

# Managing the Food Shocks of the Great Transition

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Flemish Cities and the Food Crises of the Fourteenth Century

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Workshop Sowing the Seeds VI – LSE



# 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

# CENTRAL QUESTION



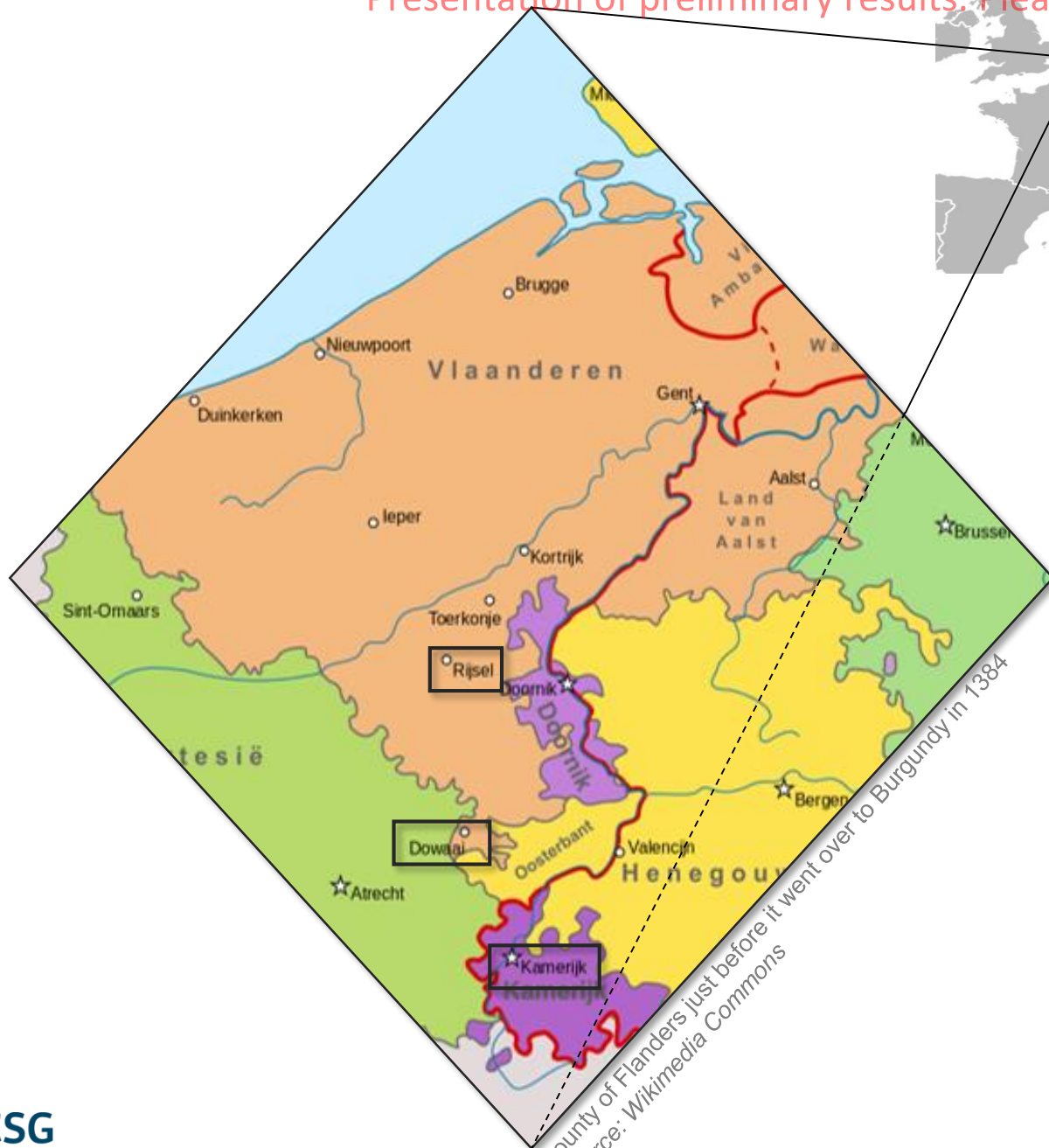
- › Focus on economic (grain) **management**



- › **Adaptations** in four domains

- (1) Production
- (2) Consumption
- (3) Commercialisation
- (4) Surplus extraction

Presentation of preliminary results. Please do not cite or distribute



County of Flanders just before it went over to Burgundy in 1384  
Source: Wikimedia Commons



# REGION

SOUTHERN PART FORMER  
COUNTY OF FLANDERS





# SOURCES

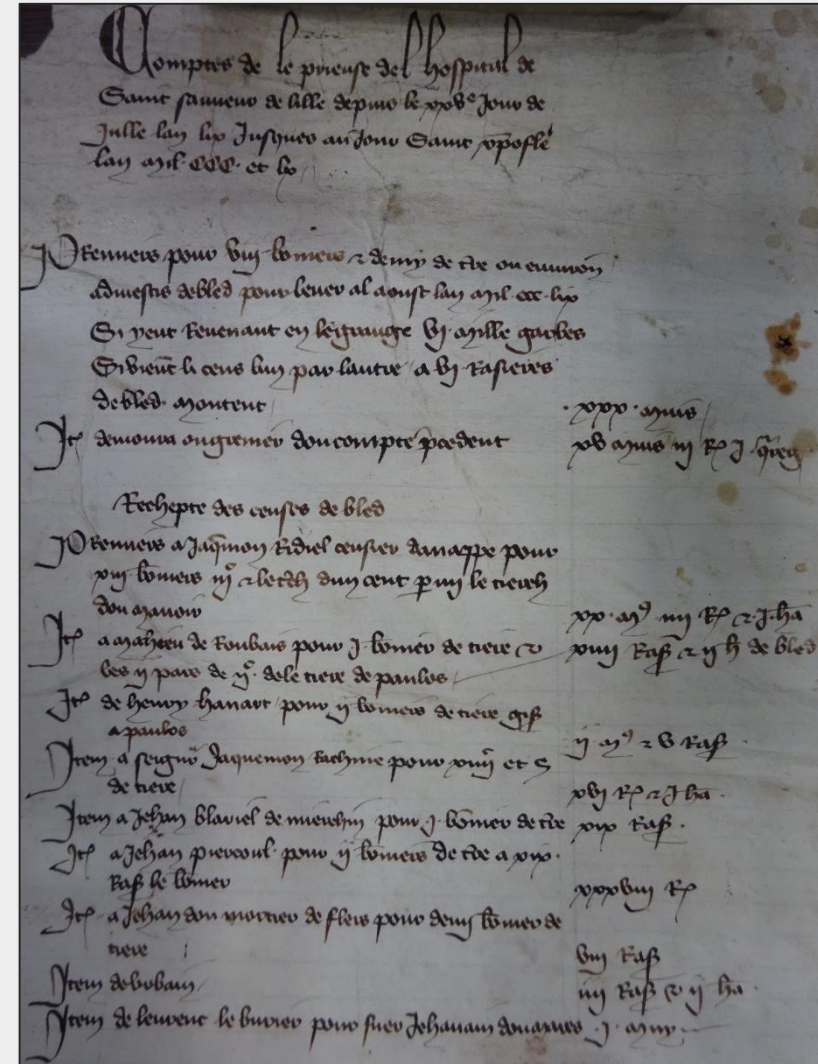
ACCOUNTS FROM

3 HOSPITALS

1 ABBEY

1 COLLEGIATE CHURCH

ONLY ECCLESIASTICAL!



