Trojan pig: paradoxes of food safety regulation

Elizabeth C Dunn
Department of Geography, CB 260 Guggenheim, University of Colorado, Boulder, CO 80309, USA; e-mail: elizabeth.dunn@colorado.edu
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Abstract. Standards, including food safety standards, have become a key tool in the governance of the world economy. The current drive to harmonize these standards on a global scale is supposed to reduce technical barriers to trade and create conditions for fair and free trade. However, as the case of the Polish meatpacking industry shows, standards often create new barriers because they are embedded in specific geographies. On the one hand, many harmonized standards favor large-scale multinational capital and bar local small-scale producers. On the other hand, the social legacies of previous economic systems—in this case, state socialism—give small-scale producers tools such as informal markets, personal social ties, and political organizing skills that can be used to create barriers for large multinational competitors.

“The specter of a Trojan horse has been raised, in which Poland, as a member state, would ... [dilute] the Union's ability to pursue its collective interests even as it undermines the unique bureaucratic culture whose particular magic allows the EU to function in spite of the diversity of languages and nationalities.”

Cirtautas (Eastern European Constitutional Review 2000)

In recent years, the establishment of international standards both for the qualities of particular goods and for the ways in which they are produced has become an increasingly prevalent means of governing and coordinating the world economy (Barry, 2001; Strange, 1996, page 165). There are now formally written standards for everything from telephone wire, to automobile production, to peanut growing (Brunsson and Jacobsson, 2000; Casper and Hancké, 1999; Wilson and Otsuki, 2001). Standards come in a wide variety of forms: some are rules about production and others are ‘targets’ for producing goods of a specific quality. Some state whether or not a product can be sold in a given market, whereas others grade products into a variety of classes or values.

Nation-states are increasingly adopting standards for the sale of products in national markets as a way of “correcting for market inefficiencies stemming from externalities associated with the production, distribution, and consumption of these products” (Roberts et al, 1999, page 3). That is to say, they seek to compensate for the inattention of the market to public health and welfare in areas such as food safety and the environment. However, recently both the World Trade Organization (WTO) and the EU have come to see the variance in these national standards as “technical barriers to trade”, and begun to push for “harmonization”, or the standardization of standards (WTO, 2002, page 1). By harmonizing standards, they claim, they create homogeneous regulatory environments which ensure that both domestic and foreign competitors in a given market are competing under the same set of rules. This, they claim, facilitates the flow of capital and goods. These claims are made explicit in documents such as the European Communities’ statement of position on the WTO’s proposed global sanitary and phytosanitary standards (SPS):
The SPS Agreement’s principal role is in providing a framework of provisions that guarantee transparency, non-discrimination, and proportionality in the selection and enforcement of relevant sanitary and phytosanitary measures. The SPS Agreement establishes uniform multilateral requirements and procedures which should protect WTO Members from the threat of unilateral action and from the application of disguised restrictions to trade. SPS measures should serve their intended purpose of protecting public, animal and plant health” (WTO, 1999).

Organizations such as the WTO and the EU claim that SPS are scientifically factual rules that ensure that all competitors in a given marketplace bear equal regulatory burdens. But do standards in fact create a level playing field for all economic competitors? Do they in fact eliminate technical barriers to trade and lead to more flows of capital and goods? And does the harmonization of standards really create homogeneous regulatory structures? The case of the Polish meatpacking industry suggests that this is not always the result of standardization, primarily because of the way global and regional standards are embedded in local social and institutional contexts. As a condition of admission to the EU, Poland is currently being required to adopt the EU’s SPS. These standards are based on even more global forms of SPS, including the Codex Alimentarius, a set of food safety standards developed jointly by the World Health Organization and the Food and Agriculture Organization.

When these new SPS are implemented in the Polish context, they do eliminate some economic barriers, particularly those related to the entry of foreign capital into Poland and the subsequent export of goods produced by multinational agribusinesses there. But emerging data suggest that EU SPS may also create new barriers to competition and trade by profoundly transforming local agricultural infrastructures. As is the case in many other economies, the cost of implementing SPS places a differential burden on large and small agribusinesses. SPS thus creates significant barriers for Polish farmers and meatpackers who wish to participate in domestic and export markets.

These new barriers to market competition do not go unopposed, however. EU SPS enter into a field of debate over agriculture and trade profoundly shaped by notions of justice, honesty, and value developed under state socialism. As Polish smallholding farmers and meatpackers are threatened by SPS and multinational agribusiness, they attempt to ward off multinational corporations and continue their livelihoods by using both ‘gray’ or unofficial markets and overt political protest. Drawing on these two techniques, which are cultural forms honed during the state socialist era, participants in the small-scale agricultural chain create other, informal, nontariff trade barriers. In Poland, therefore, changes in the pork industry may end up quite differently than standardizers imagine.

SPS, as do many other forms of standards, thus function as ‘Trojan pigs’, or regulatory structures which enter a specific geography and produce unannounced consequences. They do so because they are more than simple technical rules for organizing markets and ensuring product quality, but are complex technologies which attempt to regulate social and ethical behavior in capitalist markets (Busch, 2000). But because standards promote the restructuring of the agro-industrial sector (whether or not standardizers intend them to), they evoke strong reactions from the people who are subject to them. Rather than conforming to standards because there is no alternative

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(1) See, for example, the WTO’s agreement on SPS (2002), which states “Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence.” Article 2 also states “Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail.”
Busch, 2000, page 276), rural Poles use alternative notions of value and other ethical frameworks to circumvent or block standardization. Therefore, rather than accepting standards as rules which standardize not only things, but workers, markets, capitalists, or consumers (Busch, 2000, page 273), it is important to understand how standards are entwined with the social and historical specificities of given places. Looking at standards as Trojan pigs highlights the need to view standards not only as technical documents or free-floating legal frameworks, or as things which automatically create uniformity, but also as regulatory processes which embed in specific geographies with their own histories, institutional structures, and social norms. Understanding how standards become geographically variable as they are implemented in particular local contexts suggests they produce unique regulatory landscapes rather than the uniform ones standardizers envisage, and leads to a renewed focus on the importance of “class relations, cultural practice, and political resistance” (Page, 1997, page 135; see also Raynolds, 1997).

