Managing the Food Shocks of the Great Transition

Flemish Cities and the Food Crises of the Fourteenth Century
Central Question

- Decision-making in agriculture by large landowners
- Reactions to food prices
- Great Transition Period (Campbell): 1330-1370: period of numerous food price spikes

ADAPTATIONS?
1. Towards profit maximization?
2. Towards provisioning of the household?
3. Part of a broader ‘Moral Economy’?
4. Or no general pattern? > Individual choices
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CENTRAL QUESTION

› Focus on economic (grain) management

› Adaptations in four domains
  (1) Production
  (2) Consumption
  (3) Commercialisation
  (4) Surplus extraction
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Presentation of preliminary results. Please do not cite or distribute

GRAIN PRICES

GRAIN INCOME

CONSUMPTION

COMMERCIALISATION

SURPLUS EXTRACTION
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PRICE MOVEMENTS
GRAIN PRICES
GRAMS OF SILVER PER HECTOLITRE

HIGH PRICE PERIODS

› 1330
› 1342
› 1352
› 1360
› 1370
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METHODOLOGY

› Origins: direct exploitation, leases-in-kind, customary fixed rent

› Theoretical income ≠ real income (Certain expenses = available grain grain)

GRAIN INCOME

WHEAT

OATS

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Presentation of preliminary results. Please do not cite or distribute

**GRAIN INCOME**

**MAIN RESULT**

› *Downward trend,* predates Black Death (!)
CONSUMPTION & COMMERCIALISATION
- Stable evolution
- High level Des Prés
- Impact 1360!

Less consumption St. Sauveur, Wetz, Des Prés
Changing strategy Our Lady
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- **Animal** fodder & beer brewing
- **More volatile**
- **High** level Des Prés
  - Downward trend
- **St. Sauveur**: use of **leasehold** income
- **Absent** for Our Lady
Generally way more volatile

Dramatic drop Des Prés

St. Sauveur & St. Julian big players on the market

St. Julian: unique case of 1339
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- **Sold less** than wheat
  - Des Prés & St. Sauveur almost nothing
- **Similarly volatile**
- St. Julian: unique case of **1339**
- Our Lady: **everything** sold
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Presentation of preliminary results. Please do not cite or distribute

**CONSUMPTION VS. COMMERCIALISATION**

**WHEAT – VISUALIZED**

- Guaranteed **cash influx**
- **Stable food** provisioning
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**CONSUMPTION VS. COMMERCIALISATION**

**WHEAT – VISUALIZED**

Focus on consumption

Reduced sales in dearth years
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CONSUMPTION VS. COMMERCIALISATION

WHEAT – VISUALIZED

ST. JULIAN

› Guaranteed **cash** influx
› **Stable food** provisioning
CONSUMPTION VS. COMMERCIALISATION

WHEAT – VISUALIZED

Presentation of preliminary results. Please do not cite or distribute

Our Lady

- **Pre-1360**: primarily commercial focus
- **Post-1360**: more focus on food supply
- Collegiate church!
CONSUMPTION VS. COMMERCIALISATION

COEFFICIENTS OF CORRELATION

SIGNIFICANT CORRELATIONS

› St. Sauveur (wheat):
  Income

› Des Prés (wheat):
  High CC with income
  Negative with price

› St. Julian (oats):
  Income

F O R M U L A

\[
\text{Correlation} \left( \frac{\text{Amount sold}}{\text{Amount consumed}} ; \text{Price} \right)
\]

\[
\text{Correlation} \left( \frac{\text{Amount sold}}{\text{Amount consumed}} ; \text{Minimum income} \right)
\]

<table>
<thead>
<tr>
<th>Wheat</th>
<th>St. Sauveur</th>
<th>Des Prés</th>
<th>Wetz</th>
<th>Our Lady</th>
<th>St. Julian</th>
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<tr>
<td><strong>Price</strong></td>
<td>Pearson correlation</td>
<td>-0.347</td>
<td>-0.292*</td>
<td>0.320</td>
<td>-0.124</td>
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<td>Sig. (2-tailed)</td>
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<th>Oats</th>
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<td><strong>Price</strong></td>
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CASH INFLUX
IS THERE A SIGN OF SPECULATION?

HIGHEST PROFITS FROM CEREAL SALES
AMOUNT OF SILVER EARNED THROUGH THE SALES OF WHEAT AND OATS IN THE FOURTEENTH CENTURY
CASH INFLUX

IS THERE A SIGN OF SPECULATION?

HIGHEST PROFITS FROM CEREAL SALES

› A lot during or just after high price periods!
  1330, 1343, 1352, 1360, 1370

› No clear maximization -> priority was on food provisioning!

› Speculation? Stockage and seasonality
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METHODOLOGY

› Need for detailed *leasehold* income & *arrears*: leniency towards tenants during dearth

(Only for Our Lady)

› Possible analysis of:

1. Total tenants (with debt)
2. Total debt (of active tenants)
3. Mobility of tenants
RESULTS

ACTIVE TENANTS WITH DEBT

› Avg. 29.1%
› Highest after crises
  1342-43: 71%
  1350-53: 62-65%
  Not after 1360!
› Dropped in last decades: 10-20%

AMOUNT OF DEBT VS. LEASE

› Avg. 68.5%
› Very high in 1343 & 1363/4 (115-122%) & last decades (>100%)
Last decades: most did pay, minority defaulted completely!

MOBILITY

› High: mortality or three-field system?
RESULTS

ACTIVE TENANTS WITH DEBT
› Avg. 36.5%
› Highest after crises
   1353-56: 63-68%
   1371-76: 75-57%
Not after 1360!
› Dropped after 1385: 10-20%

AMOUNT OF DEBT VS. LEASE
› Avg. 109.7%
› 1390s: >300%
Last decades: most did pay, minority defaulted completely!

MOBILITY
› High: mortality or three-field system?
CONCLUDING REMARKS

Domains of adaptation

› Production: different strategies → regional/institutional differences?
› Consumption: high priority
› Commercialisation: depends on available income & consumption
› Surplus extraction: lenient during dearth periods

Decision-making at the landowners level mattered!
Adaptations on the **short term** (D. Stone) vs. **long term** (reactions vs. 14th century crisis)

- Profound structural change (contraction grain economy) → predates Black Death

- Harvest failures ≠ price spikes → huge **profits** were made (no proof of maximization)

- Missing element = **plague** → not absent in this region
  
  Plague mortality did not disrupt grain economy