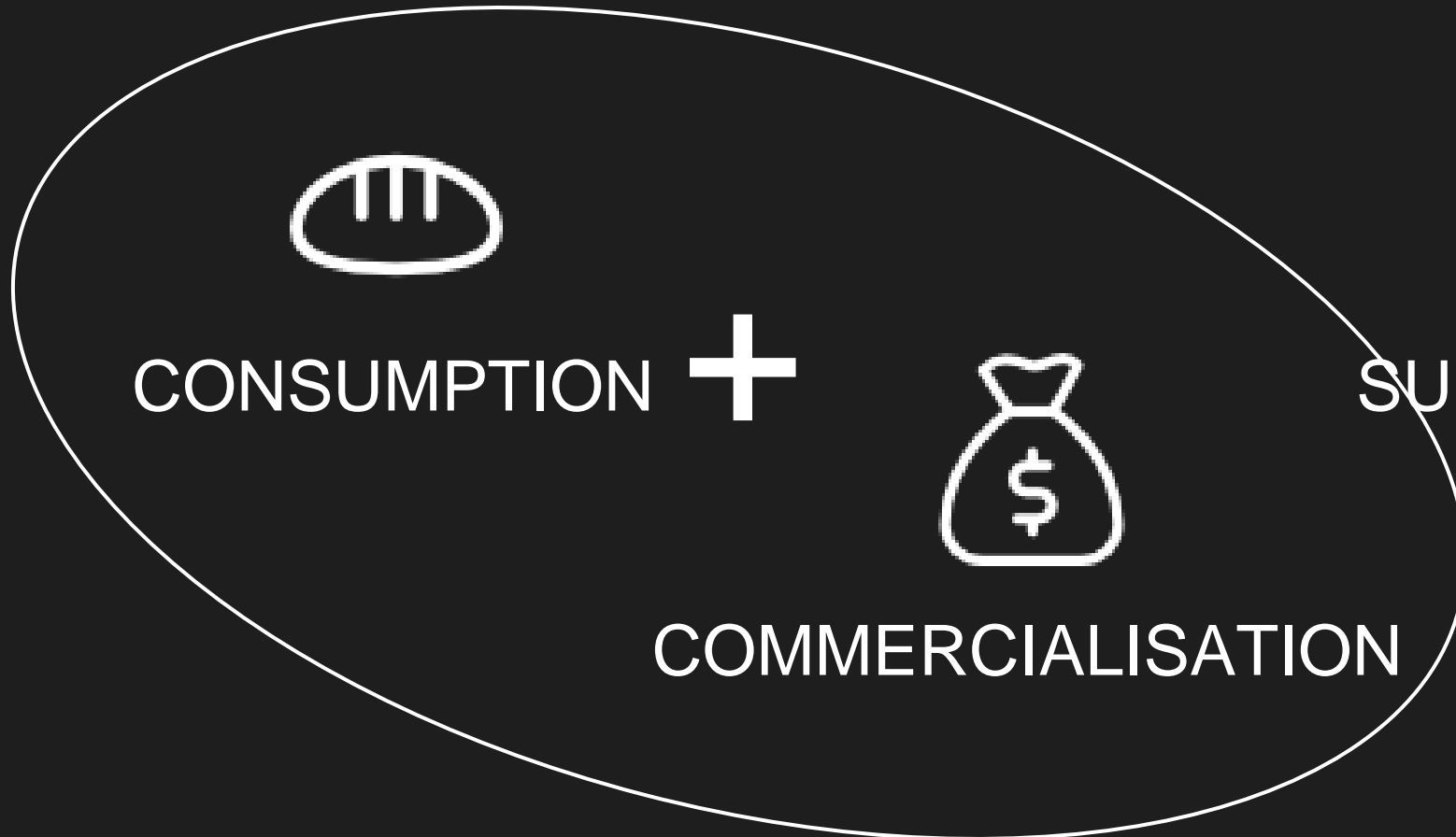
ADN, AH E VI 8 (n°9): L'hôpital Saint-Sauveur, compte 1359-1360.



# GRAIN PRICES



GRAIN  
INCOME



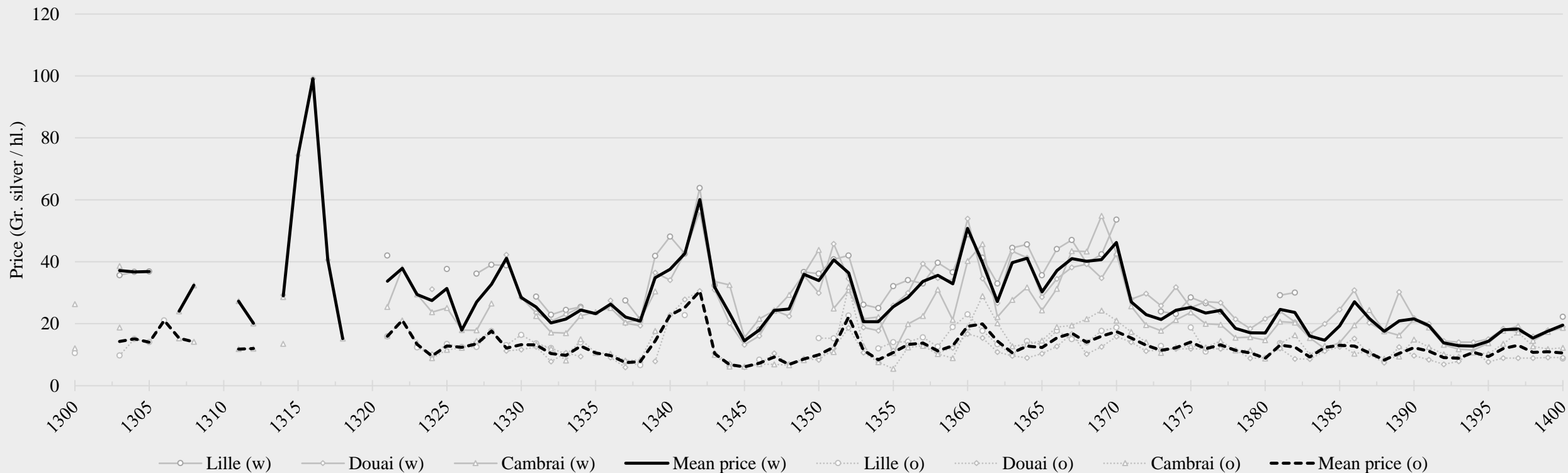
SURPLUS  
EXTRACTION



# PRICE MOVEMENTS

# GRAIN PRICES

GRAMS OF SILVER PER HECTOLITRE



**HIGH PRICE PERIODS**

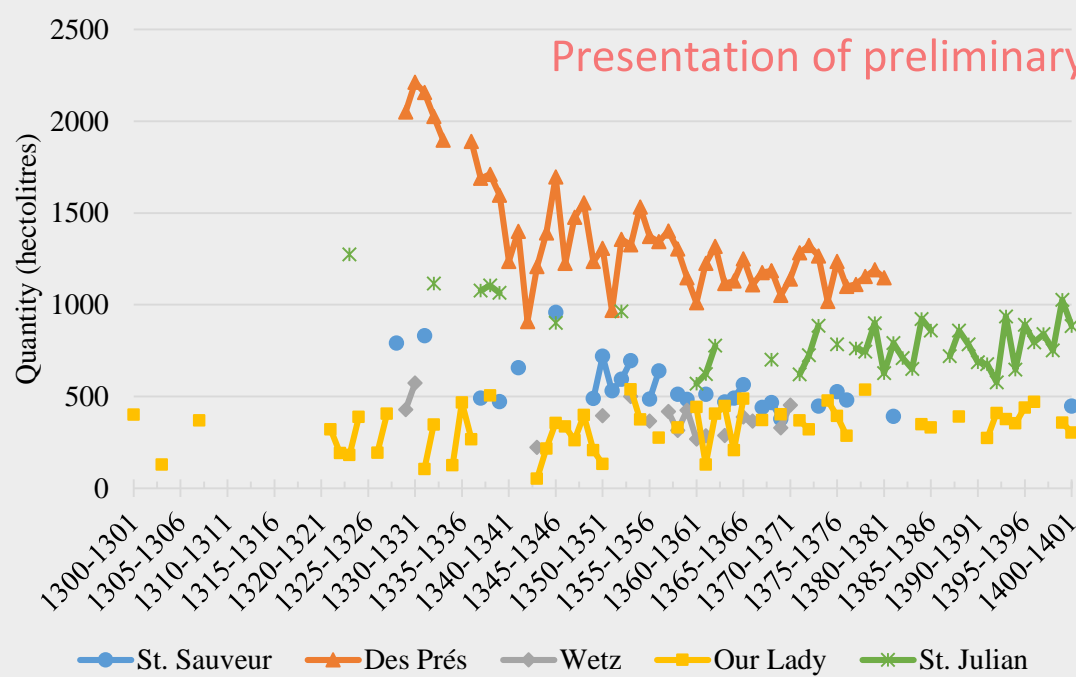
- > 1330
- > 1342
- > 1352
- > 1360
- > 1370



