financial contribution or a measure of income/price support has to confer a benefit. This requires establishing that the recipient is ‘better off’ than it would have been absent the alleged measure of support.

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76 The argument that ‘any income or price support’ would only refer to agricultural support, or would require a ‘loss to the government’ (following an old GATT interpretation), is not convincing. See Rubini, n. 28 above, 123-125.
77 Appellate Body, US – Lumber IV, para 52 (emphasis added).
78 Appellate Body, Canada – Aircraft, para. 157.
In some cases the benefit analysis is quite straightforward. It is, for example, almost intuitively obvious that if the government is foregoing government revenue which, under normal conditions, the recipient should have paid, this, by nature, confers a benefit.

In other cases, however, if the government is acting on the market, the determination of whether this conduct is conferring a benefit may not be easy. The Appellate Body has repeated various times that the benchmark in this case is the ‘marketplace’. This benchmarking process may, however, face difficulties in the case of subsidies supporting renewable energy. Energy markets are heavily distorted by various forms of government intervention with the result that price and other market signals are not fully reliable. The identification and determination of the actual benchmark may thus be elusive.

While a crucial objective of subsidy discipline is to determine whether the subsidy confers a competitive benefit, this does not necessarily take place when the benefit is determined. The limited goal of the benefit analysis is to ascertain whether, by virtue of the governmental action, the recipient of the subsidy finds itself in a more advantageous position. This should emerge from what is merely a preliminary and limited (possibly ‘myopic’, using Sykes’ words) counterfactual analysis which refers to a positive alteration of the status quo. Whether the subsidy ultimately affects the competitive position of the recipient and its relation with competitors is analyzed subsequently and separately when the actual effects of the subsidy are determined. If the subsidy is not really conferring a competitive advantage but is just compensating a disadvantage faced by the recipient, in all likelihood this will result in a no-negative-effects determination. Any residual negative effect may be taken into account, and discounted for, when the positive impact of the subsidy is considered, and balanced with, at the justification level.

Far than being a deficiency of the legal framework, this simplification is necessary to avoid an otherwise daunting assessment. As energy markets show, a simplified benefit determination may already be difficult for the identification and application of the appropriate baseline. To charge it with a too complex analytical framework, potentially encompassing any action, or indeed omission, that could affect the matrix of positive/negative effects, would mean unpracticability (where do we stop?) and a dooming effect for subsidy control – a possible sequence of invariably negative (no-benefit) determinations.

79 Appellate Body, Canada – Aircraft, para 157; Japan – DRAMS, para. 172; EC – Aircraft, paras. 974-976.
80 The Appellate Body has addressed difficulties of this nature in those cases where the heavy public intervention in the economy made the benefit analysis difficult. The solution was the use of other proxies, like costs. See Appellate Body, Canada – Dairy (Article 21(5) DSU) I, and, more controversially, Appellate Body, US – Lumber IV. See Rubini, n. 28 above, 226-233.
82 The existence of justification provisions already covering these considerations may be an additional argument to support the rejection of a too comprehensive benefit analysis. Its lack, however, cannot be used as argument to include a compensation logic in the benefit determination. It may simply highlight a lacuna in the system.
83 The different notions of ‘benefit’ in economic and legal analysis are a good example of the different operation of the two disciplines.
84 See Sykes, n. 81 above, 502-503, who, however, crucially questions ‘the utility of any system of disciplines that ignores the myriad of potentially offsetting government measures.’
For these reasons, any type of compensatory or corrective logic at the level of the benefit analysis is ultimately unwarranted. A common temptation is to distinguish between scenarios. In some cases the exclusion of a benefit would immediately emerge from a situation where we have the clear and simple compensation of a cost, burden or disadvantage. This temptation should be resisted, for the reasons noted above. If the lack of advantage is evident, it will almost invariably result in a negative determination of adverse effects.

The implications for policy space of the analysis above are ambivalent. On the one hand, other things being equal, the enlargement of the benefit analysis to recognize that the subsidy does not in fact grant any real benefit but merely corrects a market failure or compensate a disadvantage would acknowledge the autonomy of countries already at a preliminary level of the subsidy examination. On the other hand, this extension could have the potential of rendering the benefit determination in energy markets even more complex than it actually is. Complexity means uncertainty, and even if eventually may lead to negative determinations (ie, no benefit and no subsidy), and thus incidentally recognize some policy space, it could certainly increase the cost of administrative investigations and litigation.

Ultimately, whatever option is chosen a varying but always significant degree of complexity and legal uncertainty cannot be avoided. This feature, which is common with the conclusions on the legal uncertainty of the financial contribution / price support analysis, may equally have a stifling effect on policy space.

D. The paradox of specificity and adverse effects: good for policy? not for law!

Unless we are dealing with a prohibited subsidy, the next steps of the legal analysis require to determine whether the subsidy is specific and causes certain negative trade effects. Although clearly separate, these two steps are examined together because they share the same paradox from the perspective of policy space.

85 The various versions of this logic are extensively analyzed in S. Bigdeli, n. 7 above, 28-30.
86 A good example is offered by Howse: ‘We have already alluded to some of the complexities of ascertaining whether the subsidy has conferred a benefit on the recipient, that is, a competitive advantage over and above general market conditions. Some programs for renewable energy may not confer a benefit in this sense. Measures that merely defray the cost of businesses acquiring renewable energy systems or that compensate enterprises for providing renewable energy in remote locations do not necessarily, for instance, confer a benefit on the recipient enterprise. They simply reimburse or compensate the enterprise for taking some action that it would otherwise not take, and the enterprise has not necessarily acquired any competitive advantage over other enterprises that neither take the subsidy nor have to perform these actions’. See R Howse, ‘Climate Change Mitigation Subsidies and the WTO Legal Framework: A Policy Analysis’, 2010, International Institute for Sustainable Development 13.
87 This is also the approach followed in the EU with the compensation of the costs of a public service obligation. After fluctuations in the case-law, the European Court of Justice accepted in the Altmark decision that, in presence of certain conditions of transparency and (strict) proportionality, there should be no advantage and hence no State aid. Interestingly, however, the conditions are so rigorous that the Commission has virtually never found them present. For an early commentary on the significance of the Altmark decision see A. Biondi and L. Rubini, ‘Aims, Effects and Justifications: EC State Aid Law and its Impact on National Social Policies’, in M. Dougan and E. Spaventa (eds) Social Welfare and EU Law (Hart Publishing, 2005) 79.
88 See section E.
Specificity

According to Article 2 of the SCM Agreement, a subsidy needs to be specific to certain enterprises or industries. This provision encompasses multiple tests which can be used in a determination which is flexible, unclear and in the end expansionist. Apart from the relatively easy cases where the granting authority or the legislation explicitly limits access to a subsidy to certain enterprises (in law or de jure specificity), the outcome of the analysis depends on a comprehensive examination of the factual scenario which refers to the criteria of eligibility of the subsidy and its actual impact.

Under Article 2.1(b) of the SCM Agreement, the subsidy cannot be specific if the eligibility of the subsidy depends on ‘objective criteria or conditions’, that is ‘criteria or conditions which are neutral, which do not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprises’. Bigdeli has recently suggested that these criteria could offer some policy space, particularly if the subsidy is designed following them as guidelines of neutrality and non-discrimination. As examples he referred to energy saving subsidies or subsidies for consumers of renewable energy. Both these subsidies would be non-specific inasmuch as they would be technology-neutral, horizontal and non-discriminatory (not favouring domestic renewable energy over imported one).

There are two obstacles here, one policy-based and one legal.

Assuming a renewable energy could be designed to comply with the said guidelines, a paradox would emerge. If, as noted in section II, sound economic and environmental policy requires the measure to be as much targeted as possible in order to be effective, this means that there is clearly a preference for precise, possibly non-neutral and even discriminatory measures of support. This would mean that policy prescription and legal requirements are at variance with each other. In so far as this conflict cannot be reconciled, the room for policy space would be seriously compromised.

From a legal perspective, despite the formal adherence to the principles of neutrality and non-discrimination of Article 2.1(b), the subsidy may still be found to be specific under Article 2.1(c) if it can be shown that, in fact, the subsidy mainly benefits certain enterprises. What should be proved is not ‘a rigid quantitative definition’ but that the subsidy is ‘sufficiently limited’, or, with a negative formulation, that it is not ‘sufficiently broadly available throughout the economy’. It is clear from the case-law that the large number of the undertakings or even of the sectors affected is not sufficient to conclude that the subsidy is general and not specific. Consequently, the specificity test may be very easy to fulfil in the case of subsidies in support of renewable energy, and, in this regard, the design and breadth of the measure do not seem really relevant. Whether the subsidy targets only a certain technology (eg wind or solar) and certain uses (eg transport, electricity or heat), or is rather more generally available across the broad spectrum of renewable energy sources and applications,

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89 Rubini, n. 28 above, Chapter 13.
90 S. Bigdeli, n. 7 above, 23-27.
91 The factors to consider are: ‘use of a subsidy programme by a limited number of certain enterprises, predominant use by certain enterprises, the granting of disproportionately large amounts of subsidy to certain enterprises, and the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy’.
focussing on investment or R&D, whether it operates at the levels of supply or demand of renewable energy, the fact remains that renewable energy is still a small, albeit increasingly significant, player in the energy market. Further, even if it were to expand and become the dominant or even the exclusive energy source, it would still be one industry in the broader economy.

