

The North American–European Union Dispute Over Beef Produced Using Growth Hormones: A Major Test for the New International Trade Regime

William A. Kerr and Jill E. Hobbs

1. INTRODUCTION

IT is probably unfortunate that one of the first major disputes between the US and the European Union (EU) to be ruled on by the new, and relatively untried, disputes settlement system of the World Trade Organisation (WTO) was the exceedingly complex and acrimonious issue of beef produced using growth hormones. Having this particular dispute as a test of WTO efficacy is unfortunate for a number of reasons. First, the WTO Panel had to deal with a new area of competency – sanitary and phyto-sanitary regulations. As the new Agreement on Application of Sanitary and Phyto-sanitary Measures (SPS) was negotiated during the Uruguay Round, in part because of the problems surrounding beef produced using growth hormones, the area of trade law covered was not one where the WTO could call on precedents from its progenitor, the General Agreement on Tariffs and Trade (GATT), to settle the dispute. Adjudication of more standard trade disputes would have allowed the new WTO mechanisms a chance to gain credibility. The beef hormone dispute has led to questions regarding the credibility of the WTO's disputes mechanism.

WILLIAM A. KERR is Van Vliet Professor at the University of Saskatchewan, Canada and Senior Associate, Estey Centre for Law and Economics in International Trade, Saskatoon, Canada. JILL E. HOBBS is Assistant Professor in the Department of Agricultural Economics, University of Saskatchewan, Canada.

Second, the dispute has not been resolved despite there having been clear rulings from the WTO Panel and Appeals Panel. This is because the EU has decided to not abide by the WTO's ruling and open up its market to North American beef and, instead, to accept retaliation. Accepting retaliation has been specifically built into the WTO (and before it the GATT) as the ultimate, and necessary, escape clause for governments faced with judgements which carry too high a domestic political cost to implement (Kerr and Perdakis, 1995). The threat of retaliation is, however, expected to deter countries from not implementing WTO decisions and, for the most part, has been effective as countries have rarely opted to accept retaliation. It should be remembered that the WTO is not an international legal system but rather a political compromise that is voluntarily agreed to. In essence, acceptance of retaliation represents a breakdown in the political compromise which underlies the WTO and is a signal that renegotiation is necessary. The EU has indicated that it wished to re-open the SPS for negotiation so that consumer concerns can be accommodated (Kerr, 1999). Unfortunately, the SPS appears to be well designed to handle what it was intended to do – prevent the abuse of sanitary and phyto-sanitary rules to provide domestic producers with protection. In fact, the beef hormone case is indicative of the likely efficacy of the SPS Agreement in preventing abuse in the name of protecting producers. Ironically, it was not producers in the EU who were asking for protection but, rather, consumers. The hormone case does illustrate a weakness of the WTO – it only recognises producers as sources of protectionism (Perdakis et al., 2000).

The beef hormone case has only clouded this issue because the EU attempted to use an inappropriate mechanism – the SPS – to obtain protection for what was a consumer issue. This has focused attentions on the SPS and not on the real question of how the WTO should deal with non-producer interests when they are sources of protection. It would have been better for the WTO if there had been some producer-induced protectionist cases relating to the SPS prior to the beef hormone dispute so that the robustness of the SPS could have been established.

Finally, the timing of the beef hormone case is unfortunate because it arose when civil society Non-Government Organisations (NGOs) were assessing the WTO on issues such as trade and environment, animal welfare, biotechnology, globalisation, etc. The judgement on SPS principles appeared to many civil society groups as proof that the WTO would support commercial interests over their vested interests – *forcing EU consumers to eat beef they did not want*. While this condemnation of the WTO by those who have become identified with civil society may have been inevitable, the beef hormone judgement provided a lightning rod around which civil society groups could coalesce leading, for example, to the violent confrontation at the WTO Ministerial Meeting in Seattle in late 1999 and other protests. The judgement has also been seen by civil society groups as an indicator of how the WTO will treat trade in

GMOs – an issue that they have particularly strong positions on (Phillips and Kerr, 2000).