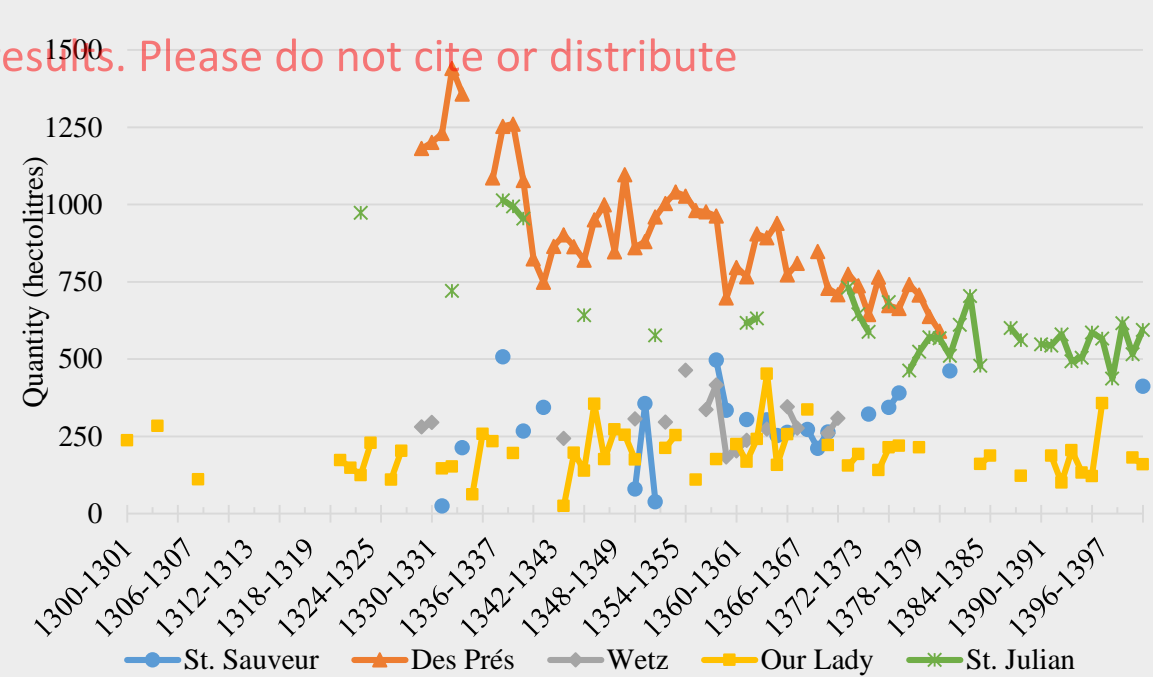




# GRAIN INCOME



W H E A T



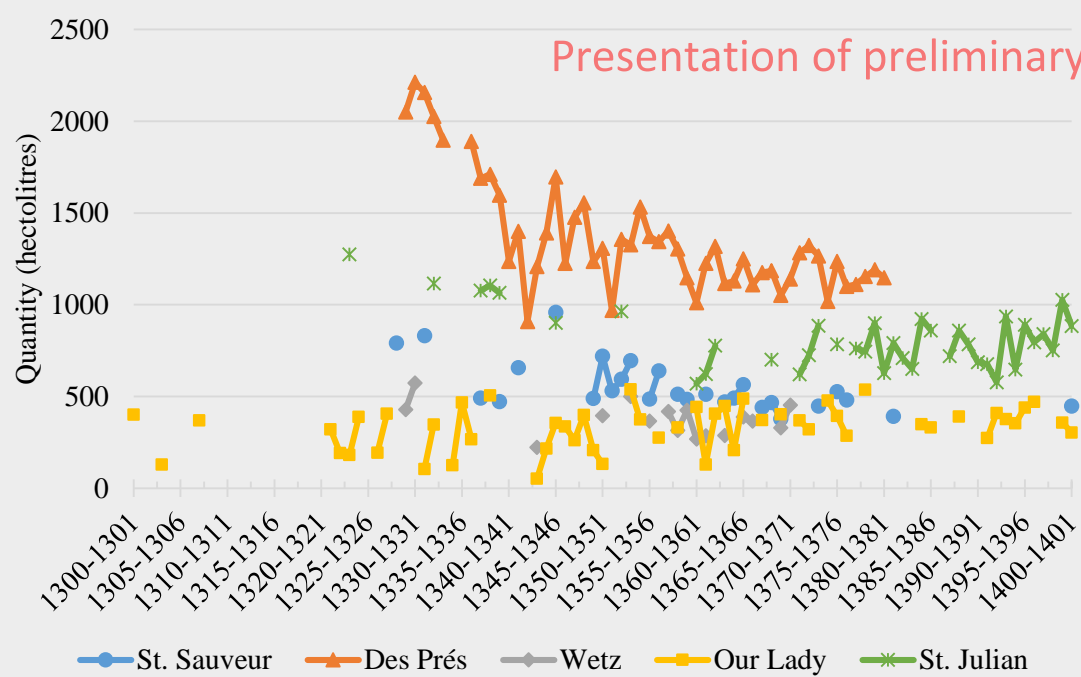
O A T S

# GRAIN INCOME

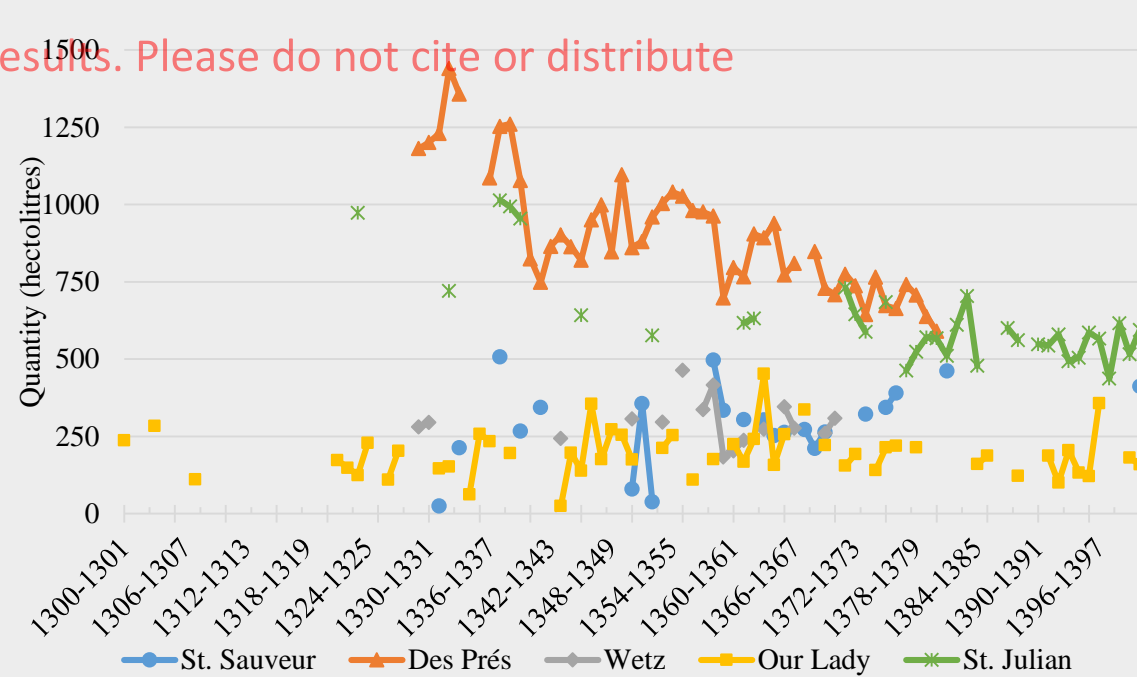
## METHODOLOGY

- › Origins: direct exploitation, leases-in-kind, customary fixed rent
- › Theoretical income  $\neq$  **real income** (Certain expenses = available grain)





