

Managing the Food Shocks of the Great Transition

Flemish Cities and the Food Crises of the Fourteenth Century

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IMC Leeds 2019



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



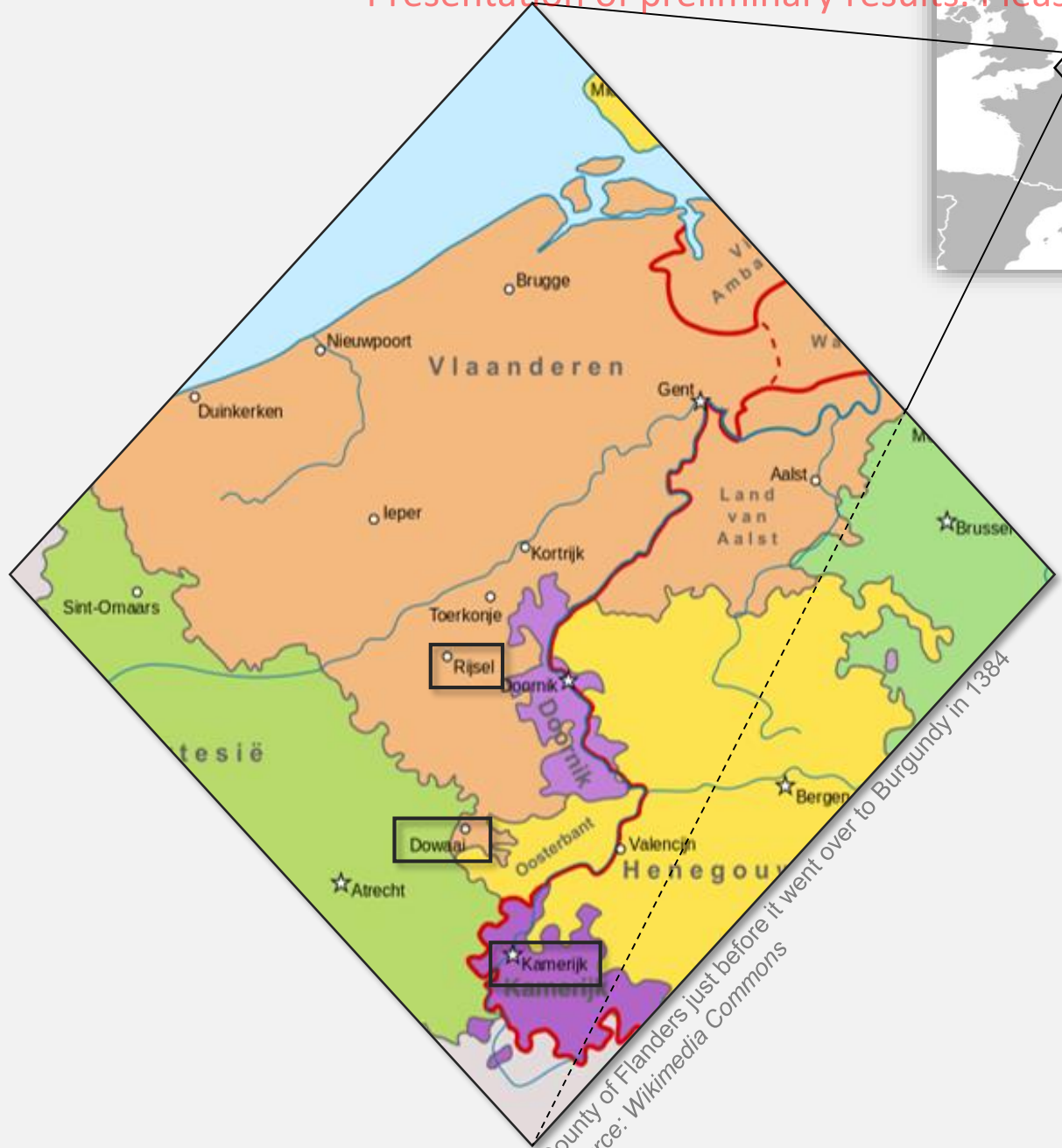
- › Focus on economic (grain) **management**



- › **Adaptations** in four domains

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

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REGION

SOUTHERN PART FORMER
COUNTY OF FLANDERS

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



SOURCES

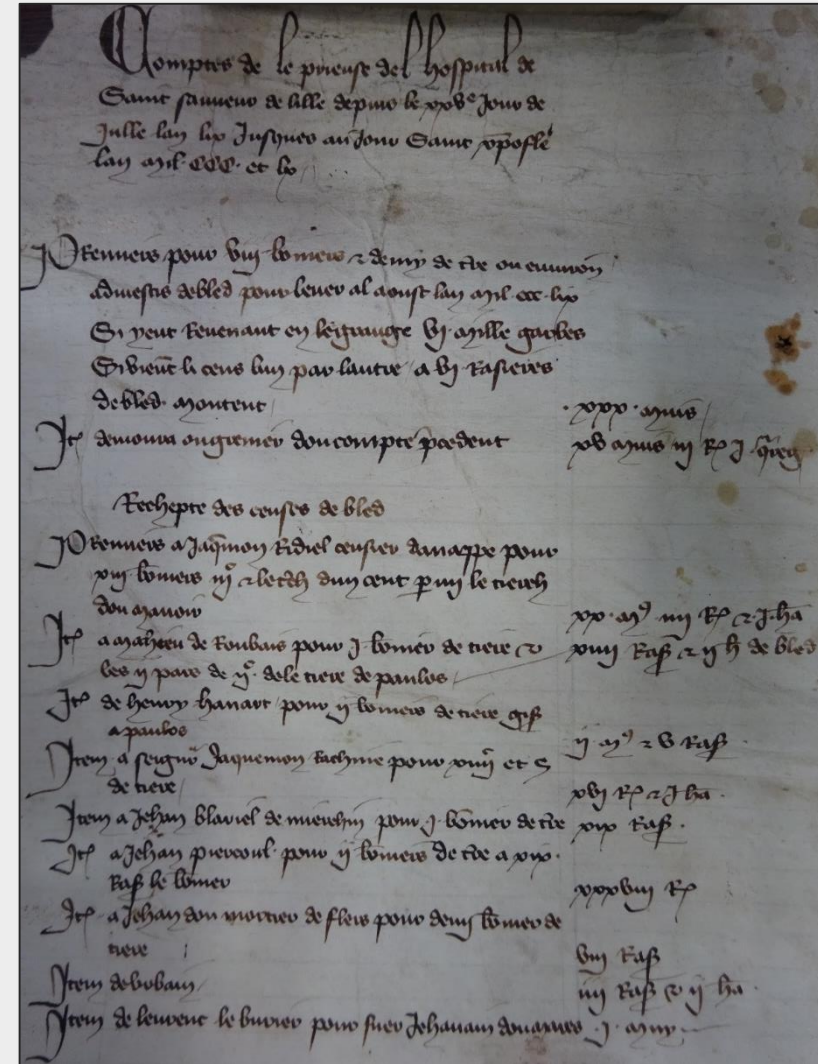
ACCOUNTS FROM

3 HOSPITALS

1 ABBEY

1 COLLEGIATE CHURCH

ONLY ECCLESIASTICAL!



