

Scope and limitations for national food safety regimes within a globalising world

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FIRST DRAFT

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Abstract

Different national food safety regimes may conflict with respect to the appropriate safety level when food is traded. The WTO defines general rules for balancing free trade and national sovereignty of domestic policies. Key principles for food trade are harmonisation and scientific risk assessment:

Harmonization restricts national sovereignty via a set of safety standards that are developed by international standard-setting organisations. These standards deem to achieve an appropriate safety level and thereby can be required from imports.

National sovereignty to enforce domestically higher safety levels by trade barriers can be realised if scientific risk assessment justifies their necessity.

An empirical survey on existing WTO-disputes on food issues will specify how these principles are interpreted in concrete cases. Additionally, it identifies whether there is scope for non-scientific dimensions of risk - such as cultural and economic issues - that may justify trade barriers in order to enforce sovereign food safety regimes.

Structure

1	Introduction	3
2	Economic issues of links between food safety and trade	4
2.1	Domestically optimal food safety levels	5
2.2	Impact of national food policies on trade	7
3	WTO's key principles for food safety and potential scope for national sovereignty.....	9
3.1	Food safety measures as non-tariff barriers	9
3.2	WTO provisions and scope for national sovereignty	12
3.2.1	Dimensions of risk	12
3.2.2	The appropriate safety level or the acceptable risk	16
3.2.3	Least-trade distortion of food safety instruments	18
4	Empirical survey on WTO food disputes: the actual acceptance of sovereign national food safety policy	22
5	Summary and Conclusions	25
6	Bibliography	27

Graphs

Graph 1:	Diverging optimal food safety levels in different countries.....	5
Graph 2:	Categories of food safety measures as non-tariff barriers.....	11
Graph 3:	Process- and product standards	14

1 Introduction

Food safety issues are increasingly at stake within the context of international trade: global food trade is raising due to the reduction of tariffs covered by the WTO's "Agreement on Agriculture" (AoA). But this liberalisation process is affecting countries which potentially have a different understanding of food safety and of what food risks to accept. This has led to supplementing the original objective of WTO of liberalising trade by the aim of ensuring domestic policy targets as food safety.¹

This two-fold objective, ruling both free trade and national sovereignty, is covered by the "Agreement on the Implementation of Sanitary and Phytosanitary Measures" (SPS) adopted in 1994 that will be at the centre of the following analysis.²

Chapter 2 starts with a brief introduction into the economic dimension of food safety by first explaining what parameters may lead to different national safety levels. Thereafter, it sketches how different national safety levels influence trade to identify the role of WTO. **Chapter 3** analyses limitations and scope for national sovereign policies within the relevant WTO-agreements. This analysis takes into account (1) the concept of non-tariff barriers and its' application to food safety, (2) the risk dimensions that can build a basis for justifying trade barriers, (3) the scope within existing provisions on the choice of safety levels and (4) the scope within the existing provisions on the choice of instruments to avoid the undermining of the national safety level. In **Chapter 4** a survey on decided SPS disputes identifies whether the previously identified scope for national sovereignty has been interpreted in favour or against national flexibility. Finally, a summary is given and conclusions for the national design of food polices are drawn in **chapter 5**.

¹ BHAGWATI discussed as "Law of Constant Protection" whether the reduction of tariffs is automatically combined with an increase of other border measures (BHAGWATI 1988).

² Another relevant agreement will be Agreement on Technical Barriers to Trade, adopted in 1995 as well but with a precursor existing already since 1979 as Standard Codex that has not been adopted by all countries that were WTO members at that time.

2 Economic issues of links between food safety and trade

Market forces can fail to achieve food safety and therefore political action can be justified. Such market failures can be caused by information asymmetries (AKERLOF 1970) and spillovers (COASE 1969): The consumer can be faced with the problem of information asymmetries in terms of not being able to differentiate between different product safety qualities e.g. caused by different drug residues. Thereby they cannot consume according to their preferences on product safety. Spillovers may appear when producers do not bear all costs caused by drug residues. Those costs are spilled over to the society that has to handle potential health effects. In both examples the societies' welfare cannot be maximized and the respective goods are not offered in optimal quantity.

Both reasons can justify public action to solve information asymmetries and spillovers and thereby to increase welfare.

The optimal level of public goods like "food safety" is addressed by different economic theories, such as the "public choice theory" or the "theory on public goods". These approaches analyse the optimal policies when the market fails (BUCHANAN 1968).

Applying market failures to international trade is a famous and well-established research area in resource and environmental economics (DASGUPTA et al 1978). In contrast, the economic analysis of food quality and safety issues is still a young research area especially if related to trade.³

The following explanation of parameters determining different optimal national food safety levels will be based on assumptions similar to those analysed in the research area of environmental policy.

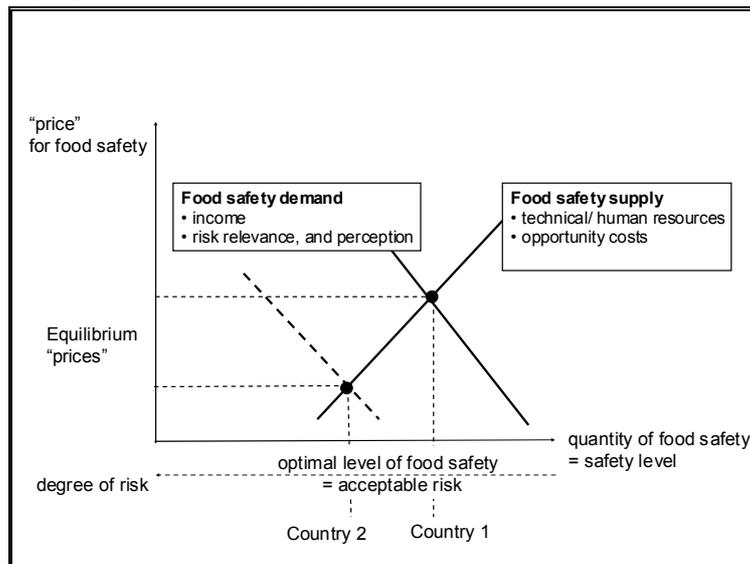
³ One exception is CASWELL who covers this topic already since years. CASWELL 1991.

