

“SCIENCE IN TRADE DISPUTES RELATED TO POTENTIAL RISKS: COMPARATIVE CASE STUDIES”

Executive Summary

This report on *Science in trade disputes related to potential risks: Comparative case studies* focuses on the role of science in policy-making, through the lens of a set of international disputes over the legitimacy of regulatory measures relating to food safety, public and environmental health.

The study deals with five jurisdictions namely Austria, France, the United Kingdom (UK), the United States of America (USA) and the European Community. The World Trade Organisation (WTO) though a non-jurisdictional institution was also included. Three case studies were examined across those jurisdictions, namely beef hormones, recombinant Bovine Somatotropin (rBST) and GM maize.

The report analyses some of the main science-related aspects of the occurrence and persistence of disputes and to indicate the conditions under which such persistent differences may be reduced.

Our key finding is that the core of the disagreements in those three disputes, between EU Member States and the European Commission on the one hand and the government of the USA on the other, concerns differences in a set of assumptions that we call up-stream framing assumptions. An important part of those framing assumptions concern what the Codex Alimentarius Commission calls ‘**risk assessment policy**’. Risk assessment policy judgements have routinely played a key role in risk policy-making processes, but they have often remained implicit, unacknowledged and unexamined.

Risk assessment policy judgements are concerned with issues such as:

- which kinds of impacts are deemed to be within the scope of the assessment and which were outside it,
- which kinds of evidence to include and which to discount,
- how to interpret the available evidence,
- how to respond to uncertainties, and
- how much of different kinds of evidence would be necessary or sufficient to sustain different types of judgements.

The General Principles Committee of the Codex Alimentarius Commission says:

“Determination of **risk assessment policy** should be included as a specific component of **risk management**. Risk assessment policy should be established by risk managers **in advance of risk assessment**, in consultation with risk assessors and all other interested parties. The procedure aims at ensuring that the risk assessment process is systematic, complete, unbiased and transparent...Where necessary, risk managers should ask risk assessors to evaluate the potential changes in risk resulting from different risk management options.” (Codex Alimentarius Commission, Committee on General Principles, Alinorm 03/41, July 2003, p. 126, paras. 13-16 - emphases added)

Our findings suggest not just that ‘risk assessment policy’ issues should not be neglected, but that they have played, and continue to play, a pivotal role in causing inter-jurisdictional disputes. If important risk assessment policy issues were dealt with explicitly rather than implicitly, and if within individual jurisdictions risk managers were to take explicit responsibility for those policy issues, then policy-making processes might achieve greater democratic and scientific legitimacy than hitherto. In so far as a consensus could be reached between jurisdictions over risk assessment policy issues, inter-jurisdictional disputes would become less frequent and less intractable.

The importance, and contestability, of risk assessment policies is not widely acknowledged or appreciated, especially amongst public officials responsible for administering risk management regimes and their expert scientific advisors. When interviewed, they almost invariably described science-based policy-making in terms of one of two over-simplified models.

The first type of approach articulated by policy-officials can be encapsulated in what is termed a ‘**technocratic**’ model. A technocratic model assumes that risk policy should and can be decided solely by reference to scientific considerations and expert advice; **on and only on the basis of ‘sound science’**.

The technocratic model does not, however, provide sufficient resources with which to understand the disputes over beef hormones, rBST and GM foods. The disputes are not simply a consequence of some jurisdictions accepting ‘sound science’ while in others the science is ‘unsound’. In practice, we found that different scientific advisory committees provide competing representations of possible risks not because they are providing competing answers to an agreed set of questions, but because the questions that they are addressing and answering differ significantly. They may be equally sound, and nonetheless differ. There is more than one scientific answer to risk issues, because in different jurisdictions, different questions are being addressed.

The technocratic model is also incapable to explaining how policy can be made in conditions of acknowledged scientific uncertainty. Uncertain knowledge cannot uniquely indicate any particular policy conclusion. The prevalence of uncertainties is increasingly hard not to acknowledge, especially when different jurisdictions are in dispute, and their disputes revolve around competing scientific conclusions.