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

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GRAIN PRICES



CONSUMPTION



SURPLUS
EXTRACTION



GRAIN
INCOME



COMMERCIALISATION



GRAIN PRICES



GRAIN
INCOME



CONSUMPTION +



COMMERCIALISATION



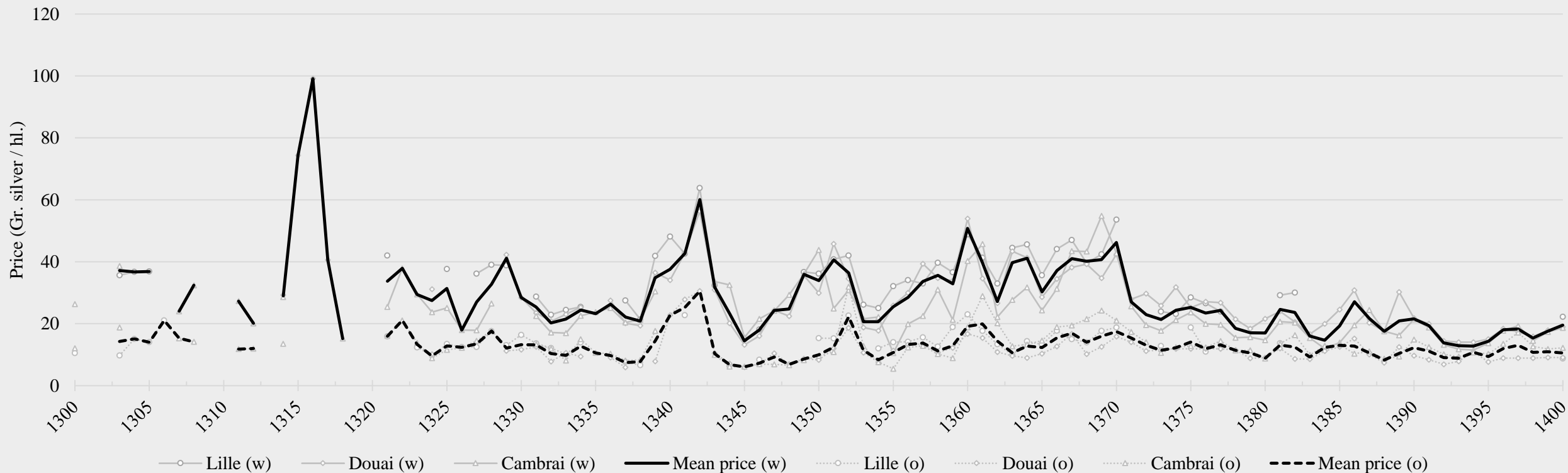
SURPLUS