2.1 Domestically optimal food safety levels

The optimal quantity of the public good “food safety”⁴ depends on different parameter that can be separated into those influencing production and those influencing demand on food safety as public good.

The following graph shows a very simplified model for exemplary different conditions in two countries.

Graph 1: Diverging optimal food safety levels in different countries⁵



Based on models for optimizing the level of public goods. See for example MANKIW, G. (2002): Principles of Economics.

The parameter will be described in a broad and principal to deduce the optimal level in general:

⁴ Different quantities can be understood as different degrees of safety, i.e. higher quantities correspond with higher safety.

⁵ There exist several studies on the question whether food safety can be interpreted as public good or being linked to spillovers (see for an overview RUDLOFF 2003). Without analysing this principal question these approaches are used in order to facilitate the general problem of optimal levels. Related to the approach of spillovers the model reflects the production or demand of the private good causing safety risks. Thereby the level of food safety is not directly addressed but the optimal quantity of the commodity causing the spillovers. This would require that the social costs and benefits are already reflected in the demand and supply functions. If safety is explicitly expressed as public good – an approach that may be used equivalently to spillovers (MANKIW 2000) – a necessary assumption is that the demand represents the one for public goods. Hereby the damage costs resulting from safety risks are covered. In this model the supply reflects the abatement costs. A general assumption for both public goods and spillovers is that all relevant information is known and quantifiable. For a more detailed analysis see OECD (1997): Process and production methods (PPMs): conceptual framework and considerations on use of PPM-based trade measures, OECD / GD (97)137, Paris.

On the **production side** the available technical resources and the necessary know-how to produce the public good “food safety” determine the supply.⁶ These costs of resources such as for labour and capital can differ due to production capacities and production technologies that require a different resource input. Furthermore, natural conditions may influence the costs for realising safety, e.g. salmonella infections are more expensive to be avoided in countries characterised by a hot climate compared to those facing a cold climate. **Demand** is characterised as benefit that consumer gain out of consuming a certain quantity of goods.⁷ Different benefits can arise from different income levels as the available income influences the choice between different products such as the public good “safety” and others like education or environmental protection. It is often assumed that these kinds of goods can be understood as “luxury” goods for which demand increases with increasing income (MANKIV 2000). As a result developing countries may have a smaller demand for food safety compared to developed countries. Other essential parameters are directly related to different risk dimensions, such as the traditional risk concept covering probability and damage amount or broader concepts including risk perception. Related to the traditional quantitative risk understanding both probability and damage amount can differ due to natural conditions: with respect to the example of salmonella infections the probability of emerging infections may be higher in countries facing a tropical climate. The damage amount of actually emerging salmonella infections can be higher in less developed countries, as a generally weak human constitution leads to a more problematic course of disease. The resulting higher degree of risk caused by either higher probabilities or higher damage amounts increases the benefit of reducing it.⁸ Another risk component influencing demand is risk perception. The perception

⁶ Economical more precisely the supply is characterised as marginal costs necessary for an additional unit of the respective product, i.e. in this case an additional safety level. See VARIAN 2000. The concept of opportunity costs describes the supply as determined by waiving of alternative production options as production resources are assumed to be limited. This limitation leads to the necessary choice of what alternative to be produced and related costs are higher the higher already the level of production is what means that just low capacities over for the alternatives. (HENDERSON 2004).

⁷ Economic precisely the demand describes the marginal utility of an additional unit of the consumed quantity. Due to the Law of decreasing marginal utility the additional utility is reduced as higher the already consumed level is. The problem of aggregating individual benefits to a public one is excluded here to focus on the simplified relations. See for that MANKIV 2000.

⁸ In the concept of understanding demand as damage costs increasing risks lead to increasing damage costs.

of risks defines how damage amounts are evaluated and thereby again influences the damage amount. Such an evaluation can differ due to cultural and religious reasons, e.g. the evaluation of animal health risks for cattle can be higher in hinduistic societies than in others due the high valuation of cattle. Several studies deduce the existence of cultural differences in risk perception.⁹

As a consequence of the explored parameter national safety levels may differ between countries. In graph 1 the demand for food safety is assumed to be lower in country 2 compared to country 1 resulting in a lower safety level that can be understood synonymously as lower acceptable risk. Both national safety levels are set optimally, i.e. to maximize national welfare.

The deduced safety levels can be achieved by using different instruments like setting standards in terms of requiring certain production methods, imposing taxes on methods leading to unsafe products or by paying subsidies for safe products. The instrumental aspects of handling food safety will be discussed under chapter 3.1 and 3.2.3.

As far as different safety levels are not affecting trade and thereby have no negative impact on trading partners food policy is of no concern to the WTO.

2.2 Impact of national food policies on trade

According to welfare theory liberal trade without any barrier increases the welfare for all trading countries due to international division of labour. Hereby countries specialise in production areas with existing advantages compared to other countries (GANDOLFO 1998).

Diverging national food safety levels can have consequences for trading partners what defines the reason for WTO action:¹⁰

As **direct effects** the following can be noticed:

1. **Defining comparative advantages.** Countries with national lower safety levels may have cost advantages in producing the respective good. If the resulting commodity price is relatively low compared to countries where the production is

⁹ See for different national risk approaches RENN 2003, HENSON, S., AND TRAILL, W B. (2000) Related to GMO see MARRIS, C.; WYNNE, B.; SIMMONS, P.; WELDON, S. 2001 and . Regarding beef and tomato see ...