What is crucial for the purposes of our analysis is the relationship between this test of de facto specificity and its factors on the one hand, and the previous ‘objectivity criteria’ on the other. Although the Appellate Body has recently underlined that the principles outlined in paragraphs (a), (b) and (c) should be applied concurrently\(^94\), the language of Article 2 seems to give ultimate significance to de facto specificity.\(^95\) This means that the possibility to design certain renewable energy subsidies in a neutral and non-discriminatory way may not be enough to escape a finding of specificity.

Adverse Effects

Specific subsidies may be actionable only if they cause adverse effects to the interest of other countries. This, on its face, seems to recognize a reasonable leeway to policy space. On a closer scrutiny, however, the same paradox of the specificity test emerges.

The various tests of adverse effects can be found in Articles 5 and 6 of the SCM Agreement: i) injury to the domestic industry,\(^96\) ii) nullification and impairment of benefits, that is tariff concessions, and iii) serious prejudice in various forms mainly of displacement and price effects in various markets. Subsidies can thus cause harm in different ways which substantially reflect the impact of the benefit of the subsidy on competitors. Subsidy laws are not concerned with simple financial benefits but with competitive benefits.\(^97\)

Clearly, any assessment of the adverse impact on trade must be based on the actual scenario and take into account the various elements of the various legal tests. Since each measure differs from another generalizations are not easy. It is therefore necessary to look at the terms and effects of each one individually. That said, it is clear that some predictions are possible, in particular with respect to the impact of subsidy design on the likelihood of a finding of adverse effects. Thus, for example, subsidies which do not discriminate against imported renewable energy and technology, like consumption subsidies and purchase obligations with no discrimination as to the origin of renewable energy, are less likely to cause adverse effects. Further, unless they are fully technology neutral, adverse effects may be claimed by any competitor, irrespective of whether he deals with conventional or renewable energy. The likelihood of adverse effects can also significantly depend on trade patterns, which seem to show more commerce with respect to technology or fuel rather than actual electricity.\(^98\)

\(^{94}\) Appellate Body, \textit{US – AD/CVD}, paras. 363 et seq.

\(^{95}\) ‘If, notwithstanding any appearance of non specificity resulting from the application of the principles laid down in subparagraphs (a) and (b), there are reasons to believe that the subsidy may in fact be specific, other factors may be considered. Such factors are: …’.

\(^{96}\) Subsidized imports causing material injury to the domestic industry of another country may also be subject to countervailing duty actions.


\(^{98}\) Thus the focus of current trade litigation is on renewable energy inputs, like wind turbines, or biofuels, and much less on electricity. One therefore wonders whether scenarios like those
derive from the heavy regulation of energy markets and from the heavy subsidization of fossil fuels.

From a policy perspective, even assuming a subsidy could be adapted – in its design phase or during litigation compliance – so as to minimize its adverse effects, the fact remains that, if this means that a distinct policy benefit has to be renounced to comply with subsidy guidelines, the constraint on policy space is significant.

To conclude, with remarks which are equally valid for the specificity and adverse effects tests, even if practicable, the guidelines of trade law, which are informed by the fundamental principles of neutrality and non-discrimination, are not fully consistent with the guidelines which come out from best economic and environmental policy practice. The most effective measures of support of renewable energy should be targeted, specific and encompass a differential – in some cases possibly even a discriminatory – approach.

E. Discriminatory subsidies: prohibited or permitted?

In this section we address one puzzle. One would expect that measures which produce the same or similar effects are assessed in the same or similar way. This is not what happens with various types of discriminatory subsidies which are very common and credited to be significantly successful in the renewable energy field.

The most recent disputes on renewable energy support - China – Wind (DS 419); Canada – Renewable Energy (DS 412; DS 419) - concern local-content subsidies. Local-content requirements are often considered as a very effective tool of industrial policy, particularly in certain settings, inasmuch as they can ensure the steady and fast development of a crucial domestic industry.99 The green energy sector is one of those, with China being a notable example.100 Cosbey crucially noted how, in the cases above, ‘[t]he disputed measures are clearly designed to pursue both environmental objectives (reducing the environmental impact of generating electricity) and industrial policy objectives (fostering a competitive domestic renewables sector), and they will either succeed or fail on both objectives in tandem’.101 If they succeed ‘in creating competitive domestic players in the sector, there are obvious domestic economic benefits, direct and indirect, in terms of jobs and foreign exchange. Environmentally, a viable new player means more competition in the sector, which inevitably speeds up dissemination. From a global perspective, it may also mean more agents of innovation, at a time when innovation in renewable energy technology is a critically important global public good.’102

of the EU PreussenElektra case are likely to result controversial in a WTO trade context. See section E below for an analysis.


100 It is interesting to note that the China – Wind dispute has been settled during the consultation phase. Although it looks like the subsidy has been withdrawn, the reason why China decided to withdraw the subsidy seems to depend on the fact that support was simply no longer needed, and not on the recognition of the clear illegality of domestic content. See ‘US Proclaims Victory in Wind Power Case; China Ends Challenged Subsidies’ in Bridges Weekly Trade News Digest, Volume 15, Number 21, 8th June 2011.

101 Cosbey, n. 15 above, 2.

102 Ibid.
The appraisal of local-content subsidies has changed over time, together with that of import substitution industrialization (tellingly, local-content subsidies are also known as import-substitution subsidies). In legal terms, in the GATT, they were subject to action only in presence of negative effects, like any other domestic subsidy. The scenario changed during the Uruguay Round as a sign of the more pronounced free trade credo of the new times. Local-content subsidies were likened to export subsidies and subject to a harsher discipline. According to Article 3 of the SCM Agreement, if a subsidy is ‘contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods’, it is simply prohibited, without there being any need to prove a specific impact and adverse effects.

Another type of subsidy which is common in the support of renewable energy is production subsidies. As other measures of domestic support, these are substantially permitted unless they cause adverse effects, in which case they are actionable.

If we now consider local-content and production subsidies together a significant inconsistency emerges. From an economic perspective, they are exactly the same, they produce the same effects. Sykes notes:

a per unit subsidy to all domestic buyers of a good can be completely equivalent in its effects to an equal per unit subsidy to all domestic sellers – net output of domestic producers, net imports, and the net price to buyers will be exactly the same under competitive conditions.

This equivalence in economic effects is not reflected in the legal treatment. As seen, while production subsidies are permitted, unless a negative impact is proved, local-content subsidies are just prohibited. The implications for countries’ policy space is noticeable. Should, once again, a different legal treatment depend on how the measure of support is designed? Is it reasonable to attach a completely different, indeed opposite, legal status to measures on the basis of what seems to be a mere formal argument? Leaving the equivalence in economic effects aside, is there any justification for this different regulatory treatment? Could it be that there is in fact some distinction in economic terms already? For example, by expressly tying a subsidy to industry A to support to industry B, the protectionist impact of the measure seems to be more marked, particularly because, as a result of one single measure, two domestic constituencies end up being benefited. It could further be argued that the stifling effect on imports of the requirement to source locally is more defined than that of a production subsidy to the same local industry. Assuming this is correct, can this be enough to justify the strictest sanction of prohibition? Or, in a law reform perspective, shall subsidies with local-content requirement be re-classed as actionable, maybe

A different discipline was however already present with respect to the national treatment obligation. See n. 106 below.

There is still a need to prove material injury to the domestic industry in order to apply countervailing duties.


Quite similarly, Article III of the GATT distinguishes subsidies to domestic producers, which are not subject to the obligation of national treatment (paragraph 8:(b)) and regulation which require that a ‘specified amount or proportion of any product … must be supplied from domestic sources’, which is prohibited. Along this line the early GATT Italian Agricultural Machinery Panel found that, unlike producer subsidies, purchasers subsidies were prohibited. For commentary see Sykes, n. 81 above, 518-519.
recognizing their higher danger (if any) with the use of a simple rebuttable presumption of adverse effects?

The analysis of the relation between economic effects and legal consequences, and their impact on policy options, can be extended even further to consider feed-in tariffs (FITs). The fixed tariff is just the pricing element of the FIT incentive. These schemes include other terms either to reinforce their incentive effect or to impact on other related markets. The obligation to buy all renewable energy produced nearby the grid is a very common, even essential, element of FITs because it provides investment security. Inasmuch as this purchase obligation affords a privileged access on locally sourced electricity, it is equivalent in economic effects to a local content requirement. It certainly operates differently since the obligation is not on the beneficiary of the subsidy (the producer) but on a third-party (the distributor) but the effect – from the producer’s end – is the same. One implies that you must buy all or a certain proportion of renewable energy produced in your area, the other that you must buy inputs or other goods necessary for renewable energy deployment in your country.

Both these requirements are discriminatory but – and this is the second inconsistency – their assessment seems to be different.