EXTRACTION



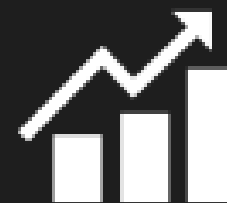
PRICE MOVEMENTS

GRAIN PRICES

GRAMS OF SILVER PER HECTOLITRE

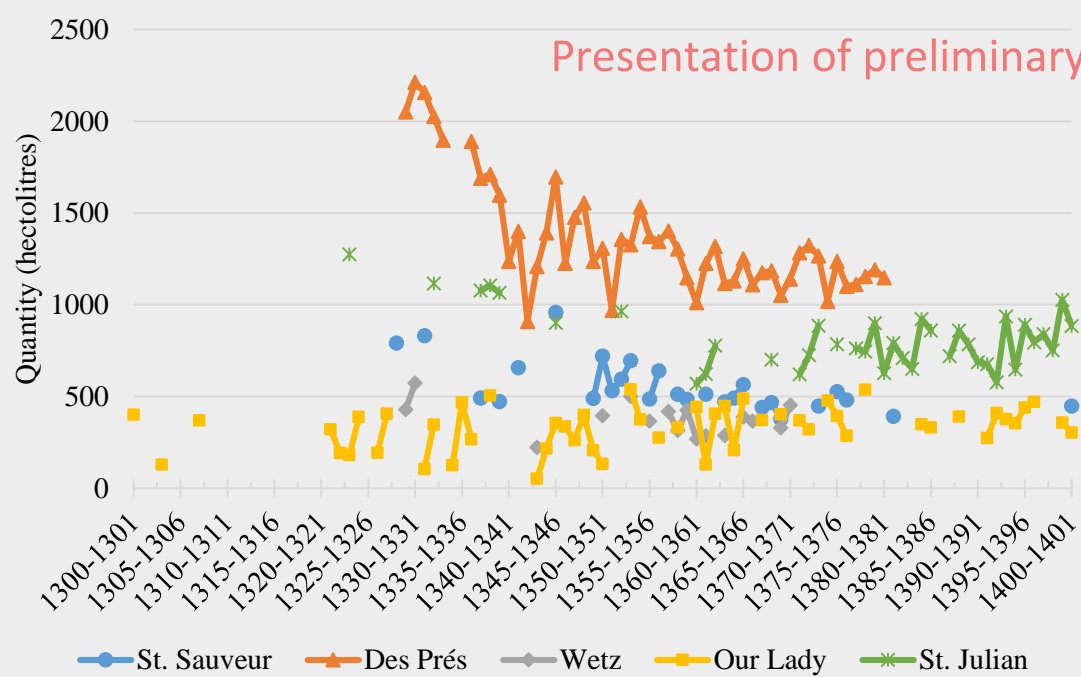


HIGH PRICE PERIODS › 1352
› 1330 › 1360
› 1342 › 1370

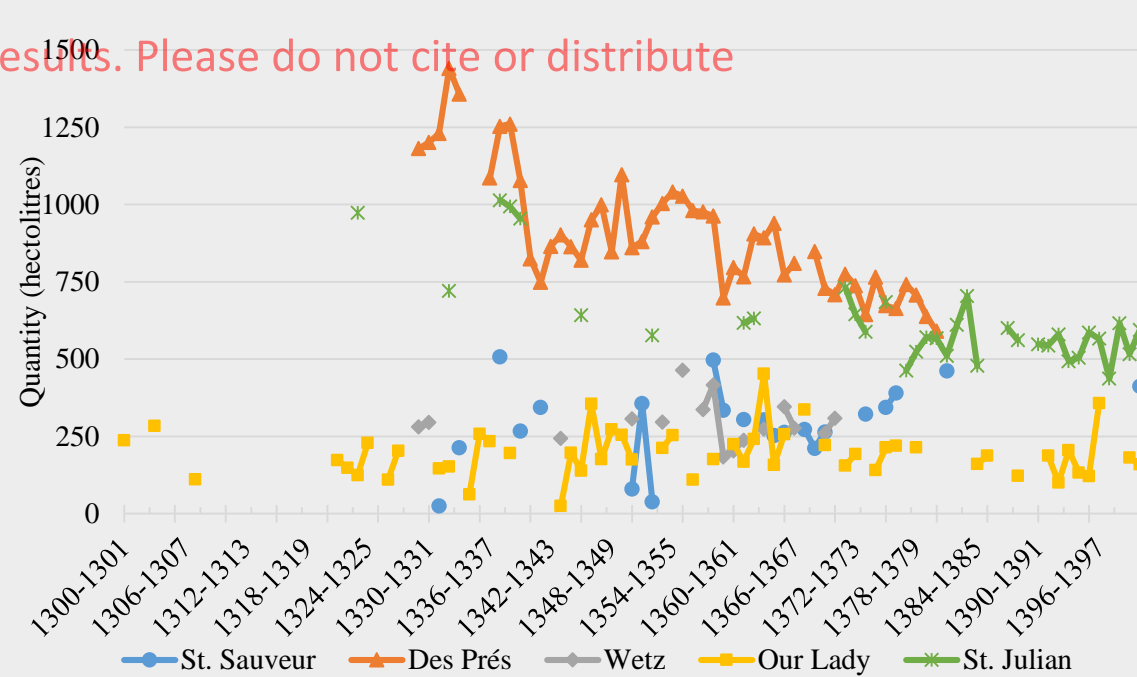




GRAIN INCOME



W H E A T



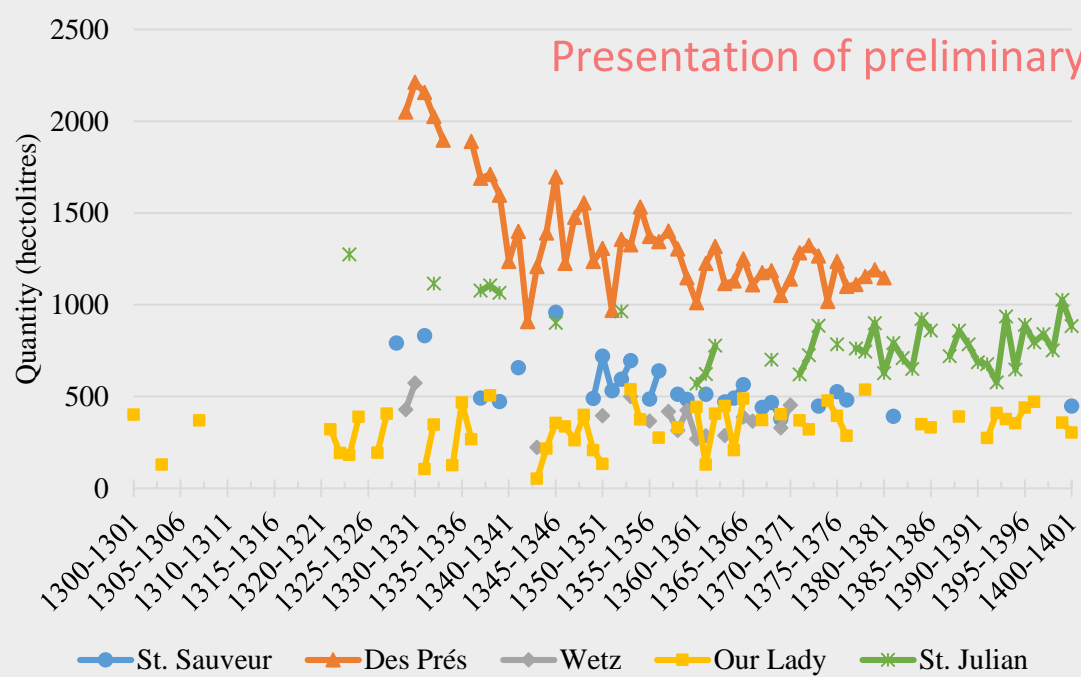