The Polish meat industry
The agro-industrial sector that EU SPS enter into is a very large one that has already been marked by significant transformation. Although Polish agriculture was by and large not collectivized during the socialist period, and therefore has not undergone the rigors of widespread decollectivization,(2) it has already been marked by change as state-owned food processing plants have been privatized and new entrepreneurial food processing plants have opened. In the meat sector, standards implemented outside Poland have also had a profound effect on the shape of the industry. Because Poland did not adopt EU SPS until recently, Polish beef exports were banned in the EU through most of the 1990s. This led to lower prices on the domestic market as well, and the Polish beef industry contracted. This case study focuses primarily on the pork industry, because Poland’s beef industry has virtually collapsed in the last four years because of the ban on beef exports from Poland to the EU and the low prices for beef. There are few plants that slaughter cattle, and none of them do so exclusively. The pork industry, which is much larger, is therefore a proxy for the structure of the entire meatpacking industry.

About 20 million pigs are slaughtered in Poland each year, yielding 1.635 million tons of carcasses. This makes Poland the sixth largest producer of pork in the world (Freese, 1998; USDA, 2001). Unlike in the United States, however, where porkpackaging is becoming highly consolidated (Durrenberger and Thu, 1997; Horwitz, 1998; Page, 1997), the Polish meatpacking sector is highly fragmented. Farmers themselves slaughter about 6 million hogs per year. Many of these farmers are engaged entirely in subsistence farming, and do not sell pigs or any other agricultural commodity. There are also 290 large processing plants, most of which are now wholly or partially owned by foreign capital. The 14 largest packers together slaughter about 4 million hogs per year. But the largest number of pigs is slaughtered by small processors, who collectively slaughter about 10 million hogs per year. Although estimates of the number of these small processors vary, there are between 2700 and 4500 of these small meat processors, most of which, according to the Polish government, are “non-inspected, illegal, small, backyard” operations (Ministerstwo Rolnictwa i Wsi, 2000).

The high level of fragmentation in the industry is the result of two previous institutional patterns in the Polish economy. The most recent was shaped by neoliberal economic policies adopted by Poland in the early 1990s. Before 1989, there was a high unmet demand for meat in Poland. Widespread shortages of meat, more than of any private farms owned by Polish peasants were never collectivized during the socialist era, farms belonging to the landed gentry were collectivized, as were those owned by the Ukrainians and Germans driven out of Poland at the end of World War 2. The collective farms discussed below were formed in this manner.
other product, came to symbolize the economic failures of the socialist system. In the aftermath of the collapse of Communism, in 1989, consumption of meat increased dramatically.\(^3\) Because the skill base needed for butchering and processing meat was already in the countryside, and because meat processing plants did not require large start-up costs, thousands of small slaughterhouses and meat factories sprang up in the Polish countryside. These slaughterhouses buy animals in small lots from farmers in the area, make products that meet local tastes (a Torun ham and a Sanok ham being two completely different products, for example), and sell their wares in small private shops in the region where they are located.

Poland’s historical land-tenure system is a more historically distant cause of fragmentation, because it led to extremely small farm sizes. With the exception of those areas controlled by Prussia during the Partitions, the inheritance of land was not based on primogeniture in Poland. This meant that farms were split among all the children in a family, which led to increasingly smaller farm sizes. Because these family farms were not collectivized during the Communist period, they remained significantly smaller than the European average. Most Polish farms now are less than 5 ha, with many farms less than 3 ha in the southeastern provinces, where as farms in the EU average 17 ha (\textit{The Economist} 1999, page 47).\(^4\) Small farms do not produce very many pigs per year. In fact, over 56% of Polish farmers have fewer than nine hogs, which means they usually have only a sow or two and piglets (GUS, 2000, page 12). Needless to say, this means there are very few large ‘factory farms’ of the type common in the United States, where 36.5% of hog farms have more than 200 animals (USDA, 1997). In Poland, less than 1% of all Polish farms with hogs on them currently have over 200 hogs (GUS, 2000, page 12). Large hog farms in Poland are usually found on old PGRs (\textit{Państwowe Gospodarstwo Rolne}, or collective farms) that have been converted to private capitalist production via lease arrangements with their former managers.

This fragmented system does not give pig producers any economies of scale, and therefore is not ‘economically efficient’ in the strict sense. However, small-scale farming is an important element of the diverse strategies rural Poles pursue in order to survive economically. Rural people in Poland farm primarily for their own subsistence needs in order to preserve cash, but sell what surplus there is in small quantities to local processors when prices go above the cost of production (which is not always the case).\(^5\) As many of the socialist factories that employed ‘worker-peasants’ have closed, and rural residents lose one leg of their economic strategies, the sale of surplus agricultural goods takes on an increasingly important element in livelihood strategies in the countryside. Although rural unemployment is officially slightly below the urban rate of 18%, up to 900,000 rural people may be among the ‘hidden unemployed’, people who are recorded as farm workers but who are in fact unable to make a living either at

\(^{(3)}\) The extent of this increase is virtually impossible to determine because of the inaccuracy of socialist-era statistics (and the politically motivated desire to have those statistics reflect high meat-consumption rates). That a great deal of meat never reaches the market, and that a large portion of the meat that is sold on the market is never reported because the seller is evading taxes, also complicates matters. This is perhaps the reason that different reporting organizations give wildly discrepant numbers. However, most of my informants in the industry agreed that the last ten years had seen a great increase in both meat consumption and meat production.

\(^{(4)}\) Among current EU countries, only Greece (where farms average 4 ha) has smaller farms than Poland. In France, which is largely viewed to have fragmented holdings, the average farm size is 42 ha, whereas in England, the average farm size is 69 ha, or over 10 times as large as the average Polish farm (APAC, 2000).

\(^{(5)}\) In 1999, for example, a fully grown Polish pig sold for about 280 PLN (US$70). Yet, if the farmer used commercially available feed, it cost 350 PLN in feed and another 70 PLN in labor, heating, and shelter to raise the pig (\textit{The Economist} 1999, page 47).
farming or at wage labor (Valencia, 2001). With such a large group of the hidden unemployed, it is not surprising that the average income of a farmer is only 40% of an urban worker’s, compared with over 100% in the 1980s. More farming families fall below the poverty line than families in any other social group (Valencia, 2001). For families that are ineligible for welfare benefits or unemployment subsidies, selling a few pigs or the occasional calf is a significant addition to a meager income.