It should be clear that the dispute surrounding trade in beef produced using growth hormones has widespread ramifications for the international trading regime – far in excess of the trade disruption it represents and which extends beyond the protagonists in the dispute.

2. THE ISSUE

Growth hormones are used extensively around the world to enhance the performance of beef cattle. While the dispute is between Canada and the EU and the US and the EU, other large cattle-producing nations such as Australia, New Zealand and Argentina sanction the production of beef using hormones. The six hormones licensed in North America but banned for use in the European Union are estradiol, melengestrol acetate, progesterone, testosterone, trenbolone acetate and zeranol. Estradiol, progesterone and testosterone are naturally produced in humans and animals and occur in a wide range of foods including soybean oil, broccoli, cabbage and eggs. The other three hormones are synthetic.

The use of hormones in cattle production is not totally banned in the EU. Farmers can use the natural hormones for cost-reducing zootechnical purposes (such as synchronising estrus cycles in dairy cows) and therapeutic purposes (correction of endocrine dysfunctions). In the EU the hormones can only be administered under veterinary supervision.

Scientific evidence can never be conclusive. It is based on statistical processes. This means that nothing can be declared absolutely safe. While this is obvious, it is worth restating in the context of the *scientific evidence* criteria, which forms one of the pillars of the SPS Agreement, and in light of consumer responses to food safety issues. Further, it is not possible to test for all possible health risks – the range is infinite. In other words, a country could always find a justification for restricting international trade in a product by citing some level of remaining risk or requiring new research. This means that the framers of the SPS must have had an alternative to absolute safety in mind. Otherwise, scientific evidence would not be an operational decision-making criterion. The framers of the SPS, which included the EU, must have had a broad scientific consensus in mind. This is the heart of the beef hormone dispute. The US, Canada and other major beef-producing countries believe that such a scientific consensus exists on the safety of beef produced using hormones. In addition to nearly fifty years of scientific study in individual countries and the widespread and long-term use of hormones in beef production in over twenty countries – i.e. there is the evidence from an experiment writ large – a wide range of international scientific bodies, of which the EU is a member, have judged hormones to be safe when used according to good veterinary

practice. Over time, these have included the Joint Expert Committee on Food Additives (JECFA) of the World Health Organisation and the Food and Agricultural Organisation of the United Nations; the Codex Committee on Residues of Veterinary Drugs in Food and the Codex Alimentarius Commission. Further, two major internal EU initiatives – the Lamming Committee scientific expert group and the 1995 Scientific Conference on Growth Promotion in Meat Production – concluded there was no evidence of health risk from the use of growth hormones. The basic assertion of the US and Canada is that this represents as close to a scientific consensus as one is likely to get. The EU refuses to license the domestic use of hormones for growth enhancement in beef production or to allow the import of beef produced using hormones.

While there were considerable legal arguments regarding risk assessments and inconsistent internal EU safety standards, the refusal of the EU to accept the scientific consensus remains the core issue. While the hormone issue has often been portrayed as typical producer protectionism being practised by the EU, particularly in rural constituencies in the US and Canada, there is little evidence that this is the EU motivation. The EU has alternative trade measures which exclude the majority of beef imports from Canada and the US. Prior to the hormone ban, the product which was largely imported from North America was edible offals not covered by EU beef import barriers. In fact, neither the US nor the Canadian industry had a great deal to gain in the short run from winning the hormone case.

Of course, once a technology is denied to domestic producers but available to foreign competitors, producers will suffer from a technological disadvantage and can be expected to lobby for protection. Protection of producers, however, was not the prime motivation of the EU as they had other adequate measures in place to restrict imports. In fact, EU beef producers have been largely silent throughout the controversy.

Further, the EU allowed the continued import of hormone-free beef. Arrangements were made with beef producers such as Australia whereby monitoring and segregation systems were put in place so that beef produced without the use of hormones could be exported to the EU. The US and Canada chose not to implement such systems because the cost could not be justified by the small potential volume of exports. The EU continued to import similar total volumes of beef after US and Canadian products were eliminated from their market.

