Shifts and emerging trends in commodity production and trade flows

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Trends in commodity production and trade flows

I. What have been the biggest changes?

II. What has not changed?
I. What have been the biggest changes?

Focus on:

1. Prices: spikes and volatility
2. Source of production increase
3. Shift of market power on international markets
4. Landscape of agricultural policies

Other major changes s.a. demand (-biofuels, population growth and diets-), finance, investments, climate change, employment etc. discussed during the day.
1. Prices: spikes and volatility

⇒ Causes are numerous and **responsability is debated**
⇒ Often **volatility on local markets** is even higher than on intl
⇒ Related to the **financialization of agricultural markets**

Source: FAO
2. Source of production increase has switched

Output growth increasingly led by technical and organisational progress (total factor productivity TFP) rather than increase in input use.

TFP does not presume the type of progress: Could have come from adoption of agro-ecological practices as well as GMOs seeds (needs to be studied more in depth).

Source: Douillet et Girard 2013 from Fuglie Ket al. 2012
TOTAL FACTOR PRODUCTIVITY

The ratio of agricultural outputs to inputs

GROSS CROP AND LIVESTOCK OUTPUT

LAND  LABOR  WATER  MACHINERY  LIVESTOCK

TFP increases when outputs rise and inputs remain constant.

With finite resources, TFP must increase to sustainably provide for 9 billion people in 2050.

Source: Global Harvest
3. Market shares on international markets have changed

Is world trade more concentrated or more dispersed in terms of firms? of countries?

- Looking at transnational firms, market shares of the biggest ones have increased *cf. expertise of participants*

- Looking at trade flows between countries, world trade is more dispersed (Daviron and Douillet 2013).
3. Market shares on international markets have changed
Changeover from Europe to Asia for imports

- Change in the types of products imported: rise of oilseeds and vegetable oil
- Linked to political choices

Source: Daviron and Douillet 2013, based on COMTRADE data
3. Market shares on international markets have changed

*The decreasing share of the three major importing countries*

<table>
<thead>
<tr>
<th>Three major importing countries</th>
<th>1990-1992</th>
<th>2010-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>Japan, South Korea, Russia</td>
<td>Japan, Mexico, EU</td>
</tr>
<tr>
<td>Rice</td>
<td>Iran, Brazil, Saudi Arabia</td>
<td>Nigeria, Indonesia, China</td>
</tr>
<tr>
<td>Wheat</td>
<td>Russie, Chine, Egypte</td>
<td>Egypte, Brésil, Indonésie</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>EU, Japan, Taiwan</td>
<td>China, EU, Japan</td>
</tr>
<tr>
<td>Vegetable oil</td>
<td>EU, Chine, Pakistan</td>
<td>India, China, EU</td>
</tr>
</tbody>
</table>

*Exception*

Source: Daviron and Douillet 2013
3. Market shares on international markets have changed

Non tropical food Exports (% of world exports excluding intra EU trade)

Cairns Group
USA
EU

Source: Daviron and Douillet 2013, based on COMTRADE data
3. Market shares on international markets have changed

Declining supremacy of the USA

Source: Daviron and Douillet 2013, Based on data from USDA/PSD
4. Landscape of agricultural policies has changed

