Analyzing decoupling with the Gtap
The 2003 CAP reform

Piero Conforti
Commodities and Trade Division
Food and Agriculture Organization of the United Nations

ERS-Farm Foundation Workshop on "Modeling US and EU Policy: Focus on Decoupled Payments."
Washington DC, 4-5 October 2004
introduction

• work started before the Fishler reform, in Conforti P., De Filippis F., Salvatici L. (2003), *The CAP reform in the Mid-Term-Review: to decouple or not to decouple?*, paper at the IATRC Conference, Capri, June 2003

• one scenario (partial decoupling) is similar to the actual reform

• more work planned, on the basis of member countries’ decisions on implementation
the presentation

• database
• changes in the standard Gtap
• 2013 baseline
• modeling the 2003 reform
• results
• final remarks
<table>
<thead>
<tr>
<th>regions</th>
<th>products</th>
<th>endowments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>paddy rice</td>
<td>land</td>
</tr>
<tr>
<td>Belgium</td>
<td>cereals</td>
<td>natural resources</td>
</tr>
<tr>
<td>Denmark</td>
<td>fruits and vegetables</td>
<td>labor</td>
</tr>
<tr>
<td>Finland</td>
<td>oilseeds</td>
<td>capital</td>
</tr>
<tr>
<td>France</td>
<td>sugar cane &amp; beet</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>other primary</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>livestock</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>raw milk</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>vegetable oils</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>dairy products</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>processed rice</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>processed sugar</td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td>other food products</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>secondary sectors</td>
<td>CEECs</td>
</tr>
<tr>
<td>CEECs</td>
<td>services</td>
<td>Rest of the world</td>
</tr>
</tbody>
</table>
modifications to the standard Gtap database

- direct payments for oilseeds

policy representation

- milk quotas
- expenditure for direct payments
- crop-specific direct payments
- decoupling
blue box payments in the baseline

- represented as *ad valorem* input subsidies
- we introduced a budget constraint to account for the base area and herds ceilings:
  an increase (decrease) in land or capital use implies in a decrease (increase) of the subsidy rate (land is fixed)
- payments were deflated
the 2013 baseline:

• assumptions:
  – GDP (IMF),
  – population (UN projections),
  – labor force (Faostat),
  – total factors’ productivity (Hertel and Martin, 2000)

• policy shocks:
  – Agenda 2000
  – Eu enlargement
<table>
<thead>
<tr>
<th>measure</th>
<th>shock</th>
<th>sources of calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>introduction of a slaughtering bovine premium</td>
<td>increase in the output subsidy for livestock</td>
<td>ratio of expenditure to the value of production in AGLINK;</td>
</tr>
<tr>
<td>increase in the other (semi-decoupled) premiums for bovines</td>
<td>increase in subsidy to capital for livestock</td>
<td>+44% (increase in the payments)</td>
</tr>
<tr>
<td>increase in direct payment for cereals</td>
<td>increase in the subsidy to land for cereals</td>
<td>+ 16%, from 54 to 63 Euro/ton</td>
</tr>
<tr>
<td>decrease in direct payment for oilseeds</td>
<td>decrease in the subsidy to land for oilseeds</td>
<td>-33% from 94 to 63 Euro/ton</td>
</tr>
<tr>
<td>decrease in the cereals intervention price</td>
<td>decrease in import tax and export subsidy</td>
<td>-13.3% change in market price following -15% in market price (fixed transmission from Van Tongeren and Van Majil 2000)</td>
</tr>
<tr>
<td>increase in milk quotas</td>
<td>increase in raw milk output</td>
<td>2.4%</td>
</tr>
<tr>
<td>decrease in the butter and smp intervention prices</td>
<td>decrease in import tax and export subsidy</td>
<td>-14% (as weighted average of butter and smp)</td>
</tr>
</tbody>
</table>
the 2013 baseline: EU enlargement

- border measures eliminated
- border measures with the row homogenized
- output subsidies homogenized
- direct payments (input subsidies):
  based on the allocation decided at the Brussels Council we extended to the CEECs the *ad valorem* input subsidies (representing direct payments in the EU15)
reform scenarios (June 03)

- changes in the Common Market Organizations (CMOs) only, without decoupling
- changes in the CMOs, with partial (50%) decoupling
- changes in the CMOs, with full decoupling
2003 reform: measures simulated

- (50% and full) decoupling
- milk quotas maintained
- 5% reduction in the intervention price of cereals, 50% for rice and 22% for dairy
- increase in the direct payment to rice growers
- subsidies to dairy producers (in forthcoming experiments)

*Changes in rural development, cross compliance, and modulation cannot be represented*
modeling decoupling

- based on the budget constraint holding until 2013
- blue box payments reduced (for partial decoupling) or eliminated (for full decoupling)
- new homogeneous payment introduced, (endogenous rate), based on expenditure for blue box payments to arable crops and livestock
modeling other measures

• intervention price: reduction in import taxes and export subsidies
• direct payments to rice: increases in the *ad valorem* input subsidies
• milk quotas: exogenous production
• direct payments to dairy producers: ?
major drawbacks

• direct payments in *ad valorem* terms
• land is fixed, homogenous, and only employed in agriculture
• no substitutability between value added and intermediates
• rents are not taken into account
• fixed transmission between intervention, market, and border prices
results: the baseline

• wide supply increases in the Ceeecs, and reductions in Eu 15
• increased “trade” between the Ceeecs and the Eu 15
• decrease in the return to land in Eu 15, increase in the Ceeecs
• “budget” (almost) alright
results: supply

Without decoupling: minor changes in dairy products and in rice supply

With 50% decoupling: smaller and more mixed reactions. For livestock and cereals: decrease in France, while increase in NL, DK.

With full decoupling: larger reductions in oilseeds cereals and livestock.
results: trade

- Reductions in the trade surplus of the Eu, especially for:
  - France, UK, Germany and Ireland,
  - livestock and oilseeds
- Increases in the Ceeecs, the Row and Denmark
- Size of the changes increases with the degree of decoupling
results: total welfare

- gains increasing with the degree of decoupling
- Italy, Greece and Portugal lose under full decoupling
- highest gains in France, Ireland and the Ceeecs
results: welfare components

• All countries gain from better resource allocation
• The terms of trade welfare component is negative for most of the EU 15 and for the EU 25 as a whole
from these results:

• decoupling can imply some structural adjustment
• potential welfare gains are the highest under full decoupling

**but**

• the representation of the land market may be affecting supply response
• total welfare is probably not the most relevant variable in decision making
from these results:

The partial decoupling scenario appears as a viable compromise among Eu members, since

- it is more conservative
- it implies lower, but possibly more equitably distributed benefits
a final comment,

where is the Cap heading with the Fishler reform?

– toward a fully decoupled system?
– toward a more targeted support system, promoting specific behaviors?

If the second option is to be pursued, maybe coupled subsidies are necessary