**EU accession forces processor consolidation**

As Poland prepares to enter the EU, this large but fragmented agricultural structure has become one of the major sticking points in accession negotiations. Arguing that subsidizing Poland’s small farmers via the EU’s Common Agricultural Policy (CAP) would bankrupt the EU’s agricultural support system, EU Agriculture Commissioner Franz Fischler promoted a plan to restructure the Polish meat production chain along with several other commodity chains including fisheries and dairy.\(^{(6)}\) As Fischler explained the problem,

> “Enlargement is a clear challenge. There is no question about that. The number of farms will double after the enlargement process, and the structures in the candidate countries are very different. The main problem is Poland because of their very small farm structures. The average farm size in Poland is around 15 acres and not more. Therefore, how we deal with this challenge is the main question in enlargement negotiations. We think the only way is that we support a very diversified rural development policy, that we provide jobs for the rural population outside agriculture ... and at the same time, that we improve the hygiene and the veterinary and phytosanitary standards, so that the product produced in the candidate countries can compete with the products of the other member states” (cited in Barber, 2001, page 26).

Fischler implies here that the drive to restructure the agricultural sector and the drive to implement SPS are two separate but parallel initiatives. However, in practice, restructuring and standards implementation are more closely linked. SPS are being used to drive the restructuring process. In doing so, however, they threaten to upset the precarious economic balance of smallhold farmers.

The EU’s SPS have become exceptionally stringent in the wake of the Mad Cow and Foot and Mouth Disease (FMD) epidemics in the United Kingdom. SPS now regulate both the physical and the informational infrastructure of production, and determine not only how animals can be slaughtered and how meat can be handled but also how documentation about the production process must be kept and inspected.\(^{(7)}\) In the first place, SPS set out detailed specifications for the physical plant of abattoirs and meat

\(^{(6)}\) The fight over the CAP is ongoing as of this writing, but it appears that it will be resolved. France has offered to forgo some of its share of the subsidies from the CAP if the amounts given to accession countries are capped. Under the current proposal, Polish farmers, like other farmers in candidate states, will receive only 25% of the subsidies that farmers in EU member states receive during the first year Poland is a member. That proportion will gradually rise to 50%, but the total budget for subsidies will be permanently capped at 2006 levels. This means that Polish farmers will be competing in open markets against farmers who can sell their goods at much lower prices because of higher subsidies, which may be one reason the EU continues to push for significant agricultural restructuring in Poland. Polish farmers are still pressing their government’s EU negotiators for more substantial subsidies.

\(^{(7)}\) See especially Council Directives 92/5/EEC on regulations for slaughterhouses, and 97/12/EC on regulations for the prevention of Bovine Spongiform Encephalopathy (BSE) and FMD. Most of these regulations are based on the Codex Alimentarius, a body that writes global SPS and which is sponsored by the World Health Organization and the Food and Agriculture Organization. Codex standards are also being adopted by the WTO.
processing plants. For example, the surface and color of the wall is specified by law, as are the flooring, doors, employee locker rooms, number of wash basins, and type of wash basin taps. Walls must separate raw and finished materials, locker rooms may not open onto work rooms, and there must be a separate room for storing detergents. There are rules about the transportation infrastructure as well: how live animals may be transported is prescribed in the SPS, as well as the transportation of finished meat products. But along with physical infrastructure, the SPS also mandate particular forms of documentation, tracking, and audit. Under the Integrated Administration and Control System (IACS), each animal, farm, abattoir, processing plant, and individual piece of meat must have a number, and those numbers must be recorded so that the path of each piece of meat from farm to table can be traced by inspectors or auditors. The length of time that documentation on each piece of meat must be archived for is also specified by law. Although IACS is not fully implemented in Poland, an agency has been created to introduce it, and it is expected to be in full force by the end of 2003.

Currently, only plants which export meat products to the EU are subject to the entire set of these regulations, which are enforced via regular audits by the Polish Head Veterinarian’s Office and EU inspectors (European Commission, 2001a). However, as a condition of EU accession, Poland is passing the regulations into Polish law and by the end of 2003 they will apply to all meat processors. The passage of the standards into Polish law will require most processors to do major renovations on physical and informational infrastructures. Most will have to renovate substantially processing lines and completely rebuild slaughtering facilities. They will also have to build new informational infrastructures to implement IACS and track meat, which will require computerization, training, and the revision of production procedures.

As of May 2001, only 19 slaughterhouses and 23 processing facilities met the EU’s infrastructural requirements. The other roughly 2800 firms must now make large investments to meet EU standards or go out of business, when the EU laws come into force. Because meeting EU regulations will require that many plants rebuild almost from scratch, current estimates suggest that only 833 slaughterhouses and 944 processing firms have any possibility of meeting requirements and staying in business (Gmyrek, 2001). This means that enforcement of EU regulations will force 2 in 3 firms to go out of business. Most of the firms likely to close are the small and medium meatpackers in the countryside, who buy pigs in small lots from smallholding farmers.

For the 14 largest slaughterhouse-and-processing facilities, this comes as a windfall. The majority of these 14 facilities are part of one of two companies: Animex (owned by Smithfield Foods, the world’s largest pork producer), or Sokolów (the majority of whose shares are owned by the Association of Swedish Farmers and Foresters). Because the large processors are subsidiaries of foreign firms, they have the capital needed to invest in meeting EU standards. Both groups, who have previously implemented the kinds of tracking and documentation procedures mandated by EU SPS in other countries, also have knowledge and experience about these systems, which reduces the cost of training and implementation. They plan to amortize the cost of improvements over a much larger number of animals in order to reduce the marginal cost of standardization.

Because the cost of meeting SPS is proportionately much higher for local small and medium processors than it is for large plants owned by multinational firms, EU food safety and hygiene regulations thus work to clear the ground of small processors who together constitute the single largest competitive threat in the Polish market to the large multinational agribusinesses engaged in slaughter and meat processing. The large meatpackers expect their market share in Poland to increase dramatically with the
closure of the small firms. Given that meat consumption is at approximately 50 kg per year for each of Poland’s approximately 39 million meat eaters (and rising), the forecast increase in market share in Poland is now a significant element in the global strategy of multinational agribusinesses.

