INTRODUCTION

In the Agriculture 2020 Conference outline the key questions for session 5 on “Agriculture, Food Security, and Food Safety” are summarized as follows:

“It is important to distinguish food security (a sufficient supply of agricultural products) from food safety (the availability of “good” quality of food). What specific instruments should be used for the former and the latter? What is the appropriate balance between public intervention and markets, between regulations (national, regional, and multilateral) and private standards?”

In addressing these issues I start by critically examining these definitions of both food security (i.e. “a sufficient supply of agricultural products”) and food safety (i.e. “the availability of ‘good’ quality of food”). This is a crucial prerequisite for the development of a coherent policy framework. The issue that I will address first is the balance between these various policy measures.

POLICY FOCUS AND THE EU PUBLIC

Traditionally the focus of “agricultural policies” has been very heavily on supply and income issues, and only recently have safety and quality received more attention – and even then usually not under the umbrella of agricultural policy but rather as part of consumer and health policies. An important policy question is whether this bias is consistent with public demands – and whether it needs adjustment.

Most of the agricultural policy attention in the past has gone to agricultural producer issues i.e. mostly about CAP subsidies and trade interventions. Consumer and taxpayer interests have received some attention in this framework, but other issues less. This is an interesting observation in itself since it seems to be inconsistent with important consumer concerns about quality and safety aspects.
What does the EU public care about most? In terms of its preferences for policy attention, does it care more about quality than quantity; or does it care more about safety or price? While there are no obvious data or indicators to measure the relative importance of these various issues for the EU public, one can get some insights from different pieces of evidence. In particular, we look at three: public surveys, political pressure, and media attention.

The first set of empirical evidence comes from the Eurobarometer survey results. While the survey results cannot answer these questions clearly, what emerges is that health and food safety concerns are very important to EU consumers. Consumers associate a variety of health and safety concerns with food. Most people worry about pesticide residues in fruits, vegetables or cereals. Concerns about new viruses like avian flu, residues in meat like antibiotics or hormones, unhygienic conditions in food handling outside home (during processing and retailing) are the second most worrying issues to consumers.

The second set of empirical evidence looks specifically at the political pressure related to food policy issues. More specifically, we look at the issue when did price/quantity versus safety/quality issues cause major political problems for EU governments? If we look at what has happened in Western Europe with regard to food price and quantity issue, the last time that the fight between consumers and producers over prices lead to major government crises was just before and just after the second World War\(^1\). For example, in 1936 the Belgian government fell over a proposal to increase grain import tariffs which was strongly opposed by workers, represented in government by the Socialist Party. From the 1950s onwards, price and quantity issues remained important issues, but mostly for producers, and never to the extent that they caused the collapse of governments – albeit that they played a very important role in international trade negotiations. In contrast, as recently as the 1990s, the political impacts of successive major food safety crises were considerable in several EU member states; in particular following the BSE, FMD and dioxine crises in the second half of the 1990s\(^2\).

The third set of empirical evidence refers to how the media covered the food crises. An interesting natural comparison is the media coverage of the late 1990s food (safety) crises with the current 2006-2008 food (price) crises.\(^3\) Such comparative analysis yields the conclusion that price issues received important news coverage, but typically only in the inner pages and often in the economy sections of the newspapers. In contrast, the food safety and quality crises in the late 1990s were covered much more extensively, with much stronger statements and with major front cover articles.

In combination, these pieces of subjective evidence suggest that for the EU public safety and quality issues are at least as, and likely more important, than price or quantity issues from a policy perspective. The reason for this is most likely related to the decline in the share of food expenditure in Europe. Data from a hundred and fifty years for Western European economies shows that the share of food in consumers’ expenditures has gone down tremendously. Consumer’s income spent on food declined to its 10% levels in 2005 while one hundred year ago it was between 40% and 60%.\(^4\) Moreover, the share of total food expenditures going to

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\(^1\) See Swinnen (2009) for details.

\(^2\) For example, in 1999 the governing parties in Belgium lost very heavily after the dioxine crisis. Studies made afterwards clearly indicated that the crisis had an important impact on this outcome.

\(^3\) See Swinnen et al (2005) for details.

