WORKING PAPER

Repurposing Agricultural Policies
Scenarios for FSEC

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Valeria Piñeiro
ACKNOWLEDGEMENT
This work has been supported by the Food System Economics Commission, funded by Quadrature Climate Foundation, grant agreement no. G2458.

CITATION

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Repurposing Agricultural Policies

Scenarios for FSEC

Collaboration IFPRI-PIK-ECI

David Laborde and Valeria Piñeiro

May 2023
Some previous work
AGRICULTURE AND FOOD DISCUSSION PAPER

MODELING THE IMPACTS OF
AGRICULTURAL SUPPORT POLICIES ON
EMISSIONS FROM AGRICULTURE

The World Bank

BILLION-DOLLAR OPPORTUNITY

The world's food systems
are a trillion-dollar business.
Investing in agriculture
and transforming food systems
is a path to improving
economic growth and
reducing poverty.

SCIENCE AND
INNOVATIONS

for Food Systems Transformation
and Summit Actions

Joachim von Braun, Kaosar Afsana,
Louise O. Fresco, Mohamed Hassan (editors)
Papers by the Scientific Group and its partners,
supported by the UN Food Systems Summit.

David Laborde
Abdullah Mamun
Will Martin
Valeria Piñeiro
Rob Vos
2020: What is the effect of current farm policies on agricultural emissions? (no land use)

2021: Counting the cost of various agricultural support instruments on nature, climate, nutrition, health and equity by 2030

2021: Reallocating farm subsidies towards products with low emissions and/or high nutrition potential
2022: Phasing out of existing policies by 2040 (with land use) and focus on green innovations.

2022: Trade-offs of repurposing policies towards healthier diets and consumer incentives.

2022: Hidden gains and costs of current policies.

2022: Repurposing: how to make it work for the Global South?
Some lessons learned
Farm policies are complex and diverse, and people are prone to over-simplification

Subsidies are just a part of the decision making by farmers: even without subsidies production will occur (somewhere)

Ex-ante policy goals and ex-post policy impacts could be different: what should be the criteria to define “harmful” subsidies?

Policy reform is a country level process, but many environmental impacts are cross-border

Removing all existing subsidies will make things worst in today’s world and productivity matters

How to reform policies: “do no harm”, with a well focused approach, or “do good” and tackle the multi-dimension of the food system transformation

Integrating Global South countries in the discussions remain challenging
Understanding policy impacts

• Two main type of policies
  - Subsidies aka domestic support
  - Trade policies aka import and export taxes/subsidies

• 4 types of effects
  - How much to produce (scale)
  - What to produce (products)
  - How to produce (practices)
  - Where to produce (location)
Defining harmful for the environment is not straightforward. E.g., of Input Subsidies category (2020)

<table>
<thead>
<tr>
<th>Input type</th>
<th>Value (US$ bn)</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals and pesticides</td>
<td>0.2</td>
<td>0.2%</td>
</tr>
<tr>
<td>Environment</td>
<td>8</td>
<td>7.7%</td>
</tr>
<tr>
<td>Extension services</td>
<td>9.6</td>
<td>9.3%</td>
</tr>
<tr>
<td>Feed</td>
<td>0.5</td>
<td>0.5%</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>19.9</td>
<td>19.3%</td>
</tr>
<tr>
<td>Financial services</td>
<td>17.6</td>
<td>17.0%</td>
</tr>
<tr>
<td>Fuel</td>
<td>15.6</td>
<td>15.1%</td>
</tr>
<tr>
<td>Insurance</td>
<td>7.7</td>
<td>7.5%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>6.7</td>
<td>6.5%</td>
</tr>
<tr>
<td>Mechanization</td>
<td>7.3</td>
<td>7.1%</td>
</tr>
<tr>
<td>Quality control</td>
<td>0.1</td>
<td>0.1%</td>
</tr>
<tr>
<td>Risk management</td>
<td>1.2</td>
<td>1.2%</td>
</tr>
<tr>
<td>Seed</td>
<td>0.3</td>
<td>0.3%</td>
</tr>
<tr>
<td>Transport</td>
<td>0.1</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Source: Laborde and Mamun, 2022, based on the OECD PSE database
True cost of removing existing subsidies
An issue of semantics… and metrics