Standards thus function as what both Whatmore and Thorne (1997) and Law (1996) call “action at a distance”. They not only constrain particular actors’ choices, but, more importantly, shape the field in which such choices can be made (compare Miller and Rose, 1990). It would seem, at first glance, that whatever the strategies of small village meatpackers may be, that they are so constrained by the rules set out by SPS that consolidation is the inevitable result. By and large, this has been the same pattern seen in places such as North Carolina and Virginia, where small pig farmers and small processors have been put out of business or absorbed into the large packers via contract farming (Horwitz, 1998).

**Vertical integration and the emergence of a two-track commodity chain**

As in other countries, the introduction of global agribusiness in local village economies threatens not only processors, but also entire village economies. Because the foreign agribusinesses seek to integrate vertically as they integrate globally, they pose challenges to the livelihoods of rural Poles in other locations along the meat commodity chain.

Smithfield, as with many multinational agribusinesses, seeks to create vertically integrated supply and distribution chains in a single locality rather than importing inputs or selling products across national borders (Goodman and Watts, 1997, page 14). To do so, it has relied on strategies it has used effectively in both North Carolina and Iowa (Durrenberger and Thu, 1997, page 31; Page, 1997, page 133). Because the large meatpackers need to amortize their expensive EU-certified production lines, they must ensure that they have a steady supply of high-quality, low-fat meat. To do so, they are increasingly avoiding smallhold farmers, and entering into stable contract-farming relations with new ‘factory’ farms on the grounds of PGRs, or former collective farms. The large processors help the ex-PGRs obtain credit for feed and supplements and new fast-growing piglets from multinational suppliers such as Cargill and PIC (Pig Improvement Corporation). This strategy gives multinational companies a steady supply of nearly identical pigs without exposing the multinationals to economic or political liability of entering into direct production (Raynolds, 1997, page 126).

The same is true at the distribution end of the commodity chain. The multinational packers in Poland buy hogs from the PGRs and make hams, sausages, and culinary meat. The meat is sold mainly to large Western European supermarket chains such as Tesco and LeClerc, who are also pursuing ‘multidomestic strategies’ in which they seek local suppliers for local markets. In just a few years, they have already garnered a large share of the Polish market.

Although vertical integration in the Polish pork market is still nascent, it shows that the industrialization of agriculture is an old process happening anew in Eastern Europe. As in Western Europe and the United States, multinational agribusiness seeks to control and stabilize agriculture by devalorizing farm products as mere inputs to industrial production, and to valorize work done in the processing, distribution, and marketing segments of the commodity chain (Buck et al, 1997, page 4). By making the parts of the commodity chain that can be managed as industrial processes the core of the ‘value-added’ process, firms seek not only to control the farming process, but also

(8) These expectations were reiterated to me both by managers at firms associated with the multinationals and by the director of Poland’s largest industry trade group.
to shift power and control down the commodity chain, away from farmers (Goodman et al, 1987).

The shift of power from farmers to processors is apparent in the Polish case because it disarticulates the market and creates two parallel tracks (or filières) in Poland’s meat commodity chain (de Janvry, 1981; Goodman and Watts, 1997). Track 1 is the vertically integrated chain that links the major large-scale processors such as Animex and Sokolów to the former collective farms and the foreign-based supermarket chains. The development of track 1 is driven almost exclusively by the increase in power handed to the large processors by EU food safety regulations, which shift the production of value in the form of health and safety away from farmers and towards processors. Track 2 is residual: it links thousands of small farmers with a few hogs apiece to the remaining small-scale processors, who in turn sell to the small shops that provision villages. As the documentation for the EU’s Special Accession Programme for Agriculture and Rural Development (SAPARD) shows, the EU would like to consolidate the Polish meatpacking industry in the hands of a small number of ‘more efficient’ (that is, high-volume) processors:

“The meat processing sector is characterized by a big number of enterprises with low capacities. As there is also over-capacity in slaughtering and the sector has low productivity, investments aimed at increasing processing efficiency will be supported. Special attention must be given to attaining compliance with EU requirements. ... This specific measure [Measure 2] is meant to restructure the food processing industry ... [while] avoiding increase of capacities available” (SAPARD, 2000).

Does the EU know that food safety regulations, which are not overtly aimed at regulating economic competition, will lead to economic restructuring? The answer is clearly yes: not only does the EU know that these regulations are Trojan pigs, but it is helping the larger plants meet requirements. Although it is unlikely that the regulations were written expressly to facilitate consolidation, SAPARD shows that the EU is actively promoting the consolidation of the Polish meat industry.

A similar promotion of agro-industrial restructuring is seen in the European Commission’s 2001 report on Poland’s progress towards EU accession:

“Overall, Poland has not yet launched the substantial transformation which is needed, in terms of policy, aquis, and structures in the agriculture and fisheries sectors and in both sectors the necessary legislative work is lagging behind” (European Commission, 2001, page 37).

The European Commission states that restructuring is “needed” and that the adoption of agricultural regulations contained in the aquis is “necessary” without any discussion of the advisability of agricultural restructuring. The report links this “needed” transformation to the implementation of SPS, suggesting that “low production concentration and low specialization” in the field of meat processing are obstacles to proper implementation of SPS. Although SPS are presented here as the justification for consolidation rather than the motor for consolidation carried out for reasons of trade or economic efficiency, it is clear from this document that the EU is aware that SPS will lead to significant restructuring in the industry.

(9) Compare de Janvry (1981) who refers to this as “functional dualism” and asserts that this is a means of providing “wage food” that ensures the social reproduction of labor. In Poland, the situation is complicated by the fact that both tracks provision local workers, but the point about bifurcation and disjuncture in the economy remains.
Paradoxes of regulation: potential effects of SPS

The EU claims that food safety regulations are designed primarily to protect the public from a variety of diseases which can be transmitted by beef and pork. Standards are supposed to be based on science, not on politics or economic considerations. In a statement of principles about SPS submitted by the EU to the WTO, these principles are made explicit:

“One of the most important requirements is that SPS measures be based on scientific principles and that they are not maintained without sufficient scientific evidence. Risk assessment as appropriate to the circumstances is required” (WTO, 1999).

The trope of risk is a key element in SPS. Standards for processing both types of meat are designed to reduce the risk of food poisoning from bacterial contamination. Rules written specifically for hog processing aim to eliminate the risk of trichinosis, a disease sometimes transmitted by undercooked pork, and standards specific to the rearing and processing of cattle attempt to protect consumers from the prion which causes Mad Cow disease in cattle and Creuzfeldt-Jakob disease (CJD) in humans.

