DEVELOPMENTS IN FOOD AND AGRICULTURE IN CENTRAL EUROPEAN COUNTRIES

CSABA CSAKI
Corvinus University, Budapest

IAMA 19th Annual World Forum
CEE in a Broader Regional Context

- EU Members (EU12)
- Rest of Eastern-Europe (Balkan)
- CIS
  - Euro CIS
  - Central Asia + Caucasus
Basic facts on CEE&CIS agriculture

- About 17% of global agricultural resources
- Only 6% of global population
- 10% of GDP from agriculture
- 7% of population is active in agriculture
- 17% of global arable land (250 mn ha)
- 10% of global cereal and 6.7% of meat outputs
- 15% of global milk production
GDP/capita based on PPP in current international dollars in 2008

Source: Own composition based on IMF (2009)
Average share of agriculture in GDP (%)

Source: Own composition based on World Bank (2009)
OVERVIEW: Comparison EU-15/ EU-12 in 2007

EU-15
145 million ha of UAA
6,2 million workers
(3,7% of total workforce)
5 operators per 100 ha of UAA
1:16
(farmer/consumer)
Consumer: 390 million
Per capita GDP: 26 300 €
Household income spent on food: 15%

EU-12
37 million ha of UAA
6,32 million workers
(9,3% of total workforce)
6,25 operators per 100 ha of UAA
1:63
(farmer/consumer)
Consumer: 100 million
Per capita GDP: 15 100 €
Household income spent on food: 24%
<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable land (2005)</td>
<td>2.64</td>
</tr>
<tr>
<td>Cereals production (2007)</td>
<td>2.91</td>
</tr>
<tr>
<td>Meat production (2007)</td>
<td>2.52</td>
</tr>
<tr>
<td>Milk production (2007)</td>
<td>4.31</td>
</tr>
<tr>
<td>Agricultural world export (2007)</td>
<td>4.00</td>
</tr>
<tr>
<td>Agricultural world import (2007)</td>
<td>4.22</td>
</tr>
</tbody>
</table>

Source: Own composition based on FAO (2009)
Challenges to meet

- Utilize the opportunities of EU membership.
- Cope with increased competitive pressure on domestic markets.
- Improve the competitiveness of agrofood sector.
- Safeguard regional interests in CAP and WTO reforms.
- Food safety and quality enhancement.
- Facilitate further post transition reforms.
- Mitigate the negative impact of global economic crisis.
- Provide adequate responses to increased regional differences and social tensions.
Primary agriculture

- Declining role of agriculture
- Modest increase of outputs and competitiveness
  - Fluctuating land productivity with remaining gaps
  - Increased labour productivity
- Mixed structure of farms
  - Dominance of small farms in half the countries
  - Dual farming structures in the rest
  - Movement toward more extensive structures
- Significant impacts of CAP
  - Increasing farm incomes
  - Diversity in implementation
ROLE OF AGRICULTURE Share of agriculture in GDP in CEE (%)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>14</td>
<td>9</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Czech Republic</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Estonia</td>
<td>5</td>
<td>4</td>
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<td>3</td>
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<tr>
<td>Hungary</td>
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<td>4</td>
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<td>Latvia</td>
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<td>4</td>
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<td>Lithuania</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Poland</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Romania</td>
<td>13</td>
<td>10</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Slovakia</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Slovenia</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Own composition based on World Bank (2009)
LABOUR FORCE: Agricultural labour in 1000 annual work units (absolute numbers)

Source: Own composition based on EUROSTAT (2009)
Primary agriculture

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## Index of agricultural output in real value (2000=100)

