Economic performance of Ukrainian *agri benchmark* farms

*agri benchmark* Cash Crop conference, Perth, May 2010

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Agenda

1. Review 2008
2. CoP and profitability of major crops
3. Prices received and their relation to MATIF
4. Total farm profitability and perspectives
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Total cost and revenue corn 2008 (USD/t)

- CZ1200JM*
- RU10000BS*
- UA2500ZH*
- UA6700PO*
- US700IA

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<th>Opportunity cost</th>
<th>Depreciation</th>
<th>Cash cost</th>
<th>Gross revenue</th>
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Total cost and revenue rapeseed 2008 (USD/t)
In 2008 UA farms were rather competitive, esp. in rape and corn
Low wheat prices – quality? Infrastructure?
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Yields on Ukrainian *agri benchmark* farms (t/ha)

![Bar chart showing yields for different crops and varieties.](chart.png)
Pesticide intensity (# of applications and cost (USD/ha))

→ Low-moderate intensity in Europ. comparison, cheap pesticides in Ukraine
Nitrogen input (kg/ha)

$0.50/kg N

Moderate N intensity in European comparison
Labor intensity (USD/ha and h/ha)

→ One farm with very high input of cheap labor
→ One farm with less but higher paid labor, more contractor
Total Cost and Gross Revenue on Ukrainian farms (USD/ha)

→ All crops profitable!
Total Cost and Gross Revenue on Ukrainian farms (USD/t)

Breakeven price:
- Winter wheat: $95
- Winter rapeseed: $188
- Summer wheat: $75
- Corn: $78
- Summer barley: $87
- Winter rapeseed: $277
- Winter wheat: $94
- Corn: $86
- Summer barley: $103
- Winter barley: $98

Breakeven yield:
- Winter wheat: 4.0
- Winter rapeseed: 2.0
- Summer wheat: 3.4
- Corn: 5.2
- Summer barley: 4.2
- Winter rapeseed: 2.1
- Winter wheat: 4.2
- Corn: 6.8
- Summer barley: 3.6
- Winter barley: 4.4
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Prices received and their relation to the world market – rapeseed (USD/t)

Rapeseed is mostly exported to EU
Prices received and their relation to the world market – corn (USD/t)

- Feed corn cif elev.
- MATIF corn nearest futures
  - UA2500ZH*
  - UA6700PO*

Surplus of feed grain

\[ y = 0.7473x - 4.9777 \]
\[ R^2 = 0.7701 \]
Prices received and their relation to the world market – wheat (USD/t)

- Soft red winter fob gulf ports
- MATIF wheat nearest futures
- Wheat (old) 3rd cl. cif elev.
- Feed wheat (old) 6th cl. cif elev.
- UA 2500ZH*
- UA 6700PO*
- UA 2600WU*

Milling wheat in some years in short supply
Policy intervention?

Regression analysis:
- Soft red winter FOB gulf ports
  \[ y = 0.6818x + 49.391 \]
  \[ R^2 = 0.5452 \]

- 3rd class wheat UA
  \[ y = 0.652x + 51.449 \]
  \[ R^2 = 0.7014 \]
Exchange rate UAH/USD over time

In 2009 UA farm profitability was boosted by currency devaluation!
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Overview: Profits in arable farming 2009 (USD/ha)
Conclusions and perspectives for UA farms

• Top performing Ukrainian farms very competitive, esp. in rapeseed and corn (although 2009 with advantage through currency devaluation)
• However: Average UA farm still far behind
• Lack of capital, know-how, difficult markets foster structural change towards agriholdings
• Longer term development – agriholding ≠ panacea!
Thank you for your attention!
Direct Cost on Ukrainian farms (USD/ha)

High fertilizer cost in P & K app. 100 USD/ha (historical deficit)

But rather low Plant Protection Cost (25 to 50 USD/ha) especially in Rapeseed

P: $0.89/kg K: $0.70/kg
Operating cost on Ukrainian farms (USD/t)

![Operating cost chart](chart.png)

- **Machinery**
- **Diesel**
- **Contractor**
- **Hired labor**
- **Family labor**

### Crops:
- Winter wheat
- Winter rapeseed
- Summer wheat
- Corn
- Summer barley
- Winter barley

### Equipment:
- UA2500ZH*
- UA6700PO*
Total Cost and Gross Revenue on Ukrainian farms (USD/ha)