¹⁰ A quantification of such effects in trade is tried in MASKUSEN AND WILSON 2001, KRISOFF, BOHMANN and CASWELL 2002.

more expensive due to a higher safety level, the export opportunities of countries with lower safety levels are higher. Although this represents the usual determining factor for international trade the competing countries are tempted to start strategic actions to influence the comparative advantage.

2. **Undermining of domestic safety level.** High-safety countries like country 1 in the graph face the problem that imported food from low-safety countries may reduce their safety level targeted by safer products (JOSLING, ROBERTS AND ORDEN 2004, p. 35f). This is related to the mentioned problem of asymmetric information if the different qualities of domestic and imported products cannot be differentiated by consumers who therefore cannot demand according to their preferences. The high-safety country may wish to impose instruments on imports to ensure the own domestic safety level.

These trade effects reveal the potential for strategic options to improve one's own trade position. Such strategic incentives are well-analysed related to environmental policy (HUANG AND LABY 2001):

1. **Dumping.** Dumping is related to the strategic underestimation of the in fact optimal policy levels. In the environmental area this effect is discussed as eco-dumping. A strategic lax safety policy may reduce prices and improve the export opportunities. Several food policy parameters cannot be proofed externally, such as culturally determined risk perceptions. This bears the risk that it hardly can be decided whether a lax policy is reflecting the national conditions or the result of a dumping strategy.
2. **Hidden protectionism.** Strategic overestimation of national safety goals may serve as rationale for protecting the domestic market by import barriers to avoid the undermining effect. Another objective can be the protection of the production sector by paying subsidies to farmers or food processors justified by higher production costs to be fulfilled. This effect is currently discussed as political issue as hidden or disguised protection in the ongoing WTO negotiation on Agriculture (ANDERSON AND POHLSSEN 2000).

These implications of divergent food safety levels identify the role for WTO whose primary objective always has been to ensure liberal trade without any hindering barrier. Within the 50 years of existence the WTO framework has been constantly developed and extended. Hereby the initial target of free trade has been supplemented

by integrating mechanisms to ensure national sovereignty in some internal policies (BAGWELL AND STAIGER).

3 WTO's key principles for food safety and potential scope for national sovereignty

3.1 Food safety measures as non-tariff barriers

The WTO is addressing national policies only when trading partners are negatively affected. Such effects can be differentiated depending on the underlying specific national instruments a country has chosen to achieve food safety: (1) Subsidies to be paid domestically for fulfilling certain safety levels may increase export opportunities and thereby lead to losses for other WTO members. (2) Tariffs can be imposed in a country in order to avoid the undermining of national strict safety level by cheaper imports fulfilling lower standards. Tariffs reduce directly market access for trading partners who consequently face losses. (3) Instead of tariffs other types of border measures can be established aiming at enforcing the domestic safety level.

Whereas the first two categories, food-related subsidies and tariffs, are covered by the "Agreement on Agriculture" (AoA)¹¹ the third category of other measures is covered by the "Agreement on the Implementation of Sanitary and Phytosanitary Measures (SPS).¹²

Those measures different from tariffs are covered by the concept of non-tariff barriers (NTBs) (NTBs) (JOSLING, ROBERTS AND ORDEN 2004):

The definition of GANDOLFO implies a negative trade effect caused by types of barriers different from tariffs. This trade impact justifies the action of the WTO.

No explicit mentioning of NTBs can be found neither in the SPS nor in other agreements. The SPS defines its' scope of coverage by defining as SPS measures (Annex 1):

".. all laws, decrees, regulations, requirements and procedures, including, inter alia, end product criteria; processes and production methods; testing; inspec-

¹¹ Including the exceptional role related to general subsidies handled by the Agreement on Subsidies and Countervailing measures.

¹² Other NTBs are covered by the Agreement on Technical Barriers to Trade, which has its origin already early in 1979.

tion, certification and approval procedures, quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety.”

In the following GANDOLFO'S definition of NTBs is used focussing on the negative impact on trade. Hereby a national food safety measure is defined accordingly to SPS which will become a NTB if required from imports as precondition for market access (BAGWELL, STAIGER 2002, p. 126).

National food safety measures are covering a broad set of very different measures such as safety requirements, packaging rules, authorisation rules and inspection requirements.

In several studies the following types of NTBs can be found which are not directly linked to the trade impact despite of the import ban. The latter can be defined as safety measure that is per se a NTB whereas all other measures can be restricted to national use and in that case would not be characterised as NTB.

The graph specifies food safety measures as NTBs:

Graph 2: Categories of food safety measures as non-tariff barriers

Category of NTBs		Food safety measure as NTB		
Effect of NTB per se	Import restriction	Total (= Ban)	Import ban if certain domestic requirements not fulfilled	
		Partial	Restriction of imports due to certain underlying breeding methods	
		Temporary	Requiring quarantine periods for fresh fruit and vegetables to be imported	
Just NTB if applied to imports	Technical requirements	product standard	Certain content of proteins required for classification and marketing as dairy product on domestic market	
		process standard	product-related	Requiring hygienic provisions in slaughterhouses/dairies resulting in maximum bacteriological contamination as import condition
			non product-related	Imposing husbandry requirements on imports
Informative requirements	mandatory provisions	Requirement of comprehensive quantitative ingredient lists		
	voluntary provisions	Imposing control methods on imports		
Monitoring/Control		Realise food inspections at the border		

Based on JOSLING, ROBERTS AND ORDEN (2004), p. 22.

After the formal foundation of the WTO in 1995 and the adopted reform of the dispute procedure¹³ 315 cases were opened formally by requesting consultations.¹⁴ So far 84 food related case have been opened, covering references to the Agreement on Agriculture and to the SPS Agreement what accounts for around 30 % of all disputes.

¹³ According to this reform the procedures have been strengthened.