W H E A T



O A T S

# GRAIN INCOME

## MAIN RESULT

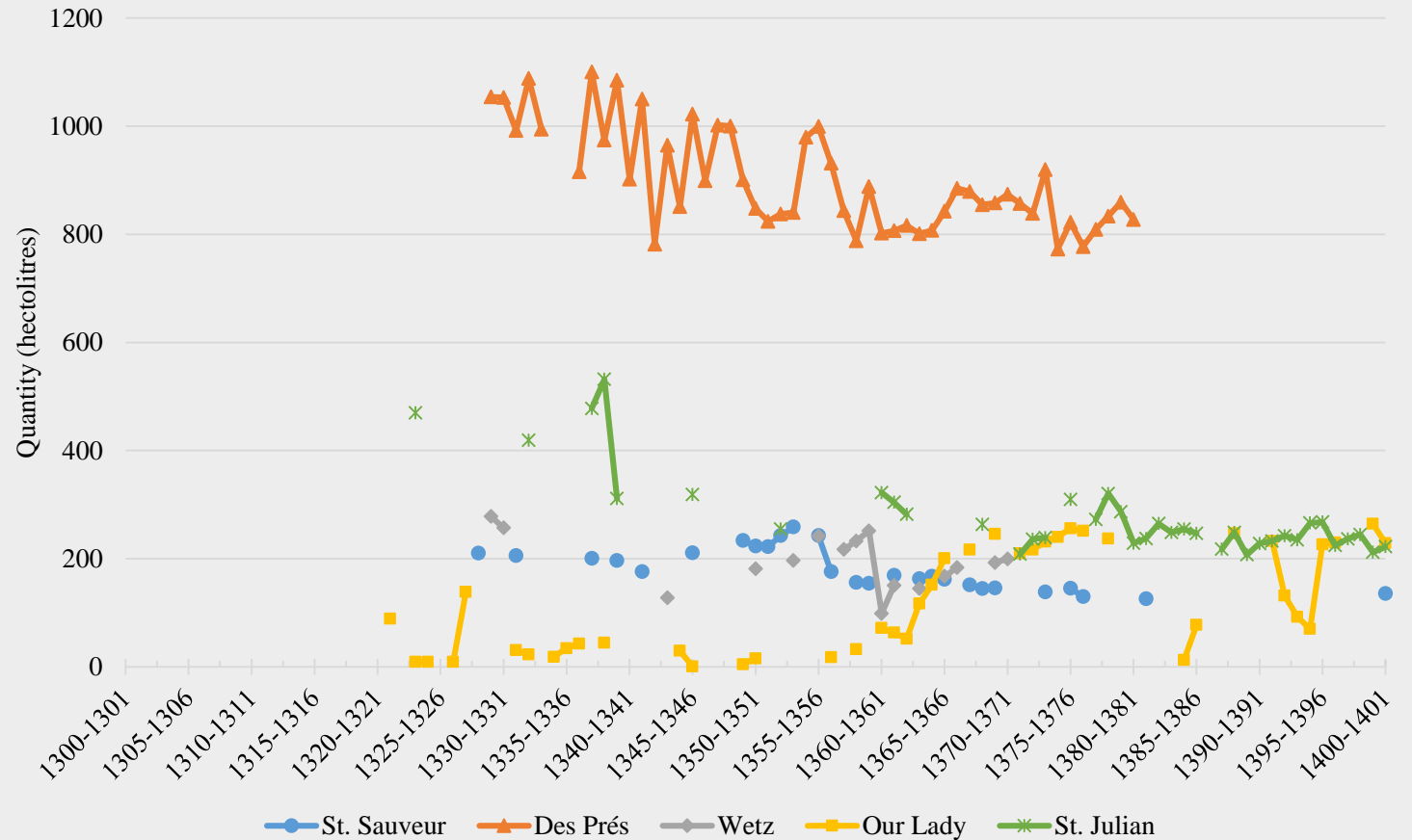
› **Downward trend, predates Black Death (!)**