FITs are widely praised as one of the most, if not the most, cost-effective tools to support renewable energy. This praise extends to the purchase obligation, with no real effort in distinguishing those with a discriminatory effect from those with a neutral impact. Frequent reference is for example made to the German system, which includes a purchase obligation on locally sourced energy, as a good example of well-designed FIT which significantly contributed to the German success in deploying renewable energy. By contrast, local-content requirements attached to FITs are more controversial and, as the pending Canada – Renewable Energy dispute shows, are being challenged.

What do we make of this discrepancy in judgment? One good explanation could be that, at least with respect to energy, the two obligations apply to different economic products/markets (technological products vs electricity), for which we still have a different degree of international competition and trade. This would depend on technical reasons or in the difficulty of tracing the origin of electricity in the absence of an established and wide-spread system of certification. But these circumstances may change and with them trade patterns, making the availability of cross-border energy easier and more common. If so, what will be the legal implication of the equivalence in effects between local-content and FITs’ purchase obligation? Can the (discriminatory) purchase obligation of FITs be legally assimilated to a local-content subsidy and be objected as prohibited subsidy under Article 3 of the SCM Agreement? If so, can it be justified?

This section has attempted to show that the legal analysis of subsidies supporting production is not fully coherent or definite. The focus has been on the first level of

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107 For a comprehensive and supportive analysis of FITs see M Mendonça, *Feed-In Tariffs: Accelerating the Deployment of Renewable Energy* (EarthScan, 2007); Mendonça, Jacobs and Sovacool, n. 9 above.

108 The ‘local content’ requirement at issue in Canada – Renewable Energy is an example of the latter.

109 Andrew Lang called my attention on the fact that there might be an even stronger case in investment law. Suppose you have a FIT in one region of the country only and a foreign RE power company sets up in another region and cannot benefit from the the purchase obligation. Is this a national treatment claim under a possible investment treaty?

110 This important question is analyzed below.
analysis where the determination is on whether there is a breach of subsidy rules. The framework within which policy-makers have to operate offers contradictory or still uncertain indications. It remains to be seen whether the analysis at the justification level can offer the opportunity for resolution and clarity.

IV. A PRACTICAL POINT: IS THERE REALLY A POLICY SPACE PROBLEM?

The previous analysis has shown that, at the level of plain legal analysis, the current WTO subsidy discipline is not on balance favourable with countries’ autonomy to adopt and design measures in support renewable energy. Whether because of legal uncertainty (deriving from the complexity of support measure, like tax incentives, or lack of clarity of the legal text, for regulatory measures), or because of the typical, but not always consistent, trade prescription of neutrality and non-discrimination (with respect to the specificity/adverse effects tests and discriminatory subsidies), policy autonomy ends up being significantly impaired.

There is one important argument though, which would dispel any sort of preoccupation. Irrespective of the legal question of whether some measures of support of renewable energy amount to a subsidy objectionable under WTO rules, what really matters is whether somebody is going to file a complaint. Who is going to challenge these measures if, as has been seen, they are so wide-spread? If the answer is that nobody does or will do this, then, pragmatically, we may fairly conclude that there is no real problem with policy space.

We have had many and important subsidy disputes in the WTO making the SCM Agreement one of the most litigated covered instruments before dispute settlement. Equally, countervailing duties are among the most used tools of the domestic trade toolbox, and are also subject to significant review.

That said, energy subsidies in general (which include both subsidies to fossil fuel and to renewable energy) are laconically absent from the register of cases or administrative proceedings. We have a typical ‘glasshouse’ situation here. Who is going to throw stones which could eventually damage the flinger too? Everybody gives subsidies in support of energy. Nobody has an interest in raising a claim and risk a highly probable counter-claim.111

Subsidization of energy is tolerated, the only exceptions being those cases where we have more obvious breaches (like export subsidies or subsidy measures with local content requirements). Further, even in these cases, the strategic element inherent in litigation is particularly marked. The strong impression is that negative statements and official complaints do escalate to the level of formal disputes only when litigation is necessary to reassert the ‘rules of engagement’ and the tacit agreement that public support to energy be allowed provided that the most overt protectionist tendencies be kept at bay.


The risk-aversion described in the text is substantially the same which explains why, during its five years of application, the discipline of non-actionable subsidies was never used. There are many reasons for this, including the limited scope of these exceptions. To a large extent, however, this is a second indication of silent acquiescence. On the history of the rules on non-actionable subsidies see Bigdeli, n. 7 above, 4-10.
The existence of real or expected substantial trade interests is the main catalyst of trade litigation. As seen, renewable energy production and trade are increasingly significant. The magnitude of the economic and political interests is high and on the rise. Technology (for example wind, solar etc) is developing fast and, far from being merely limited to satisfying domestic needs, is exported. There are several examples. German renewable energy industry’s turnover amounts to €30 billions of which a large part is due to technology exports.\textsuperscript{112} Brazil is the second biggest producer of ethanol biofuel (the first being the US) and the world’s largest exporter. This technological and commercial success owes significantly to various forms of sustained public support. This is known and accepted. When the stakes of international intra-industry competition become high, however, policies that interfere too defiantly with the trade process may not be accepted.

It may be useful to consider the recent litigation frictions on renewable energy support. In September 2010, Japan, immediately joined by the EU and US, entered into consultations with Canada, challenging the local content requirement of Ontario’s FIT system (\textit{Canada – RE}, DS 412). Interestingly, according to practitioners active in the field, this action, still pending, has been perceived in the trade circles as a ‘mistake’, somewhat altering the previous equilibrium. Whether this is correct or not, in August 2011, the EU decided to initiate a separate litigation (DS 426). Again in September 2010, the US Steelworkers Union filed a petition with the United States Trade Representative (USTR) claiming that various measures of support of the Chinese green technology sector were WTO illegal. What is interesting is that the complaint was lodged in the context of a ‘section 301’ procedure\textsuperscript{113} which, strategically, opens up a wide range of possibility for the USTR, including the filing of a dispute at the WTO. This is indeed what happened with the \textit{China – Wind} (DS 419) dispute, filed in December 2010 and, as noted above, recently settled.

The big question is whether, in a few years, with hindsight, these few disputes on local-content will just be viewed as skirmishes which served to reinstate the international ‘rules of engagement’ of public support for renewable energy. Or whether they will pave the way to a dramatic readjustment of these rules with a substantial lowering of the tolerance level. Various factors may contribute to this change of balance. The obstacles to renewable energy and market failures may disappear or in any event diminish. At the same time, if the trend is confirmed, production and trade in renewable energy will increase. The markets will become larger, competition unleashed and the distortions of subsidies more evident. Complaints from aggrieved industries to act and action by governments, in the form of trade remedies and WTO litigation, will thus increase.

We now reach a conundrum. If there are no challenges, although the rules do not provide enough policy space, this is \textit{de facto} ensured by the tolerance governments show. Albeit not in formal normative terms, the justification for supporting the renewable energy industry is recognized in practical terms. It can thus be reasonably

\textsuperscript{112} Hans Josef Fell (member of the German Parliament and author of the proposal of the renewable energy legislation of 2000) in the foreword to Mendonça, Jacobs and Sovacool, n. 9 above, i.

\textsuperscript{113} US Trade Act of 1974. After a petition is filed, the USTR – who can also act ex officio – has 45 days to decide whether to initiate an investigation. The investigation is intended to establish whether any foreign government practice breaches or jeopardizes US benefits under a trade agreement. In case of positive determination, various types of unilateral action are possible. For an analysis of section 301 see JH Jackson, WJ Davey and AO Sykes, \textit{Legal Problems of International Economic Relations – Cases, Materials, Texts} (West Publishing Co, 2008) chapter 7.
argued that there is no issue to fix. When challenges become more frequent, because the market has been substantially freed from hindrances and distortions, and the technology and commercial practices are mature, the justification for supporting the industry is far less evident. It can therefore equally be argued that the settlement, which offers the possibility to challenge these measures, is still appropriate and no change is needed.

While the second scenario is sound – not desirable subsidies should be restrained – the first scenario is not necessarily accurate. It cannot be excluded that the substantial acquiescence to subsidies observed so far might turn into a more aggressive stance even before the market has become – if it will ever be – fully competitive. The magnitude of public support used to ensure the steady deployment of renewable energy is already large. Governments may want to ensure – or challenge - first-mover advantages. It is exactly when market conditions are more difficult that the fight to emerge is fierce. Moreover, the vagaries of litigation cannot be fully captured since unexpected exogenous factors can take place and spark trade rows.

If these are the traits of a realistic or likely scenario, tacit tolerance does not ensure legal certainty. In other words, in unstable conditions, the lack of a formal and positive recognition that some forms of support for renewable energy is justifiable and should be legitimate would cause problems for international relations and the business community alike. Legal certainty must be reinstated, possibly in new ways.

While the room for clarification of the rules on the definition, specificity and adverse effects essentially depends on litigation, and in any event, as the previous review shows, the policy space they could offer is limited, the most promising route would be to explore the use of legal justifications. A solution could be found in the existing rules, perhaps resorting to general exceptions available in the broader legal system. Although this would also happen in a litigation scenario, the recognition to domestic autonomy that could result is potentially significant. Alternatively, Members may be convinced to sit around the negotiating table and introduce a specific legal shelter for certain renewable energy subsidies.

We explore these two avenues of justification.