In response to the inadequacies of a technocratic narrative, an increasingly large portion of public policy-makers and their expert advisors now represent the processes in which they participate in terms of what is called a ‘**decisionist**’ model. This corresponds closely to what in the USA is known as the ‘Red Book’ model. Decisionism assumes that risk policy is, and should be, the product of a two-stage process, the first of which is purely scientific, often called ‘risk assessment’. On this account, the scientific risk assessment is supplemented by social and political considerations, which also contribute to policy decisions in a process called ‘risk management’. On this model, a risk assessment should not only be prior to, but entirely independent of, any and all risk management considerations and judgements. The ‘decisionist’ point of view is found very widely in all of the jurisdictions we examined, and represents the prevailing contemporary orthodoxy.

The decisionist model provides more resources with which to understand the occurrence and persistence of trade disputes than the technocratic model, since it can account for the fact that different jurisdictions may deem different levels of risk to be acceptable; but our research indicates that it is not sufficiently rich fully to comprehend the nature and complexities of these disputes.

The empirical evidence that we have gathered and analysed indicates that, both within the EU, and when comparing the EU with the USA and the WTO, disputes have occurred and persisted because:

- different judgements have been made about what the breadth and scope of scientific risk assessments should be
- different judgements have been made about the ways uncertainties should be handled by risk assessors, and the significance that should be ascribed to them,
- different judgements have been made about the benchmarks by reference to which the available evidence is interpreted, and
- different judgements have been made about the ‘chosen level of protection’ i.e. the extent to which those risks and uncertainties are socially acceptable.

These facts can effectively be represented in a third model of how science and governance interact. This third approach, which we call a ‘**transparent**’ model, assumes that science-based risk assessments play a key role in policy-making processes, but that they are routinely and inevitably influenced by the socio-economic and cultural contexts in which they are developed. This approach is consistent with the General Principles Committee of the Codex Alimentarius Commission’s statement (cited above) outlining the defining characteristics of risk assessment policy.

The ‘transparent’ model assumes that non-scientific considerations play a distinctive up-stream role setting the framing assumptions that shape the ways in which risk assessments are constructed and conducted. It implies that rather than leaving those assumptions implicit, and leaving risk assessors to take responsibility for non-scientific judgements, risk managers could provide their risk assessors with explicit up-stream framing guidance. Such framing guidance could, in turn, be legitimated through normal channels of democratic accountability. Our use of the term ‘transparent’ is not intended to suggest that current practices transparently fit this model, but rather to suggest that if they were transparent, they would be seen as operating in accordance with this model.

This transparent model provides the resources with which to explain why regulatory disputes occur and why they persist, but it also serves a normative function by suggesting some of the conditions under which such disputes may be resolved.

The transparent model does not imply that disputes are inevitable or that they are irresolvable. It implies rather that they are more likely to be resolved if the existence and importance of risk assessment policy considerations were acknowledged and if they were consistently deployed in a transparent fashion.

It also implies that disputes might be avoided if, in advance of requesting their expert advisory committees to provide science-based risk assessments, risk managers in different jurisdictions would collectively explore the extent to which a consensus may be reached about the assumptions that should frame those risk assessments. If such high

level negotiated agreements were reached, the frequency and severity of science-based regulatory trade disputes might well be markedly diminished.

If on the other hand such prior agreements are not reached, and if, for reasons that may be scientifically and democratically legitimate, different jurisdictions adopt risk assessment policies that reflect national, social and cultural diversities, then risk management regimes may continue to differ, if only at the margin. Those differences may, however, be lawful under both national, international law, and sustainable over the long-term, but the potential benefits of regulatory harmonisation and the elimination of non-tariff barriers to trade would be forgone.

If the role played by upstream assumptions was explicitly acknowledged, then this might also discourage adversarial invocations of 'sound science', both domestically and against other jurisdictions. This in turn could help to deter formal trade disputes, and perhaps might also lead individual jurisdictions to reflect on their own framing assumptions, thus increasing public accountability and enhancing democratic legitimacy.