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A matter of definition

COMMENTARY OF ASPECTS OF THE APPELLATE BODY'S RULING ON THE CANADA- RENEWABLE ENERGY CASE IN THE WTO

In May 2013 the Appellate Body issued its ruling in the Canada- Renewable Energy case. The ruling followed cross-appeals made by the defendant, Canada, and complainants, the EU and Japan, regarding the findings of the Panel, made in December 2012. This note reviews aspects of the Appellate Body's findings, notably its application of the concept of market definition.

One of the striking features of the Appellate Body's reasoning is its reliance on the concept of market definition as the starting point of its analysis. This approach is very reminiscent of approaches taken by competition authorities in cases involving the exercise of market power, where market definition is often determinative in the outcome of the case. On the basis of its definition of the market, the Appellate Body overturned the Panel's finding that the complainants



had failed to establish that Ontario's Feed-in Tariff (FIT) scheme conferred a benefit within the meaning of the WTO Agreement on Subsidies and Countervailing Measures.

In the remainder of this note we review and critique the approach to market definition in this particular case. We also consider the implications of the ruling in the context of broader debates regarding issues of market definition, and the use of economics to assist in the definition of the market.

ECONOMICS, MARKET DEFINITION AND WTO PANELS

For economists, the starting point for defining a market is to consider the market as a field in which competitive forces operate. Specifically, the market in which a firm operates will comprise that firm and all other firms whose pricing, output and other commercial decisions constrain the commercial decisions of the firm in question. The concept of market definition has played a central role in competition law cases.

Central to the notion of market definition is the question of competitive constraints. By competitive constraints, we mean the extent to which a firm is forced to take into account the responses of other firms in making key commercial decisions on price and quantity. Clearly this is a matter of degree: some firms will be in a position to exercise a much stronger constraint on others. The task of the economist in defining markets is to draw boundaries that demarcate, on one hand, those institutions that are likely to have a substantial effect on the business (or businesses) whose market power is in question and those other institutions that have a less-immediate effect. In doing so, close attention is given to the question of substitutability, since the greater the degree of substitutability between the products of a firm, the greater the extent to which these are likely to impose competitive constraints on each other.

The question of defining markets by considering issues of substitutability and competitive constraints have arisen in various WTO disputes, usually in relation to disputes involving Article III of the GATT (*i.e.* national treatment). This is because the provisions of paragraph 2 of Article III, read in conjunction with those to Ad Article III, proscribe the application of taxes and charges that serve a protectionist purpose by discriminating between products that are "directly competitive" or "substitutable". Notable cases in which these matters have arisen include the three cases involving taxes on alcoholic beverages, against, respectively Japan, Korea, and Chile. These rulings stressed the importance of considering the potential for competitive constraints, not just the current state of market conditions.

In the *Canada- Renewable Energy* case, the reason for the Appellate Body's focus on market definition was not to establish whether a violation of national treatment under Article III had occurred, but rather as a starting point for its analysis of whether the FIT schemes constituted a subsidy under the provisions of the agreement on Subsidies and Countervailing Measures (SCM). While this

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represented an innovation in terms of issues considered under the SCM, the Appellate Body's decision to ground its discussion in matters of substitutability is consistent with the approach described in the previous paragraphs. Moreover, because the underlying question the Appellate Body sought to address was the extent to which *producers* of electricity from renewable sources competed with producers of electricity from non-renewable sources, this approach has strong resonance with the approach to understanding market power in competition cases, where the aim is to understand the extent to which firms impose competitive constraints on one another.

THE APPELLATE BODY'S DEFINITION OF THE MARKET

The Appellate Body observed that the Panel had considered the question of substitutability in its examination of whether producers of electricity from different sources competed with one another. The Appellate Body ruled that the Panel had not fully addressed the matter of substitutability. It ruled that even though the Panel had correctly identified that it was impossible for consumers of electricity to differentiate between different sources of electricity once this was delivered through networks, it ought to have considered the following. First:

- In the case of Ontario, the government, through the Ontario Power Authority (OPA), was the purchaser of electricity through contracts, and it did differentiate between electricity according to source, with the objective of promoting a transition away from conventional sources of power.
- Supply side substitutability should have been considered more fully. Given differences in technology and cost structures, the Appellate Body ruled that there were low levels of substitutability in the generation of wholesale electricity.