V. THE FIRST JUSTIFICATION OPTION: ARTICLE XX OF THE GATT

Assuming the need of an additional layer of protection of ‘green policy space’, going beyond the vagaries and uncertainties of the current subsidies rules, the possibility to justify an otherwise objectionable subsidy with a general provision like GATT Article XX is an important hypothesis to test. If the conclusion is that this is not a viable path, the only remaining option is law reform.

Article XX of the GATT is a crucial provision for the functioning of the GATT with a distinct normative value. Since its inception in 1947, it provides the express recognition of other-than-trade concerns and the possibility for these to trump trade under certain circumstances. Indeed, ‘[t]hese exceptions clearly allow Members, under specific conditions, to give priority to certain societal values and interests over trade

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These values prominently feature the environment, thus giving full significance and practical shape, in the WTO context, to the reference of the preamble of the WTO Agreement to ‘sustainable development’.

There is therefore a double significance for policy space. On the one hand, there is an express recognition of Members’ autonomy (subject to certain conditions of necessity and non-discrimination). On the other hand, this express recognition means that, when we move to Article XX (and indeed provisions of similar type), the only-trade perspective of provisions like subsidy rules, which protect market access, makes room to a more comprehensive trade-and-environment, trade-and-health etc perspective. This entails a significant shift of setting and framework of analysis where the interests and expectations of consumers and citizens engage with and matter as much as, in fact even more than, those of producers.

It is arguably for this special role that, despite the name of ‘general exceptions’, the justifications of Article XX have consistently and increasingly been interpreted broadly, rather than like ‘exceptions’. The Appellate Body already showed in its early case law that Article XX is about balancing the ‘general rule’ that is breached and the ‘exception’ that is invoked as defence. There truly is a ‘weighing and balancing exercise’ of different values central to the operation of this provision in each of its steps. This is the typical hermeneutic process of general clauses where the protection of different values has to be assessed on a case-by-case basis.

A. The applicability of GATT Article XX beyond the GATT: the SCM Agreement

Over the past decade a lively discussion on the applicability of Article XX to WTO agreements other than the GATT has emerged. Thus far, neither law nor jurisprudence provide a final answer. The relevance for environmental protection measures is


116 If, as has been seen above, non-trade objectives (like environmental protection) are important to establish the existence of a subsidy, this is limited to the question of whether there is an exceptional or discriminatory treatment. By contrast, as we will see soon, the operation of GATT Article XX assumes the latter’s presence. What has to be determined is whether this exceptional or discriminatory treatment can be nonetheless justified in the light of the objectives pursued by the measure.


121 This process does not necessarily require a precise cost-benefit analysis, but what is, in substance, a proportionality assessment. An informative taxonomy of ‘trade-off’ adjudicative ‘devices’ can be found in J. Trachtmann, The Economic Structure of International Law (Harvard University Press, 2008) 222-223.
however clear with numerous scenarios where the availability of the broad exceptions of Article XX would make a difference.122

With respect to the case of the applicability to the SCM Agreement, it may be useful to briefly outline the arguments put forward by the opposing camps. Views dramatically differ. On the one hand, we have those, quite numerous, that fiercely object this approach. The core of the argument is that the applicability of GATT Article XX would undermine the ‘inner balance of the rights and obligations’ of the SCM Agreement which already had a category of justifications – non-actionable subsidies - that is now expired. A finding that Article XX can apply to the ASCM would alter this balance – against the intention of the Members – and could potentially have broader negative systemic implications, opening such claims of applicability for all other covered agreements and ultimately significantly undermining market access. When Members wanted a justification to be available they made it clear. Contrary to the SCM Agreement, which did include a specific set of (also environmental) exceptions, other agreements do refer to GATT Article XX. Finally, the wording of the *chapeau* (‘Nothing in this Agreement’) would clearly limit its scope.

On the other hand, we have those, less numerous, that are more positive about Article XX of the GATT justifying breaches of other-than-the-GATT covered agreements. They put forward various arguments.

First, the applicability of Article XX beyond the GATT cannot be excluded altogether, almost as a matter of principle. It is an issue that has to be assessed case-by-case, instrument by instrument and provision by provision. The spirit of this approach is that Article XX does have a natural expansiveness because of its central position in the GATT, its general and broad wording, and its policy (one would even be tempted to say ‘constitutional’) value. Its applicability to other WTO provisions is accordingly a serious hermeneutic hypothesis. Second, the foundational legal argument supporting this hypothesis is that the WTO is a single-undertaking and the GATT is clearly developed in various covered agreements. This comes out from the general interpretative note to Annex 1A of the WTO Agreement and from the language or subject matter of various provisions scattered in the covered agreements on trade in goods.123 In this regard, it is undisputed that the ASCM develops the GATT with respect to subsidies to industrial goods.124 Third, the rise and fall of the fairly limited category of non-actionable subsidies can provide arguments either way, but not certainly a clear-cut legal obstacle. There are no major textual barriers,125 no clear

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122 These are some of the scenarios which raise a GATT XX question. Can Article XX of the GATT justify such measures that are imposed in breach of the Anti-Dumping Agreement (ADA) or SCM Agreement? What about technical regulations, standards or sanitary or phytosanitary measures that are not fully in line with respectively the provisions of the Agreement on Technical Barriers to Trade or the Agreement on Sanitary and Phytosanitary Measures? In absence of specific provisions on legitimate environmental subsidies, can Article XX of the GATT provide protection for subsidies to mitigate climate change, support renewable energy or energy efficiency?

123 Analysing the ‘double-remedy’ issue in the *US – AD/CVD* dispute, the Appellate Body recently reminded the fact that the WTO is one single legal system and consequently the covered agreements cannot be read in clinical isolation.

124 See Appellate Body, *Brazil – Desiccated Coconut*, paras 11-14, on the different normative framework between GATT and WTO, and on the relationship between GATT and SCM provisions on subsidies.

125 The language of the chapeau of Article XX whereby ‘nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures’ (emphasis added) does not represent an obstacle to a beyond-GATT application, quite the
indications from the negotiating history that non-actionable categories were supposed to be the only avenue of justification of certain ‘good’ subsidies, and that GATT XX could/should not apply to subsidies. Further, as a matter of general interpretation, there is no need for an express reference to give way to the application of a provision, particularly if this has a general nature. Finally, as noted by Howse, if we do not accept that GATT XX applies to subsidies, we may have an unjustified inconsistency. Certain (more distorting) measures, like quotas, would be justifiable, other (less distorting) measures, like subsidies, would not.

In conclusion, according to this front, there would be no major technical obstacles to the applicability of GATT XX to subsidies, the issue thus being eminently of policy (do we have a gap in the system?) or political (where do Members stand on this issue?) nature. This political dimension is also clearly present in the position of those that reject the applicability. To alter the ‘balance of the rights and obligations’ of the SCM Agreement is in legal jargon what to ‘breach the WTO bargain’ is in political discourse.

The issue of the applicability of Article XX of the GATT to other WTO agreements is appearing more frequently before the WTO dispute settlement system. However, the indications of the case-law are unclear so far. We have obiter dicta, which do not represent more than slips of the pen (Panel, Colombia - Ports of Entry),127 arguendo analysis where the issue is substantially avoided (Appellate Body, US - Shrimp/Customs Bond), and special cases whose significance beyond their specific context is not fully clear (Appellate Body, China – Periodicals).

Two recent decisions merit closer scrutiny. The decision in China – Periodicals seems to offer ammunition to the pro-applicability camp because the Appellate Body concluded that Article XX of the GATT could apply to China’s Accession Protocol.128 It could well be argued that, although providing the first example of beyond-the-GATT application, this finding’s significance is limited to the specific legal circumstances of the case, particularly the language of Article 5.1 of the Protocol recognizing ‘China’s right to regulate trade in a manner consistent with the WTO Agreement’.129 There are however good arguments that the significance of this report goes beyond the case-specific circumstances of the dispute. On the one hand, the Appellate Body shows a positive attitude towards the need to consider the hypothesis that GATT XX is applicable beyond the GATT. This comes out for example in the resolute rejection of arguendo analysis used by the Panel (and, significantly, by the contrary. The historical meaning of this expression dates back to the willingness to guarantee a ‘universal’ application of the ‘general’ exceptions to breaches of any GATT provision. See JH. Jackson, World Trade and the Law of the GATT (1969) 743-744; DA. Irwin, PC. Mavroidis and AO. Sykes, The Genesis of the GATT (Cambridge: Cambridge University Press, 2009) 164.

126 Howse, n. 12 above, 17.
127 This was confirmed by a private conversation with one of the panelists.
129 The linking factor here was the expression ‘consistent with the WTO Agreement,’ representing a clear gateway to the GATT.
Appellate Body itself in previous decisions). On the other hand, we find a sweeping recognition of the Members’ power to regulate:

we see the ‘right to regulate’, in the abstract, as an inherent power enjoyed by a Member’s government, rather than a right bestowed by international treaties such as the WTO Agreement.

Further:

With respect to trade, the WTO Agreement and its Annexes instead operate to, among other things, discipline the exercise of each Member's inherent power to regulate by requiring WTO Members to comply with the obligations that they have assumed thereunder.