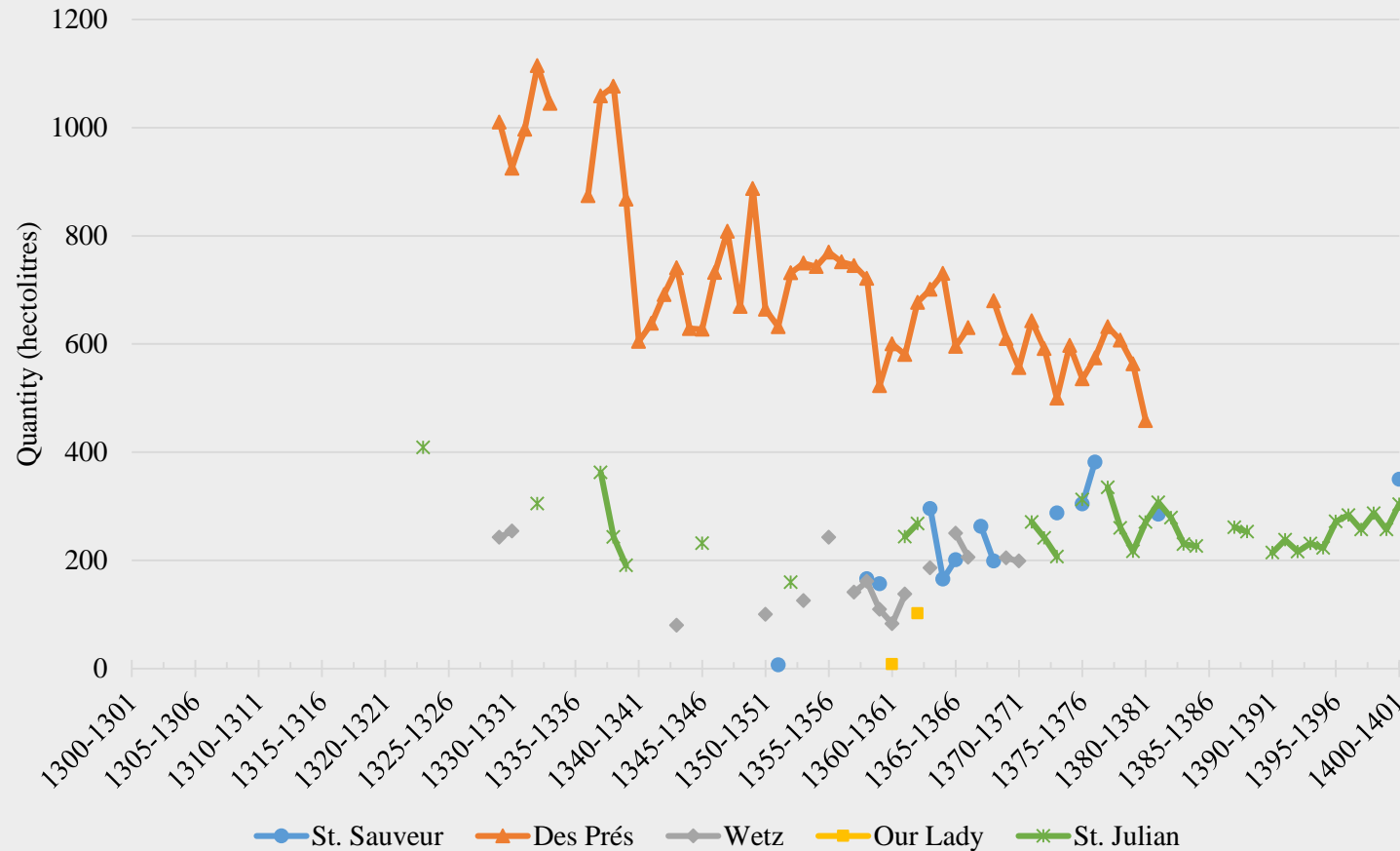
# CONSUMPTION & COMMERCIALISATION

- › **Stable** evolution
- › **High** level Des Prés
- › Impact **1360!**

Less consumption St. Sauveur,  
Wetz, Des Prés  
Changing strategy Our Lady

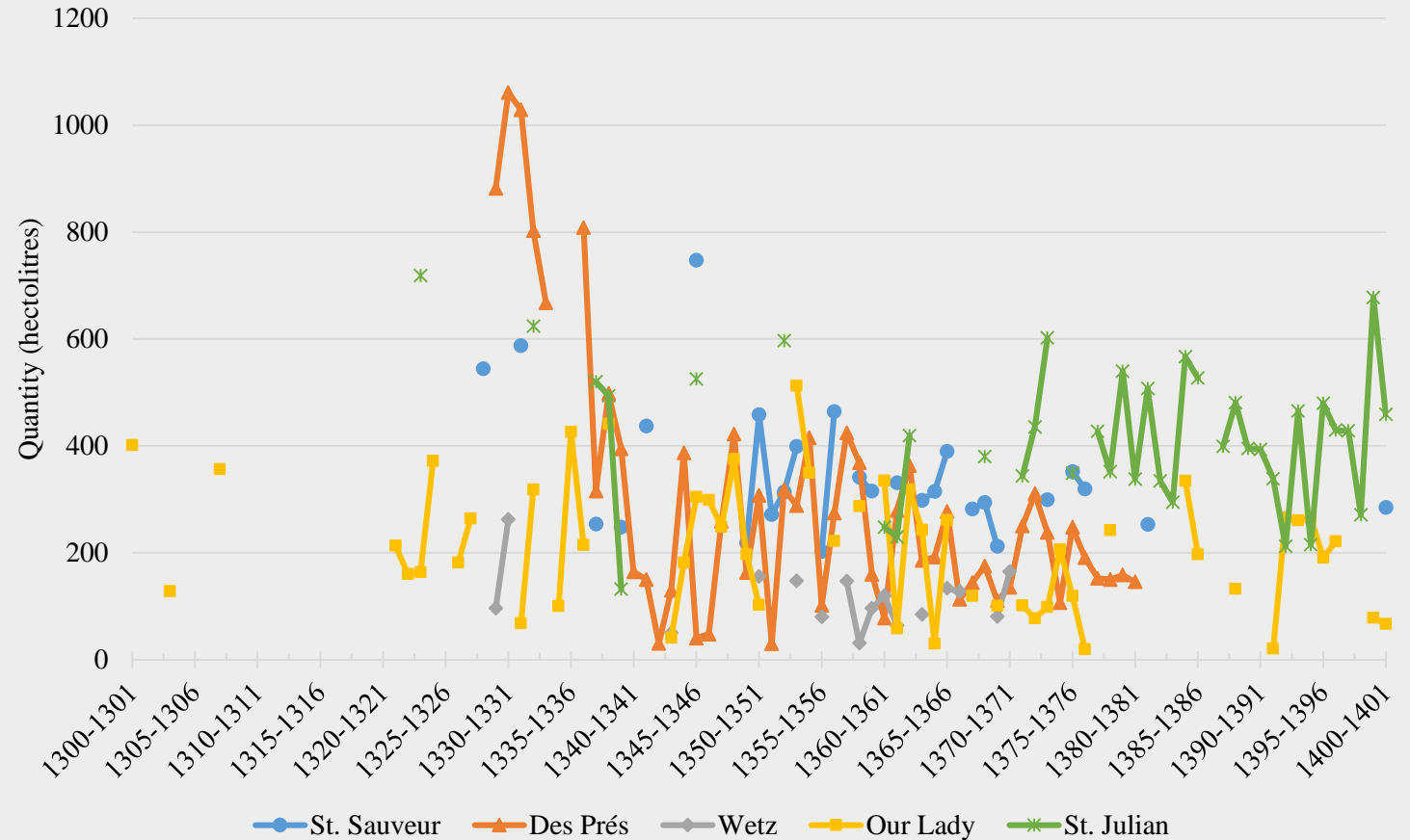


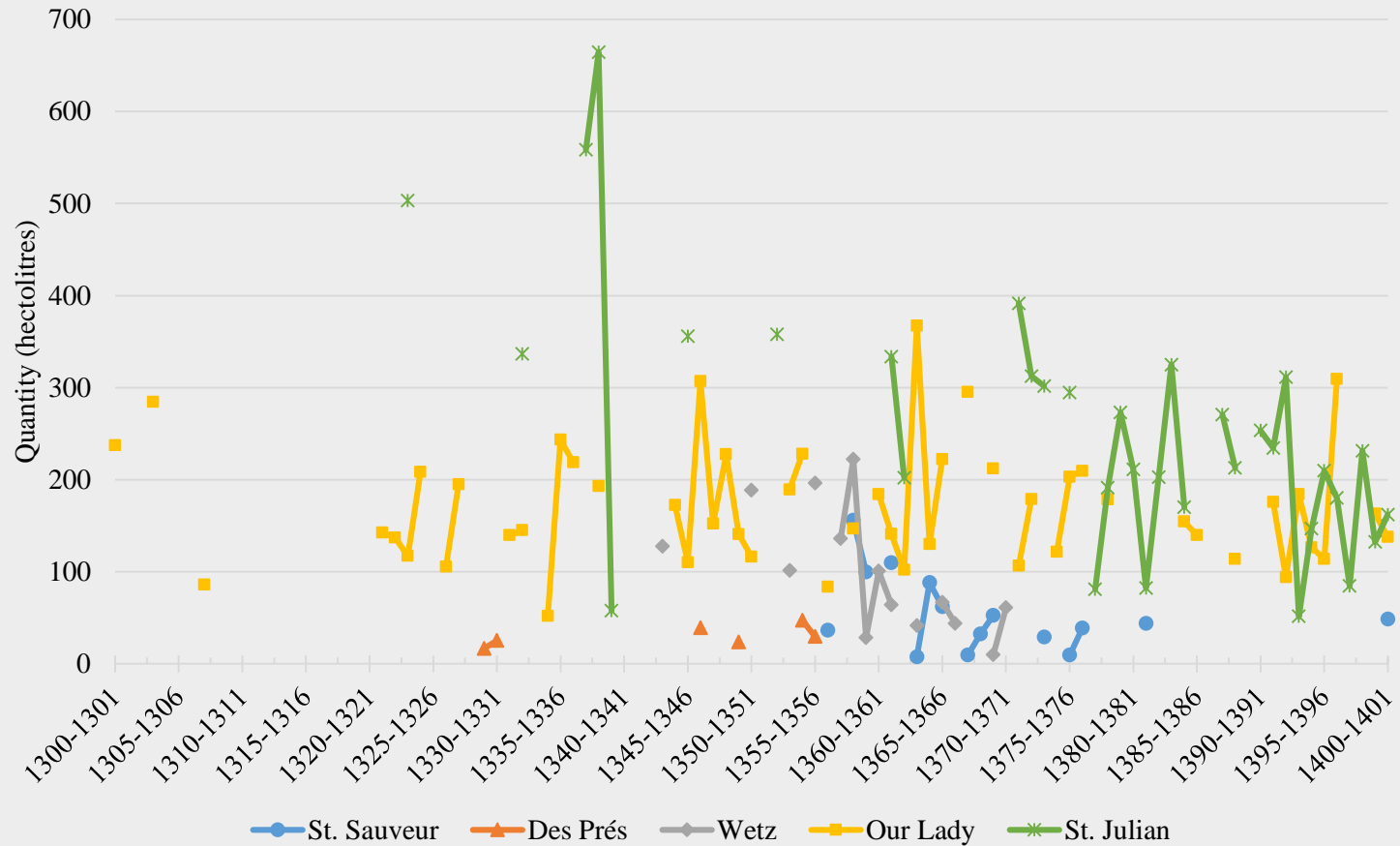




- › **Animal** fodder & beer brewing
- › More **volatile**
- › **High** level Des Prés
- › **Downward trend**
- › St. Sauveur: use of **leasehold** income
- › Absent for Our Lady