It has also been argued that the hormone ban assisted in the management of Common Agricultural Policy (CAP) induced beef surpluses because it reduced the productivity of beef operations, thus reducing supply. It would appear that in this case there is a convergence of policy interests but this is, from the CAP administrators' perspective, only a positive externality from the ban but not its primary motivation. In fact, the ban was both initiated and re-affirmed in periods

of relatively small CAP intervention stocks. It is important to remove these spurious, or at least secondary, motivations for the ban so that the policy problem faced by the EU can be clearly examined.

The reason why the EU banned the use of hormones was pressure from consumers. Roberts (1998) is instructive on this point:

The original ban was proposed in response to public anxieties that emerged in the late 1970s and early 1980s following widely publicised reports of 'hormone scandals' in Italy. In 1977, some northern Italian schoolchildren exhibited signs of premature development which investigators suspected was linked to illegal growth hormones in veal or poultry served in school lunches. Although exhaustive examination of possible causes of the abnormalities produced no concrete conclusions, a public furor arose over the use of hormones in livestock production. Then in 1980, numerous samples of veal-based baby food in Italy were found to contain residues of the illegal growth promotant diethylstilbestrol (DES), a synthetic hormone used as a feed additive to increase productivity in animal production (p. 386).

In the wake of these highly publicised events, consumer activism led to the organisation of veal boycotts in the EU and the first proposal to ban growth-promoting hormones in cattle throughout the EU (Kramer, 1989). It should be noted that none of these events provided a scientific validation for consumer concerns regarding legal growth hormones. This did not mean, however, that EU politicians did not have a difficult problem to deal with. This leads to the institutional deficiency in the WTO.

The WTO, and the GATT before it, only recognises one source of protectionism, domestic producers. This is not to say that consumer interests were ignored in the GATT/WTO but their demands were expected to be *legitimate* whereas governments could, on the other hand, be pressured by domestic producers for protection on *illegitimate* grounds. This bias in the treatment of demands for protection is understandable because standard economic analysis predicts that consumers are winners from trade liberalisation (consumer surplus increases) while domestic producers benefit from increased protection (producer surplus increases). This economic rationale was backed by the evidence of the high levels of tariffs and other trade barriers when the multinational trading system was set up at the end of the Second World War.

The GATT was established with the sole purpose of reducing tariffs on goods and only became the *de facto* multinational trade organisation with the collapse of efforts to create an International Trade Organisation. Tariffs were the major impediment to trade and, hence, a broad-based multinational trade organisation was not needed until the GATT had considerable success in removing tariffs and governments recognised the need to both control alternative protectionist policies such as non-tariff barriers used to extend protection to producers (as tariffs were bound and no longer could be initiated) and to broaden the liberalisation of the international economy beyond trade in goods. The WTO that was negotiated with this task in mind but was firmly in the GATT tradition in only recognising domestic producers as the source of *illegitimate* protectionism.

The neo-classical economic analysis which predicts that consumers will be losers from protectionist measures is based on the premises that consumers are in possession of costless perfect information and that they are rational. When asymmetric information exists or information costs are high for consumers, as in the case of beef hormones, then consumers may not feel they benefit from trade liberalisation (Gaisford and Lau, 2000). Consumers not only find the cost of acquiring information on hormones high but, more important, verifying the science that provides that information. There are also high costs to verifying the credibility of the scientists charged with developing and administering food safety systems and their motivations. Scientific information, scientific credentials and motivations are, essentially, credence goods which cannot be verified even after they or their services have been consumed (Hobbs and Kerr, 1999). As a result, credence goods acceptance is normally reputation-based. In the last quarter of the 20th century, there were sufficient failures in the EU food safety system (e.g. mad cow disease) that the reputation of the scientific community has been considerably eroded in the eyes of some EU consumers. As a result, they no longer appear to trust the scientific community and, hence, are no longer willing to accept the scientific consensus which was the basis of the SPS. While there is no accurate research on the extent of consumer distrust of the scientific community, it is of sufficient magnitude that it cannot be ignored by EU politicians.