O A T S

GRAIN INCOME

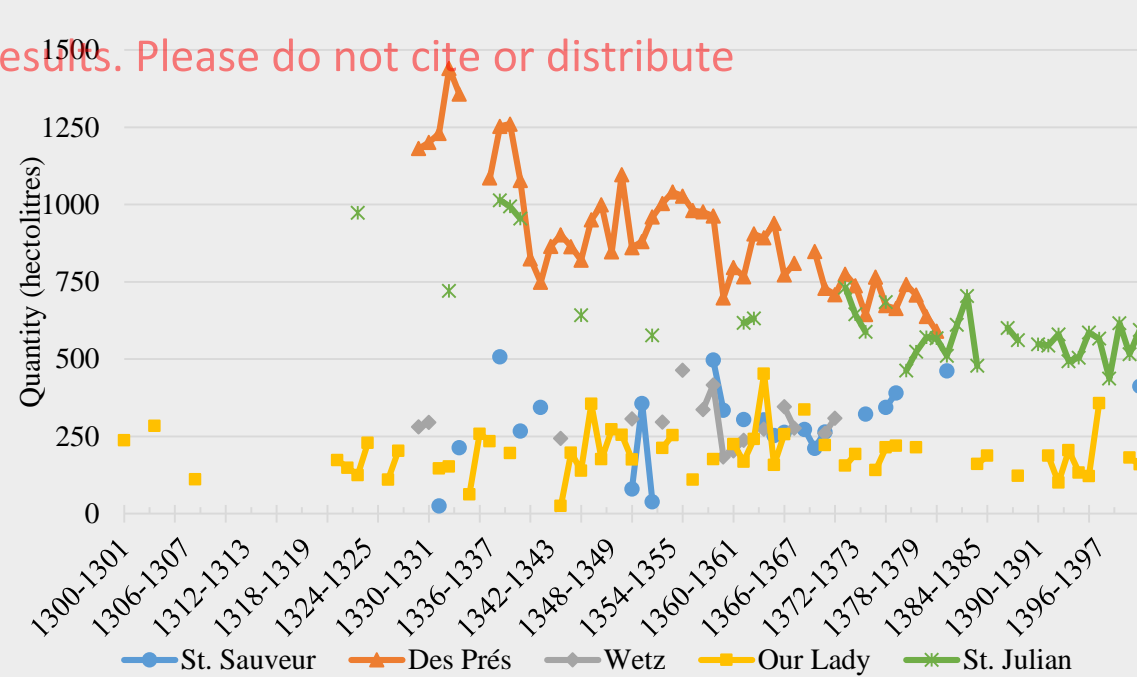
METHODOLOGY

- › 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 (!)**

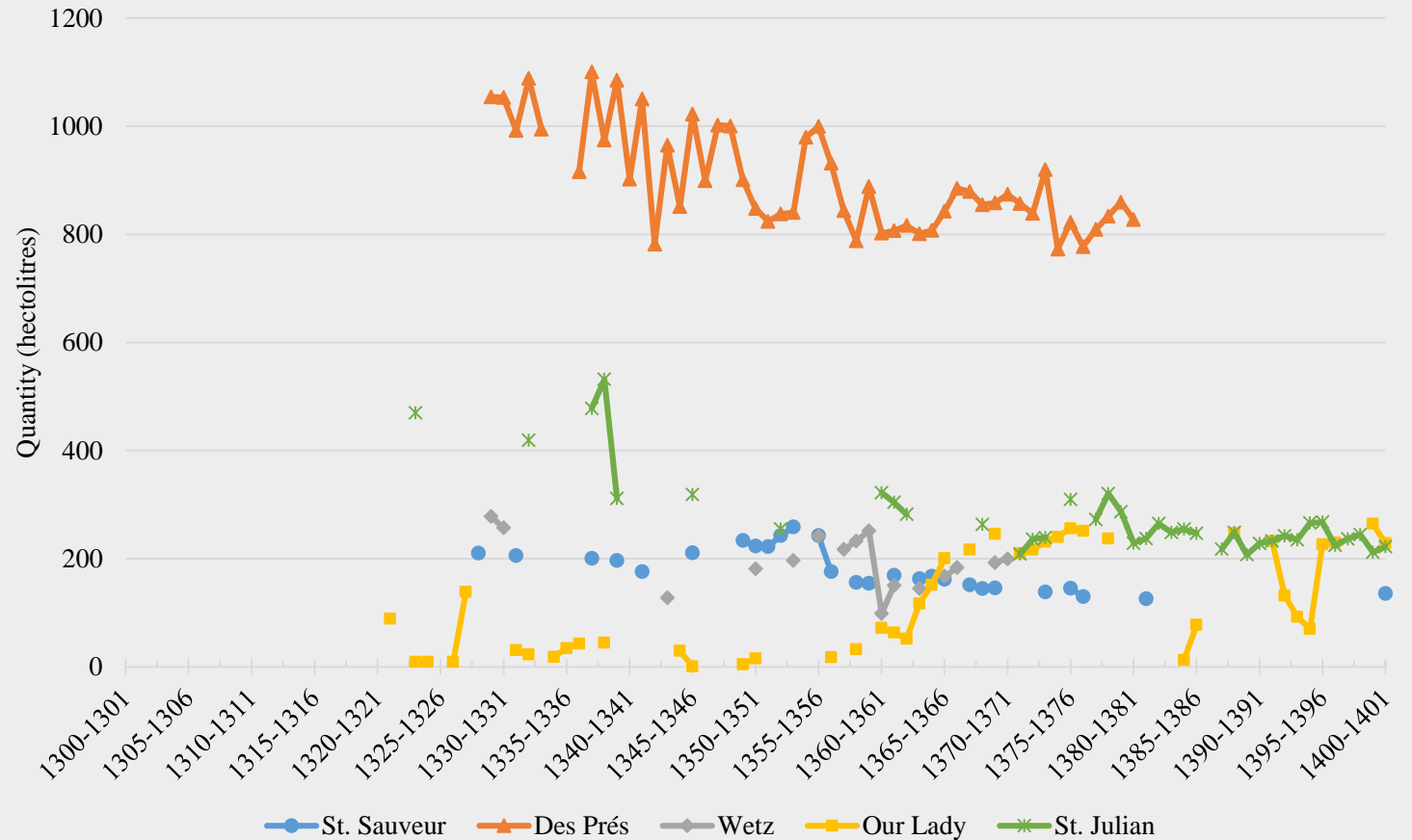


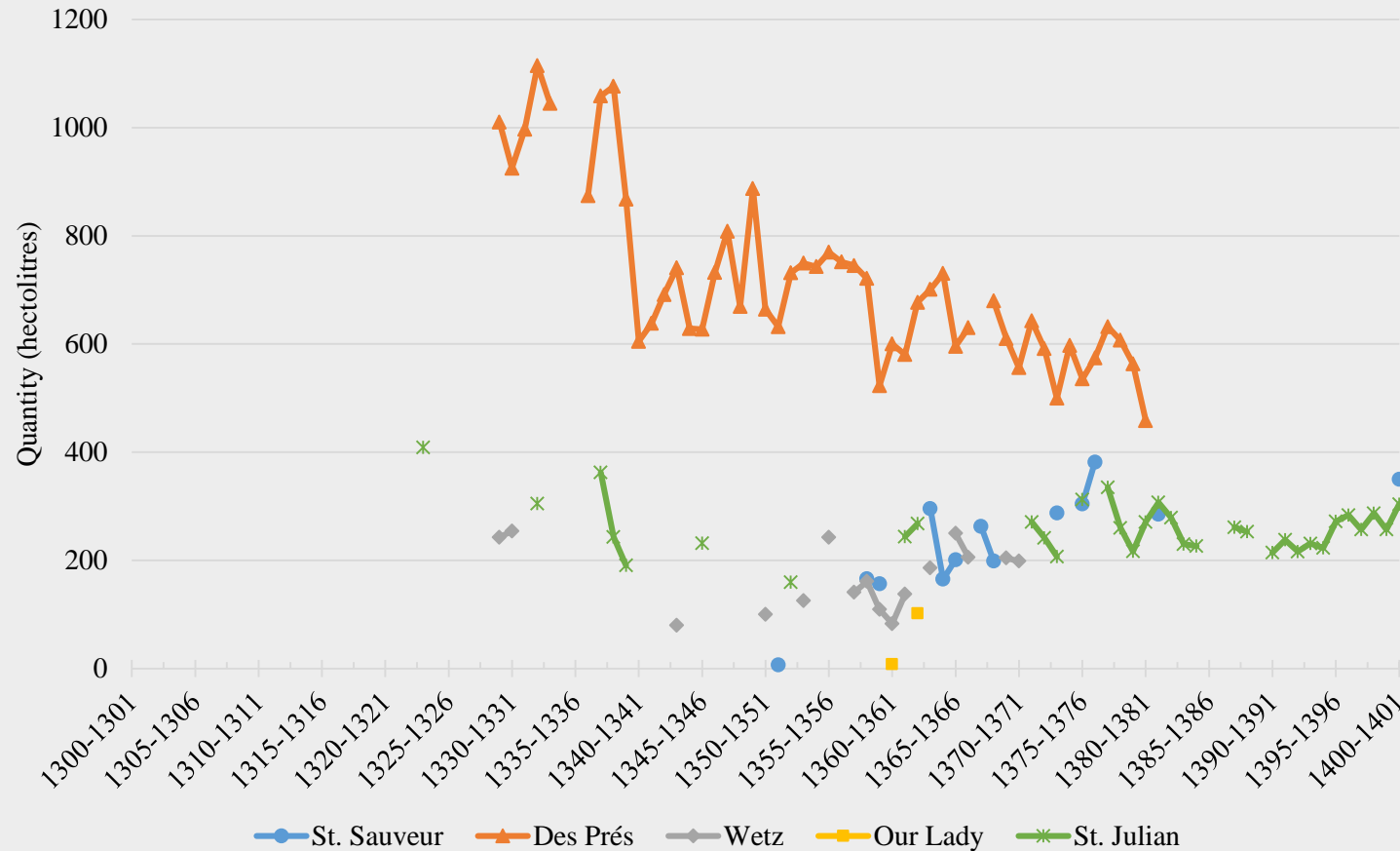
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CONSUMPTION & COMMERCIALISATION