- Repurposing?
  - Need to define old and new purposes

- Reforming?
- Reallocating resources?
- Support vs subsidies? All type of support are not subsidies, and all subsidies are not recorded in our metrics of support.
- Harmful subsidies?
Multi-dimension targets: Tackling trade-offs, cross-border effects and the need to enlarge the policy space

Glauber and Laborde, 2022
Methodology
Data and Model

Data

GHG database
• Based on FAOSTAT (Tubiello and al.)
• Extended for energy and fertilizers

Model

+ GTAP 11 v2 database
+ Extensions / adaptation

2021 release
Information of price distortions (NRP) and payments (subsidies)
Fiscal Support divided into three payment categories (output, inputs and others)
Input payments disaggregated by category (fertilizer, extension services and more)

Source: Laborde and al. (2022)
Impact framework

Producer support

Production decision

Consumption decision

Nutrition

Equity & Gender

Impacts on Humans Health externalities

Consumer support

Impacts on Human Health Public Health Costs

Impacts on Nature/Environmental externalities

Climate

Biodiversity

Impacts on Nature Environmental externalities
Critical Issue: Defining Scenarios
From repurposing to reallocating

### Products (all payments are allocated)

- Payments to consumers
- General Services
- Payment to farmers
- Market Price Support

### PRODUCER SUPPORT ESTIMATE (PSE)

- Gross Fiscal Cost

### TOTAL SUPPORT ESTIMATE (TSE)

<table>
<thead>
<tr>
<th>Market Price Support</th>
<th>100.000,00</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Services</td>
<td>200.000,00</td>
</tr>
<tr>
<td>Payment to farmers</td>
<td>300.000,00</td>
</tr>
<tr>
<td>Payment to consumers</td>
<td>400.000,00</td>
</tr>
<tr>
<td></td>
<td>500.000,00</td>
</tr>
<tr>
<td></td>
<td>600.000,00</td>
</tr>
<tr>
<td></td>
<td>700.000,00</td>
</tr>
<tr>
<td></td>
<td>800.000,00</td>
</tr>
</tbody>
</table>

### Gross Fiscal Cost

- Total Support Estimate (TSE)
- Producer Support Estimate (PSE)

### Countries

- Instruments: payments to inputs, outputs, factors
Nominal Rate of Assistance by Economic Region and focus on China and the EU
Level and composition of global support for Food and Agriculture (USD Billion, average 2013-2018)

[Diagram showing the level and composition of global support for Food and Agriculture, with categories such as Price disincentives, Price incentives, Fiscal subsidies to producers, General services support, and Subsidies to consumers.]

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Support (Mio USD)</th>
<th>Fiscal Farm Support (Mio USD)</th>
<th>NRP</th>
<th>NRA</th>
<th>Ag. VoP</th>
<th>Ag. Fiscal Support</th>
<th>Ag. Producer Support</th>
<th>Total Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>633,697</td>
<td>243,224</td>
<td>6%</td>
<td>16%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>High Income countries</td>
<td>304,742</td>
<td>123,296</td>
<td>9.45</td>
<td>25.95</td>
<td>28%</td>
<td>51%</td>
<td>48%</td>
<td>48%</td>
</tr>
<tr>
<td>Upper-Middle Income countries</td>
<td>304,639</td>
<td>83,070</td>
<td>10.54</td>
<td>18.64</td>
<td>46%</td>
<td>34%</td>
<td>56%</td>
<td>48%</td>
</tr>
<tr>
<td>Lower-Middle Income countries</td>
<td>23,064</td>
<td>36,458</td>
<td>-6.74</td>
<td>0.31</td>
<td>23%</td>
<td>15%</td>
<td>-4%</td>
<td>4%</td>
</tr>
<tr>
<td>Low-Middle Income countries</td>
<td>1,252</td>
<td>400</td>
<td>-3.37</td>
<td>0.21</td>
<td>3%</td>
<td>0%</td>
<td>-1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
## Four scenarios