These diseases are severe and in many cases fatal, so it is no surprise that the European public is concerned with them. However, the discussion of these diseases, and the standards that are designed to eliminate them, fulfils an interesting rhetorical function. In discussions about EU accession, countries which have not harmonized their SPS with the EU’s are portrayed as carriers of risk that pose potential dangers to the European food consumer. Bans on Polish beef exports to the EU, for example, took place several years before Poland’s single case of BSE was reported in 2002. The grounds for the ban, therefore, were not the presence of the disease or even a lack of standards, as Poland had its own meat inspection standards. The problem posed was not the disease, per se, but the risk of disease.(10)

Standardization, which promises to reduce or eliminate that risk, then appears as a necessary and even foregone conclusion. Who, after all, wants to stand in favor of BSE or trichinosis? By creating a problem-space or bounded domain of discourse, the introduction of food risk and food safety concerns thus steers focus away from the social and economic costs of agro-industrial restructuring. Rhetorically, standards create a problem and provide an answer to it, while at the same time placing consideration of the effects of those standards in wider socioeconomic contexts out of the bounds of discussion. But how severe are the risks that standards claim to reduce, and how is that risk calculated? What constitutes the “risk assessment appropriate to circumstances” that the EU called for in its declaration to the WTO? What is the actual scope of the problem standards address? And what are the likely effects of standardization and consolidation in Poland’s larger economic context?

The question of accurately assessing risk and creating risk-reduction schemes that react proportionately to the actual threat of disease is complex. But data on the actual incidence of the diseases that standards claim to prevent suggest that the standardization process is a costly response to a problem that is less severe than popular rhetoric suggests. Trichinosis is a case in point. There were only 36 outbreaks of the disease in the EU between 1966 and 1999, and the majority of them were traced to consumption of horsemeat or wild boar, not pork (European Commission, 2001a). Even in Poland, where food safety regulations have been enforced less rigorously, trichinosis is rare. In 2000, for example, there were only 176 cases, almost all of which were linked to wild boar rather than to commercially produced pork (European Commission, 2000).

(10) The US Department of Agriculture (USDA) has classified Poland as a country that poses a high risk of FMD for the same reason. Although there has never been a single reported case of FMD in Poland, the USDA asserts that because Poland has not implemented the EU’s FMD tracking system, Polish pork poses a high risk of transmitting the disease.
Likewise, the likelihood of acquiring CJD from eating beef is far lower than public outcry would suggest. Even in the United Kingdom, where the BSE outbreak has been most severe, there have only been 129 reported cases of CJD (WHO, 2002). Although the risk of acquiring CJD is difficult to compute exactly, because of the long incubation period, the fact that roughly 60 million Britons consumed 1.1 million cattle between 1992 and 1995 and only 107 people died of the disease suggests that the risks of transmission to humans are comparatively small (Dealler, 1998). Many scientists working on BSE and CJD have stated that the disease is likely to spread much more slowly and be significantly less widespread than earlier estimates suggested (Blakeslee, 2001).

In Poland the likelihood of an outbreak of either BSE or CJD is small. To date, there has been only a single reported case of BSE, and no reported cases of CJD. Ironically, the dire financial condition of Polish agriculture may be a barrier to the spread of the disease. The prions which cause BSE are apparently transmitted from animal to animal when commercially prepared foods containing bovine brain tissue are fed to live cattle. However, Polish smallhold farmers can rarely afford to give their cattle commercial feeds. Rather, smallholders are forced by economic necessity to become ‘involuted’, or to turn away from the market and feed their cattle home-grown hay (Burawoy, no date; Pine, 1993; Zbierski-Salameh, 1999; compare Buchowski, 1997). Poverty and the fragmentation of the farming system therefore substantially reduce the risk of BSE, making it less likely that Polish cattle will acquire the disease.

However, the very EU regulations designed to prevent BSE may foster it. If the high costs of implementing EU regulations put small producers out of business, it will put more production in the hands of high-volume producers who raise cattle on feedlots rather than in pastures. When cattle are concentrated on large feedlots, producers are less likely to be able to grow, transport, or store the amount of grain needed for such a large number of animals. Feedlot owners therefore turn to commercially prepared feeds, which provide more energy to the cattle in less bulk. These commercially prepared feeds (some of which still legally contain cattle byproducts such as beef tallow) have been identified as the source of BSE (Food Standards Agency, 2000).

Another type of risk that SPS claim to address is economic risk. EU regulations for meat production are also implemented to protect the economic well-being of animals and farmers by reducing the risk of livestock epidemics such as FMD. As the 2001 outbreak of FMD in the United Kingdom showed, FMD can rip through herds and bankrupt farmers. But currently the risk of FMD is negligible in Poland, again owing to Poland’s fragmented agricultural landscape. FMD spreads when large numbers of animals are kept together. When the vast majority of swine or cattle are kept in twos and threes on small farms, as they are in Poland, epidemics simply do not spread quickly or easily from animal to animal. Fragmentation in the slaughtering and processing industry also reduces the risk of FMD outbreaks; the fewer the number of animals that are brought together for slaughter, the less likely it is that a farmer will pick up the FMD virus, carry it back to the farm, and transmit it to the animals there. Because industry consolidation increases the number of animals kept together and the number of farmers visiting any one slaughterhouse, EU regulations may be facilitating—not inhibiting—the disease.

It is perhaps no accident that the pending deregulation of the market—that is, the abolition of trade barriers once Poland joins the EU—is accompanied by reregulation phrased in terms of health and safety (see Goodman and Watts, 1997, page 13). In the rhetoric of standards, the risk that Poland’s current SPS pose to consumer and animal health are overestimated. At the same time, however, the high costs that SPS pose in terms of Polish farmers’ livelihoods is underestimated. Once the largest processing
firms are buying hogs from specialist farms rather than from family farms, markets for farmers with only a few hogs will dry up. Coupled with the loss of markets for grain, fruit, and vegetables, the contraction of markets for pork signals a serious threat to the income of farmers and to the economic well-being of entire village economies (Dunn, 1998).