\(^4\) However, a cautionary note needs to be bear in mind with regard to the enormous heterogeneity that exists across the current EU-27. For instance, the previous arguments can not easily be applied and generalized for Eastern
agricultural producers has declined even stronger, with increasing share going to processing and marketing.

**Figure 1:** Share of food in consumer expenditures

![Chart showing share of food in consumer expenditures over time for various countries.](image)

Source: Swinnen (2009)

These observations, of course, raise important policy issues regarding the optimal policy mix and policy attention to the various elements. Interestingly, the recent reforms of the CAP have to some extent taken these issues into account. For example, the 2003 Fischler Reforms of the CAP explicitly mentioned the importance of ensuring safe and high quality food (Swinnen 2008). However, much of the actual expenditures under the CAP still went to traditional objectives, i.e. market and income support, albeit that most support was decoupled from specific production activities, and subject to cross-compliance requirements (European Commission 2008).

We will now discuss food security, food safety, and food quality policy issues in turn.

**FOOD SECURITY POLICY**

Food security was a major issue in Western Europe in the post-World War II era, as the history of food shortages was still vivid. As such the formal objectives of the CAP still reflect this with its reference to ensuring an adequate food supply (European Commission 2007). However, although the objectives have not formally changed, it is clear that the issue became gradually less important in EU agricultural policy, even when price hikes in the early 1970s brought the issue back temporarily.

The dramatic food price increases in 2007 and 2008 have brought food security back to the policy table as an important issue. However, several issues need to be taken into consideration.

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European countries like Romania as it is for the rich north-west Europe. The issue of food price may also be more important in the income of especially poor, unemployed people and pensioners.
First, extensive research on food security issues globally, and particularly in developing
countries, have made it clear that food security is mostly not a supply problem, but a demand
problem. Wars, violent conflicts, or disasters which destroy supply lines are an exception to this
rule but even then demand constraints are important.

This shift in perspective is also reflected globally in changed definitions of food security used by
international organizations. The initial focus, reflecting the global food concerns of the early
1970s, was on the volume and stability of food supplies. Food security was defined in the 1974
World Food Summit as: “availability at all times of adequate world food supplies of basic
foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in
production and prices”. In 1983, FAO expanded its concept to include securing access by
vulnerable people to available supplies, implying that attention should be balanced between the
demand and supply side of the food security equation: “ensuring that all people at all times have
both physical and economic access to the basic food that they need”. By the mid-1990s food
security was recognized as a significant concern, spanning a spectrum from the individual to the
global level. However, access now involved sufficient food, indicating continuing concern with
protein-energy malnutrition. But the definition was broadened to incorporate food safety and also
nutritional balance, reflecting concerns about food composition and minor nutrient requirements
for an active and healthy life. Food preferences, socially or culturally determined, now became a
consideration. The potentially high degree of context specificity implies that the concept had both
lost its simplicity and was not itself a goal, but an intermediating set of actions that contribute to
an active and healthy life. The 1996 World Food Summit adopted a still more complex
definition: “Food security, at the individual, household, national, regional and global levels [is
achieved] when all people, at all times, have physical and economic access to sufficient, safe and
nutritious food to meet their dietary needs and food preferences for an active and healthy life”.

While the international community has accepted these increasingly broad statements of common
goals and implied responsibilities, its practical response has been to focus on narrower, simpler
objectives around which to organize international and national public action. The declared
primary objective in international development policy discourse is increasingly the reduction and
elimination of poverty.

In this shifting perspective and emphasis on the demand side, the main food security problem in
the EU relates mostly to those living in poverty, which is a small minority in richer EU countries,
and a sizeable group in poorer EU countries. Possibly in size the most important group are older
people, and in particular those living in rural areas, in some of the new EU member states which
are living on very low pensions and who have to keep working at old ages to produce some food
for their household food security.

In terms of policy solutions, the best approach is to address the fundamental problem, which is the
low incomes of these people, e.g. by increasing their pensions.

Second, the current concerns of food security, based on the uncertainty whether future food
supply can meet demand, are related to the high food prices in 2007 and the first part of 2008. To

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5 This new emphasis on consumption, the demand side and the issues of access by vulnerable people to
food, is most closely identified with the work of Noble Prize winner Amartya Sen. Eschewing the use of
the concept of food security, he focuses on the entitlements of individuals and households.

