The Socio-Economics of Geographical Indications

by

Roland Herrmann*

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* Prof. R. Herrmann, Institute of Agricultural Policy and Market Research, University of Giessen, Germany.
Background

Economic and political discussion on geographical indications is booming;

Europe:

- move away from traditional instruments of Common Agricultural Policy;
- competitiveness and market income in the agricultural and food sector increasingly important;
- high-quality products with regional origin major element of European food quality policy;
- instrument of European rural development policy.
Questions

1. Is there an economic rationale for the protection of geographical indications?

2. Which regulations does the EU provide for the promotion and protection of geographical indications and food specialties?

3. How can these policies be evaluated?
   - Potential benefits?
   - Potential costs?
   - For the affected producer groups?
   - For the society?
Introduction

1 Introduction

2 The Economic Rationale for the Protection of Geographical Indications

3 Existing Regulations for the Protection of Geographical Indications and Food Specialties: The EU Case

4 Potential Benefits and Costs for Producer Groups and the Society

5 Summary and Conclusions
2 The Economic Rationale for the Protection of Geographical Indications
2 Economic Rationale (1)

- Consumers may suffer from **quality uncertainty** and **asymmetric information**.
- High and low qualities may be sold at the same price.
- Akerlof: High qualities may be crowded out by low qualities ("lemon" problem).
- Here: Quality is due to regional origin.
- Protection of geographical origin may avoid market failure!
Economic rationale (2)

- Legal protection and associated label: Geographical origin turns from a credence to a search characteristic.
- Protection of regional-origin label reduces search costs and, thus, raises consumer welfare.
- Intellectual property right: High-quality producers get a reputation premium and a higher income.
- Imitators and non-original producers are kept away from the market.
- Beneficial for remote regions, rural development and economic cohesion.
3 Existing Regulations for the Protection of Geographical Indications and Food Specialties: The EU Case
Legal Protection of Geographically Differentiated Foods by the EU

- Regulation 510/2006 captures the legal protection of origin-labelled foods:
  - Protected Geographical Indications (PGIs)
  - Protected Designations of Origin (PDOs)

- Regulation 509/2006 provides additional legal protection on agricultural products and foodstuffs for Traditional Specialties Guaranteed (TSGs)

- Major element of European food quality policy

- Objectives: improving income of farmers; retaining rural population in these areas.
### Differential Requirements of the EU Labels (1)

<table>
<thead>
<tr>
<th>Protected Geographical Indication (PGI)</th>
<th>Protected Designation of Origin (PDO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production in a given geographical area</td>
<td>Production in a given geographical area</td>
</tr>
<tr>
<td>and/or</td>
<td>and</td>
</tr>
<tr>
<td>Processing in a given geographical area</td>
<td>Processing in a given geographical area</td>
</tr>
<tr>
<td>and/or</td>
<td>and</td>
</tr>
<tr>
<td>Prepared in a given geographical area</td>
<td>Prepared in a given geographical area</td>
</tr>
</tbody>
</table>
Differential Requirements of the EU Labels (2)

Traditional specialties guaranteed (TSGs) (Regulation 509/2006) have to carry **a specific character:**

- Production using traditional raw materials
- and/or
- traditional composition of a product
- and/or
- traditional mode of production and/or processing
Survey of PDOs, PGIs and TSGs
Policy Measures for Support and Promotion of Geographical Indications

- Creation of a collective brand: Protection against imitation by non-original producers:
  - club good is established
  - if successful: price premium initiated or secured

- Funding of origin-related promotion in the national or provincial agricultural policy:
  - Co-financing
  - Subsidies on advertising
Issues in the Evaluation of Geographical Indications

(1) Will there be a price premium by the protection and promotion of GIs?

(2) Are producers better off by participating in a protected collective brand?

(3) How can the legal protection of GIs be assessed from the society's point of view?
4 Potential Benefits and Costs for Producer Groups and the Society

4.1 Willingness to Pay for Regional Origin?
On Consumers' Willingness to Pay for Regional Origin:

- Many consumer studies do exist.
- Regional-origin foods with reputation seem to be perceived as high-quality foods.

Methodologies used:
- Consumer surveys (contingent valuation) econometric demand system
- Hedonic price analysis (use of market data on prices and characteristics of goods)
## Perceptions of Consumers Concerning the Regional Origin of Foods: Selected Results

<table>
<thead>
<tr>
<th>Authors/method</th>
<th>Subject</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>van der Lans et al. 2001 / survey and conjoint analysis</td>
<td>Italian extra virgin olive oils</td>
<td>Some consumer groups value the region of origin and some do not; direct effect on product preference for residents of the region; no general positive effect</td>
</tr>
<tr>
<td>Teuber 2011 / survey and binary logit</td>
<td>Hessian apple wine</td>
<td>Willingness to pay exists; rises if consumers expect support for local economy; limited knowledge about GIs</td>
</tr>
<tr>
<td>Hassan, Monier-Dilhan and Orozco 2011 / demand-system analysis</td>
<td>French cheese market. PDO versus non-PDO products</td>
<td>PDO demand is more price-elastic than non-PDO demand; PDOs are clearly high-quality products; $\varepsilon^D$: -2.08 (Comté); -2.91 (PDO Brie); -3.72 (PDO Camembert); - 4.73 (Roquefort)</td>
</tr>
<tr>
<td>Loureiro and McCluskey 2000 / hedonic analysis</td>
<td>Galician veal</td>
<td>PGI label causes a price premium on high-quality cuts of meat, up to a certain quality level</td>
</tr>
</tbody>
</table>

Source: Own compilation.
Hedonic Analysis: Specialty Coffee as a Case Study (1)

**Basic question:** Do market data reveal a price premium for regional origin that consumers are willing to pay (apart from other characteristics)?