In his speeches, Franz Fischler has acknowledged that implementing EU SPS and increasing economies of scale in Polish agro-industry will likely result in increased unemployment (see Barber, 2001). This is reflected in the charter for the SAPARD program, the EU’s plan for agricultural restructuring in accession countries:

“Total rural unemployment is currently estimated at 2 million people and is likely to grow as a result of the modernisation of agri-food sector ...” (SAPARD, 2000).

As Fischler promised, SAPARD contains an initiative to increase diversity in rural sources of income. Measure 4 is a program to provide seed capital for rural entrepreneurs engaged in nonagricultural activities. Designed to support the development of service industries such as hairdressing and small appliance repair, the measure attempts to channel Polish farmworkers into jobs where they will not be competing with either multinational agribusinesses or Western European smallhold farmers. Measure 4 is not certain to have a significant palliative effect, however. The rural income diversification project funded under this measure provides only up to 50% of the investment for any one project, and it does so by reimbursing the entrepreneur only after he or she has already made the investment upfront and started operating the business. Given the paucity of capital in rural communities and the fact that small business loans in Poland often have interest rates in excess of 20%, it is no surprise that less than 1% of Polish farmers submitted applications for SAPARD funds (Gazeta Wyborcza, 2002).

In sum, the standards developed to improve the well-being of meat consumers, farmers, and rural residents seem unlikely to do so. Although the regulations may marginally reduce the incidence of food poisoning, it may not reduce already low levels of parasitic disease and may marginally increase the risk of CJD. More significant, however, is the threat that economic restructuring poses to farmers and rural residents. In forcing the closure of small slaughterhouses and processing facilities, and eliminating not just one but several important sources of livelihood for rural residents, EU food safety regulations strongly increase the risk of unemployment and poverty among rural people.

The resurgence of the second economy
Understanding how SPS operate within Poland’s particular agro-industrial structure is one way of demonstrating the ways in which standards interact with existing institutional and social legacies in a specific geography. Seeing standardization as a geographically particular process, however, involves more than simply understanding the sectoral organization that standards change. As standards become embedded in specific areas, they also must confront responses to standardization that arise from the historical and cultural legacies of an area. In Poland, the consolidation of capitalist agribusiness is invoking a resurgence of responses to the socialist state. Just as state socialism’s planned economy produced a ‘second economy’, the EU’s regulated capitalist economy is producing its own second economy—semihidden, unregulated, ‘corrupted’, or informal markets in agricultural products.

Informal or illegal trade in meat and produce has a long history in the Eastern European countryside. Under state socialism, central planners set high quotas for the delivery of agricultural products to the state, which the state then redistributed to urban centers. Because of the endemic shortages in the economy, these quotas were
continually being ratcheted up, placing enormous pressure on farmers to increase production even at the expense of household subsistence. At the same time, rural people often found it difficult to gain access to industrially produced goods. This double bind led peasants to constitute a second rural economy. They avoided delivery targets being increased by underreporting land in individual holdings, undercounting the number of pigs and cattle, and diverting produce grown in the ‘first’ or planned economy to their own uses (Rev, 1987; Verdery, 1996). They carefully cultivated personal relations with local bureaucrats who looked the other way in exchange for a gift of homemade brandy or some fresh produce, or in the hopes that their own production quotas would not be increased. The products that peasants obtained this way, including vegetables grown on small plots farmed at night and meat from ‘hidden’ animals, were sold or bartered in ‘gray markets’ which were tolerated by Communist authorities because they eased food shortages in the cities.

Widespread informality therefore created interlocking first and second economies, and this sheltered smallholders from some of the disciplinary effects of true capitalism. Farmers were indeed engaged in quasi-capitalist behavior, selling goods on markets that were (barely) tolerated by the socialist state. But they were sheltered from market discipline by the fact that land, labor, and most of the inputs to production were pilfered from the first economy. By being parasitical on the first economy, the rural second economy was largely freed from the need to constrain costs or reduce waste in the drive for profit.

The political economy of socialism was thus based on a fundamental tension centered on ‘corruption’ or ‘informality’ (to use a less value-laden term). Creed (1995, page 845) calls this “conflicting complementarity”, because it both sustained and undermined the socialist system. On the one hand, informality sustained the socialist economic system by mitigating the economic, political, and social harm done by the omnipresent shortages the system produced. It was the grease that kept the wheels of the socialist system turning. Yet, on the other hand, it consistently undermined the planned economy by diverting inputs and labor time from the first economy, leading to increased shortages. The ever-intensifying cycle of shortages, diversion of resources into informal production, and more shortages was one of the most significant factors leading to the collapse of the socialist system (Kornai, 1992; Verdery, 1996).

Despite assertions that the socialist informal economies would turn into formal capitalist economies once freed from the heavy hand of the state (Sachs, 1993), informality is now the guiding principle in Eastern European markets (for example, World Bank, 1999a; 1999b). Second economies, of course, are not restricted to state socialist economies but occur in capitalist ones as well, and capitalist second economies also depend heavily on webs of personal connections (see also Böröcz, 2000; Granovetter and Swedberg, 1992). In this sense, capitalist economies are every bit as ‘socially embedded’ as socialist ones were.

In food and other products regulated by standards, gray markets may be arising as a direct result of standardization. Despite the audit and enforcement procedures built into the aquis communautaire, the possibilities for corruption along the meat commodity chain are manifest. Smallholders may raise a few pigs at a time on table scraps—a food source banned by the European Union\(^{(1)}\)—processors may buy these pigs and slaughter them, bribing government veterinary inspectors to certify that EU procurement and processing standards are being met. Alternatively, processors may choose to

\(^{(1)}\) The ban on table scraps, of course, simultaneously destroys the source of cost competitiveness that Polish smallholders have vis-à-vis multinational factory farms and forces farmers into a relationship with large agribusinesses producing feed and supplements, such as Cargill.
avoid certification altogether and sell their wares at low cost to retailers who will convince the Sanitary-Epidemiological Inspection Service inspectors to turn a blind eye to the absence of veterinary certification or IACS tracking numbers. In any case, farmers, processors, and retailers would be linked together in a web of informal personal connections and would be working together to avoid both food safety regulators and the tax man.(12)

Gray markets, corruption, or informality would thus serve as an important form of protectionism for Polish agricultural producers in the face of an influx by multinational agribusiness. Because corruption uses local knowledge of who, how, and when to bribe as a form of social capital, it may restore the power balance between local producers and foreign agribusinesses, who are heavily endowed with finance capital but usually undercapitalized with social or political capital (see Krastev, 1998).

