The Changing Shape of Global Olive Oil Value Chain

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Contents
- VC structure and VCA framework for olive oil industry
- Changing profile of olive oil GVC
  - Chief market features and trends
  - Major role of emerging markets
  - Measuring value in GVC
- Concluding remarks

A conceptual framework for value creation in the olive oil industry

Structure of olive oil value chain segments

Macro-environment
Technological change

Consumer demands

Micro-environment
Cooperation

PRODUCTION → PROCESSING → DISTRIBUTION → CONSUMPTION

Economic context
Macro-environment
Regulatory framework

Interdependence
Characteristics of the olive oil market (1)

- One of the fastest growing segments of the global food industry
- Growing product positive perception (health benefits), spread of Mediterranean diet
- High price/income elasticity of demand compared with major substitute products
- Inelasticity of supply

Characteristics of the olive oil market (2)

- High production costs, large production and price fluctuations
- High dependency on public subsidies (EU)
- Absence of official, universally recognized benchmark (only more or less representative local/regional markets)
- High industrial concentration (Spain), growing market power of retailers and share of distributor brands

World market for olive oil 1990-2012

<table>
<thead>
<tr>
<th></th>
<th>Annual average (1000 t)</th>
<th>Coefficient of variation (%)</th>
<th>Annual growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>2,462.4</td>
<td>20.6</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>2,445.8</td>
<td>18.2</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Exports(1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>498.8</td>
<td>30.7</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Imports(1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>510.7</td>
<td>29.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

(1) Extra-EU

Based on IOC and Faostat data

New EU’s CAP for olive oil

2004-2013
- Decoupled aid (100%), market orientation, quality, safety, environment (cross-compliance)

2014 - 2020
- Future priorities (Europe 2020 Strategy)
  - Redistribution, convergence, greening, young farmers
  - More support for sustainability, provision of public goods (e.g. biodiversity), climate change, rural development
- International commitments (multilateral-WTO, bilateral)
  - 2004 reform switched the bulk of aids for olive oil to the ‘Green Box’
  - Emphasis on market access and GIs (TRIPS)
Major participants 2006-2012, %/world

<table>
<thead>
<tr>
<th>Production</th>
<th>Exports&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Consumption</th>
<th>Imports&lt;sup&gt;(1)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>44.2</td>
<td>23.9</td>
<td>USA 39.0</td>
</tr>
<tr>
<td>Italy</td>
<td>40.0</td>
<td>18.8</td>
<td>Italy 12.8</td>
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<tr>
<td>Greece</td>
<td>10.9</td>
<td>9.0</td>
<td>Brazil 7.3</td>
</tr>
<tr>
<td>Tunisia</td>
<td>5.3</td>
<td>Greece 8.1</td>
<td>Japan 5.1</td>
</tr>
<tr>
<td>Syria</td>
<td>5.2</td>
<td>Turkey 4.0</td>
<td>Syria 3.9</td>
</tr>
<tr>
<td>Turkey</td>
<td>4.9</td>
<td>Turkey 3.8</td>
<td>Australia 4.8</td>
</tr>
<tr>
<td>Morocco</td>
<td>3.6</td>
<td>Argentina 2.7</td>
<td>France 3.7</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.9</td>
<td>Greece 2.6</td>
<td>Portugal 2.8</td>
</tr>
<tr>
<td>Algeria</td>
<td>1.4</td>
<td>Morocco 2.7</td>
<td>Switzerland 1.7</td>
</tr>
<tr>
<td>Jordan</td>
<td>0.9</td>
<td>Australia 0.9</td>
<td>Brazil 1.7</td>
</tr>
</tbody>
</table>

Based on IOC data  
<sup>(1)</sup> Extra-EU

Main non-traditional consumer markets, 2006-2012

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual average consumption (1000 t)</th>
<th>% Annual growth</th>
<th>Annual average consumption (1000 t)</th>
<th>% Annual growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>262.8</td>
<td>3.5</td>
<td>Switzerland</td>
<td>11.6</td>
</tr>
<tr>
<td>UK</td>
<td>57.1</td>
<td>3.9</td>
<td>Belgium</td>
<td>10.2</td>
</tr>
<tr>
<td>Germany</td>
<td>51.5</td>
<td>3.0</td>
<td>Mexico</td>
<td>9.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>49.4</td>
<td>14.5</td>
<td>Saudi Arabia</td>
<td>9.6</td>
</tr>
<tr>
<td>Australia</td>
<td>42.0</td>
<td>-1.2</td>
<td>Austria</td>
<td>8.8</td>
</tr>
<tr>
<td>Japan</td>
<td>34.6</td>
<td>6.6</td>
<td>Sweden</td>
<td>7.3</td>
</tr>
<tr>
<td>Canada</td>
<td>34.5</td>
<td>3.4</td>
<td>Ireland</td>
<td>6.7</td>
</tr>
<tr>
<td>China</td>
<td>24.9</td>
<td>31.9</td>
<td>Poland</td>
<td>5.6</td>
</tr>
<tr>
<td>Russia</td>
<td>18.3</td>
<td>18.0</td>
<td>Czech Rep.</td>
<td>5.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>16.8</td>
<td>0.5</td>
<td>Denmark</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Based on IOC data

Utility model for reference price response

\[ U_{hjt} = \beta_0 + \beta_y L_{O_hjt} + \beta_p P_{hjt} + \beta_{l,g} (P_{hjt} - R_{P_hjt}) + \beta_c C_{hjt} + \beta_D D_{hjt} + \varepsilon_{hjt} \]

- \( U_{hjt} \): Utility of consumer \( h \) for brand \( j \) at time \( t \)
- \( L_{O_hjt} \): Loyalty variable measuring brand preference
- \( P \): Observed price
- \( R_{P_hjt} \): Reference price
- \( (P-R_P) < 0 \): price gain; \( (P-R_P) > 0 \): price loss
- \( C \): Brand characteristics index
- \( D \): Brand display index
- \( \varepsilon \): Random error

A demand model for olive oil in traditional and non-traditional markets

![Diagram](image-url)
Measuring value in olive oil GVC (1)

- OO VC is increasingly integrated internationally boosting network trade
- Very little attention is being paid on measuring real gains in terms of net value-added (value of output – value of inputs) created by trade in GVC

Measuring value in olive oil GVC (2)

- Lack of conceptual clarity on how to measure trade under GVC: limits of traditional tools like ‘Import content of exports’ or ‘Intra-industry trade’
- Conventional trade data is unable to capture net value-added gains (designed to capture trade flows in final products while share in intermediate products crossing boundaries is growing, important in some OO export countries, e.g. Italy) => double counting caused by exports and re-exports of intermediate products

Measuring value in olive oil GVC (3)

- I/O analysis as alternative to trade data (classifies goods according to their use: final or input for other production, estimates domestic value-added content in gross exports)
- VC data disaggregated by business functions to complement existing country-level trade statistics and sector-level I/O data

Concluding remarks (1)

- Increasing complexity of economic and policy context -> Pertinence of VC approach
- OO VC is going increasingly global as a result of trend towards international dispersion of VC activities (production, processing, marketing)
Concluding remarks (2)

- Major economic opportunities (emerging markets) -> Appropriate promotion actions
- New analytical tools for new, relevant issues: reference price response, value-added created by trade in GVC

Thank you

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