6 See FAO Food Security website for more details.
analyze the policy implications, we should first look at the causes of the high prices. Several studies have pointed out that the main reasons are a combination of structural, temporary, and policy factors. This includes the growth in food demand with the growth in developing countries such as China and India – but also in Africa, the growth in agricultural commodity demand for bio-energy – in particular biofuels, declining productivity (yield) growth in richer countries, bad weather, export constraints imposed by exporting country governments, etc.. Related to these factors, and indirect causes, are policies that have stimulated the growth of biofuels (subsidies and mandates), the high oil prices which affects both the costs of production and the (market) demand for bio-energy, and possibly climate change which affects weather conditions.

An important observation is that agricultural production, both in the EU and globally has responded positively to the high prices: production in 2008 has increased substantially over the past years.

What does all this imply for policy?

1. Climate change is the subject of a different conference session. I will limit myself to the comment that studies seem to show that climate change is likely to affect food production in different regions quite differently and that parts of the EU may be negatively affected and parts positively. The total impact of climate change on global agricultural production as well as on EU agricultural production may be positive, but important reallocations appear likely.

2. An important policy issue is how to deal with bio-energy as a competing demand with food for agricultural commodities. The main food security policy here appears to be to stop stimulating bio-energy demand by removing subsidy and mandate policies.

3. Even without government support, demand for agricultural commodities for bio-energy purposes is likely to increase if oil prices recover in the coming years. Similarly, the growth in food and feed demand from countries like India and China is likely to continue despite the current financial and economic crises in the world economy. It is unclear whether productivity trends in rich countries will continue to face declining growth rates, or whether rapidly increasing productivity in developing countries can continue.

4. However, if the fundamental trends which we have outlined here continue, there appears to be an upward pressure on agricultural and food prices.

5. From a policy perspective this has important implications.

   a. It means that agricultural market prices will increase in the future and that there are less arguments for governments to support farm incomes.

   b. The dramatic changes (both increases and decreases) in commodity and food markets over the past years has re-emphasized the importance of addressing risk and uncertainty for farmers and other agents active in agricultural and food markets. Policy initiatives and instruments that reduce such uncertainty, and the risk associated with it, would be important beneficial elements in the food production system.

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7 See various reports and studies by IFPRI, FAO, OECD and the World Bank.
8 These are in addition to potential consumer policies, such as advising a less meat-intensive diet.
c. Given the daunting challenges to produce more agricultural commodities for food and non-food purposes, and the lagging productivity growth rates in the EU, there should be important policy support and investments in R&D and technology development and diffusion (a) to improve productivity of agricultural production and (b) to reduce the pressure of bio-energy on food prices.

d. In this perspective, the EU should consider reallocation a substantial part of the CAP budget to stimulate green technologies to stimulate the rural/food/bio-economy.

e. In this perspective, the issue whether biotechnology should be part of such EU policy for the future is an important policy question.

FOOD SAFETY POLICY

Until very recently, food safety policy was mainly a member state’s responsibility, except for some veterinary directives from the European Commission. The food safety crises in the 1990s, particularly the BSE crisis in 1996 and the dioxin crisis in 1998, were crucial in changing this. In 1997, almost a year after the BSE crisis, the Commission launched a new food safety initiative which resulted in the publication of its ‘White Paper on Food Safety’ in 2000 (European Commission 2000). This led to major legislative changes and to the Basic Food Law Regulation, including a recast of EU veterinary rules, and the creation of the European Food Safety Authority (EFSA).

The main goal of this EU food safety policy is protecting consumer health while ensuring smooth operation of the ‘single market’ and taking into account existing or planned international agreements on standards (like the Sanitary and Phytosanitary (SPS) and technical barriers to trade (TBT) agreements (OJEC 2002).

The food safety policy follows an integrated ‘from farm to fork’ approach since the year 2000. Unlike many other approaches which target controlling food safety standards at end products in the supply chain, this approach tries to control risk in all stages of food production and distribution. The EU’s Rapid Alert Systems for Food and Feed (RASFF) entered into force in 2002.9 RASFF uses traceability as a tool to ensure efficient risk management and quality control.