If informality comes to penetrate the agricultural sector, it would produce yet another unintended paradox stemming from Trojan pig legislation. If the meat market in Eastern Europe becomes characterized by widespread informality, the barrier which slows the influx of multinational capital will also become a barrier to the widespread implementation of standards. Rather than having EU SPS, or even Polish standards applied to SPS, the result may be that ‘midnight meat’ is not subject to any sanitary standards at all. If gray markets become widespread, meat will be even less regulated than it was under the pre-aquis Polish food safety standards.

Self defense, or, the politics of food

Informal political and economic action is not the only means by which Polish farmers seek to blunt the effects of Trojan pig regulation and protect themselves against multinational agribusiness. A growing number of rural people in Poland are also attempting to retain their markets and livelihoods by using very visible social movements and formally organized political parties. These movements are nascent, and they are highly unstable. However, although it is still unknown whether they will be able to amass enough force to shape public policy, they hold the potential to shape Polish law, block the influx of multinational capital, and help to shape the agro-industrial sector.

In Poland, as in many Eastern European countries, most rural people have become supporters of the ex-Communist Left. This is ironic, given that only a decade before most rural communities were resolutely anti-Communist. However, in the 1990s neoliberal reformers intent on ‘decommunizing’ the Polish economy privatized collectively held tractor stations and freed prices for formerly subsidized inputs to production, such as gasoline and fertilizer, which immediately skyrocketed. At the same time, prices for agricultural goods were freed and (in real zloty) plummeted. Many smallholders found it increasingly difficult to make ends meet. They began to vote in large numbers against neoliberal right parties such as Freedom Union (formerly a wing of Solidarity), and began to vote for the Democratic Left Alliance (SLD), the party of the ex-Communists. Many believed that the SLD was most likely to restore the inputs that the state had provided, which were essential to profitable private production. For some rural residents—particularly those well placed in the management of PGRs, rural industries, or other state-owned enterprises—the SLD’s widespread tolerance of informality and acceptance of nomenklatura privatization (the acquisition of state assets by

(12) Some data suggest that these chains already exist in certain sectors of the food-processing industry. If one compares the number of loaves of bread that bakers report selling (and paying tax on) with the number of loaves of bread that Poles report consuming, Poland appears to eat about three times as much bread as it produces—and this in a country which by and large does not import bread.
those who were in power under the Communist system) provided the opportunity to appropriate assets that were previously held collectively.

However useful the Left’s embrace of informality is, a growing number of rural people have decided that the SLD is too entwined with the new capitalist order and is doing too little to protect the interests of farmers. These people are turning to an agrarian populist movement known as Samoobrona, or the ‘Self-Defense’ Party. Its leader, Andrzej Lepper, is well known for his theatrical protests against agricultural imports and multinational agribusiness. He has blockaded roads and rail crossings on the border to the EU, dumped truckloads of Polish grain on railroad tracks to prevent grain shipments from the EU from entering Poland, and dressed up as a knight to announce his desire to protect Poland from what he sees as yet another foreign invasion. Although the stunts have gained Lepper a great deal of publicity, they also gained him a widespread reputation as a demagogue.

Lepper’s first salvo against transformation in the meatpacking industry took place in 1999, when he led a coalition of Polish farmers and US environmentalists in blocking the attempt by Smithfield Foods to create four massive vertically integrated hog-factory complexes out of former PGRs. The money at stake in this attempt was not trivial: Smithfield estimated that the four complexes would bring in about $1 billion. Backed by the Animal Welfare Institute, a US animal rights organization, Lepper first toured factory hog farms in the United States. Then, in his typically bombastic style, Lepper made a proclamation:

‘These farms are concentration camps for hogs. We had concentration camps in Poland before. We will not allow them again’ (cited in Detwiler, 2000).

Lepper’s group sent anti-Smithfield videos to every municipal and gmina (county) government in Poland along with a letter asking them to deny building permits to Smithfield’s subsidiary, Animex. Samoobrona put intense pressure on the Polish Agricultural Property Agency, which eventually denied Animex permission to acquire the ex-collective farms. As a hog farmer himself, Lepper was probably more concerned with the influx of foreign capital than he was with pigs’ rights, but the coalition of interests was successful, at least for the short term. Smithfield announced that it was dropping plans to make Animex the largest hog producer in Europe (Detwiler, 2000).

Smithfield then shifted its strategy to try and avoid conflicts with Lepper and with the Agricultural Property Agency. Rather than trying to acquire the PGRs outright, which requires permissions from the Polish government to own the land, Smithfield is now creating webs of contractual relations among nominally independent entities which will achieve the same effect. This has led Lepper to broaden his strategy substantially. He now opposes European integration in principle, speaks out against the adoption of the acquis communautaire, and opposes the participation of foreign capital in agriculture.

Lepper’s agricultural populist campaign was not accorded much respect during the 2001 parliamentary campaign. Many urban residents derided Lepper, and saw him as a fringe lunatic. These urbanities, such as the national news media, largely dismissed the challenge he posed to EU integration and vastly underestimated the groundswell of rural discontent he represented. The election results, however, changed all that. Although the postcommunist SLD won by a landslide, as expected, Samoobrona received a completely unexpected 10% of the votes. By contrast, Solidarity, the party which toppled Communism and claimed to represent working people, got less than 5% of the vote and was completely shut out of parliament.

Samoobrona’s victory thus signalled a sharp departure in agricultural politics. Because the economic and political changes in Poland have been so rapid, and because the agro-industrial food regime has been in operation in other parts of the world,
Polish farmers have had the ability to see the threat that consolidation poses and the
time to formulate a critique. Samoobrona's electoral victory also signals one of the first
times that a group of agriculturalists has had the social and political power to stand up
to agribusiness. Because rural people make up a significant electoral group in Poland,
anyone with the ability to organize them will command significant political power.
Lepper's threats were obvious: if a just solution for the problems of Polish agriculture
could not be found, he would try to organize rural people to defeat the referendum
necessary for Poland to join the EU.