Further, a case could be made that consumers appear to be subject to a degree of hysteria regarding food safety issues calling into question whether their choices are rational. In addition, consumers may also be manipulated by the media. This calls into question the strong assumption of consumer sovereignty in economic models.

Regardless of the source of consumer beliefs, they are voters and may actively engage in attempting to influence the political process. They are sufficiently powerful that EU governments do not feel that they can impose the scientific consensus regarding beef produced using hormones. For the EU then, the central problem is the absence of any mechanism within the WTO to deal with consumer-based protectionism. As a result, EU officials have been forced to look for other means to extend protection to consumers. The imposition of trade barriers on the basis of food safety was the method chosen. The actions of the EU at the WTO need to be interpreted in this light. Basically, the EU was forced to attempt to use mechanisms inappropriate to the problem to extend protection to consumers from foreign beef produced using hormones. The US and Canada interpreted the EU motivations as traditional producer-based protectionism and as an abrogation of the agreement to use a scientific basis for the imposition of trade barriers under the SPS. As a result of this institutional failure, the dispute became far more important than the trade that was at stake.

3. THE DISPUTE PRIOR TO THE WTO

Reference to SPS issues were included in the original GATT, primarily in Article XX dealing with General Exceptions. The 1979 Tokyo Round saw the negotiation of the Agreement on Technical Barriers to Trade. It became known as the Standards Code and was plurilateral rather than multilateral as GATT members were not required to accept it. The Standards Code stipulated that measures could not be applied in a manner which constituted a disguised barrier to trade. The Standards Code did not apply to measures pertaining to production processes such as beef hormones. Further, the consensus-based disputes mechanism meant that any member could block the establishment of a Panel including the country accused of violating its GATT commitments.

In 1981 the European Community (EC) Council adopted Directive 81/602 to prohibit the use of hormones. In 1982 an EC Working Group concluded that the three natural hormones would not present any harmful effects to the health of consumers while suggesting further research for the synthetic hormones. In June 1984 the EC Commission proposed amending Directive 81/602 to allow the use of natural hormones. Thus far the EU appeared to be acting prudently, handling the consumer concerns arising from the Italian hormone crisis, initially by prohibiting use, subsequently collecting scientific evidence and preparing to act on that scientific evidence while conducting more research where the evidence was deemed incomplete.

At this point, however, politics begins to take over the agenda. The directly elected European Parliament adopted a resolution in October 1985 that endorsed a ban on two synthetic hormones and rejected the proposed authorisation of the three natural hormones except for therapeutic purposes. Subsequently, in December of the same year, the EU banned the use of natural hormones for growth promotion, banned the use of synthetic hormones and prohibited imports of meat from animals produced using hormones. The ban was to go into effect 1 January, 1988.

After getting nowhere in negotiations with the EU, the US raised the issue in the GATT's Committee on Technical Barriers to Trade. This was the first attempt to resolve the problem multilaterally. With no agreement forthcoming, in 1987 the US invoked dispute settlement under the Tokyo Round Agreement on Technical Barriers to Trade. Formal consultations produced no resolution and the US requested the formation of a technical experts group to evaluate the science underlying the ban. The EU blocked this by failing to give its consent and thus preventing the required consensus. The EU's reason was that growth hormones were a production process and not covered by the Standards Code. In November 1987 the EU did delay application of the hormone ban for a year until 1 January, 1989. In December 1987 the Committee on Veterinary Drugs of the Codex Alimentarius Commission agreed on safe limits for two synthetic

hormones and determined that no limits were necessary for the three natural hormones.

The EU and the US then entered into a period of threat and counter threat with the US putting in place technical barriers against imports of meat from the EU for purposes of harassment; the EU announced counter retaliation valued at US\$360 million in US exports; the US then announced retaliatory 100 per cent ad valorem tariffs on EU imports. The EU asked for a Panel, blocked by the US, to look into the legality of those tariffs. On 1 January, 1989, the EU ban and US retaliation measures went into effect. The matter remained unresolved.