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

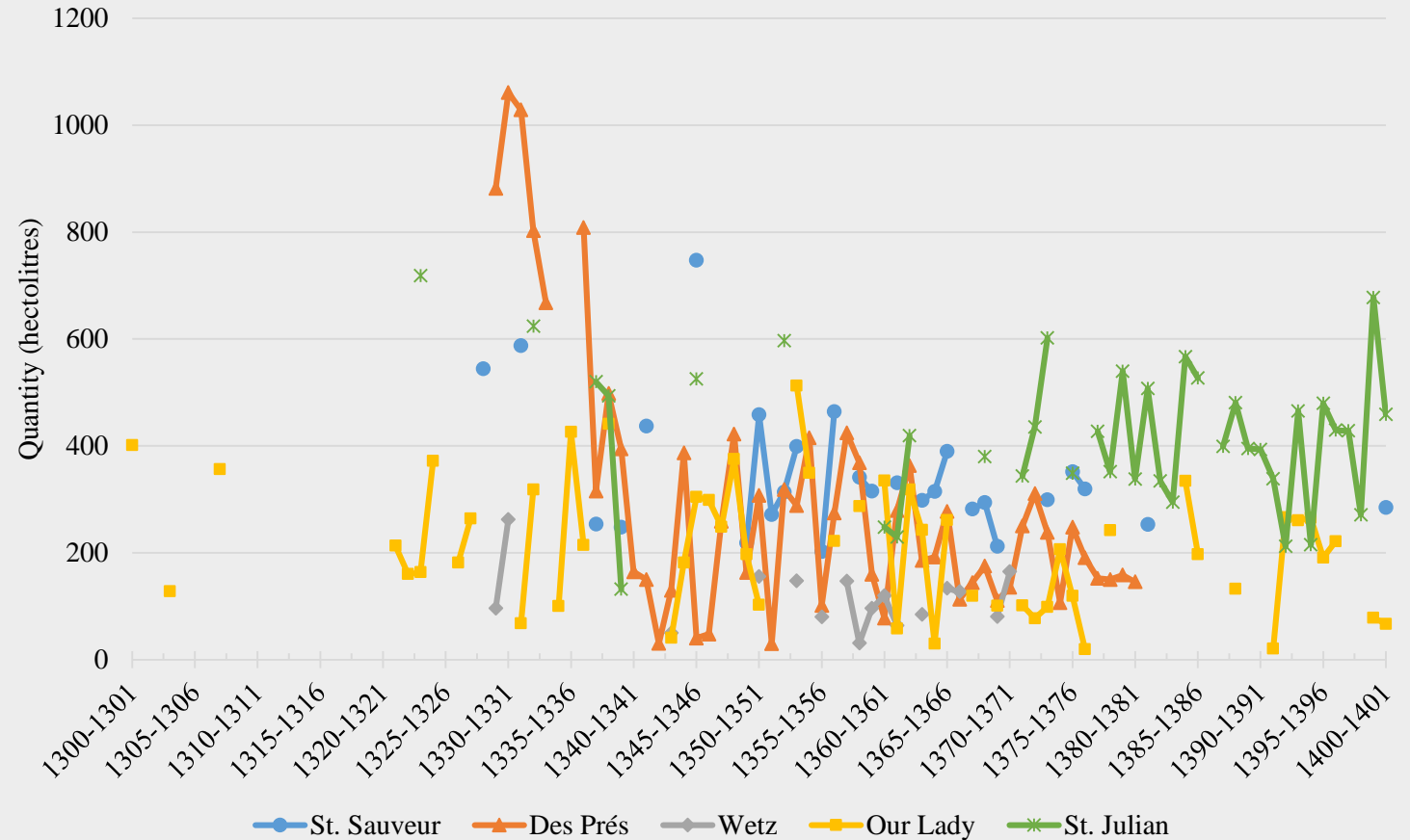
Less consumption St. Sauveur,
Wetz, Des Prés
Changing strategy Our Lady