Emerging economies have increased their support to agriculture

<table>
<thead>
<tr>
<th></th>
<th>PSE as a % share of agricultural receipt</th>
<th>PSE (millions US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Income Countries</strong></td>
<td>31% 28% 27% 26% 20% 14%</td>
<td>155 028</td>
</tr>
<tr>
<td>Australia</td>
<td>9% 9% 5% 4% 4% 3%</td>
<td>1 371</td>
</tr>
<tr>
<td>Canada</td>
<td>33% 28% 16% 20% 17% 15%</td>
<td>7 467</td>
</tr>
<tr>
<td>Swizerland</td>
<td>75% 72% 70% 70% 60% 55%</td>
<td>5 730</td>
</tr>
<tr>
<td>EU</td>
<td>37% 36% 35% 33% 25% 19%</td>
<td>105 305</td>
</tr>
<tr>
<td>Japan</td>
<td>62% 57% 59% 57% 50% 54%</td>
<td>61</td>
</tr>
<tr>
<td>Norway</td>
<td>69% 71% 68% 69% 61% 61%</td>
<td>3 952</td>
</tr>
<tr>
<td>USA</td>
<td>22% 17% 17% 19% 11% 8%</td>
<td>29 913</td>
</tr>
<tr>
<td><strong>Emerging economies</strong></td>
<td>3% 9% 10% 14%</td>
<td>210 764</td>
</tr>
<tr>
<td>Brazil</td>
<td>-9% 5% 5% 5%</td>
<td>8 728</td>
</tr>
<tr>
<td>Chile</td>
<td>10% 9% 7% 4% 3%</td>
<td>342</td>
</tr>
<tr>
<td>China</td>
<td>-6% 1% 6% 9% 15%</td>
<td>135 367</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4% -8% 9% 5% 19%</td>
<td>23 570</td>
</tr>
<tr>
<td>Korea</td>
<td>72% 73% 65% 60% 55% 49%</td>
<td>19</td>
</tr>
<tr>
<td>Mexico</td>
<td>6% 25% 11% 20% 13% 13%</td>
<td>6 809</td>
</tr>
<tr>
<td>Russia</td>
<td>79% 53% 14% 12% 18% 16%</td>
<td>14 979</td>
</tr>
<tr>
<td>Turkey</td>
<td>21% 29% 29% 28% 29% 24%</td>
<td>18 606</td>
</tr>
</tbody>
</table>

Source: Debar and Douillet 2014 from OECD
Note: EU includes members in of the European Union as they integrated it
4. Landscape of agricultural policies has changed

Wide regional disparities

**Total National Rate of Assistance to agriculture (WB)**

- **Pays à haut revenu**
- **Reste de l'Asie (hors Japon)**
- **Amérique latine et caraïbes**
- **Afrique sub-saharienne**

Many poor countries used to TAX agriculture

**Share of distortive support (% of PSE) (OECD)**

- **Pays à haut revenu**
- **Economies émergentes**

Emerging economies increasingly use support linked to production.

Source: Debar and Douillet 2014, from World Bank distortions database and OECD PPSE data
II. What has not changed?

1. «Internationalization» has kept limited
2. Most farmers are still smallholder
3. Family farms produce most of our food
4. Differences in labour productivity are still wide
1. «Internationalization» has kept limited

*Growth rate of international food trade and world food production in volume (excluding intra-EU trade), 1990-2011*

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<tbody>
<tr>
<td>International Food trade</td>
<td>3.8%</td>
<td>5.0%</td>
<td>3.7%</td>
<td>2.9%</td>
<td>2.5%</td>
</tr>
<tr>
<td>World Food Production</td>
<td>2.0%</td>
<td>2.4%</td>
<td>2.4%</td>
<td>2.8%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: Daviron and Douillet 2013
1. «Internationalization» has kept limited

Source: Daviron and Douillet 2013
2. Most farmers are still smallholder

Source: Cirad 2013 from FAOstat
3. Family farms produce most of our food

Family farmers still grow most of what is consumed and traded.

Family farms (in green) contribution to world production: significant examples

- rice
- plantains (bananas)
- roots and tubers
- coffee
- cocoa
- palm oil
- cotton
- rubber

=> they compete globally through trade

Source: Cirad 2013 from FAO data and Cirda’s experts say
4. Differences in labour productivity are still wide

Répartition des 1,3 milliards d'actifs agricole et écarts de productivité (en t équivalent céréale)

- 1000 t/actif/an
- 50 t/actif/an
- 10 t/actif/an
- 1 t/actif/an

Source: Cirad 2013 from FAO data, inspired by Mazoyer 2001
References


Debar J.-C. and M. Douillet 2014 « Le nouveau paysage mondial du soutien à l’agriculture » FARM working paper forthcoming (provisional version available upon request)