<table>
<thead>
<tr>
<th>Country</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>84.55</td>
<td>87.29</td>
<td>83.18</td>
<td>79.22</td>
<td>71.72</td>
<td>87.87</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>83.21</td>
<td>98.44</td>
<td>86.96</td>
<td>86.00</td>
<td>98.11</td>
<td>93.57</td>
</tr>
<tr>
<td>Estonia</td>
<td>96.31</td>
<td>108.15</td>
<td>115.91</td>
<td>108.66</td>
<td>124.35</td>
<td>109.07</td>
</tr>
<tr>
<td>Hungary</td>
<td>89.45</td>
<td>100.31</td>
<td>90.81</td>
<td>91.26</td>
<td>91.32</td>
<td>100.05</td>
</tr>
<tr>
<td>Latvia</td>
<td>99.65</td>
<td>108.27</td>
<td>118.56</td>
<td>109.68</td>
<td>130.60</td>
<td>125.74</td>
</tr>
<tr>
<td>Lithuania</td>
<td>120.98</td>
<td>138.99</td>
<td>149.88</td>
<td>154.11</td>
<td>171.01</td>
<td>150.21</td>
</tr>
<tr>
<td>Poland</td>
<td>97.91</td>
<td>117.82</td>
<td>107.84</td>
<td>110.26</td>
<td>128.22</td>
<td>126.21</td>
</tr>
<tr>
<td>Romania</td>
<td>119.66</td>
<td>135.21</td>
<td>99.93</td>
<td>96.74</td>
<td>82.40</td>
<td>102.60</td>
</tr>
<tr>
<td>Slovakia</td>
<td>89.61</td>
<td>100.94</td>
<td>96.98</td>
<td>95.16</td>
<td>95.46</td>
<td>96.53</td>
</tr>
<tr>
<td>Slovenia</td>
<td>97.66</td>
<td>106.04</td>
<td>89.19</td>
<td>86.48</td>
<td>90.83</td>
<td>98.10</td>
</tr>
</tbody>
</table>

Source: Own composition based on EUROSTAT (2009)
CEREAL PRODUCTION Top 7 producers’ production of cereals in EU10+2 (tonnes)

Source: Own composition based on EUROSTAT (2009)
MEAT PRODUCTION Top 7 producers’ production of meat (cattle, goat, pig) in EU10+2 (tonnes)

Source: Own composition based on EUROSTAT (2009)
MILK PRODUCTION Top 7 producers’ production of fresh cow milk in EU10+2 (tonnes)

Source: Own composition based on EUROSTAT (2009)
PRODUCTIVITY Yields of cereals in NMS (tonnes/ha)

Source: Own composition based on FAO (2009)
Agricultural gross value added at basic price per total annual work unit, 2003-07

Source: Dieter Kirschke (2009), Presentation in Berlin, MACE Conference, January 2009
INTENSIFICATION Rate of crop, livestock and other output in total output, 2006 (%)

Source: Own composition based on FADN (2009)
Primary agriculture

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# Farm Structure Based on Land Use in NMS

<table>
<thead>
<tr>
<th>Country</th>
<th>2003</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 100 ha</td>
<td>&gt; 100 ha</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>30.82</td>
<td>69.18</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>9.05</td>
<td>90.95</td>
</tr>
<tr>
<td>Estonia</td>
<td>58.01</td>
<td>41.99</td>
</tr>
<tr>
<td>Hungary</td>
<td>37.22</td>
<td>62.78</td>
</tr>
<tr>
<td>Latvia</td>
<td>81.09</td>
<td>18.91</td>
</tr>
<tr>
<td>Lithuania</td>
<td>76.17</td>
<td>23.83</td>
</tr>
<tr>
<td>Poland</td>
<td>81.11</td>
<td>18.89</td>
</tr>
<tr>
<td>Romania</td>
<td>52.56</td>
<td>47.44</td>
</tr>
<tr>
<td>Slovakia</td>
<td>5.31</td>
<td>94.69</td>
</tr>
<tr>
<td>Slovenia</td>
<td>96.66</td>
<td>3.34</td>
</tr>
</tbody>
</table>

Source: Own composition based on EUROSTAT (2009)
FARM SIZES: UAA by sizes (ha) in 2007

Source: Own composition based on Eurostat (2009)
Primary agriculture

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- Modest increase of outputs and competitiveness
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Gross farm income per hectare (euro/ha)

Source: Own composition based on FADN (2009)
SUBSIDIES: National expenditures for agriculture per 1 hectare of agricultural land in 2006 (1000 euro)

Source: Own composition based on EUROSTAT (2009)
Agricultural trade and prices

- More trade, more competition
  - Both exports and imports increased
  - Poland, Hungary and Lithuania: positive trade balance
  - The rest: increasing deficit
  - High and increasing share of raw-materials in exports
  - Increased share of imported processed products on the domestic markets

- Prices-Incomes
  - Significant increase of nominal producer prices
  - Real producer prices remained below EU-15 levels
  - Price adjustment larger in countries with lower pre-accession levels
Agri-food and beverages export (million USD)

Source: Own composition based on EUROSTAT (2009)
Agri-food and beverages trade balance (million USD)

Source: Own composition based on EUROSTAT (2009)
Raw materials in total agri-food and beverages(%)
Agricultural Trade: More trade, more competition

- Both exports and imports increased
- Poland, Hungary and Lithuania: positive trade balance
- The rest: increasing deficit
- High and increasing share of row-materials in exports
- Increased share of imported processed products on the domestic markets
Agroprocessing