<table>
<thead>
<tr>
<th></th>
<th>Policy baseline: as of today</th>
<th>Policy baseline: Increasing support rate for LMIC based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redistribution of all existing payments in a homogenous way within NATIONAL borders</td>
<td>S1</td>
<td>S3</td>
</tr>
<tr>
<td>Redistribution of all existing payments in a homogenous way GLOBALLY</td>
<td>S2</td>
<td>S4</td>
</tr>
</tbody>
</table>
## Interpreting the scenarios

<table>
<thead>
<tr>
<th>Redistribution of all existing payments in a homogenous way <strong>within NATIONAL borders</strong></th>
<th>Policy baseline: as of today</th>
<th>Policy baseline: Increasing support rate for LMIC based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level the playing field across products but not across countries. Current support is biased towards some commodities. The goal is to remove such bias and support farm income in a homogenous way.</td>
<td>Take into account the policy dynamics in the Global South. Today poor countries do not have significant policy support for their farm sector, but this will change (as it has occurred in all other countries). There is need to take into account this new reality and reassess policy repurposing in a world where low and middle income countries could do the same mistake than more advanced economies if no repurposing is done from the beginning.</td>
<td></td>
</tr>
</tbody>
</table>

| Redistribution of all existing payments in a homogenous way **GLOBALLY** | Level the playing field across products and across countries. Current support is unevenly distributed around the world. The goal is to address this global inequality. While this scenario is ‘bold’ in terms of political economy, it is designed to illustrate a radical rebalancing of policies around the world | Rebalancing support in a changing world. This scenario addresses both issues: avoiding that the developing world spend more money in agriculture in a distortive way, and rebalancing farm support across borders to get fairer global food systems. |
Results
Conclusions
Lessons Learned: Limited Opportunities and careful planning is needed

Removing existing policies will:
- Hurt farmers overall (with some benefits for some countries)
- Will slightly help the poor and the hungry if border protection is removed
- Ambiguous effects on global emissions, mainly through a contraction of production and land abandonment

So, Repurposing is required:
- Investment in Sustainable Intensification is required. Investing in "traditional" productivity gains will not deliver
- Border Polices and Domestic Support have, in most of the cases, opposite effects on diets
- Input subsidies are a tricky issue

Focusing on healthy/environmental friendly products:
- Could contribute to reduce the cost of healthy diets but has limited impact when using producer subsidies
- Risk for governments to pick the wrong "good" products
- Phasing out resources from staples could have a small impact on undernourishment

During the transition, technology transfer, innovation, and adequate financial resources will be essential to enable adoption to catch up in the global south.
Conclusion and Guidance for trade rules

Current WTO rules are not an obstacle for repurposing, but they provide weak incentives or guidelines.

- Blue box policies, especially for livestock, are a significant potential to curb GHG emissions.
- Repurposing could involve significant box shifting towards Green Box, and abuse of existing flexibilities.
- Assessing price support through historic reference price is not consistent with a transformation agenda.

In the future, soul searching for the WTO members: should the rules focus on “do no harm” or “do good”?

- Disciplining Overall Trade Distorting Support is not synonymous to improve Social and Environmental impacts of farm policies.
- Increase Transparency and Monitoring (Notifications) will be essential to promote trust and coordination in the global repurposing process.

Tariffs remain an awkward instrument to guide repurposing.

- Border Tax Adjustments are a second-best option.
- Discriminatory use will be a source of dispute and also inefficiencies.