¹⁴ Initiated disputes are covering all formally announced disputes starting with the status of request on consultation. The gathered disputes starts at 1995 as this is the year of adoption of the SPS-Agreement.

Disputes referring to Agreements handling NTBs (SPS and TBT) account for 20% of all disputes in the years 1995-2004.¹⁵ If just looking at all food related disputes covered by both the AoA and the SPS Agreement explicit safety matters account for more than 35% with increasing tendency when looking at the later opened disputes.

Especially in the recent past more and more developing countries are involved in food disputes as both defending and complaining party. This shows the potential conflict of safety policies among countries with different welfare levels (see chapter 2.1).

3.2 WTO provisions and scope for national sovereignty

This eldest agreement adopted in 1947 is the “General Agreement on Tariff and Trade” (GATT) that can be understood as basis agreement specified by all subsequent agreements to certain application areas such as food or intellectual property rights. The analysis of GATT in addition to SPS may enlighten the general logic of how the WTO is handling NTBs.

The analysis will concentrate on those issues relevant for identifying the potential scope for national food policies. Thereby not all single provisions of the mentioned agreements will be scrutinised.¹⁶

3.2.1 Dimensions of risk

To understand the risk concept that is followed by the WTO first the general understanding of attributes defining different food qualities such as “safe” or “unsafe” will be analysed.

Prior to the adoption of the SPS-Agreement all emerging food cases were ruled on basis of GATT, namely the most-favoured nation treatment (GATT-Article I) and national treatment (GATT-Article III).

Both principles command that “like products” must not be treated differently neither when comparing imports originating in different countries nor when comparing im-

¹⁵ Statistics at http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm (Dec 2004).

¹⁶ Provisions on transparency requirements, such as notification procedures, or inspection methods are excluded.

ports with domestic products. Hereby no tariff or NTB on “like” products would be allowed:

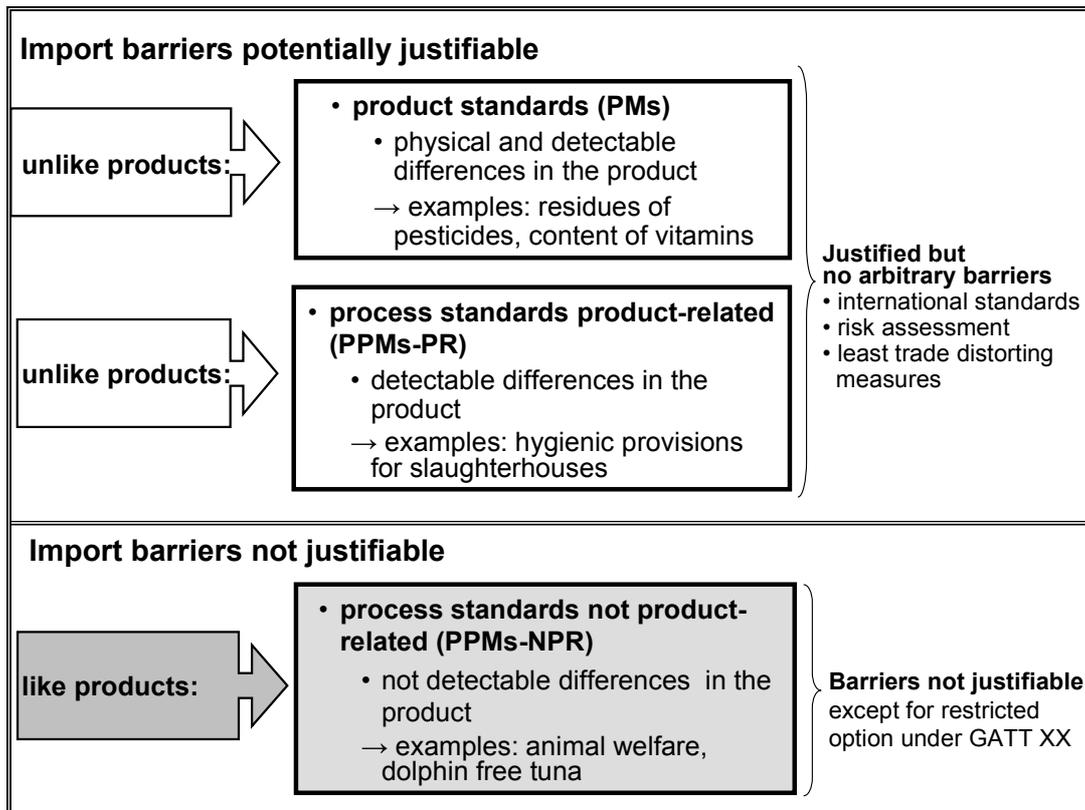
- National treatment accepts the charge of imports with fees charged as well for the “like” domestic product. Requirement is that they are not charged more than domestic products. In case of “unlike products” in principal a different treatment is possible.
- The most-favoured nation principle prohibits discrimination between countries. It allows for different border measures applied to different countries just in case “unlike products” are concerned.

Therefore a major question is what attributes make products become “unlike” as necessary condition for the establishment of NTBs.

This question was centric in several disputes and by analysing all agricultural cases prior the adoption of the SPS in 1994 the dominance of the physical interpretation can be identified.¹⁷ Out of 45 cases related to agriculture one third was relating on the interpretation of “likeness” of the affected products to reject or justify the NTB at stake. Just in three cases the findings were in favour of “unlike products” and thereby the respective imports barriers could have been accepted. This acceptance was based on obvious physical attributes like different wood types. In these cases the challenged barriers were evaluated as being in line with Article I and III.

This physical interpretation of “like” and “unlike products” is the essential criterion how the WTO interprets product qualities. To integrate this criterion in the overall scheme on NTBs another method will be presented. Several scientific schemes exist e.g. related to the observability for the consumer (Nelson, Caswell 1991). An approach relevant for the analysis of WTO provisions has been developed by the OECD, originally for ecological standards but applicable as well to food safety. This approach is linked to the differentiation into product and process standards that are mentioned under SPS as measure covered by the agreement (JOSLING, ROBERTS AND ORDEN 2004, p. 35f and OECD 1994).