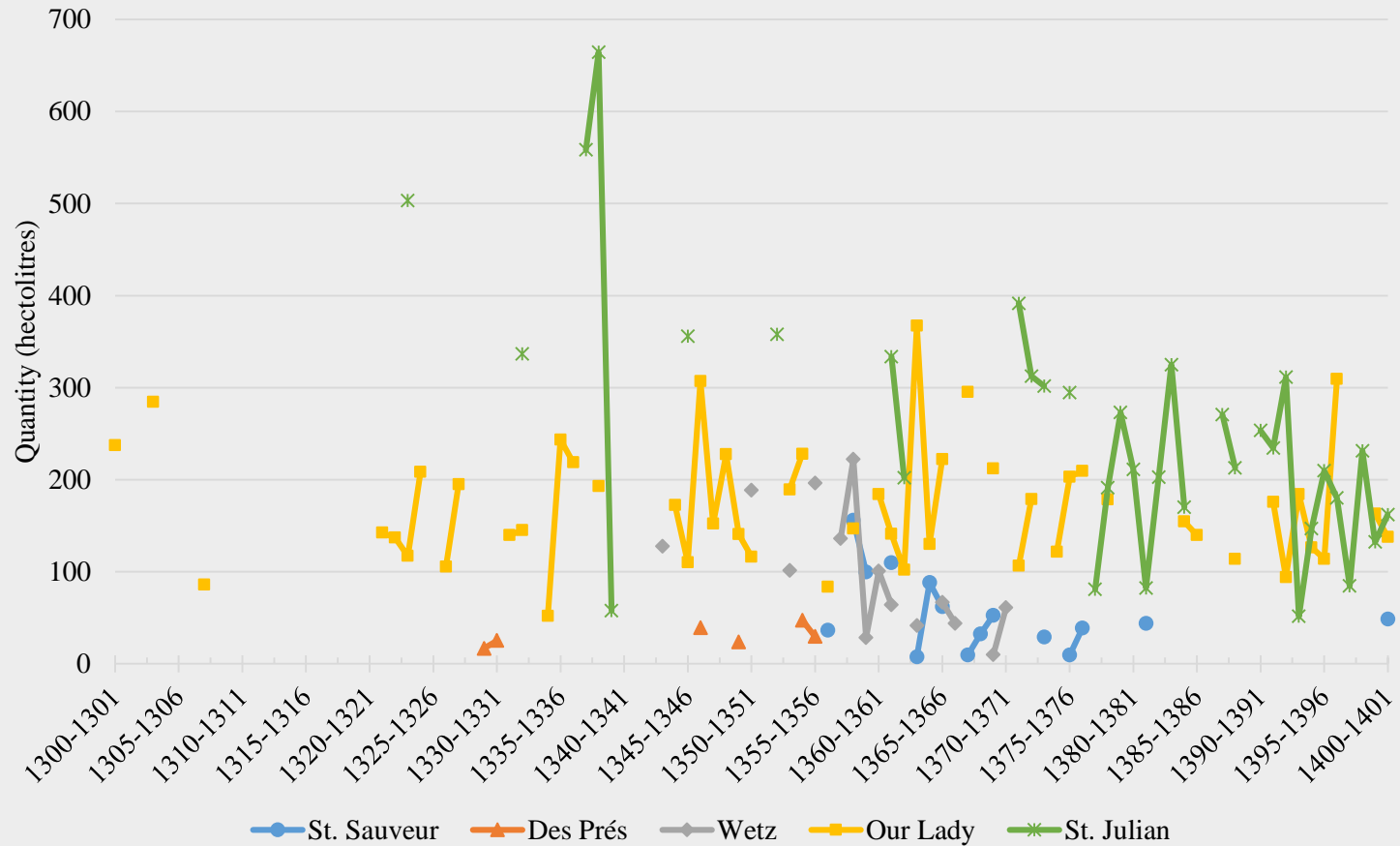




- › **Animal** fodder & beer brewing
- › More **volatile**
- › **High** level Des Prés
- › **Downward trend**
- › St. Sauveur: use of **leasehold** income
- › Absent for Our Lady

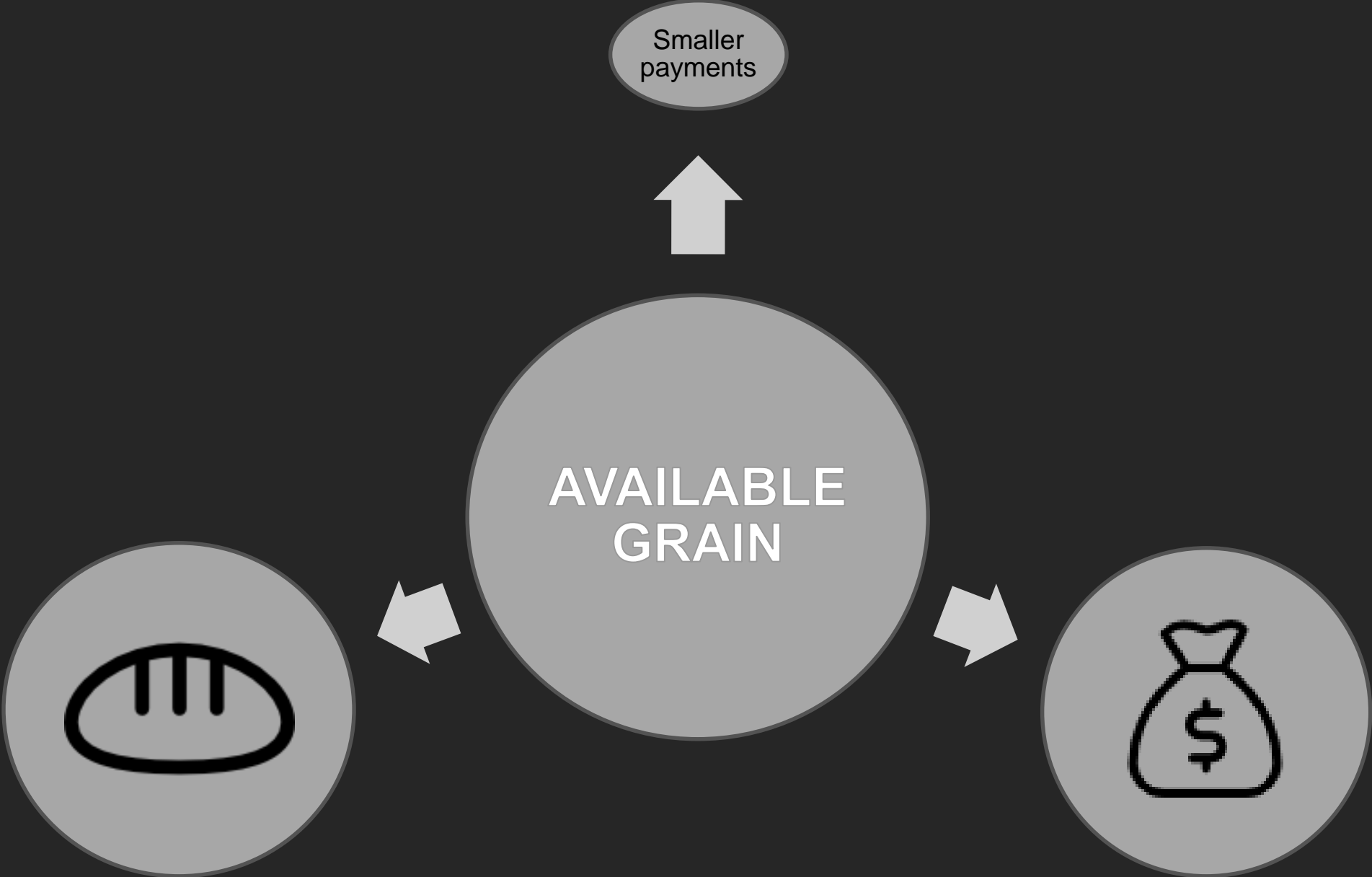
- › Generally way more **volatile**
- › **Dramatic drop** Des Prés
- › St. Sauveur & St. Julian **big players** on the market
- › St. Julian: unique case of **1339**