It is worth noting that in the GATT Article III cases referred to previously, the focus was on demand-side substitutability. The decision by the Appellate Body to focus on the supply side is economically justifiable – products can be substitutes in demand and/ or supply, and competition cases will typically consider both in market definition.

The methodology taken by the Appellate from an economic point of view seems to be apposite, setting aside questions of legal interpretation that have to do with whether market definition is a necessary starting point for subsidy analysis under the SCM. However, various issues can be raised in relation to the findings made by the Appellate Body on the basis of this methodology.

The first concerns the inferences drawn about demand side substitutability on the basis of policies pursued through the OPA. The policy of ensuring that at least a portion of wholesale energy is sourced from renewable sources is an increasingly common practice globally, and could be achieved by a number of means. However, this policy objective is not in and of itself a reflection of non-substitutability in demand. It is, rather, precisely a reflection of the fact that

electricity procured from various energy sources is substitutable, and that in the absence of a deliberate decision to source power for renewable sources, these would be substituted for by lower cost (but high emissions) sources. The purpose of the government intervention is to address a market failure that is the result of inherent substitutability.

The Appellate Body did not consider the possibility that end-consumers of electricity may differentiate between electricity on the basis of energy sources, reflecting a preference these consumers may have for clean sources of energy. For example, energy suppliers offer retail plans that provide for some or all of electricity consumed to come from renewable sources, which may be taken as evidence that at least some consumers care about the source of the electricity consumed and product-differentiate on this basis. Even if such consumer differentiation is limited at present, it may develop further – perhaps, it could be claimed, the Appellate Body could have considered the future potential for competition, much as the panels in the beverage cases were minded to consider the potential for competition.

It is not clear, however, that the existence of “green energy” plans offers a persuasive basis for considering that different markets exist for electricity according to energy source. The fact that energy producers offer such plans is not primarily a reflection of a response to consumer tastes. Rather, it more usually reflects the response by energy suppliers (and retailers, more specifically) to incentive mechanisms put in place by governments to expand the supply of electricity based renewable energy sources. But these incentive mechanisms exist precisely because in their absence suppliers would have few incentives to supply electricity from low emissions sources which in the normal operation of energy systems would be substituted for by lower cost- higher emissions sources. Ultimately, the extent to which end-consumers of electricity differentiate on the basis of energy sources is an empirical question to be addressed by robust analysis.

As far as the supply side is concerned, it is true that differences in plant technology constrain the degree of substitutability at the plant level, regardless of whether the plant in question uses renewable or non-renewable sources. Thus it would very expensive for a coal-fired baseload generator to ramp up and down in the manner of a peaking closed-cycle gas turbine plant.

At the same time, it is also the case that generating firms typically own a portfolio of plants to optimise their ability to respond to different demand conditions and to diversify risk. Moreover, when making decisions on pricing in a model of least-cost supply, generation firms will take into account the pricing decisions of other firms. For example, in times of high demand, a peaking gas plant will take into account the probability that wind conditions may favour dispatching wind generators. Because wind generators operate on a must-run basis, and have marginal costs that are close to zero, they will typically price their output on pool markets at very low prices. Higher cost peaking gas plant need to account for this

possibility when making pricing decisions. Thus, drawing on the definition of markets as the field in which competitive behaviour takes place, we can see how on the supply side, plants with very different technological and cost characteristics can impose competitive constraints on each other.

THE APPELLATE BODY'S DEFINITION OF THE MARKET

The implications of the Appellate Body's ruling can be considered at several levels:

1. the Canada-Renewables case itself;
2. the definition of a subsidy within WTO rules; and
3. the appropriate methodologies for defining markets.

The Canada-Renewables case

First, in terms of the case itself, it appears that the Appellate Body's approach to market definition was justifiable from an economic point of view, as was its ruling that the question of benefit could be settled on the basis of market definition. The difficulty lay in the particular definition of the market it chose. For its part, it seems that the Panel's conception of market definition was the appropriate one (*i.e.* a single market for wholesale electricity) but that its ruling on benefits was problematic.