¹⁷ See all cases at http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm (Dec 2004).

Graph 3: Process- and product standards

RUDLOFF, B. (2003): National Concerns About Food Safety and International Trade - An Economic Assessment of Potential Conflicts about Food Safety Matters with an application to the "Hormone - Beef Case" between the EU and the USA (In German), PhD Thesis, University of Bonn, Dissertation Bonn. In: Europäische Hochschulschriften, Peter Lang Verlag, Reihe V, Vol. 2942, Frankfurt, 309 Seiten, ISBN 3-631-39777-1.

All standards with a physical and detectable impact on the final product (product measures (PMs), and process measures that are product-related (PPMs-PR)) may differentiate products into "unlike products". For those products NTBs, in the meaning of applying the respective product and process standards to imports, can be compatible with GATT- Articles I and III. Additional criteria ensure that such NTBs are not implemented arbitrarily and that least-trade distorting instruments are chosen (see for details chapter 3.2. and 3.3). In the contrary standards without any physical and observable impact (process measures that are not product-related PPMs-NPR) belong to the second category, namely leading to "like products". Therefore these standards must not be enforced by NTBs in terms of applying such standards to imports. Little

scope for NTBs enforcing “like products” exists under the Article XX on general exemptions in order to protect inter alia exhaustible resources and public ethics.¹⁸

In the SPS product and process standards are mentioned (Annex 1). But it is not explicitly stated whether this includes standards without product impact as well. This is usually denied in several studies (JAMES 2000) and can be empirically noticed by the previously described outcome of respective cases.

Thereby some characteristics which differentiate products from a consumer’s perspective based on their preferences are excluded such as ethical attributes or animal welfare standards. Another issue under debate is the usage of GMOs as in certain cases the physically detectable impact can be limited: e.g. in highly refined oil no DNA can be detectable anymore. According to the traditional and physical WTO logic the use and the abandonment of GMOs would lead to “like products”. Consequently no import barriers would be allowed under this assumption.

An important exception is the product attribute “origin” that belongs clearly into the category of no physical product impact. Nevertheless, rules on origin understood as country or region, have been traditionally addressed by the WTO in the “Agreement on Rules of origin” and the “Agreement on trade-related aspects of property rights” (TRIPS). Differentiating products related to their origin is not only allowed, even more, respective label are strongly supported by WTO. This shows once more that the WTO would be misunderstood if seen as clear and unambiguous framework as it has been and still is under construction since 50 years.¹⁹

This traditional dominance of physical aspects is repeated in the WTO’s interpretation of risk. The understanding of risk is integrated in guidelines on the concrete technique for risk assessment given under the SPS Agreement (Annex A 4). Such a risk assessment is required if national food safety levels are higher than those that are recommended (see in detail chapter 3.2).

Two options for assessing a risk are defined:

¹⁸ This argument was used in the Tuna-Dolphin case to justify the US import ban on Mexican tuna as the Mexican fishing technique was deemed to be more dangerous for dolphin as exhaustible resource. The findings did not accept the use of Article XX and condemned the US import ban. DS21/R-359: Restrictions on tuna import - Mexico against USA.

¹⁹ An explanation for the early handling of these standards might be the technical necessity to identify the origin in order to apply country specific concessions correctly.

1. The option requires an evaluation of the “likelihood of entry, establishment or spread of a pest ... and of the associated potential and economic consequences”.
2. The second options calls for the assessment of “potential for adverse effects on ... health arising from the presence of additives, contaminants...” etc.

The first possibility covers the traditional interpretation of risk as a product of probability and damage amount, which may be quantified economically. The second type is broader and offers the possibility for giving just a description of resulting hazards instead of a quantified risk. Both options have in common that they focus on the scientific and traditional risk concept. Some disputes are stressing explicitly the possibility of a qualitative evaluation expressing risk as being “low” or “high” instead of using figures.²⁰ No mentioning of cultural and perception-related issues can be found in any provision.

3.2.2 The appropriate safety level or the acceptable risk

The SPS grants the general right to each member to implement such safety measures that are appropriate for achieving a chosen safety level in its territory (Article 2).

But if national measures become a NTB, i.e. the safety level is required as import condition the WTO's has implemented strict rules: to avoid trade-distortion a key principle is **harmonization** (Article 3). According to harmonization it is recommended to base national measures on international standards, guidelines and recommendations (Article 3.1). Such international standards are deemed to be necessary to protect human, animal or plant health (Article 3.2). The resulting safety levels can be interpreted as accepted by the WTO and therefore are not challengeable. Any higher level of protection has to be based on scientific risk assessment (Article 3.3). The concrete *international standards* and guidelines that are accepted are defined by a given catalogue of relevant institutions developing standards (Annex A 2-3): for food safety the Codex Alimentarius is the responsible institution for defining standards.

²⁰ See for example the Salmon Case W/DS 18, p. 37, para. 124.

This body was found in 1964 jointly by FAO and WHO. Codex standards cover for example maximum residual levels for antibiotics in pork or hormones in beef.²¹

Potential for national sovereign policy in terms of deviating from these standards are related (1) to the grey area where no standards have been developed so far by Codex Alimentarius, (2) to the submission of a risk assessment to justify standards that are stricter than the Codex standards and (3) to the provisional implementation of stricter standards if scientific evidence to justify them is insufficient.

(1) The grey area gathers safety issues on which no standard has been developed so far. Due to the fact that the Codex has been adopted previous to the SPS- Agreement some standards had existed already prior they were referred to in the Agreement as binding standards. Therefore some of the recommended Codex standards may not be up to date anymore and others have not been developed so far. This is the case for new risks like GMOs. There is no formal provision defining how to handle such risks not covered. On the one hand this may be interpreted as potential flexibility to establish independently national standards without the risk of being challenged. On the other hand certain disputes show that sometimes analogies are drawn from related standards or risk issues (see chapter 4).