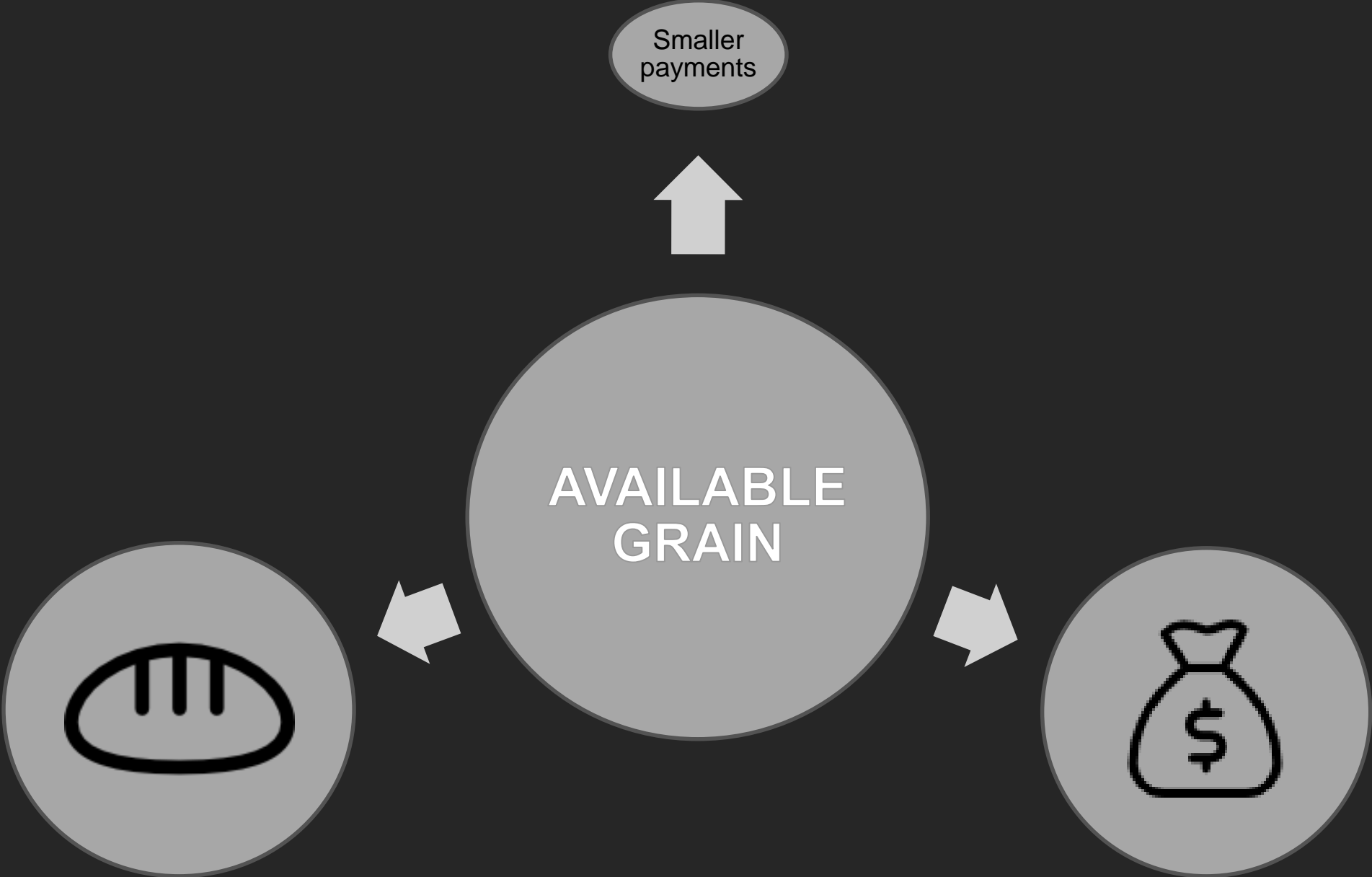
- › Generally way more **volatile**
- › **Dramatic drop** Des Prés
- › St. Sauveur & St. Julian **big players** on the market
- › St. Julian: unique case of **1339**





- › Sold **less** than wheat
  - Des Prés & St. Sauveur almost nothing
- › Similarly **volatile**
- › St. Julian: unique case of **1339**
- › Our Lady: **everything** sold

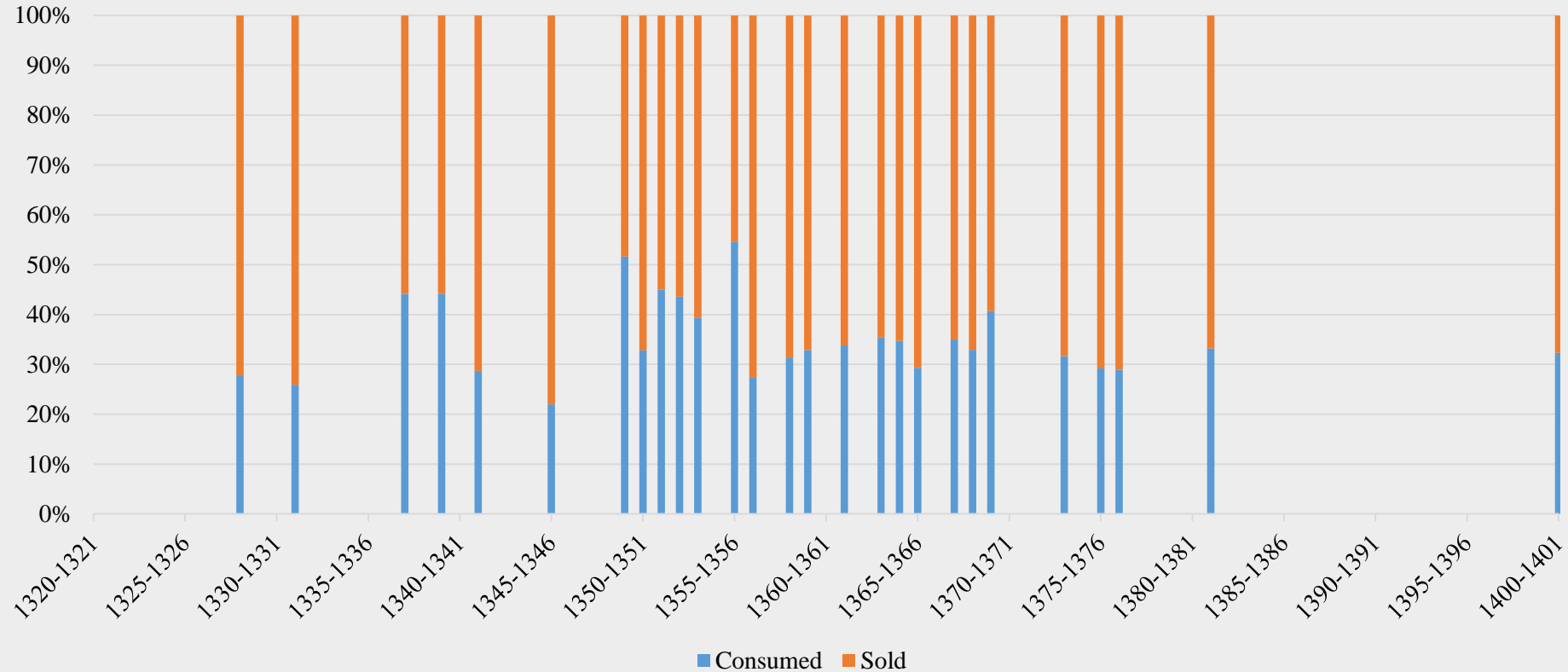
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# CONSUMPTION VS. COMMERCIALISATION