The EU has also adopted specific sector rules on products of animal origin intended for human consumption (Regulation (EC) No 854/2004). This act covers fresh meat, fish, milk, dairy, poultry etc... while Commission Decisions 200 6/766/EC and 2006/696/EC and subsequent amendments specify the list of non-EU countries from which imports of these products are allowed. In addition, official controls on good hygiene rules of HACCAP principles and on maximum residue level (MRL) are in practice; as do specific rules on the use of pesticides; 10

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9 The RASFF system covers all foodstuffs and feed. It is comprised of a network of all member states, the commission and EFSA as a member. There has been an existing early warning system in place both at the member states and the Commission but the new system extended more to include both food and feed under the umbrella of the ‘farm to fork’ strategy. Therefore, the network jointly acts to spot unsafe food and feed. If a treat is spotted, an EU-wide notification system acts depending on the level of risk detected. Rules related to emergency, risk management measures during food scare cases and scientific uncertainties are all part food law (DG SANCO, 2007). For more details see OJEC (2002, L31/1)

10 The Codex has established MRLs in line with Good Agricultural Practices (GAP). Therefore, national and EU MRL standards are assessed against Codex as a reference point which sets science as its primary drive to assess risk.
food supplements; colorings; antibiotics and hormones in food production; additions of vitamins; minerals and similar substances in food; products in contact with food stuffs—such as packaging.

Key policy issues for the future are:

1. whether the system as it has recently been designed and implemented is sufficient and efficient in addressing public concerns related to food safety;
2. whether current and future ‘agricultural policies’ are consistent with the food safety rules and policies;
3. whether there is a need to adjust these policies in the light of rapidly growing private standards (see further);
4. whether there is a need to adjust these policies in the perspective of trade agreements and trade developments (see further).

FOOD QUALITY POLICY

While there is both in theory and in practice an important relation between safety and quality, one can identify several product characteristics which consumers may appreciate (color, size, production process (no child labor, ...), ...) but which are not safety characteristics.

There is no real EU quality policy at this moment although the European Commission is preparing proposals for such a policy. Thus far, there is some support for EU quality production under the CAP Pillar II (Rural Development Programs) where some of the programs are explicitly linked to upgrading quality or producing quality.

Even at the member state level, most of the quality policy initiatives are recent. Unlike before, where food quality was almost only a private sector initiative, now governments are getting involved in food quality schemes and are setting up the public–private partnerships initiatives.

For example, Germany has developed its QS (Qualitätssicherung) system, which is one of the most elaborate initiatives at the member state level. It is a recent initiative (2002-2005) and has different types of schemes at all levels of the food chain (feed industry, the meat industry, processing, retailing, and marketing). The products included are pork, beef, veal, poultry—all started in 2002; while fruits, vegetables, potatoes and combinable crops started in 2004 and 2005 respectively. Looking into the essential characteristics of this QS system, it is striking that although the systems name refers to “quality assurance”, many of the controls and assurances relate to safety features, including tracability, internal control and transparency.

Key policy issues for the future are:

5. whether there is a need for an EU level food quality system, or to leave this at the member state level;
6. whether to increase funding for local initiatives under the Pillar II;
7. whether current and future EU-level ‘agricultural policies’ are consistent with food quality objectives and initiatives;
8. whether there is a need to make adjustments in the light of rapidly growing private standards (see further).

PRIVATE VERSUS PUBLIC STANDARDS

There has been a rapid growth in private sector initiatives in the field of food safety and quality standards. The most important – and most far reaching – is undoubtedly the GlobalGAP standard (formerly EurepGAP) which is now used by all main retailers in the EU.

There is an interesting dynamic between public and private standards. Private standards may be introduced because public standards are insufficiently stringent (or absent) – in this way they may either be introduced earlier than public standards, or may follow after public standards are introduced. Private standards may also be introduced as a marketing tool, to reduce transaction costs in business dealings, to reduce information imperfections of consumers, etc.

In a number of areas, private standards are more restrictive than public standards. Fulponi (2007) interviewed EU retailers and asked them to assess their own standards compared to those in government standards. Under the four categories (food safety, environment, animal welfare and labor), public standards are found to be mostly important only in social and labor standards; but in all other cases the private standards are more important than the public standards.