The framework of analysis is clear. The ‘power to regulate’ is ‘inherent’ and, as such, does not – cannot - find its origin in treaty language which rather merely act as a ‘discipline’ to its ‘exercise’. Clearly, these general statements reach beyond the language of the Protocol. It remains to be seen however whether the recognition of the ‘abstract right to regulate’ can constitute the future normative foundation for the applicability of GATT Article XX to other WTO Agreements, particularly by embedding the new mindset where the power to regulate is inherent and treaty language can only operate to constrain this built-in prerogative and, arguably, must do so in a clear fashion. An ancillary effect of this ruling could be the rooting of another hermeneutic attitude, that of a two-step analysis where following a breach determination there should always be a serious enquiry of a possibility of justification.

What it certainly, more simply but no less importantly, represents is the Appellate Body’s intellectual disposition to consider attentively any such claim in the future. This can be contrasted with the very recent Panel report in the China – Raw Materials case which, by seemingly suggesting that ‘express language’ referring to, or in any case connecting to, GATT Article XX would be necessary for its applicability beyond the GATT, is unduly restrictive and, most importantly, clearly wrong as a matter of general principles of interpretation. The application of rules does not depend (only) on their express renvoi - unless one wishes to consider the WTO legal system unique in this respect.

The issue of whether GATT Article XX could apply beyond the GATT, and in particular to measures that were breaching the Sanitary and Phytosanitary Measures (SPS) Agreement, was also recently addressed in US – Poultry. The panel concluded that a measure already found to be inconsistent with various provisions of the SPS Agreement, which expressly elaborates Article XX (b) of the GATT, could not be justified by then having direct recourse to that general exception. This

130 Appellate Body, China – Periodicals, paras. 213-215.
131 Paragraph 222 (emphasis added).
132 Ibid (emphasis added).
133 The Appellate Body noted, in this regard, that a Member may be compliant with WTO law not only by not contravening it but also when it is justified under an applicable exception (see para. 223). The Geneva-based body then went on to elaborate on the justification alternative, noting that its availability ‘may also depend also depend on whether the measure has a clearly discernable, objective link to the regulation of trade in the goods at issue’ (para. 230).
134 Para. 7.154 notes that, were GATT Article XX intended to apply the China’s Accession Protocol (and particularly to Paragraph 11.3 ), ‘language would have been inserted to suggest this relationship. The report has been appealed.
B. GATT Article XX and renewable energy subsidies

Assuming GATT Article XX is applicable to the SCM Agreement, we can briefly analyze the issues that would arise from its application to renewable energy subsidies.

Article XX of the GATT includes two ‘exceptions’ with environmental relevance, paragraphs (b) and (g). Paragraph (b) concerns measures that are ‘necessary to protect human, animal or plant life or health’. This covers not only public health policy measures but also ‘environmental’ ones. Paragraph (g), on the other hand, refers to ‘measures relating to the conservation of exhaustible natural resources.’ The key terms are ‘necessary to’ in paragraph (b) and ‘relating to’ in paragraph (g), and invoke different tests, the former being stricter than the latter. The current interpretation of the ‘necessity’ test is that of a ‘weighing and balancing exercise’ where a considerable degree of deference is given to Members particularly with respect to the level of protection decided.

The key argument is that the subsidy which supports the deployment of renewable energy does contribute to the objective of GHGs emissions reduction and hence to fighting climate change. The issue is clearly one of evidence, although, arguably, no great difficulties can be thought of in this respect. On the one hand, there is considerable evidence that renewable energy has a less negative impact in terms of emissions. On the other hand, the necessity test of paragraph (b) requires balancing the environmental objective pursued and the contribution of the measure to that objective with the restrictions. Climate change is certainly an important objective, which would lower the standard of proof. In this regard, the Appellate Body has crucially acknowledged that the contribution of certain environmental measures, like climate change measures that often operate within a comprehensive set of policy actions, cannot be evaluated in the short term, but only with the ‘benefit of time’. Broadly analogous considerations can be made if the exception of paragraph (g) is considered.

Following the two-tier approach set out in US – Gasoline, the objectives of the measure are not only considered in a first step of the analysis of Article XX, but also in a second step where the measure’s application is considered under the chapeau of

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136 But only Article XX (b). It may well be that a defence could be raised under another Article XX exception, such as the one on public morals (paragraph (a)). See Pauwelyn, n. 128 above, p. 137, drawing this argument from Panel, EC – Biotech.

137 Although partly overlapping, the focus of the two exceptions differs slightly. Due to its language, reliance on paragraph (b) in order to justify climate change measures is likely to require evidence of the contribution of the measures to the protection of human, animal or plant life or health specifically. See Panel, Brazil – Retreaded Tyres, para. 7.46 where it is noted that a party invoking an environmental justification under Article XX(b) of the GATT ‘has to establish the existence not just of risks to ‘the environment’ generally, but specifically of risks to animal or plant life or health.’


139 The Appellate Body has already found in Brazil – Tyres that paragraph (b) on inter alia public health could also cover climate change. Appellate Body, Brazil – Tyres, para. 151.

140 Ibid.

141 The Appellate Body has concluded that clean air can be protected under this exception. Appellate Body, US – Gasoline, p. 18.
the same provision which requires that the measure is ‘not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade’.

The Appellate Body established in US – Gasoline that the purpose and object of the chapeau is ‘the prevention of abuse of the exceptions’ of Article XX. Later it elaborated that ‘a balance must be struck between the right of a Member to invoke an exception under Article XX and the duty of that same Member to respect the treaty rights of the other Members’. The chapeau requires an analysis of the ‘causes and the rationale of the discrimination.’ A measure may ultimately be justified only if it is applied in line with its legitimate objective. What is proscribed is the arbitrary and unjustifiable discrimination with regard to how the measure is applied, not discrimination per se.

Having sketched the main legal requirements, the key question is whether those forms of discriminatory subsidies supporting renewable energy analyzed above could pass muster with both the ‘necessity’ test and the criteria of ‘unjust or arbitrary discrimination’ of the chapeau. It has been seen that measures of support with differential – often discriminatory - impact are indeed common in the renewable energy sector, and are also, quite often, particular effective because of their targeting. We have also seen how their treatment is not fully consistent, with production subsidies being permitted (unless they cause adverse effects) and local content subsidies being prohibited. With respect to the local-content subsidies, it has been suggested that it may be difficult for them to be justified, mainly at the stage of proportionality. The assessment would be somewhat more favourable for production subsidies. Although ‘local content’ requirements and production subsidies are identical from an economic standpoint, we have speculated on whether a subsidy including a local content requirement could produce more markedly negative effects. If this is correct, this may well have an impact at the level of the necessity test.

142 Emphasis added. J. Pauwelyn ‘US Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade’ (2007) Nicholas Institute Working Paper NWP 07/02, Duke University, defined the chapeau as ‘the most important provision in the entire GATT agreement.’ (37) Although he was discussing the WTO legality of various policy measures to tackle US competitiveness concerns, this statement can be generalized and supports our analysis of the importance of GATT Article XX in the WTO system.


144 Appellate Body, US – Shrimp, para. 156.

145 Appellate Body, Brazil – Tyres, para. 225.

146 The requirement that the measure should not be applied so as to arbitrarily and unjustifiably discriminate cannot be equalled to the test of inconsistency of the most-favoured-nation and national treatment provisions. They must and do have a different meaning. According to the Appellate Body in US – Gasoline, equalizing these two tests would ‘be both to empty the chapeau of its contents and to deprive the exceptions in paragraphs (a) to (i) of meaning. Such recourse would also confuse the question of whether inconsistency with a substantive rule existed, with the further and separate question arising under the chapeau of Article XX as to whether that inconsistency was nevertheless justified. One of the corollaries of the ‘general rule of interpretation’ in the Vienna Convention is that interpretation must give meaning and effect to all the terms of a treaty. An interpreter is not free to adopt a reading that would result in reducing whole clauses or paragraphs of a treaty to redundancy or inutility’ (p. 21).

147 Bigdeli, n. 7 above, 32.

148 Ibid.

149 See section III. E above.
That said, there is no subsidy that, at least in principle, is not liable of being justified. Talking of the China – Wind case at a recent conference at Columbia University,150 Howse suggested that China might have had ‘a plausible argument’, based on environmental grounds, to justify their local content subsidies under GATT Article XX. He noted in particular that the local content obligation could have been found ‘necessary’ for three reasons: limited possibility of technology transfer, exceptionally great demands for alternative energy, and the ‘life and death’ environmental situation behind those needs.

A key point of the necessity analysis is the determination of whether there are less-trade restrictive alternatives available to achieve the same aim. It could thus be counterargued that, if a measure less-trade restrictive than a local-content requirement, and quite possibly achieving the same result, could be envisaged, the previous analysis would become mere academic speculation.

Few comments can be made. First, it should be reiterated that the fact that local content subsidies are prohibited is not conclusive. GATT Article XX justifies ‘any measure’ within its scope, including those, like quotas, that are prohibited and, most significantly, are more distorting than subsidies. Even assuming that a local-content requirement would have a more distinct impact on imports as compared to a simple production subsidy to a competing product, it would still be less distorting than an outright ban. Second, the assessment turns on the specifics of the case. Howse’s comments on the plausibility of a Chinese defence to local content requirements in the China – Wind case is a good example in point. It will be the specific factual and legal circumstances and conditions of the scenario prevailing in the granting country to justify or not the ‘necessity’ and the ‘justification’ of the discriminatory subsidy, and the local content element in particular. Further, the existence of alternative less-trade restrictive measures should not be assessed in the abstract but should be ‘reasonably available’ to the granting country.151 This qualification, which calls for a comprehensive assessment of various conditions,152 adds to the deference of the country adopting the measure.