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

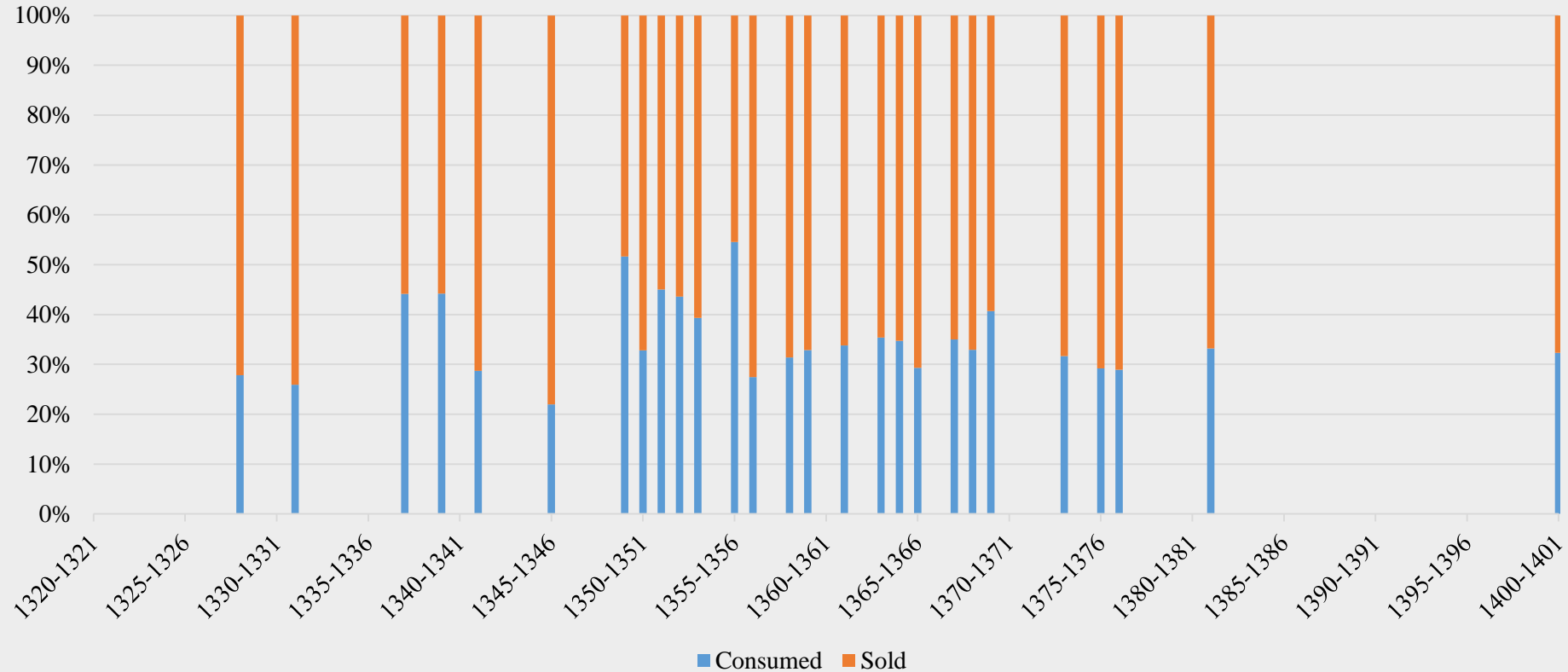
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CONSUMPTION VS. COMMERCIALISATION