- Privatisation was completed in the 90s
- Significant FDI and foreign ownership
- Dominant role of multinationals
- Integration into Europe
- Successfull modernisation with improved qualities
Foreign investments in the agri-food industry

Source: Swinnen J. (2009), Warsaw
Intensity of foreign investor’s participation in CEE food industries

**Low intensity**
- agricultural lobbying forces
- scattered market structure
- low profit
- huge industries
- stretchy privatisation

**Reasons:**

**Medium intensity**
- small and medium industries
- various market structures
- relatively stable outlook

**Reasons:**

**High intensity**
- limited exposure to ag-lobbying
- concentrated market structure
- high profit
- high value-added products
- rapid privatisation
- excellent market prospects
- special cases i.e. sugar quotas

**Reasons:**

Source: Jansik, Cs. (2008)
The impacts of food industry FDI

**Positive impacts:**
- Contribution to the modernisation of CEE food industries
- Maintaining domestic employment
- Purchase of domestic raw material (first-stage)
- Integration of CEE food industries into the EU

**Negative impacts:**
- The adverse effects of efficiency improvements:
  - Laying off labour
  - Closing down factories
- New trend – relocalisation of production lines among CEE countries

Source: Jansik, Cs. (2008)
<table>
<thead>
<tr>
<th>Year</th>
<th>Capital (million euro)</th>
<th>Share of national owners (%)</th>
<th>Share of foreign owners (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1380.51</td>
<td>39.20</td>
<td>60.80</td>
</tr>
<tr>
<td>2002</td>
<td>1432.59</td>
<td>42.60</td>
<td>57.40</td>
</tr>
<tr>
<td>2003</td>
<td>1450.00</td>
<td>43.20</td>
<td>56.80</td>
</tr>
<tr>
<td>2004</td>
<td>1343.58</td>
<td>47.60</td>
<td>52.40</td>
</tr>
<tr>
<td>2005</td>
<td>1114.38</td>
<td>50.70</td>
<td>49.30</td>
</tr>
<tr>
<td>2006</td>
<td>1117.21</td>
<td>52.90</td>
<td>47.10</td>
</tr>
<tr>
<td>2007</td>
<td>1125.06</td>
<td>51.60</td>
<td>48.40</td>
</tr>
</tbody>
</table>

Source: Agricultural Research Institute (2008)
Income before tax of Hungarian agroprocessing enterprises in million HUF, 1997-2007

Source: Agricultural Research Institute (2008)
Retail

- Retail „revolution”
- Fast concentration with significant FDI
- Beneficial for consumers
- Pressure on producers
- Debate on the role of imported products and procurement practices
Share of top 10 food chains on the main shopping place in April 2009 (%)

Source: GfK + INCOMA Research, 2009
The main shopping place for food in April 2009

Source: GfK + INCOMA Research, 2009
Share of domestically produced products in Hungarian retail

### Rank of supermarket chains by turnover in Hungary, 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Food chain</th>
<th>Number of shops</th>
<th>Turnover in billion HUF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tesco</td>
<td>148</td>
<td>602</td>
</tr>
<tr>
<td>2.</td>
<td>CBA</td>
<td>3,038</td>
<td>545</td>
</tr>
<tr>
<td>3.</td>
<td>Coop</td>
<td>5,250</td>
<td>500</td>
</tr>
<tr>
<td>4.</td>
<td>Spar</td>
<td>391</td>
<td>374,2</td>
</tr>
<tr>
<td>5.</td>
<td>Reál</td>
<td>2,310</td>
<td>348</td>
</tr>
<tr>
<td>6.</td>
<td>Metro</td>
<td>13</td>
<td>262,1</td>
</tr>
<tr>
<td>7.</td>
<td>Auchan</td>
<td>11</td>
<td>221,7</td>
</tr>
<tr>
<td>8.</td>
<td>Lidl</td>
<td>105</td>
<td>164,7</td>
</tr>
<tr>
<td>10.</td>
<td>Cora</td>
<td>7</td>
<td>105,5</td>
</tr>
</tbody>
</table>

Source: GfK + INCOMA Research, 2009
Conclusions

- Significant adjustment and change: visible developments
- EU membership: great opportunity and overall positive impacts.
- Significant diversity among countries.
- Initial conditions and national policies had significant impacts.
- Importance of FDI and enlarged markets.
- Global crisis has both negative and positive consequences.
Thanks for Your Attention!

WELCOME IN CENTRAL AND EASTERN EUROPE!