## WHEAT - VISUALIZED



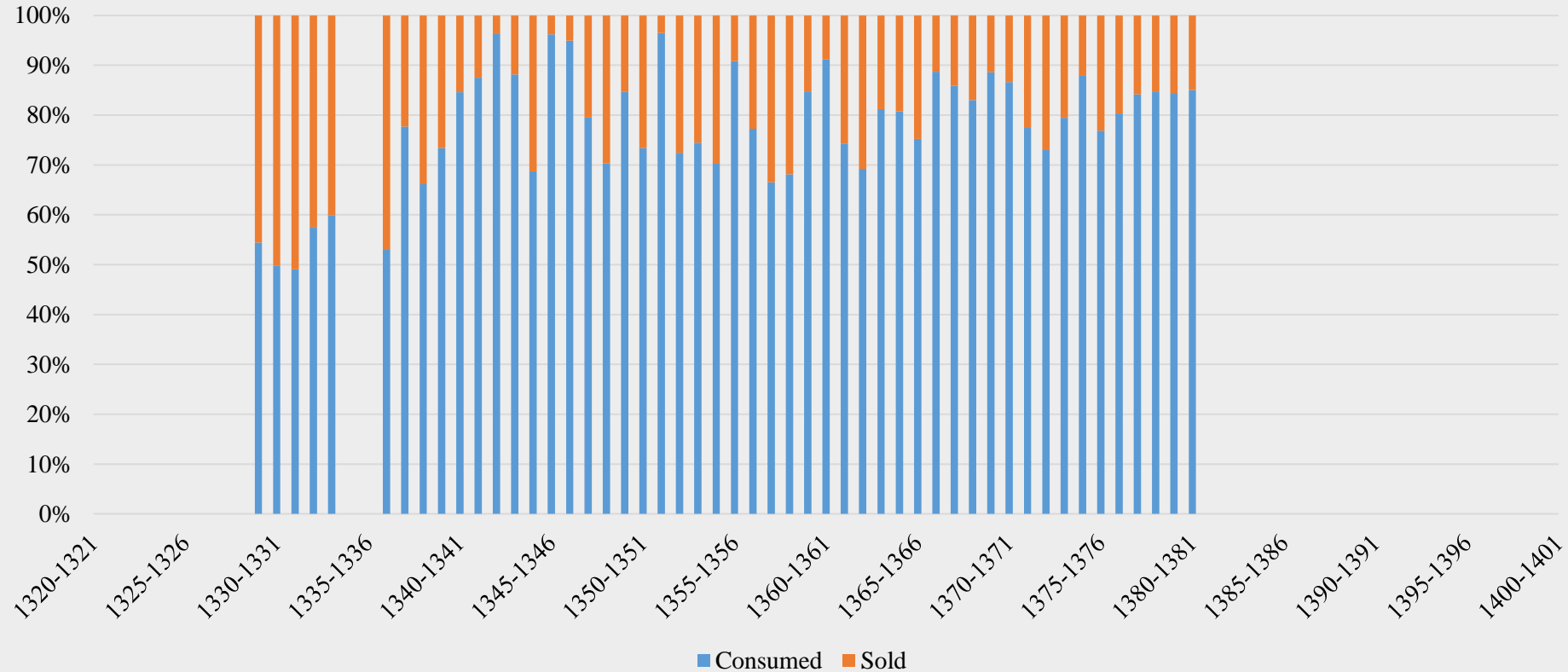
# ST. SAUVEUR

- › Guaranteed **cash** influx
- › **Stable food** provisioning



# CONSUMPTION VS. COMMERCIALISATION

## WHEAT - VISUALIZED



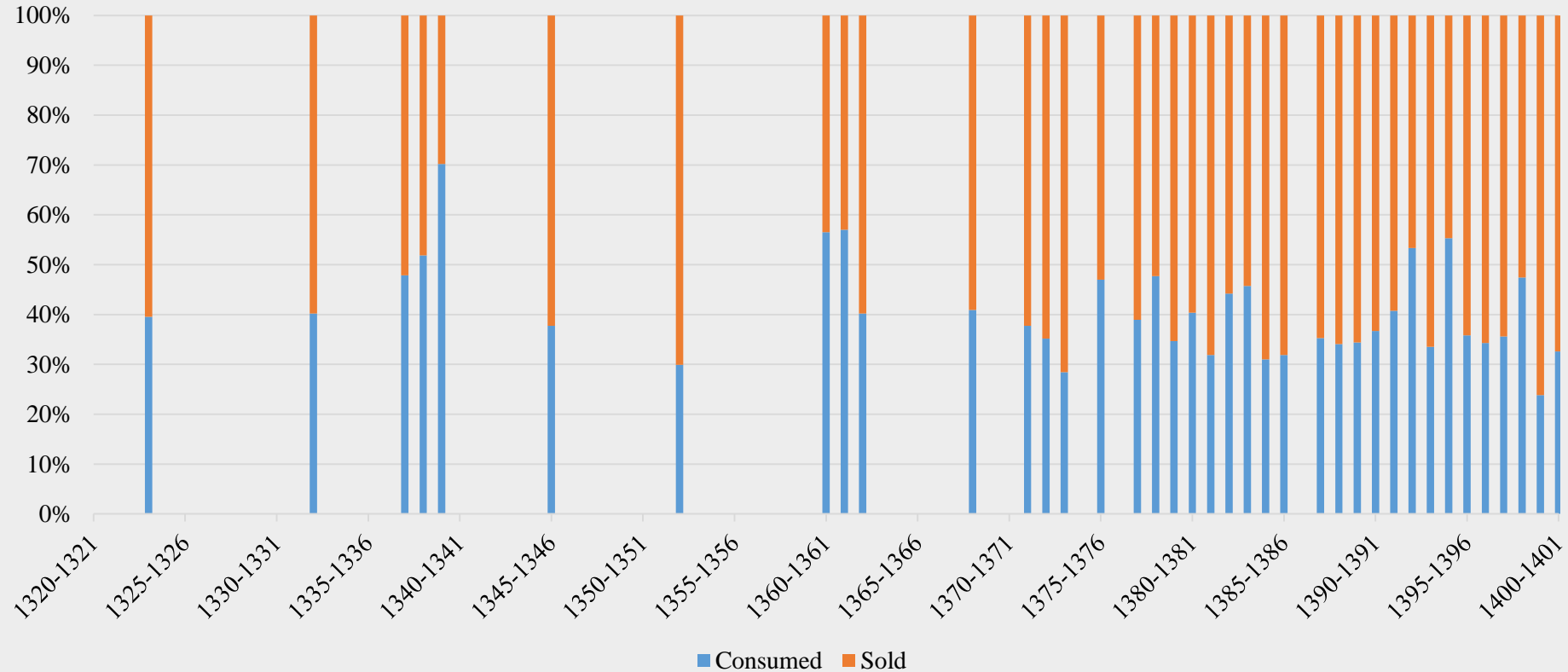
# DES PRÉS

- › Focus on **consumption**
- › **Reduced sales** in dearth years

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# CONSUMPTION VS. COMMERCIALISATION