The Uruguay Round was now under way. On 1 January, 1995, the new Agreement came into effect including the SPS, the WTO and a dispute settlement system where a single member can ask for a Panel.

4. THE DISPUTE AT THE WTO

With the new WTO in place, which incorporated the SPS that all parties (including the EU) had agreed upon, in January 1996 the US requested consultation under Article XXII of the WTO thus re-indicating its desire to have the hormone ban adjudicated multilaterally. On 2 July, 1996, a WTO Disputes Panel was constituted with members agreed by both sides. In October 1996 Canada requested a Panel which met for the first time in January 1997.

The arguments of the two sides are succinctly summarised by Roberts (1998). For the complainants:

... that the ban was maintained without sufficient scientific evidence; constituted a disguised restriction on international trade; was not based on an international standard; was maintained without scientific substantiation that it provided a higher level of health protection than the international standard; was not based on a risk assessment; and provided a level of protection that arbitrarily and unjustifiably varied from levels provided by other measures which had resulted in discrimination and a disguised restriction on trade (p. 388).

For the defendant:

The EC's defence rested on the assertion that, given the current state of scientific knowledge about the risks presented by these substances, a ban was the only scientifically, technically, and economically feasible option available to EC regulators to satisfy exigent public health goals (p. 388).

It is not necessary to report in detail the arguments of both sides as they have been dealt with elsewhere (Roberts, 1998). It is, however, important to examine some of the key arguments and findings of the Panel and Appellate Body Report. It was argued by the US and Canada that the international standards for hormones established by the Codex, the international standards body designated by the SPS, were very conservative and allowed a large margin of safety. The EU's response was that the scientific evidence was not complete. In particular, the EU argued

that the long-term effects of ingestion were not precisely known – this in the face of long periods of widespread consumption in North America and other countries. Further, the EU argued that the full knowledge of how hormones might react with other substances being consumed was not available. It would seem that these arguments fall in the category of requiring never-ending amounts of scientific proof in order to maintain the trade barrier. While requiring such information may be legitimate, it cannot be open ended at the discretion of one country. Otherwise, the principle of scientific evidence enshrined in the SPS would no longer be valid. It is this issue which an independent Panel must adjudicate to prevent abuse of SPS regulations to extend protection to domestic producers.

The Panel ruled that basing the ban on the absence of scientific evidence exceeded that which was required by the scientific consensus. It did this in two ways. It said that the requirements of the EU exceeded international standards and that it failed to provide any evidence with a scientific basis that its regulations provided a higher level of health security than the international standards. In addition, the Panel ruled that the regime for beef produced using hormones was stricter than those in other products – particularly pork production where hormones are allowed. The point was also made that the EU was holding importers to a higher standard than domestic producers. The EU had argued that its standard provided for a tolerance level of zero for hormones, as was its right. It also cited examples of zero tolerance in the US. While zero tolerance standards are allowed, the EU's own regulations permitting hormones used for non-growth promoting reasons did not ensure zero tolerance domestically, thus importers were held to a higher standard.

The EU also invoked the *precautionary principle* as a rationale for its banning the import of beef produced using hormones. It can be argued that the *precautionary principle* is accepted in the WTO. According to Stanton (1995) the SPS:

... clearly permits precautionary measures when a government considers the scientific evidence insufficient to permit a final decision on the safety of a product or process (p. 40).

Whether the precautionary measures allowed in the SPS equate to the *precautionary principle* that has been enshrined in EU environmental legislation is not clear. Given that there are serious flaws with the *precautionary principle* when it comes to operationalising it as a means of making decisions (Kerr, 2001), it would seem unlikely that the members of the WTO intended to have it incorporated in the SPS. The *precautionary principle* examines only potential costs while totally ignoring potential benefits. Further, it is sufficiently ill-defined to allow it to be open to political influence and manipulation so as to invalidate it as a science-based decision rule (Phillips and Kerr, 2000). As it can always be argued that scientific evidence is incomplete, accepting the *precautionary principle* in the SPS would nullify decision making on scientific principles and, in

effect, emasculate the SPS. It is, however, explicitly stated in the SPS that precautionary measures are only expected to be temporary and that a member that invokes them should be actively seeking to fill in the gap in scientific information. The EU gave no indication that its ban was temporary or that it was actively attempting to expeditiously acquire scientific information on the effects of long-term ingestion of hormones or their interactive effects with other substances.