(2) The second possibility concerns the introduction of stricter standards compared to existing Codex standards. Such deviation is possible but has to be justified by submitting a scientific risk assessment (Art. 3.3). The specific requirements on risk assessments are covering the criteria to be considered for a correct assessment, such as taking into account all relevant sampling methods (5). Only traditional risk dimensions like probability and damage amount are accepted as arguments, either quantitatively by figures or qualitatively by description (Annex A 4).

Scope for national criteria exists in terms of recognising environmental conditions within the assessment (5.2). Those may differ among countries and lead to a different risk relevance as previously explained (graph 1).

²¹ For standards related to other issues other Organisations are defined as responsible: for animal health the International Office of Epizootics for plant health the Secretariat of the International Plant Protection Convention (Annex A 2-3).

The of evaluation whether the submitted risk assessment is sufficient is the dominant argument in SPS disputes. So far all decided cases have condemned the defendant due to missing or insufficient risk assessments (see chapter 4).²²

(3) The provisional introduction of stricter standards without such risk assessment is allowed if scientific evidence is insufficient. A subsequent risk assessment has to be provided at a later stage (Article 5.7).²³ The time period for filing the assessment subsequently is defined as “reasonable” and open to negotiations. The longest granted period so far has been 15 months.²⁴ An important condition for applying this exception is the proof that scientific evidence is insufficient. This has been accepted only in two cases (chapter 4). Another criterion is the proof that all available and necessary information have been obtained, which was negated in some cases (chapter 4). This interference in scientific issues shows the importance of scientific aspects instead of limiting the dispute findings to pure trade effects.

3.2.3 Least-trade distortion of food safety instruments

In case of unlike products NTBs can be allowed but further rules restrict their negative trade impacts: the specific NTB should be chosen to be as least trade-distorting as possible. This is expressed in the SPS-Agreement as requirement to minimize trade effects (Articles 5.4, 5.6). As no measures are predetermined as being least-trade distorting some general GATT principles have to be consulted to obtain information on what degree of trade restriction could be accepted. According to GATT Article XI no quantitative import restrictions are allowed and accordingly import bans can be seen as the most problematic NTBs. An instrument often recommended as being very market-oriented, not trade distorting and a silver-bullet to differentiate between product qualities is a label. Label can gain the status of a NTB if information schemes are applied to imports as condition for market access (see graph 2). The

²² Although the Appellate Body in the “*Hormone Case*” emphasised that the evaluation of the scientific quality could not be WTO’s tasks, WT/DS/48, par.187.

²³ This option is discussed intensively in terms of whether it addresses the precautionary principle or not. Most often Article 5.7 is not characterised as precautionary principle due to its’ terminally limitation and the need for scientific risk assessment at a later stage. See for example GUPTA 2000 or SCOTT AND VOS 2001.

²⁴ These were granted in the two Hormone Cases WT/DS/26 and WT/DS/48. This maximum period is equal to the general period for implementation of dispute findings (DSU Article 22).

general problem resulting from asymmetric information on product qualities exists as well if respective information is given by a label: the consumer can neither verify the product differences nor the credibility of the information (AKERLOF 1970). Besides these general problems additional problems exist in terms of legal uncertainties in the WTO-frame: Just very few explicit provisions on label can be found in the agreements. The TBT-Agreement is covering general packaging and label requirements and the SPS-Agreement is addressing such issues when related to food (Annex A 1). In principle the same limitations as for standards are valid for label, that means labels on process standards without physical product impact are not allowed to be applied on imports. Therefore no mandatory label for process standards is accepted as NTB (JOSLING, ROBERTS AND ORDEN 2003). Related to standards that have a physical effect, labelling is allowed, and similar to product-related standards harmonization is targeted. Again international standards for label that haven developed by Codex Alimentarius are recommended (STAN Serie of Codex, see CODEX 2003). Hereby free trade is ensured but as well the risk of abuse and the overload for the consumer resulting from an intransparent variability of labels are reduced. A decisive role play labels on the products' origin that can be classified as typical process attribute without any physical impact. According to the general rules no related NTB are accepted (chapter 3.1). But in the contrary, for designations on the origin, strong provisions do exist under the "Agreement on Rules of Origin" and the "Agreement on Trade related issues of property rights" (TRIPS). Those provisions support to label the origin in terms of a countries' territory or a countries' region. As well the "image" of a product as most unphysical attribute can be labelled if it is directly linked to the origin (like wine) and the underlying criteria may be applied to imports (TRIPS Art. 22.1).²⁵

National scope to design instruments is covered by (1) the criterion of feasibility of NTBs, (2) the principle of equivalence, (3) the use of certain labels for which a grey area can be found within the WTO frame.

(1) The command of using always the least trade-distorting measures is weakened by additional criteria: the evaluation of implemented NTBs considers the technical and economic feasibility compared to alternative NTBs (Art. 5.6). In several disputes

²⁵ Hereby the origin defines brands.

import bans as most rigid barriers were accepted as only feasible instrument (see chapter 4).