Thus from an economic point of view, the most defensible outcome would have been to combine the best parts of the Appellate Body and Panel rulings. That is to say, once the decision has been made to ground the analysis in the definition of the market, and to ground the latter in the concept of substitutability, the most persuasive definition of the market is in fact that opted for by the Panel *i.e.* a single market for wholesale energy. At the same time, the very notion of substitutability is useful in understanding how the FIT schemes confer a benefit – namely by promoting the substitutability of non-renewable energy sources by renewable sources of electricity.

Defining a subsidy

A second set of implications concerns some of the implications of the case for the definition of a subsidy. One of the consequences of the Appellate Body's approach is that it may lead to a greater focus on the question of market definition in identifying benefits and thus establishing the existence of a subsidy.

On the same issue of defining subsidies, it is also worth noting that following on from its definition of the market, the Appellate Body went on to reason that the simple fact that the government implemented mechanisms to create markets (which is how it characterised the objectives of the procurement arrangements for green energy underpinning the FIT) was not in and of itself determinative of the existence of a subsidy within the meaning of WTO rules.

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At a general level this is true: market-creating mechanisms do not necessarily entail subsidisation. For example, the creation of tradeable property rights such as entitlements to water or for emissions certificates does not entail the existence of a subsidy. However, in this particular case, the reasoning that the authorities were engaged in market-creation that did not entail subsidisation is difficult to sustain. The reason is that this intervention was designed to stimulate investment in renewable energy sources, which would not have been forthcoming *but for* the decision of the government to intervene in support of renewables. Indeed, as observed before, rather than classifying FIT-like policies as market-creating mechanisms, it is more appropriate to describe them as promoting particular patterns of substitution within a market.

Defining a market

A final set of implications concerns the methodologies that may be used to define markets. The Appellate Body placed the question of substitutability (in demand and supply) at the centre of its analysis, which is entirely in keeping with economic theory. The key question for panels under WTO cases, as it is for competition law authorities, is getting a handle on these patterns of substitution.

The use of econometric techniques to measure cross-price elasticities is one possible route. Both cross- and own-price elasticities of demand have been used in merger analysis for several decades. The Appellate Body's report in the *Japan – Taxes on Alcoholic Beverages* recognised that cross-price elasticity was one measure, but not necessarily the primary measure. Caution about the use of cross-price elasticity reflects in part the onerous data requirements that need to be met if it is to be estimated through econometric methods. In the Japan case, estimates of cross-price elasticities presented by one of the parties were (rightly) rejected because of the poor quality of the econometrics underpinning the estimates. We will examine the standard econometric techniques employed in a future briefing.

What the FIT case illustrates is that a rigorous examination of questions of substitutability and market definition does not necessarily require complex econometrics. Rather, it is more a question of using economics to systematically characterise the activities under investigation -or, to put it more colloquially, to use economics to provide a framework for understanding “what is going on” in the market. Thus the matters of substitutability and markets in the FIT case could be handled by adequately characterising the way in which producers and consumers interact in the context of electricity markets. The difficulties for both the Panel and the Appellate Body lay in shortcomings in the way in which they applied economics to the fact at hand.

SUMMING UP

The approach followed by the Appellate Body in grounding its reasoning in market definition mirrors that taken by courts and competition bodies in many jurisdictions when considering merger cases. It also resonates with the approaches taken by panels in considering various WTO cases in relation to GATT Article III. Its innovation lies in applying the approach to determining the existence of a subsidy within the meaning of the SCM agreement, and also in its expansive consideration of substitutability to include the supply side.

That fact that the Appellate Body's reasoning was developed under the umbrella of the SCM does not, however, remove its relevance for future cases that may be made in relation to national treatment and GATT Article III: If that is the case, close attention needs to be given the merits and weaknesses, from an economic point of view, of the reasoning employed by the Appellate Body.

This approach invites close scrutiny of the questions of substitutability and competitive constraints. While economics can provide a range of quantitative tools to assess these questions, a rigorous treatment of these questions does not necessarily require recourse to complex modelling of econometrics. What is more important is the rigorous application of fundamental economic concepts to the facts of the case. It is the role of the expert to provide adequate guidance on what are always, ultimately, matters of judgement.

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