It is clear that science itself can never provide a definitive answer. The framers of the SPS expected that scientific consensus – as defined by international scientific organisations – would provide a substitute. When a member state wished to challenge the scientific consensus, it would have to be decided by WTO Panels, followed if necessary by recourse to the Appeals Body of the WTO on matters of law and procedure. In the beef hormone case, both bodies sided with the complainants. The EU ban was judged to be inconsistent with its obligations under the SPS Agreement. As a result, the EU was ordered to bring its importing regime for beef hormones into conformance with its SPS obligations.

While the EU's defence of its ban at the Panel was sometimes legally skilful, the evidence it presented to support its case always appeared weak. It seemed clear that the EU was attempting to win its case on points of law rather than the substance of the case. As a result, the EU tactics often looked as if they were attempting to make a mockery of the proceedings. This reduced the credibility of the disputes system, not simply for SPS cases but for the entire WTO.

On the other hand, the unwillingness of the Panel and Appeal Body to be distracted from the central question of the scientific validity of the ban provides strong evidence that the SPS mechanism is operating as intended even if the case was not directly related to providing domestic producers with protection through the misuse of sanitary or phyto-sanitary regulations. This is a positive development despite the wider damage done to the credibility of the dispute mechanism. The case has wide-ranging implications that extend far beyond the value of the trans-Atlantic beef trade. As Roberts (1998) suggests:

If regulatory officials in foreign countries can reject the use of a technology that has emerged virtually unscathed from all relevant scientific assessments, it can reduce the incentives for adopting this technology in exporting countries, possibly reducing global welfare (p. 386).

The potential negative effect on global welfare extends even further because without some assurance of access to international markets for new products, investments in research and development may be inhibited.

Of course, the EU's spirited but unsubstantial defence of its hormone ban is simply evidence that the EU was, in the absence of an appropriate institutional mechanism to deal with consumer-based pressure for protectionism, forced to use an inappropriate mechanism. The SPS was designed to prevent the misuse of science to protect domestic producers, not to deal with problems related to

consumers' unwillingness to accept science as a credible criterion for decision making.

5. AFTER THE DISPUTE PANEL AND APPELLATE BODY RULINGS

The EU's actions subsequent to being judged to be not in compliance with its SPS obligations underlie its inability to have its real political difficulty dealt with at the WTO. The EU entered into negotiations with Canada and the US regarding implementation of the Panel's ruling. It requested four years for implementation. Part of this time was to be used to undertake a risk assessment of allowing beef produced using hormones into the EU market – something they were to have done to justify the ban in the first place and for which they had been chided by the Panel in its judgement. This long implementation period was simply interpreted as a delaying tactic by Canada and the US and they would not agree.

As stipulated in the WTO rules, the issue of the duration of the implementation period then went to arbitration. The arbitrator allowed only fifteen months for compliance and stated that the time was allowed solely for implementation of the Panel's ruling and not *to conduct studies to demonstrate the consistency of a measure already judged to be inconsistent* with WTO principles. The period whereby the EU was to come into compliance ended on 13 May, 1999. The EU subsequently indicated that it would not comply with the ruling. The US and Canada threatened retaliation and the value of trade which was affected had to be determined. Again, the parties could not agree – the US and Canada suggesting high values, the EU low values for the amount of trade affected. Arbitration was again required with the annual values of affected trade determined to be US\$116.8 million for the US and CD\$11.3 (US\$8.0) million for Canada. It should be pointed out that these are a very small proportion of the total value of beef trade for both the US and Canada.