Finally, the fact that measures of support of renewable energy, and of the green economy more in general, pursue a combination of objectives should not be significant. Howse recently noted:

simply excluding subsidies from WTO compatibility because they have industrial policy as well as environmental goals is unrealistic, especially in the current economic and financial crisis, where support for climate measures may be inadequate unless such measures also serve economic recovery or reconstruction goals.153

More radically, as was highlighted above, in these cases of renewable energy support, environmental and industrial policy objectives are in line with and reinforce each other.154 Finally, other – less targeted or discriminatory – measures might be chosen

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151 Appellate Body, Brazil – Tyres, para. 156. See Eeckhout, n. 120 above, 18.

152 Which are arguably not limited to ‘technical’ or ‘financial’ considerations the Appellate Body use as examples.

153 Howse, n. 12 above, 17.

154 See Cosbey, n. 101 above.
but there is then the question on whether they would be effective, which has been analyzed extensively above.\textsuperscript{155}

Assuming now that the assessment of a simple production subsidy would be more positive, we cannot escape two alternatives. If, beside being both discriminatory, production and local content subsidies are, as Sykes suggests, economically the same, their legal treatment should be the same, at least at the justification level where, because of its flexibility, the analysis seems to be more focused on substance and effects. By contrast, if, as we tentatively suggested, local content subsidies are more dangerous because they would in substance amount to a ‘double’ measure of support (ie, one favouring two different recipients), the question is again a matter of context surrounding the measure. But logic requires coherency. Would the assessment be different if we formally had two separate production subsidies rather than a subsidy-with-local-content tie? In principle, it should not.

Some food for thought is offered by the famous EU \textit{PreussenElektra} case which concerned a discriminatory subsidy.\textsuperscript{156} What is known in WTO circles is that the European Court of Justice concluded that a German FIT law – which combined a pricing requirement with the obligation to buy all renewable energy electricity produced in the area – was not a State aid because there was no cost-to-government. What is less known is that the Court analyzed the purchase obligation also from another perspective and concluded quite easily that this obligation amounted to a measure equivalent to a quota because it restricted, even potentially, the market access for renewable energy electricity coming from outside Germany. Like in the GATT, EU law prohibits quotas and equivalent measures. Even these measures can however be justified, often using a provision (Article 36 TFEU) which was introduced in the 1957 Treaty of Rome using as model GATT Article XX. To cut it short, the Court concluded that the German purchase obligation was justified because it was in line with the protection of the environment and because of the nature of the electricity market in the EU (the certification of origin of renewable energy electricity was underdeveloped). One is left to wonder whether, in the future, we will assist to an alignment of WTO and EU jurisprudence in this regard.

\textbf{C. Conclusions of the first justification option}

Article XX of the GATT can potentially offer a significant answer to the request for policy space. Its application is however politically troublesome for the same reasons that support its invocation. It is flexible and its potential reach cannot be fully predicted. The strain put on the WTO dispute settlement system may be significant, as it would have to deal with uncertain language and perform difficult and sensitive balancing acts. That said, the applicability of Article XX to climate change or renewable subsidy subsidies is a credible argument and a significant possibility. If the perception of a lacuna in the system intensifies and inaction in climate and trade negotiations persists, the Appellate Body may be persuaded of the need to take the lead.

In the presence of the various uncertainties raised by the application of a general justification provision, law reform is however the first-best scenario since it would allow to negotiate and tailor the exceptions to the needs of justification and accommodate the required policy space in the most appropriate way.

\textsuperscript{155} See sections D and E.
VI. THE SECOND JUSTIFICATION OPTION: A NEW DISCIPLINE

The idea of reviving a shelter for certain ‘good’ subsidies is increasingly aired, the great pretender certainly being climate change, and more specifically renewable energy, subsidies. After few words of background, what follows is a blueprint for law reform.

A. Background

The idea that subsidies are ambivalent because they can produce both negative and positive effects is not new. Both the GATT and the original WTO arrangement did recognize subsidies ambivalence and the fact that certain subsidies could also be positive and hence legitimate. Article 8.1 of the 1979 Tokyo Subsidies Code, the first comprehensive compact on subsidies, accepted that subsidies could be used to promote important objectives of social and economic policy and, at the same time, cause adverse effects to the interests of other signatories. Article 11 combined the recognition of the important policy goals pursued by governments with the use of domestic subsidies, providing a rich list of examples, with the invitation to avoid such practices that ‘adversely affect the conditions of normal competition.’ Where the balance was to be struck was however not clear. The recognition of legitimacy was not embodied in a precise discipline. It is only with the WTO that certain legitimate subsidies left this limbo. In presence of the substantive conditions and procedural requirements of Articles 8 and 9 of the SCM Agreement, certain regional, environmental and research and development subsidies were non-actionable and were sheltered from countervailing duty actions. The introduction of an express shelter for certain subsidies was however very much controversial, with the result that the

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158 These are the initial thoughts of a broader project on the governance of legitimate subsidies in the WTO the author is currently working on.


160 Some believe that the GATT discipline was superior to the WTO one because its less stringent approach would have recognized more policy space. See, eg, Sykes, n. 81 above.

161 The Agreement on Agriculture further recognizes that certain non-distorting subsidies should be accepted (see Annex II). It is also interesting to refer to the fisheries subsidies negotiations where it is proposed that certain subsidies should be acceptable. See S Bigdeli, ‘Will the friends of climate emerge in the WTO? The prospects of applying the fisheries subsidies model to energy subsidies’ (2008) Carbon and Climate Law Review 78.

162 For a detailed account see Bidgeli, n. 7 above, 4-8.
exception of non-actionability was only provisional and without the necessary support to maintain it, even in amended form, it expired at the end of 1999.\textsuperscript{163}

Albeit not perfect, the original scheme of the SCM Agreement was certainly balanced. On the one hand, it shed some light on what constitutes a subsidy. On the other hand, depending on their real or perceived effects, subsidies were divided according to a tripartite taxonomy: prohibited, (permitted but) actionable, and (permitted and) non-actionable.

\textbf{B. A blueprint for a new discipline}

There is an increasing debate about the soundness of WTO subsidy discipline.\textsuperscript{164} The core of the criticism is its inability to distinguish positive from negative subsidies, with the result that efficient and legitimate policy interventions are constrained. Against this state of affairs, the solutions proposed range from substantially downgrading the discipline to rather overhauling and calibrating it. Domestic policy space is thus achieved in different ways, the main difference being the degree of international regulation that is perceived as needed. The goal of this section is to sketch the main guiding principles and traits of a proposed new discipline of legitimate subsidies.

\textit{General guidelines}

The following are preliminary thoughts on three mutually interactive guidelines that are perceived as crucial cornerstones of an effective and legitimate system of control of subsidies.

\textit{Implementing transparency}

The prerequisite and cornerstone of any subsidy discipline is transparency. Collins-Williams and Wolfe recently noted:

\begin{quote}
The most general observation is that transparency mechanisms too often seem to have been an afterthought in the negotiations. Transparency is a fundamental WTO norm, but few agreements are designed from the ground up to make significant use of transparency as a tool. Transparency does not work as a tool if it is thought to be merely an elegant appendage to third-party ‘enforcement’. It does not work if negotiators do not think carefully about the government behaviour they wish to modify using transparency.\textsuperscript{165}
\end{quote}

Notification and transparency are key elements for both tracks of the governance approach suggested below, and should offer a clear picture of the measures of support.\textsuperscript{166} The current WTO system is deficient in this respect. Members do not

\textsuperscript{163} Further, the discipline of non-actionable subsidies was never used. In note 111 above we explain this as further indication of the tacit acquiescence of members to a wide-spread scenario of subsidization.

\textsuperscript{164} See Sykes, n. 81 above; Howse, ‘Do the World Organization disciplines on domestic subsidies make sense?’ n. 157 above.


\textsuperscript{166} A good analysis of the importance of monitoring subsidies is Steenblink, n. 20 above, 190-191. See Collins-Williams and Wolfe, n. 165 above, 575.
To be effective, the system should be designed with the proper incentives to notify, coupled with appropriate sanctions for non-compliance, in mind. The issues and options are various. We just name a few here. A crucial element is the definition of a useful template of subsidies notification. Recourse to third-party notification, from other international organizations and NGOs, and subject to verification, should be considered too. The system of transparency should also be open at its ‘output’ end with both ‘raw’ and ‘processed’ information made available to the wider public that could then exert control and influence governments.

Extensive notification obligations, with far-reaching consequences for their breach, are present in the EU system of State aid control. Notification is indeed an obligation if there is some sort of sanction for its breach. The basic sanction could be ‘naming-and-shaming’. This could be an inversion of the burden of proof, with, for example, a (rebuttable) presumption that any subsidy that is not – and until is - not notified is prohibited. Another possibility could be to strengthen the remedy side by expressly linking it to the notification obligation. Unless notified any support is illegal and, if granted, should be withdrawn (retroactively) or, at least, the interest accrued on the sums granted be paid. These devices may be intrusive but they are arguably effective. Other alternatives can be thought of but they should all contribute to the effectiveness of the notification requirement.