It is difficult to gauge how powerful or significant Lepper's movement is in the
wider context of Polish politics and European integration. Lepper's own political
fortunes have waxed and waned. After stunning Polish voters by rising to the office
of vice-marshal of the Polish parliament in 2001, Lepper stunned them again by
accusing the president and the prime minister of corruption only a few weeks after
he had taken office. He was quickly charged with slander, stripped of his office, and
arrested, which has led to a decline in his popularity. However, whether or not Lepper
manages to rebuild his political power and attract more voters to Samoobrona, he has
succeeded in articulating rural discontent and forcing the parties of the Left to take
account of it. He raised the once-unthinkable option of declining EU membership and
created the opportunity for Poland to negotiate rather than accept the terms dictated to
it. As a result, Poland's progress towards adopting the entire aquis slowed, and both
France and Germany had to make substantial concessions on agricultural subsidies.
Trojan pig food safety laws may thus have yet another paradoxical consequence in this
case: instead of speeding Poland towards integration with the EU, as it was designed to
do, it may lead to pressures from agrarian populists that slow the integration process
or change the terms of accession (Cirtautas, 2000).

Old swine in new bottles: the dialectics of standardization

"History is made sometimes in the peasant cottages, in the fields, in the villages
under cover of night ... by those who seemingly have no power to make history—by
those who are atomized."

Rev ("The advantages of being atomized", 1987, page 336)

In showing the potential for paradox inherent in the EU's food safety regulation, the
intent is not to tell a story about tragic unintended, unforeseen, or unforeseeable
consequences of regulation. Rather, it is to show how globalizing forms of regulation
have variable effects as they are embedded in specific places with a unique set of social,
historical, and institutional resources. In the case of standards harmonization, this
geographic variability is explicitly denied by standards writers. Harmonizing standards,
they argue, will reduce technical barriers to trade and create a level field of competition
for all producers, regardless of their country of origin.

The case of the EU's Trojan pig food safety laws shows, however, that the cost of
regulation is not the same for all producers. Because standards are implemented in
economic sectors that are organized in geographically specific ways, they impose
unequal burdens on producers with different institutional legacies. Multinational
corporations from the industrialized West—such as Smithfield Foods—have already
responded to increased regulation by vertically integrating and seeking economies of
scale. The burden of compliance is less significant to a firm such as Smithfield than to
the smallholding farms that developed in response to the legal framework of the
Austro-Hungarian Empire or the small meatpacking companies that came into being
as a result of Poland's adoption of neoliberal economic policy. This unequal burden
constitutes a barrier to trade by making it difficult for Polish firms to compete not only
in the EU market, but also in their own domestic market. Standards create barriers to trade by privileging those firms who have already developed to meet the institutional context that the regulations were originally written for, and penalizing firms that developed in other contexts.

The Polish meatpacking industry shows that the burden of compliance is not, however, the only barrier to trade that standards elicit. Because standards are embedded in concrete social worlds they can also elicit social barriers to trade. Standards enter into a social landscape littered with other formal and informal regulatory mechanisms, many of which were developed as responses to previous attempts at regulation. Within specific historical and social contexts people have large repertoires of economic action and strong social networks, which can be used to blunt or modify the effect of standardization.

In Eastern Europe the state attempted to hyperregulate economies by seeking to atomize individuals, or to sever all social connections except those linking the individual to the state. But the planned economy ended up producing the opposite of this totalitarian fantasy. Instead of people whose economic actions were completely controlled by the center, the shortages of the socialist era created people who were forced to create networks of personal connections in order to assure their ability to siphon materials from the state, to produce, and to trade their products. Because activities in the informal sector led, eventually, to the reform of the planned economy and to the state’s acceptance of some market activity (and eventually to the collapse of the entire system), Rev sees these practices as a source of power in the struggles of peasants against the socialist state.

“Peasants make nonobjects: food that cannot be found, grain that has never been harvested, land that is nonexistence, people who are phantomized. The technique of the resistance is the nonevent, the means is the nonobject, the actors are anonymous” (Rev, 1987, page 349).

He calls the political power engendered by these nonobjects “the advantage of being atomized”, and sees in their daily practices the art of history making. The ‘conflicting complementarity’ of state socialism meant that although atomization was a source of oppression for peasants, it also led to informal economic action, which could be used to deflect, modify, and weaken socialist power. Informal economic activity became a social barrier to state control of the economy, and eventually one of the most important factors in undermining state socialism.

In the postsocialist era, understanding the nonpigs reared by smallhold farmers and slaughtered by midnight meat companies may give us a similar insight into the conflicting complementarity of capitalism in Eastern Europe. Just as the agricultural policies of the party state atomized Polish peasants during the socialist era and left them to face the plan as individuals, the neoliberal agricultural policies of the early postsocialist state also atomized peasants and left them to face the market as individuals. Yet, just as under socialism, being atomized may, paradoxically, be a source of some power if it forces producers to band together in networks of underground producers and above-ground political activists that create barriers to the penetration of Eastern European economies by foreign capital.

Seeing standards not just as a bounded set of global rules but as regulatory mechanisms which enter into specific contexts opens up the possibility of unexpected and unforeseeable results of economic transformation. Peasant resistance to standards in Poland, for example, suggests that standardization, as a governance technique of neoliberal capitalism, elicits a conflicting complementarity such as that engendered by state socialism. The ways in which Polish producers accept standards, resist them, or circumvent regulation will help to shape the way Poland is integrated into regional and
global economies. On the one hand, peasant resistance to EU agricultural standards and policies could undermine the order of the EU and destroy the principle of its unity, which is the homogenization of its member states’ regulatory environments. On the other hand, if Polish smallholders and small-scale processors devote themselves to evading regulation rather than protesting it, they may speed integration by willingly moving to the economic margins. In either case, the rather small-scale actions of rural people have potentially large-scale consequences.

At a theoretical level, Trojan pigs show that standards are important sites of economic transformation. Economic geographers, particularly those focusing on regulation theory, have recently emphasized the contingent nature of both economic reproduction and transformation. Rather than seeing ‘the economy’ as the automatic result of some internal logic (as both neoliberals and traditional Marxists do), or seeing it as a ship that can be steered by political fiat, they show that economic change is the result of complex interactions between state institutions, global economic structures, and the habits and practices of everyday life (Peck, 2000; Saxenian, 1994). In particular, they emphasize the role that tension between dialectically opposed forces plays in generating economic change, particularly the tension between local practices and state institutions (Amin, 1997). Standards and standardizing processes are one of the places at which such tension is generated, and hence a place to watch economic transformation as it takes novel and unpredictable turns.

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