(2) The principle of equivalence can be understood as alternative to the detailed harmonization of national food safety approaches. Equivalence means the acceptance of different instruments that achieve identical safety levels.²⁶ This principle is recommended by allocating the burden of proof to the exporting country (Article 4). It has to convince its trading partner that the own safety instrument ensure the safety level of the importing country. The concrete implementation is realised by conformity assessments, i.e. the technical procedure to declare equivalence. Such procedures cover means to verify and document conformity, e.g. the intensity of inspections or the definition of critical levels of contamination (JOSLING, ORDEN, ROBERTS 2003). This granted possibility to maintain the national instrument is factually very rarely implemented. One reason is that the importing partner has to accept the equivalent performance. Very few bilateral agreements exist which are defining either minimum food standards and thereby are comparable to WTO rules or have to negotiate laboriously technical details (RUDLOFF AND SIMONS 2004).²⁷

(3) Labelling offers some flexibility related to *quality issues*: a way out of harmonising product label can be the use of voluntary or private labels. These are not restricted or even not addressed by WTO. Therefore private label could be supported by accompanied public control procedures to increase effectiveness. There should be no public subsidies paid (e.g. for certification) because that would make private and voluntary label challengeable either under the “Agreement on Subsidies and Countervailing Measures” or the “Agreement on Agriculture”. Additionally, the application to imports is problematic as then harmonisation would be undermined.

For the nutritional quality aspect, such as cholesterol in food, more flexibility exists. Some general guidelines of the Codex Alimentarius exist without having the binding character of standards for the labelling of safety aspects. Related to nutritional quality

²⁶ A similar principle is mutual recognition, extensively referred in the area of the Internal Market of the EU. Regarding concrete implementation both principles can differ related to the dimension of the application area: equivalence often is restricted to individual safety issues whereas mutual recognition often is more comprehensive and covers the acceptance of complete food regulatory systems (GOODE 2003).

²⁷ An extraordinary example for a comprehensive Equivalent Agreement is Annex IV of the “EU-Chile Association Agreement” where detailed procedural elements such as inspection methods are ruled (EU-CHILE ASSOCIATION AGREEMENT 2002).

no reference is made under the SPS- Agreement. Therefore no harmonisation is commanded for respective labels leading to a large flexibility on the one hand and to a huge intransparency for the consumer on the other hand (CASWELL 1997).

Such private and voluntary labels are the only possibility to be applied to imports if process qualities without product impact are concerned, such as a certain husbandry approach.

The only exception of permitting process labels is related to *origin issues*. As these labels are compatible to different WTO provisions countries' may use them to benefit from the effect of signalling quality. If the consumer may perceive the origin as quality attribute such a label can be used for differentiating product qualities²⁸

A final general opportunity for national sovereignty related to both the safety level and instruments is restricted to the benefit of developing countries. The provisions of special and differentiated treatment (Art. 10) is an overall rule for all WTO agreements aiming at considering the specific situation of developing countries as integrated part of all WTO rules. Regarding the SPS-Agreement this principle grants longer phasing-in periods for implementing new standards, the possibility for overall exceptions from duties and recommends assistance to join relevant organisations such as the Codex Alimentarius Commission.²⁹

The following chapter will point out whether the findings in existing disputes were deduced against or in favour of the identified potential scope for a sovereign food policy.

²⁸ An example is the designation of origin "Made in Germany" serving as quality signal. In several cases label were negotiated to solve the dispute. In the Hormone Case US-EU no consensus could be found whether to label the quality or the origin. Due to the signalling effect the US was against a label of origin as this would discriminate the complete beef production of the US and not only certain production methods. See RUDLOFF 2003.

²⁹ As developing countries are underrepresented at such meetings due to lack of financial and human resources the Trust Fund offers support to visit the regular Codex meetings. Hereby representatives of developing countries may actually contribute to the definition of standards that afterwards will become the harmonized ones under SPS.
See <http://www.who.int/foodsafety/codex/trustfund/en/index1.html> (December 2004).

4 Empirical survey on WTO food disputes: the actual acceptance of sovereign national food safety policy

Since the adoption of the SPS-Agreement in 1994 thirty formal cases on food safety have been opened till today:³⁰

Nearly half of the decided cases were solved before they went through all dispute stages.³¹ Therefore, a large part of the cases is not ending up in a judgement of the responsible WTO bodies. Formally announced bilateral compromises are mutually agreed solutions which account just for five cases. Additionally other cases have been suspended without any formal final decision that may be caused by an informal consensus between the parties. This relevance of bilateral solutions demonstrates the self-enforcing power of the dispute settlement procedure to motivate solutions without awaiting formal findings.

The following six cases were closed and serve as basis for the analysis on granted scope for national sovereignty:³²

- (1) The **Salmon Case**: Canada accused Australian to have implemented an import ban on salmon that is not fulfilling Australian heating treatment requirements (WT/DS18).
- (2– 3) The two **Hormone Cases** in which both the US and Canada complained about the European import ban on meat produced with growth hormones (WT/DS26 and WT/DS48).
- (4) The **Fruit Case**: the US complained against Japan applying domestic quarantine requirements on imports of certain fruit products and nuts in order to avoid the spread of codling moths (WT/DS76).³³

³⁰ See statistics at http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm (Dec 2004).

³¹ The stages cover the request for bilateral consultations, the request for a panel and panel findings, the request for an appeal and the appellate bodies' findings and as final formal stage the establishment of penalty tariffs in case the condemned party fails in abolishing the instrument at stake.

³² Directly linked to food safety aiming at human health are only the two Hormone Cases. The others are targeting at plant health (Fruit Case and Apple Case) or animal health (Salmon Case) and therefore harmonization is linked to other international standards than those of Codex Alimentarius.

- (5) The **Apple Case** in which the US complained about the Japanese application of certain quarantine requirements on imports to avoid the spread fire blight (WT/DS245).³⁴
- (6) The **Asbestos Case**: Canada accused the EC for an import ban on asbestos (WT/DS135).