Combining the hard and soft sides of governance

A renewed discipline on subsidies should be based on a system of governance based on two interconnected tracks.

On the one hand, we would have the usual set of detailed conditions outlining what is permitted and what is not permitted – the legal positive side. This should be implemented through a more effective institutional and procedural system, and become more entrenched and internalized through litigation and discussions within the Committee of Subsidies.

In parallel and in close interaction with this ‘hard law’ track, a soft governance track should be introduced (or, better, reinforced). This is the place where information on

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168 For a proposal of a new template for subsidies notification see R Steenblink and J Simón, A New Template for Notifying Subsidies to the WTO, IISD, Geneva, 2011. Clearly, the most important – but at the same time most controversial – information concerns the trade impact of the subsidy.

169 Collins-Williams and Wolfe, n. 165 above, 575-576.

170 Ibid, 576. This should be set in the context of the more general discussion on the governance of subsidies, briefly examined in the next paragraph.

171 For a discussion on these issues see Rubini, n. 28 above, 82-85.

172 This is the essence of a proposal tabled and dropped at the very end of the Uruguay Round. See G Horlick, n. 167 above, 603. The possibility of introducing a duty to notify prior to the execution of the subsidy should be also considered.

173 It can be wondered whether – if entrenched - the benefit of the information sharing and evaluation system of the ‘soft governance’ track could already represent a sufficient incentive for Members to notify subsidies – without significant coercive devices. A strong system does not need strong enforcement.
subsidies is exchanged and evaluated (with no prejudice to legal assessment), thus representing the knowledge-enhancing side of the system. This forum would ultimately contribute to create a positive climate helping to embed open discussion, to generate, share, test and develop ideas and values, ‘symbols’ and ‘legal images’ on what constitutes normal and legitimate governmental practice and what does not. This process may reinforce mutual trust and trust in the system, reducing tensions and conflict and, eventually and crucially, improving the effectiveness of the ‘hard law’ track of the system (via interpretation or amendment).

The institutional settings for this double-track system can be various, can involve a redesign of current bodies like the (heavily-used) Secretariat or the (never-used) Group of Experts, or the creation of ad hoc bodies. More generally, the possibility of resorting to external ‘experts’ should be considered and designed in order to render their participation particularly effective as input to the political side of the discussion. A crucial issue to define is the relation and interplay of the Committee on Subsidies – where the representative of the Members convene – with such other bodies. What should certainly be implemented is a sense of regularity and continuity in the meetings and exchange between the various actors, in order to make the whole process productive.

Sense of community

The glue keeping the whole system together is an entrenched ‘sense of community’. This refers to the real or perceived presence of shared interests and goals, to the belief and confidence in the system as a shared resource towards the attainment of public goods.

The sense of community is the determining factor in giving shape to the system and maintaining it, in deciding how ambitious – or more simply effective – it is and in making it acceptable and valuable to its participants. Arguably, the main ingredients of this narrative have nothing novel or revolutionary but belong to the core of the rule of law ethos and good governance (transparency, fairness, inclusiveness, effectiveness) which inform the other two guidelines we have just suggested. This community understanding should inform every step of the life of the system of subsidy control – from its negotiation and design up to its various levels of operation.

The narrative of community plays a crucial role also for the acceptability of the GATT Article XX defence. The main finding of the analysis was that the issue of the applicability of this crucial provision is not technical. The more we leave a contractual

174 This process has been recently and effectively analyzed by A. Lang in *World Trade Law after Neo-Liberalism: Reimaging the Global Economic Order* (OUP: 2011).
175 The possibility of entrusting to an independent body the role of evaluation and analysis of the information and data on subsidies, in terms of cost-effectiveness and best practice in relation to the stated objectives, could be a plausible option. The results of this independent review could then feed back to a revamped, and more frequent, Trade Policy Review Mechanism, and constitute additional material for governments to share and discuss in the Committee of Subsidies.
177 Rubini, n. 28 above, 33-37.
approach and shift towards a *community* one,\textsuperscript{178} the easier the acceptability of trade-with-non-trade balances, with the possible outcome that trade interests do not indeed prevail, becomes acceptable. This process, it is argued, is inevitable. The increasing pressure of the various challenges of the current era\textsuperscript{179} make a mere contractual approach insufficient to solve issues and disputes that, although inextricably linked to the trade discourse, go beyond it.\textsuperscript{180}

### Rule and regime design: EU as model?

When designing new rules on legitimate subsidies, the first principle is that the guidelines coming from economic and policy analysis should be adhered to as much as possible (see section II above).

The existence of a system of justifications to draw direction from is also useful. In this regard the EU system of State aid control can offer valuable inspiration in terms of rule and regime design.\textsuperscript{181}

EU law has a very sophisticated system of justifications for State aid, including environmental and energy subsidies. These justifications find their textual basis in the very broad language of few clauses introduced in 1957 in the Treaty of Rome. Along the years, the normative development has been robust. We passed from the interpretation of general treaty clauses to policy definition and consolidation, often tested before the EU Courts, to reach the more recent stage of secondary legislation. Individual decisions have built up a practice which, has been first codified into ‘soft’ law to eventually become, in virtually all State aid areas, ‘hard’ law. Procedurally, the system is based on two cornerstones which aim to guarantee the effective control of the EU Commission in Brussels which has the exclusive power to authorize planned State aid. Members must thus notify all planned State aid in advance and refrain from implementing it before authorization.\textsuperscript{182}

A crucial development took place in 2008 with the introduction of the ‘General Block Exemption Regulation’ (GBER).\textsuperscript{183} The underlying concept is that State aid measures pursuing horizontal – not sectoral – objectives which satisfy the precise conditions of the regulation are automatically permissible, without any need of prior authorization.\textsuperscript{184} The benefit of the exemption applies only if certain conditions, mainly referring to cost-eligibility, aid intensity, transparency and incentive effect, are

\textsuperscript{178} This is a progressive movement, through stages. It is also more than likely that elements of both approaches do coexist. For a description of contractual and community approaches see Cho, ‘Reconstructing an International Organization’ supra n 176.


\textsuperscript{180} The step to what few years ago was dubbed ‘constitutionalism in a modest sense’ is short. See T Cottier, ‘Limits to International Trade: The Constitutional Challenge’ (2000) American Society of International Law Proceedings, 220, 221.

\textsuperscript{181} The European model of State aid justifications played already an important part in the design of the category of non-actionable subsidies.

\textsuperscript{182} National courts have ensured the respect of these obligations with far-reaching powers, including most notably that to order the repayment of any aid granted in contravention of these two procedural obligations.


\textsuperscript{184} There are still however reporting and monitoring provisions.
present. The GBER covers numerous types of State aid including several instances of environmental aid. One of these is aid for renewable energy production.

If the conditions of the GBER are not satisfied, the planned measure of support is subject to the individual scrutiny and authorization by the Commission. In the environmental area, the Commission applies the principles of the 2008 Guidelines on State aid for Environmental Protection (‘Guidelines’). In general, although the normative framework is very similar to the GBER, the Guidelines are more generous with higher levels of aid intensity permitted. This can happen because it is ultimately for the Commission, which enjoys wide discretion in this regard, to decide whether the State aid measure should eventually be permitted or not. The process through which this decision is reached involves the execution of a flexible balancing test largely centred on a proportionality assessment.

If we now compare the normative approach of the GBER/Guidelines with that the GATT/WTO, what is striking is that we assist to a similar development. At the beginning there were only general clauses (see Treaty of Rome) or statements (see Article 11 of the Tokyo Round Subsidies Code). With time, however, the general recognition that certain subsidies may be legitimate has generated, through practice and experience, a more detailed discipline.

This trend from general to specific is quite significant. In the politically sensitive area of public subsidies, the anti-abuse goal is clear. It is in this light that we therefore have some misgivings with the suggestion that a ‘much simpler, principle-based approach’ would be needed, whereby a climate change subsidy would simply not be actionable if included in one of the policies of the Kyoto Protocol, contribute to its goals (like technology transfer and equitable allocation of responsibilities) and, to the extent possible, respect fundamental principles of the WTO like non-discrimination and transparency.

While the reference to an important multilateral instrument has clear

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185 These refer to i) investment aid for environmental protection beyond Community standards; ii) aid for the acquisition of transport vehicles beyond Community standards; iii) aid for early adaptation to future Community standards for SMEs; iv) aid for investment in energy saving; v) aid for investment in high efficiency cogeneration; vi) aid for investments to exploit renewable energy sources; vii) aid for environmental studies; and viii) aid in the form of tax reductions.

186 In this regard the eligible costs are the additional costs compared with production from conventional power plant or heating system with equivalent capacity. The maximum aid intensity is 45% for large enterprises, 55% for medium-sized enterprises and 65% for small enterprises.


188 For investment for renewable energy, we have 60% for large enterprises, 70% for medium-sized enterprises, 80% for small enterprises. If the aid is granted through a competitive bidding process on non-discriminatory criteria the intensity can reach even 100%.