Figure 2: Retailers self-assessed standards compared to those of government

![Graph showing retailers self-assessed standards compared to those of government.](image)

Source: Fulponi, 2007

With respect to trade issues, public regulations require equivalence of risk outcome. It is essentially based on the evaluation of the final product which is consistent with the SPS agreement of WTO. In contrast, private systems may be more demanding. GlobalGAP for example requires equivalence of systems based as well on the evaluation of the process which requires tractability of the product, not requested by public standards. Therefore the private sector requirements on imports are more demanding.

Finally, the relative importance of public and private standards varies strongly. In a comparison of standard setting institutions among countries, Henson (2004) shows that private and public-private initiative standards are much more important in developed countries than developing countries. In developing countries 88% of standard setting institutions are public rather than
private – which is an interesting observation given the problems of enforcement which are characteristic of these countries.

Key policy issues for the future are:

9. whether there is a need to make adjustments (introduce/tighten/relax/remove) of public standards in the light of rapidly growing private standards.

EU FOOD SAFETY & QUALITY POLICIES/STANDARDS: BARRIERS OR CATALYSTS TO TRADE?

To what extent are EU food safety and quality policies barriers or catalysts to trade? The traditional argument in the international trade literature and discussion is that safety and quality policies are barrier to trade – i.e. they constrain trade by introducing complications and hurdles. In an environment where traditional trade protection instruments, such as tariffs and quotas, are increasingly regulated they are mostly considered alternatives for protection under the form of non-tariff barriers (e.g. Anderson et al 2004; Fischer and Serra 2000, Lapan and Moschini 2004; Sturm 2006).

In addition, it is generally argued that increasingly demanding EU food standards (both public and private) are hurting developing countries since they are unable to address these standards. Moreover, in case they can it is argued that it is mostly multinational companies or large producers who may benefit but that small and poor local producers are either marginalized or exploited in this process (e.g. Dolan and Humphrey 2000; Farina and Reardon 2000).

However, new empirical evidence and theoretical arguments question the validity of these arguments in all circumstances.

First, compliance costs for countries may be lower than often thought. World Bank estimates for compliance costs are relatively low, in the range of 4-8% but not 20-30% as it has often been presumed (Aloui and Kenny 2005; Cato et al 2005).

Second, standards can also be “catalysts” for trade by reducing transaction costs. That is an important reason why the private sector uses standards – precisely to reduce transaction cost. This reasoning should also be taken into account when we evaluate public standards. Also consumers want standards because they provide information and reduce transaction cost. It is crucial, when analyzing the effect of standards in an international economic framework, to look at both benefits and costs to both consumers and producers. Consumers may benefit because of reduced asymmetric information (or externalities) while cost increases presumably affect them negatively. Producers face increased cost because of compliance while they may benefit due to increased demand if they can reduce the asymmetry problem. There may be additional environmental effect that affects the rest of the society.

Taking this into account, Swinnen and Vandemoortele (2008) show that one may either have ‘over-standardization’ or ‘under-standardization’. Almost any standard causes trade distortion. However, it can either create more trade or it can reduce it. In fact, standards can be at the same time catalysts and barriers. Standards may affect comparative advantage through reinforcing (or weakening) scale economies, through differences in implementation costs, or in enforcement of standards. These factors may differ substantially among countries (Swinnen and Vandemoortele 2009).
Third, new evidence from trade between Africa and the EU shows that standards can have major effects on the organization of the supply chains and in particular on how local suppliers are integrated or not. Typically increased standards induce consolidation and vertical coordination in the chain. However, our studies on Africa also show that poor rural households may benefit substantially from these export systems, either as contract farmer or through the labor market (Maertens and Swinnen 2008; Maertens and Swinnen 2009; Minten et al 2009).

In summary, EU food standards may be protectionist instruments, but not necessarily. This implies some difficult issues for analysts, trade negotiators, and policy-makers alike:

- Unlike tariffs, socially optimal standards are often not zero. Moreover, they may be different for rich country compared to poor country because consumer preferences are different in these countries. So how to separate protectionist standards from social welfare improving standards?

- An increasing share of the standards which affect trade are private standards. How can/should these standards be dealt with in international institutions dealing with trade disputes (WTO)?
REFERENCES