A WTO member which chooses not to comply with a Panel ruling has two options: to offer compensation to the other party or to accept retaliation up to the value of the trade adversely impacted. Countries seldom, if ever, offer compensation as it is equal to the gross value of the trade loss while retaliation will only result in a net value because the goods retaliated against will have alternative markets (Perdikis and Kerr, 1999). The EU initially offered compensation in the form of alternative trade concessions suggesting that it was embarrassed by being forced to ignore its WTO obligations. Compensation, however, is only expected to be a temporary measure until the member comes into compliance with its WTO obligations. As the EU had no intention of complying with its obligations, this was not acceptable and retaliation became the only option. The US and Canada drew up a list of EU products upon which 100 per cent duties would be charged. Separate Canadian and US retaliations began in

the summer of 1999. The list of products selected ranged from pork to Roquefort cheese to truffles to foie gras to Perrier water.

The EU is now in the unenviable position of being the only member of the WTO not in compliance with its obligations. This runs in the face of the considerable moral suasion that is brought to bear on WTO members and the damage done to the credibility of the WTO, something the EU cannot take lightly. One suspects, however, that latterly the hormone case has become a strategic part of the EU's difficulty with genetically modified foods which is the hormone case writ large and, in all likelihood, will also end up in dispute at the WTO.

6. CONCLUSIONS

The trade dispute involving beef produced using growth hormones points to an institutional deficiency in the WTO. The WTO has always been a political compromise. Politicians have always required a political *out* to be built into the organisation as a condition of their acceptance of international disciplines. In the past, this *out* pertained to politically unacceptable levels of protectionist pressure from domestic producers. The entire history of the GATT and subsequently the WTO can be interpreted as raising the cost to politicians of choosing to use that *out*. This has been accomplished both by strengthening WTO disciplines (e.g. lowering tariffs) and extending their scope (to services, agriculture, government procurement, SPS regulations). No *out*, however, exists in the case of consumers (or other interest groups such as environmentalists) who demand protection from imports. This lack of a political compromise on this issue threatens the viability of the entire organisation.

The EU is right to ask for new negotiations. It perceives that it is only using the *out* customarily available to governments facing strong protectionist pressure. To the EU it is the WTO that is flawed, not its policy on hormones. It is not correct, however, in targeting the SPS. The SPS is functioning as intended. The EU should request that negotiations should be opened to deal directly with the problem – consumer demands for protection. While this would not completely remove the issue of science from the discussion, it would reduce the danger of politicising science and instead focus on the issue of consumer rights to protection. Instances where consumers reject the scientific consensus could be explicitly recognised. The US and Canada should not deny that the issue of consumer-based protectionist pressures exist, but rather should negotiate to find an acceptable political compromise between the benefits of international market access and the need, at times, for politicians to respond to consumer demands. After all, the WTO has never denied the right of countries to respond to domestic producers. One suspects that the solution lies, in part, in determining the appropriate cost for choosing to use the *out* (Perdikis et al., 2000).

The issue of how the WTO might be reconstituted to recognise other protectionist interests has been dealt elsewhere (Perdikis et al., 2001) and need not be elaborated on here. It is sufficient to say that it will require exceedingly complex and careful negotiations that will severely test negotiators' skills at striking political compromises. Discussions of policy responses to consumer demands for protection tend to focus on a choice between import prohibitions and labelling. Current research suggests that an import ban similar to that which the EU imposes on beef produced using hormones is inferior to labelling (Gaisford and Lau, 2000). The US and Canada may resist labelling of beef produced using hormones because they see it as likely to raise doubts in the minds of consumers when the level of risks have been deemed acceptable by the scientific community. Labelling, however, may represent the type of political compromise that being willing to recognise consumers' interest in protection may entail.

One suspects that if the EU had recourse to an agreement dealing directly with consumer protectionism, the case could have been dealt with much more expeditiously, with far less acrimony and damage to trans-Atlantic relations and without the needless attacks on the credibility of the scientific community. Further, some groups in the civil society now perceive that the WTO is simply the servant of multinational capitalism and which takes no account of the interests of consumers or other groups who have concerns about the products that are sold in their markets. Pretending that other groups cannot have an interest in protection only reduces the credibility of the WTO and is out of step with the current reality.

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