## WHEAT - VISUALIZED

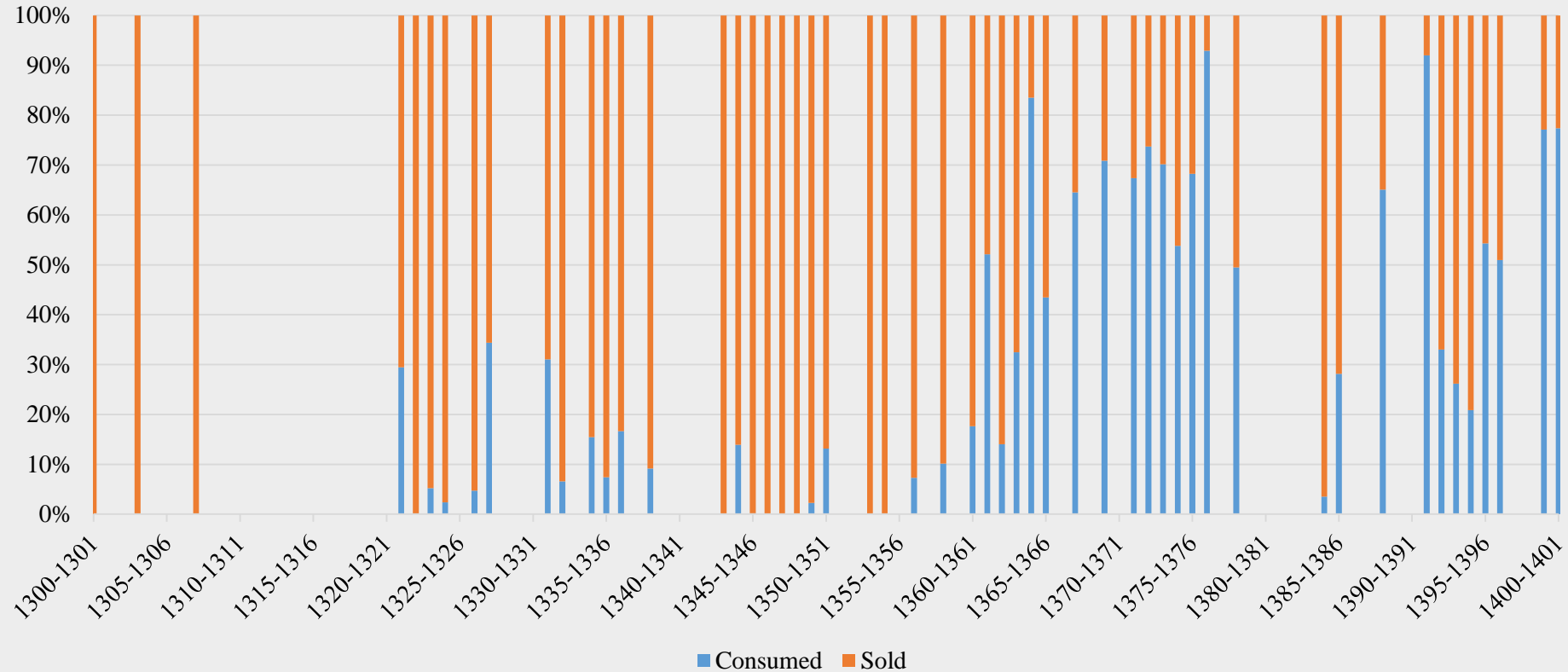


# ST. JULIAN

- › Guaranteed **cash** influx
- › **Stable food** provisioning

# CONSUMPTION VS. COMMERCIALISATION

## WHEAT - VISUALIZED



## OUR LADY

- › **Pre-1360:** primarily **commercial** focus
- › **Post-1360:** more focus on **food** supply
- › Collegiate **church!**

# CONSUMPTION VS. COMMERCIALISATION

## COEFFICIENTS OF CORRELATION

### FORMULA

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

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

### SIGNIFICANT CORRELATIONS

› St. Sauveur (wheat):

Income

› Des Prés (wheat):

High CC with income

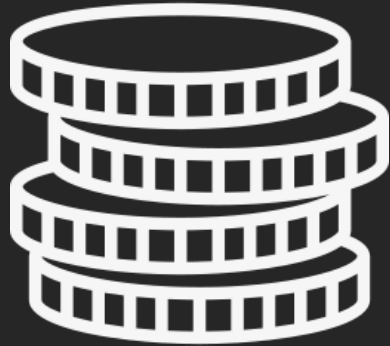
Negative with price

› St. Julian (oats):

Income

<i>Wheat</i>		St. Sauveur	Des Prés	Wetz	Our Lady	St. Julian
<b>Price</b>	Pearson correlation	-0.347	-0.292*	0.320	-0.124	-0.286
	Sig. (2-tailed)	0.076	0.039	0.265	0.433	0.091
	N	27	50	14	42	36
<b>Income</b>	Pearson correlation	0.599**	0.857**	0.321	0.005	0.257
	Sig. (2-tailed)	0.001	0.000	0.225	0.974	0.119
	N	27	50	16	42	38
<i>Oats</i>		St. Sauveur	Des Prés	Wetz	Our Lady	St. Julian
<b>Price</b>	Pearson correlation	0.121	-0.284	-0.359	N/A	0.054
	Sig. (2-tailed)	0.708	0.586	0.207	N/A	0.761
	N	12	6	14	N/A	34
<b>Income</b>	Pearson correlation	0.307	-0.779	0.186	N/A	0.492**
	Sig. (2-tailed)	0.332	0.068	0.525	N/A	0.003
	N	12	6	14	N/A	34





# CASH INFLUX

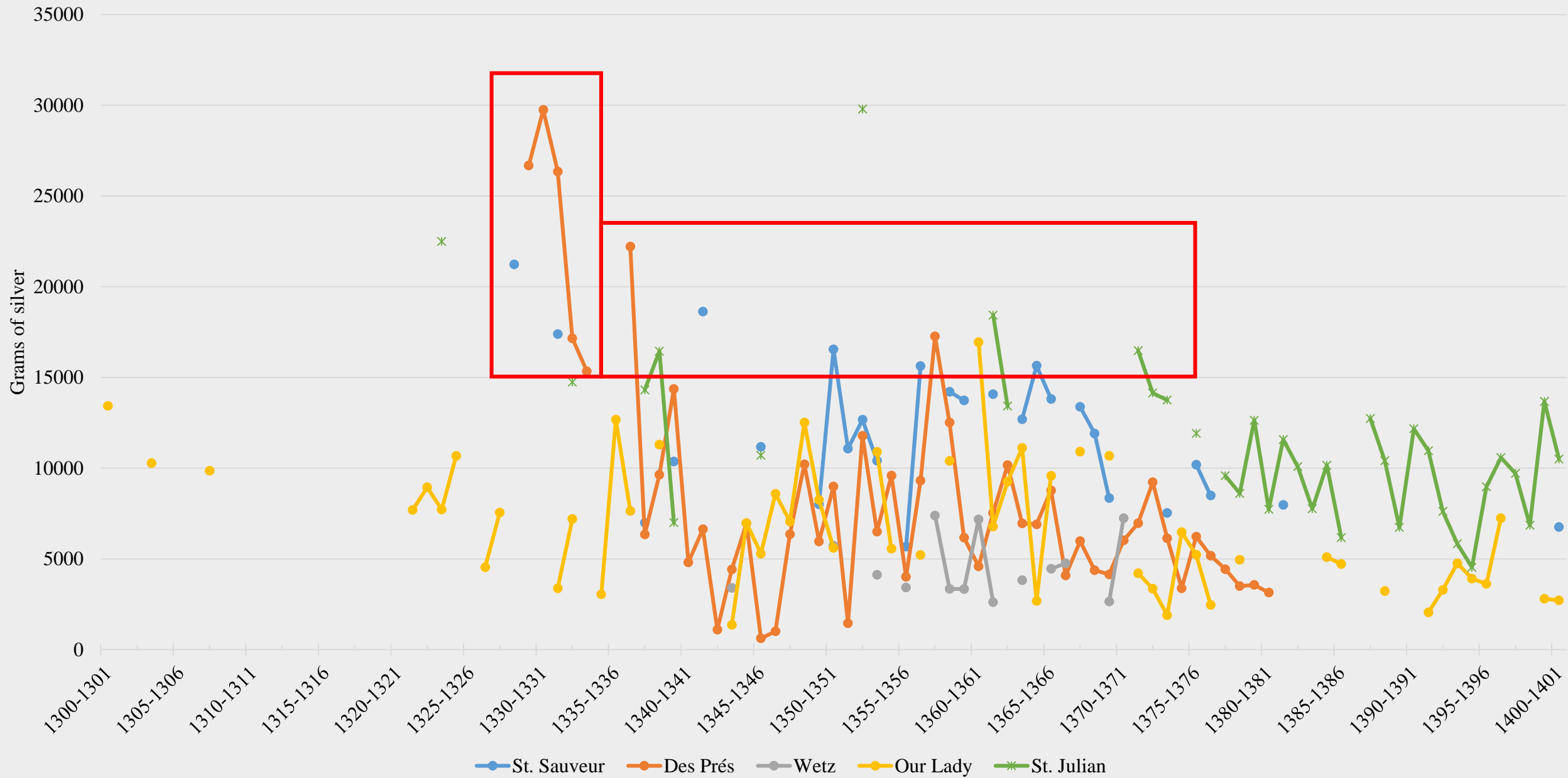
IS THERE A SIGN OF SPECULATION?

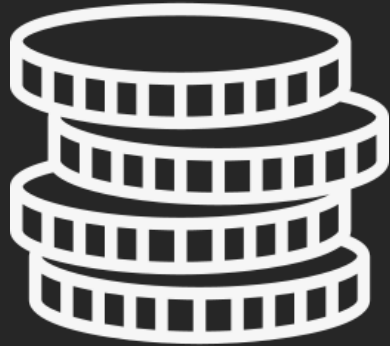
**HIGHEST PROFITS FROM CEREAL SALES**



# AMOUNT OF SILVER EARNED THROUGH THE SALES OF WHEAT AND OATS IN THE FOURTEENTH CENTURY

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# 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 speculating -> priority was on food provisioning!



# SURPLUS EXTRACTION



# SURPLUS EXTRACTION

## 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!**

# CONCLUDING REMARKS



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