How large is the implicit value of regional origin for high-value coffees? (Teuber 2009)

Analysis of internet auction data: "Cup-of-excellence" website.

Coffees of various important producer countries and regions considered.

Methodology: Hedonic price analysis.
Hedonic Analysis: Specialty Coffee as a Case Study (2)

Basic idea of hedonic price analysis

 Consumers buy a good on the basis of its characteristics: Product = a bundle of characteristics.

 Characteristics are what consumers are looking for.

 Product prices are a function of the characteristics the goods contain:

\[ p = p(z_1, z_2, \ldots, z_n) \]

with \( z_i \) = quantity of characteristic \( i \) in one unit of a product.
Hedonic Analysis: Specialty Coffee as a Case Study (3)

Applied to coffee varieties:

(2) Coffee price $p = p$ (score, rank, regional origin, coffee variety, certification, year)

Computation of the implicit price:

(3) $\frac{\partial p}{\partial z_i} = \hat{p}_i$

with: $\hat{p}_i = \text{implicit price for characteristic } i.$
**Case Study Coffee Specialties (3): Results**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Score</th>
<th>Log(Price)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Rank</td>
<td>0.889***</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>2nd Rank</td>
<td>0.323***</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>3rd Rank</td>
<td>0.258***</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Log (lot size)</td>
<td>-0.390***</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Log (Coffee Area)</td>
<td>0.028**</td>
<td>(0.007)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coffee variety</th>
<th>Reference: Bourbon</th>
<th>Caturra</th>
<th>Pacamara</th>
<th>Typica</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0.013 (0.747)</td>
<td>0.049 (0.086)</td>
<td>0.007 (0.926)</td>
<td>0.054 (0.564)</td>
<td>0.048 (0.851)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Origin</th>
<th>Reference: Honduras</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>0.488*** (0.000)</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.409*** (0.000)</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.311*** (0.000)</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>-0.083 (-0.162)</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.226*** (0.000)</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.559*** (0.000)</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.168*** (0.000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification</th>
<th>Reference: No certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic</td>
<td>0.237** (0.002)</td>
</tr>
<tr>
<td>Rainforest Alliance</td>
<td>-0.054 (0.203)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Reference: 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0.134** (0.004)</td>
</tr>
<tr>
<td>2005</td>
<td>0.113** (0.009)</td>
</tr>
<tr>
<td>2006</td>
<td>0.275** (0.000)</td>
</tr>
<tr>
<td>2007</td>
<td>0.584*** (0.000)</td>
</tr>
</tbody>
</table>

| Adj. R squared     | 0.71 |
| F-value            | 92.58 |

***, **, * indicates statistical significance at the 99.9%, 99% and 95% levels.

p-values in parentheses.

Source: Teuber 2010.
Conclusions from Willingness-to-Pay Studies

- Willingness to pay for the regional origin: exists according to
  - survey results;
  - hedonic price studies.

- Potential for a price premium and welfare gain for producers due to protection and promotion of geographical indications!

- But: Case studies needed: Do benefits outweigh the additional costs?
4.2 Price, Income and Welfare Effects of Geographical Indications
The price premium for a high-quality regional product

Economic definition of a specialty product:
"Specialty food and drink products should be differentiated from mainstream or commodity products". They should "target niche markets and command a premium price" (DTZ Pieda Consulting, 1999).

Regional specialties should receive a price premium for their characteristic regional origin!
Markets for a High-quality Regional Product and the Standard Quality with Perfect Competition

Source: Own presentation.
Relevant policy questions and answers

Does the promotion and protection of geographical indications induce a price premium?

- Yes, if demand shifts more than supply!
- The net producer price will then increase.
- Producer welfare will rise, too.

Does promotion and protection of geographical indications improve social welfare?

- Not necessarily!
Price Effects of the Protection and Promotion of Geographical Indications

Source: Own presentation.
Welfare Effects of the Protection and Promotion of Geographical Indications

Source: Own presentation.
Welfare Effects
(with informative advertising; label reduces consumers' search costs; perfect competition; check-off program):

Δ Producer surplus: \( a + b + c \)

Δ Consumer surplus: \(-d - e + h\)

Δ Welfare: \( a + b + c + h - d - e \)
Did PDOs and PGIs Raise Producer Welfare? (1)

- Only few rigorous empirical analyses!
- Broad evidence on quality assurance schemes and commodity promotion:
  - Producers gain, but:
    - Very low advertising elasticity of demand (0.1 or less).
- Advertising of PDO and PGI labels may be costly: Largely unknown labels!
Did PDOs and PGIs Raise Producer Welfare? (2)

- But: Producers seem to expect welfare gain!

- DOOR-Database of the EU, May 2011: 1031 registered PDOs, PGIs & TSGs
  - 515 PDOs, 476 PGIs and 40 TSGs
  - Majority in Italy (228), France (183) and Spain (148)

- 47 requests in 2009, in 2010 another 46.

- Requests in 2010: 8 PDOs, 33 PGIs and five TSGs.
5 Summary and Conclusions (1)

Geographical indications have the potential to contribute to economic policy objectives:

- may reduce quality uncertainty;
- may secure intellectual property;
- may lead to a price premium;
- may raise income in rural areas;
- may improve economic cohesion.
5 Summary and Conclusions (2)

Geographical indications bear substantial risks, too:

- May foster market power $\rightarrow$ anticompetitive effects!
- Do they really provide “true” information?
- Do production clubs exclude efficient competitors?
- New protectionist instrument in trade policy?
References (1)


References (2)


Thank you very much for your attention!