189 The three steps are as follows: i) is the aid aimed at a well-defined objective of common interest, for example environmental protection? ii) is the aid well designed to achieve that objective (is it the aid appropriate, does it produce an incentive effect, is it proportional)? iii) are the distortions on competition and effect on intra-EU trade limited, so that the overall balance is positive? See K Bacon, European Community Law of State Aid (Oxford: Oxford University Press, 2009) chapter 3, para. 3.28. For an analysis, see also HW Friederiszick, LH Röller and V Verouden, European State Aid Control: An Economic Framework, in P Bucicrossi (ed) Handbook of Antitrust Economics (Cambridge MA: MIT Press, 2008) 625.

190 In a sense, we could even say that the first substantial global and multilateral discipline on subsidies (the SCM Agreement) started from the point of arrival of the more established EU system.

191 Howse, n. 12 above, 21.
advantages, particularly by ensuring coherency of action, the problem with this approach is the same of a GATT Article XX option. The guidelines of the Kyoto Protocol (notably Article 2.1(a)) are too general and too few prescriptive. Detailed rules are certainly less flexible, liable to be over- or under-inclusive and more prone to ‘micro-management’. And, clearly, they seem to constrain policy space. This is not necessarily the case, however, if the terms and conditions of these clauses are properly negotiated and drafted, and, if necessary, are subsequently reconsidered (a beneficial by-product of the soft governance process outlined above). In our eyes, the noticeable benefit of precision is the capability of reducing the potential for abuse which has been one of the main criticism towards subsidies, and improve the acceptability of the idea itself of a ‘resurrection’ of non-actionability. On the centrality of transparency we have commented above. As for the respect to the principle of non-discrimination, although this may certainly be important as a general tenet, as the previous analysis on discriminatory subsidies has shown, appropriate carve-out should be made for those limited cases where a discriminatory approach may be warranted.

How do the conditions of the EU regulation embodied in the GBER/Guidelines compare with the previous criteria of the non-actionability?

From an initial assessment, it emerges that, not only they share the same general approach, but they also ‘follow the same logic’ based on what has been called the ‘polluter shares’ principle of cost allocation. To be true, there are significant differences which show a more generous scope for justification under EU rules. This depends on the complexity and comprehensiveness of the EU system which combines stricter pre-defined rules of justification with a flexible individual scrutiny by the Commission.

From the perspective of someone seeking inspiration or guidance on subsidy governance, the EU system of State aid does not represent a ‘single package’. Some elements, notably those related to the case-by-case scrutiny and authorization of a supranational adjudicatory body, are not easily transposable beyond the EU. What the EU experience can, however, certainly offer is good reference for the substantive design of the justification, for the mechanisms to enforce transparency, and, if necessary, the adjustment of the rules or the measure.

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192 See Bidgeli, n. 7 above, 12-17.
193 For example, the balancing test cannot be imported at the global level for the simple reason that it needs to be administered and applied on a case-by-case basis. In the WTO, the necessity-proportionality assessment should already be ‘pre-made’, embodied in precise rules subject to clear and automatic application.
194 The aid intensities permitted in the EU go much further than the 20% of Article 8.2(c) of the SCM Agreement. Further, while under the chapeau of Article 8.2(c) of the SCM Agreement, only ‘existing facilities’ can benefit from the exemption, under the EU regulation aid can be granted for investment in renewable energy production. Another example of difference refers to the possibility for EU State aid to cover operating costs, which is excluded in the SCM Agreement.
195 The procedural obligations of notification and ‘standstill’ before a positive authorization are strictly enforced in the EU, mainly through the remedy of retroactive repayment.
196 The fast development of both EU State aid soft and hard law, often following public consultations, is very instructive.
VII. CONCLUSIONS

This article has attempted to answer various questions.

First, is renewable energy, which plays a crucial role in the mitigation of climate change, in need of public support? And, if so, what guidelines should be followed for it to be efficient in relation to its goals?

This discourse – in the writer’s perception - is inescapably a policy one since the objectives which are put forward to justify public intervention are various ranging from the protection of the environment to economic and social development up to energy security. If the pitch of the discourse is a policy one, this does not mean that governments enjoy full discretion in their decision to support or subsidize (and should hence be given an unconditional ‘green light’ to do this). Given certain goals that need to be achieved, it is essential to determine whether there is a need for public support, to enquire its impact, and to test the cost-effectiveness of the various options against those goals. The cure should not be worse than the disease. More research is certainly needed in this regard, although we already have some important guidelines of what is increasingly consolidating in best practices. Cooperation between private and public sector in the discovery process of necessary information and in the continuous monitoring of action in relation to the aims is essential. So is the transparency of goals pursued, measures implemented and their impact, transparency which only can ensure accountability towards, and if necessary critique from, the wider public and observers.

Assuming that certain subsidies to support renewable energy may be ‘good’, the next key question is whether the current regulatory framework, notably WTO subsidy disciplines, do recognize appropriate autonomy to domestic measures of support. The answer to this second policy-legal question has occupied much of the analysis.

The general scenario is one of legal uncertainty. On the one hand, for various reasons, some of the most common measures of support of renewable energy (tax incentives, minimum quantitative requirements and pricing requirements) still have an unclear status under the legal definition of subsidy of the SCM Agreement. More generally, energy markets are significantly regulated and distorted, adding up to the difficulty of determining whether a certain action does confer a benefit or may cause adverse effects. Uncertainty on the legal assessment produces a constraint on policy space. The ability to predict the legal consequences of one’s action is clearly an essential prerequisite when it comes to plan policies. The possibility that some issues may be clarified through litigation does not improve the scenario since disputes are subject to many vagaries and may, at best, be a piece-meal, hence partial, solution.

Added to a diffuse situation of legal uncertainty, some legal standards clearly show how the perspective of trade rules, based on principles of general applicability, neutrality and non-discrimination, may be different from the policy prescriptions coming from economic and environmental analysis, as well as from green industrial policy. Effectiveness favours specific and targeted interventions, policies that distinguish and often discriminate.

197 In this regard, the ‘safety-valve’ of Article 9 of the SCM Agreement, whereby non-actionable subsidies would be subject to closer scrutiny if causing ‘serious adverse effects’, with the possibility of removing the negative effects, should be revived. This device would operate in a similar way to what happens in the EU where – at the stage of the assessment of the compatibility with the common market – the Commission has the power to require various forms of changes to the planned aid in order to reduce the negative distorting effects of the measures.
The conclusion that the current subsidy rules are not satisfactory therefore supports the case for a legal shelter that, in a clear and positive way, defines what types of government interventions are legitimate and what are not. It is important to underline that this is not intended to be a *carte-blanche* but a legal justification with terms and conditions duly informed by the goals pursued and the guidelines offered by economic and policy considerations in order to achieve those goals in a cost-effective way.

In the absence of specific rules to this end, we have explored what has emerged as a credible but controversial alternative, that is the applicability of GATT Article XX to such measures. If the flexibility of this important general exceptions is a plus, the connected uncertainty is certainly a vice, eventually making this option politically troublesome and sub-optimal. The first-best is certainly law reform which would enable to tailor the new exceptions to the needs of justification and accommodate the required policy space in the most appropriate way. We have sketched what could be the guidelines of this law reform: transparency, synergy of hard and soft governance, and sense of community. We have also considered whether the EU law on State aid could offer some inspiration.

The answer to the problem is therefore not less but better regulation. We do not share the view that *laissez-faire* is the answer to the deficiencies and constraints of subsidy disciplines. The way to achieve rationality and policy space is not through a substantial downgrade of the current rules. Although subsidy rules undoubtedly present incoherencies and difficulties (but, to be true, this applies to virtually all systems of regulation), the answer is not abrogation but amelioration. A better international regulation of subsidies is a valuable asset. Particularly when it can simultaneously act as control of the negative spillovers of many subsidies and as forum for the discussion and advancement of a shared knowledge on the question of what is and what is not a legitimate government intervention. This would indeed represent a good result for the governance of subsidies generally, and of renewable energy subsidies in particular.

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198 And the sole use of non-violation nullification and impairment claims to tackle subsidies frustrating negotiated market access

199 Other suggested options for policy space have been advanced. Some are alternative to a new discipline of justifications, others can indeed be applied in conjunction with or as a preliminary step towards a new WTO discipline. It has for example be suggested that a temporary truce or waiver with respect to action to fight climate change be introduced, conditional on various transparency obligations and on the respect of fundamental WTO principles like non-discrimination. Another possibility is a plurilateral solution, either within or outside the WTO, whose attractiveness would be to alleged capacity to garner consensus among the willing countries. This alternative may indeed constitute the starting point for a future multilateral solution. A ‘negotiation approach’ has also been suggested which would be based on the EGS liberalization, and in particular in the commitment to remove fossil fuel subsidies as non-tariff barriers to renewable energy goods and services, possibly coupled with the scheduling of permitted measures of support of renewable energy. For discussion of these options see G Hufbauer, S Charnovitz and J Kim, *Global Warming and the World Trading System* (Peterson Institute of International Economics, 2009); Howse, n. 12 above; Aerni, n. 157 above.