For the bulk of these decided cases the findings were made in favour of the complainant. This is a general trend to be noticed for all WTO disputes and signifies that disputes are only started if a strong failure of the defendant can be assumed. The *Asbestos case* represents the only SPS case in which the findings were made in favour of the defendant, namely the EC. Just two cases ended up with the final institutional stage, i.e. the implementation of penalty tariffs. Using this option of penalties can be found very rarely when looking at all disputes. This can be explained by the reputation effect, i.e. losing international reputation due to not following the rules. Another reason is the fact that such trade reducing penalty tariffs are of disadvantage to both parties because even for the winning party welfare losses appear due to reduced imports.³⁵

Additionally explicit cases on labelling are increasingly emerging and ruled under the TBT Agreement. Although this will be certainly a future area of conflicts those cases are not analysed in detail because the underlying core principles are similar to the ones linked to standards (see chapter 3.2.3).³⁶

The conflict of the *Asbestos Case* is not directly linked to SPS-matters and the final finding was based on the general exception of GATT Article XX. Therefore this case will be excluded from the analysis.

³³ This insect is not dangerous for human health but destroys harvest. The infection is depending on climate conditions. This led to a differentiation of import requirements depending on the season. The NTBs could therefore be characterised as “temporary” restrictions (see graph 2).

³⁴ Fire blight is a plant disease not harmful for human health but hindering the mildewed products from being marketed.

³⁵ In the Hormone Cases both the US and Canada as complainants against the EU had difficulties in choosing the products on which they wanted to impose those penalty tariffs. RUDLOFF 2003.

³⁶ A precedence became the „Sardine Case“ Peru against EU, where the EU was condemned because of not fulfilling the labelling and packaging requirements for certain sardine species not covered by a respective Codex Standard Stan 94-1981, rev. 1-1995 and Stan 1-1985, rev. 3-1999).

Both *Hormone Cases* have not been solved in terms of abolishing the condemned import ban and have remained in the status of keeping the ban while imposing penalty tariffs. Another case that led to the request of penalty tariffs is the *Apple Case*. A decision on granting penalties has been suspended until further notice.

As the *Hormone Cases* were the first ones closed they are often used as precedence and are referred to in the other cases.

All SPS cases were finally decided referring to insufficient risk assessment (Article 3 and 5). This stresses the identified scientific dominance related to risks at WTO level that restricts the scope for covering other risk dimensions.

Summarising the outcomes of all five analysed disputes just very few cases grant some of the identified scope for sovereignty (chapter 3):³⁷

(1) Related to the risk dimension no other elements than probabilities and damage amounts were accepted as parameter influencing the risk. In the *Salmon Case* the option to describe risks qualitatively was stressed. The reports on the *Apple Case* are referring to the possible consideration of environmental factors when assessing the risk.

(2) Related to the safety level the core argument was the **scientific justification** for the chosen safety level (Article 3 and 5). In most cases the scientific assessment was rejected as inappropriate. Just in the two *Hormone Cases* the insufficient scientific evidence was accepted to justify the **provisional establishment** of the NTB at stake according to Article 5.7. In the contrary, such option was rejected in the *Apple Case* as the scientific evidence was evaluated as being sufficient. In the *Fruit Case* the second condition for implementing Article 5.7. was evaluated as insufficient, namely that Japan failed in searching for all information available.

(3) Regarding the implemented instruments in half of all cases the NTB at stake was accepted as the only **feasible** one to achieve the chosen national safety level. Even the most trade distorting import ban in the two *Hormone Cases* and the *Salmon Case* was accepted as the only technically feasible one compared to alternative

³⁷ See respective cases at http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm (Dec 2004).

measures such as process controls. Nevertheless, the ban was finally condemned in all cases but due to the missing risk assessment and not because of the trade distorting effect as such. The panel on the *Fruit Case* accepted the complicated testing methods required for imports as being the only feasible measures. The subsequent appellate body rejected the argument as being formally not relevant for the findings.

The **principle of equivalence** was not addressed in any of the cases.

Labelling was not covered in the SPS disputes although discussed among the parties at different stages to find a bilateral solution in the *Hormone Cases* (RUDLOFF 2003).

Special and differential treatment has not been relevant so far because in none of the decided cases developing countries were involved. This could be increasingly relevant in the future as developing countries are more and more involved in disputes taking over both roles the defendant and the complainant.³⁸

A final option can be the acceptance of sanctions to defend national sovereignty. This is in fact an institutionalised option but the most rigid one. The *Hormone Cases* are the only ones where the status of the remaining import ban and the reacting sanction tariffs have been held up now for six years.³⁹ Hereby, the *Hormone Cases* symbolise the principal restriction of the global ruling frame when large differences on national policy objectives exist.

5 Summary and Conclusions

The analysis of existing WTO provisions has identified existing scope for national sovereignty. This scope can differ related to single issues: (1) related to the risk dimensions no scope exists for integrating other aspects than the traditional probability and damage amount. (2) Related to the choice of domestic safety levels just little scope exists. If international standards have been developed the only way out of

³⁸ In all opened thirty SPS cases low income and lower middle income (according to the Worldbank's Atlas approach to classify countries) countries account for eleven. See respective cases at http://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm (Dec 2004).

³⁹ The sum of about 120 million \$ is imposed as penalty tariffs on European products imported to US and Canada per year (RUDLOFF 2003).

harmonisation is the submission of a risk assessment, which is the most often used argument in disputes. The most important flexibility for the safety level is offered by allowing provisional measures if scientific evidence is insufficient. This flexibility is timely restricted as the risk assessment has to be submitted at a later date. (3) The largest scope for national action exists in the area of instruments, i.e. the choice of a specific non-tariff barrier. Feasibility can justify instruments that are not accepted as least trade distorting. In half of all cases the measure at stake was accepted due to this reason. Equivalence is suggested as facilitating instruments but hardly used due to necessary enormous bilateral bargaining efforts.

To summarize the WTO frame, the scope for national flexibility can be characterised as limited. Even the existing windows for opportunity are bound to strict criteria leading to their very rare use. A way out can be the use of labels as for labelling a grey area in terms of missing strong criteria could have been identified. However, the effectiveness of labelling is subject to the consumer's ability to process the given information and may be reduced by the risk of abuse.

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