WHEAT - VISUALIZED

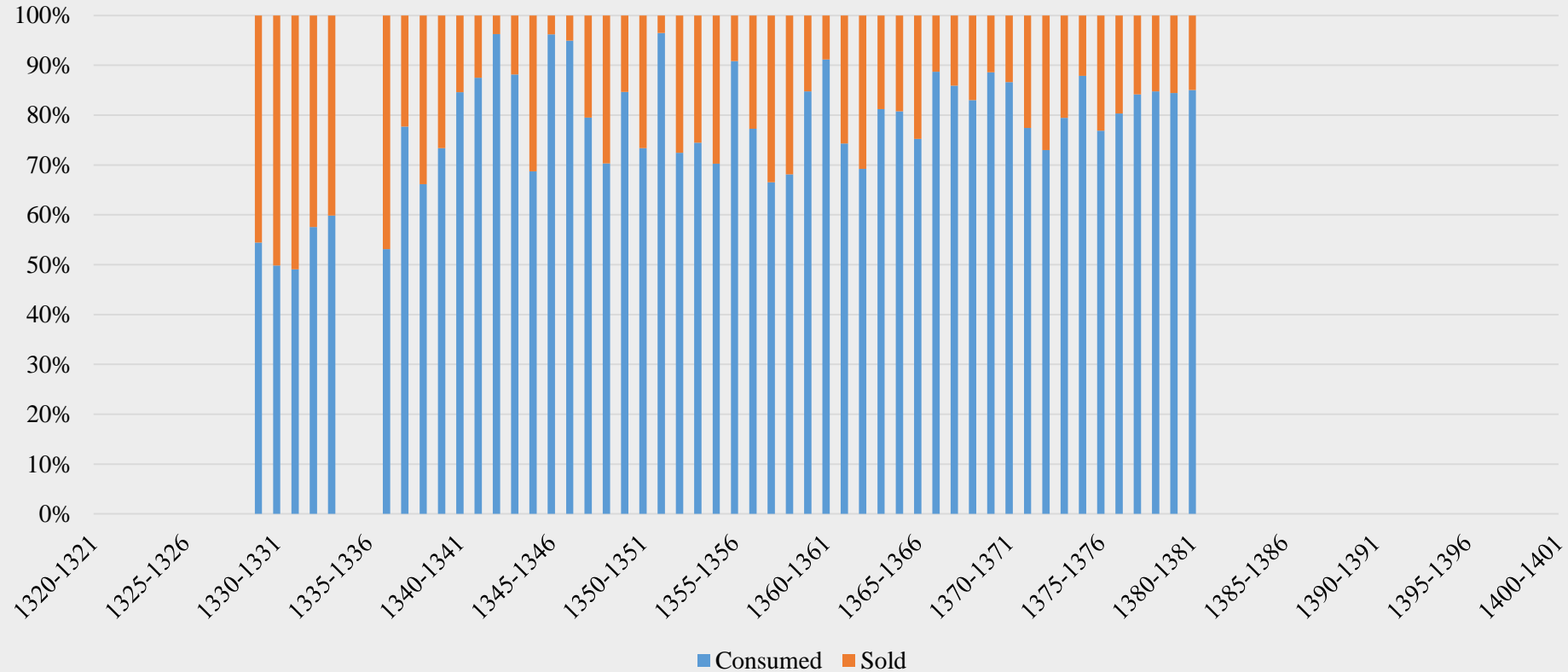


ST. SAUVEUR

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

CONSUMPTION VS. COMMERCIALISATION

WHEAT - VISUALIZED



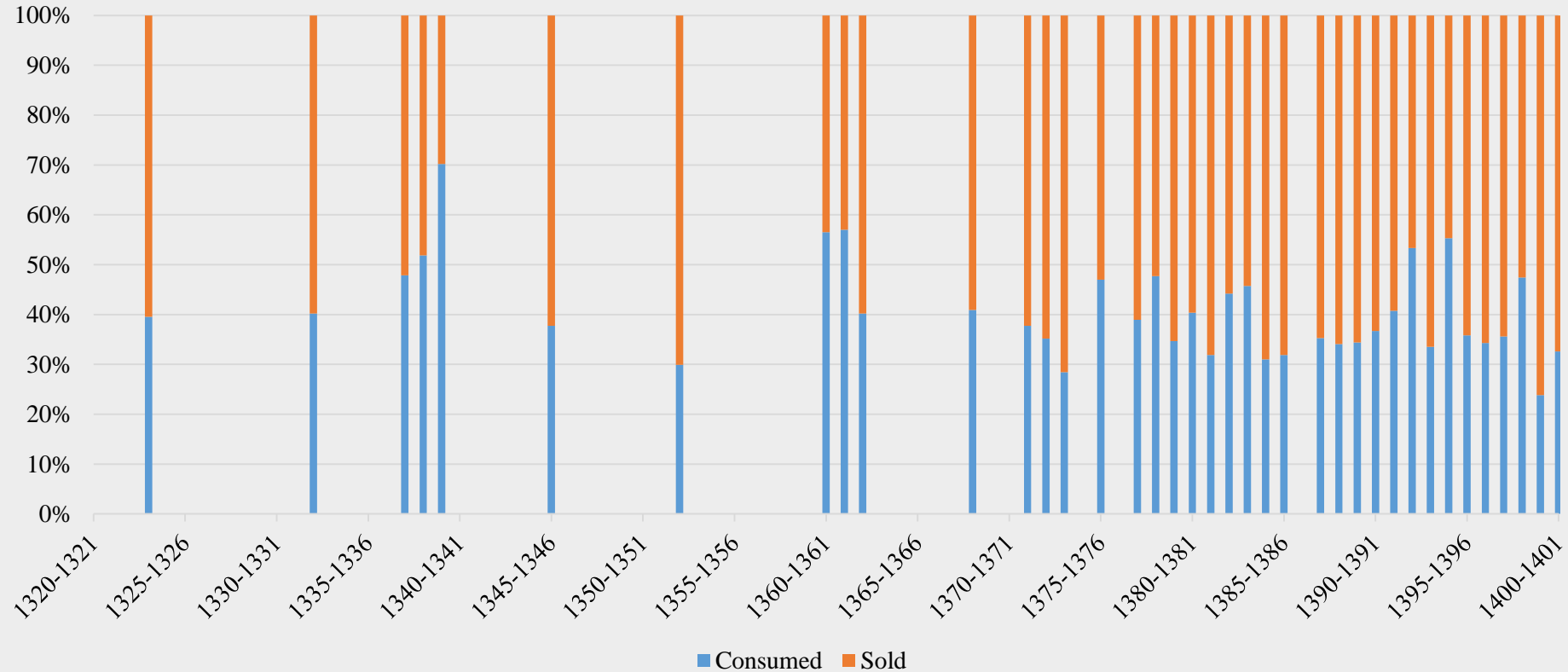
DES PRÉS

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

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CONSUMPTION VS. COMMERCIALISATION

WHEAT - VISUALIZED

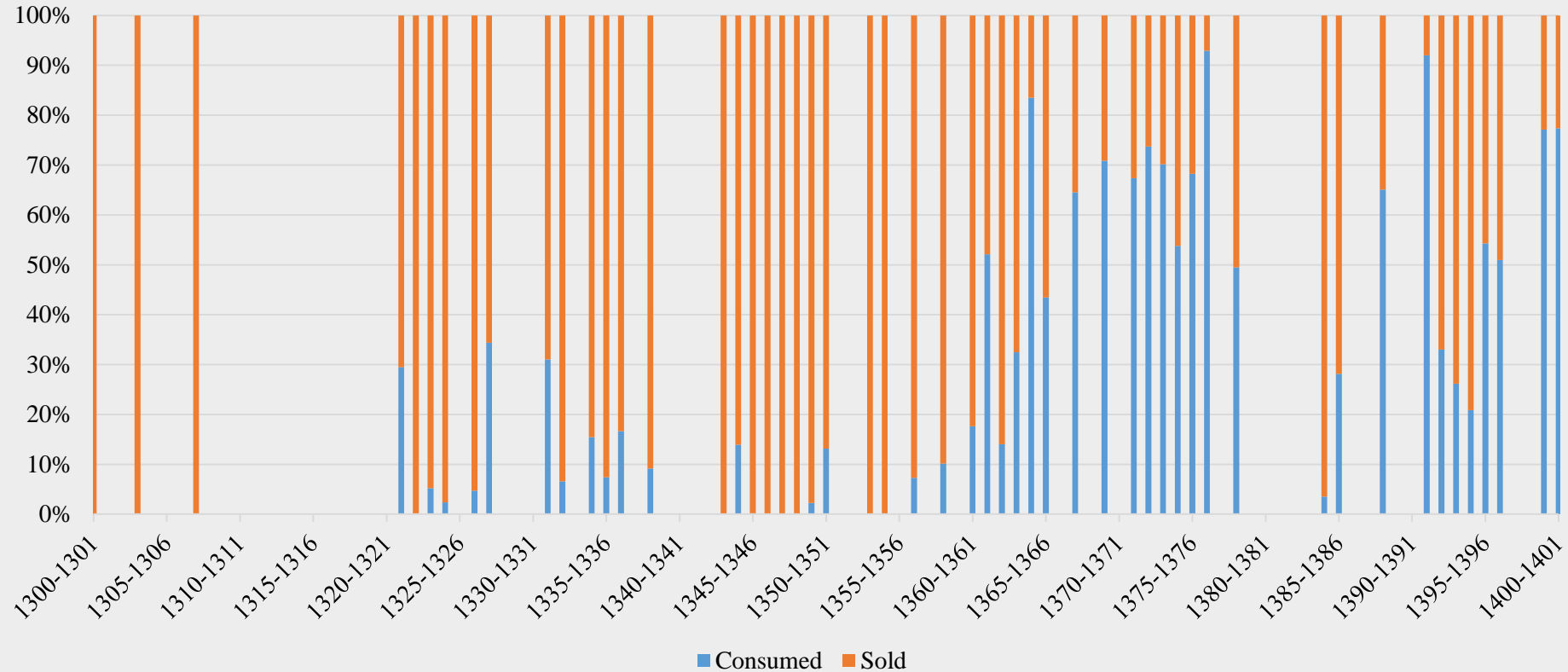


ST. JULIAN

- › 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

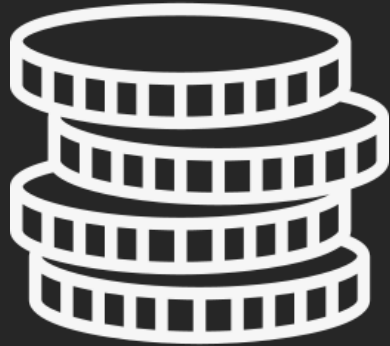
Negative with price

› St. Julian (oats):

Income

<i>Wheat</i>		St. Sauveur	Des Prés	Wetz	Our Lady	St. Julian
Price	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
Income	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
Price	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
Income	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





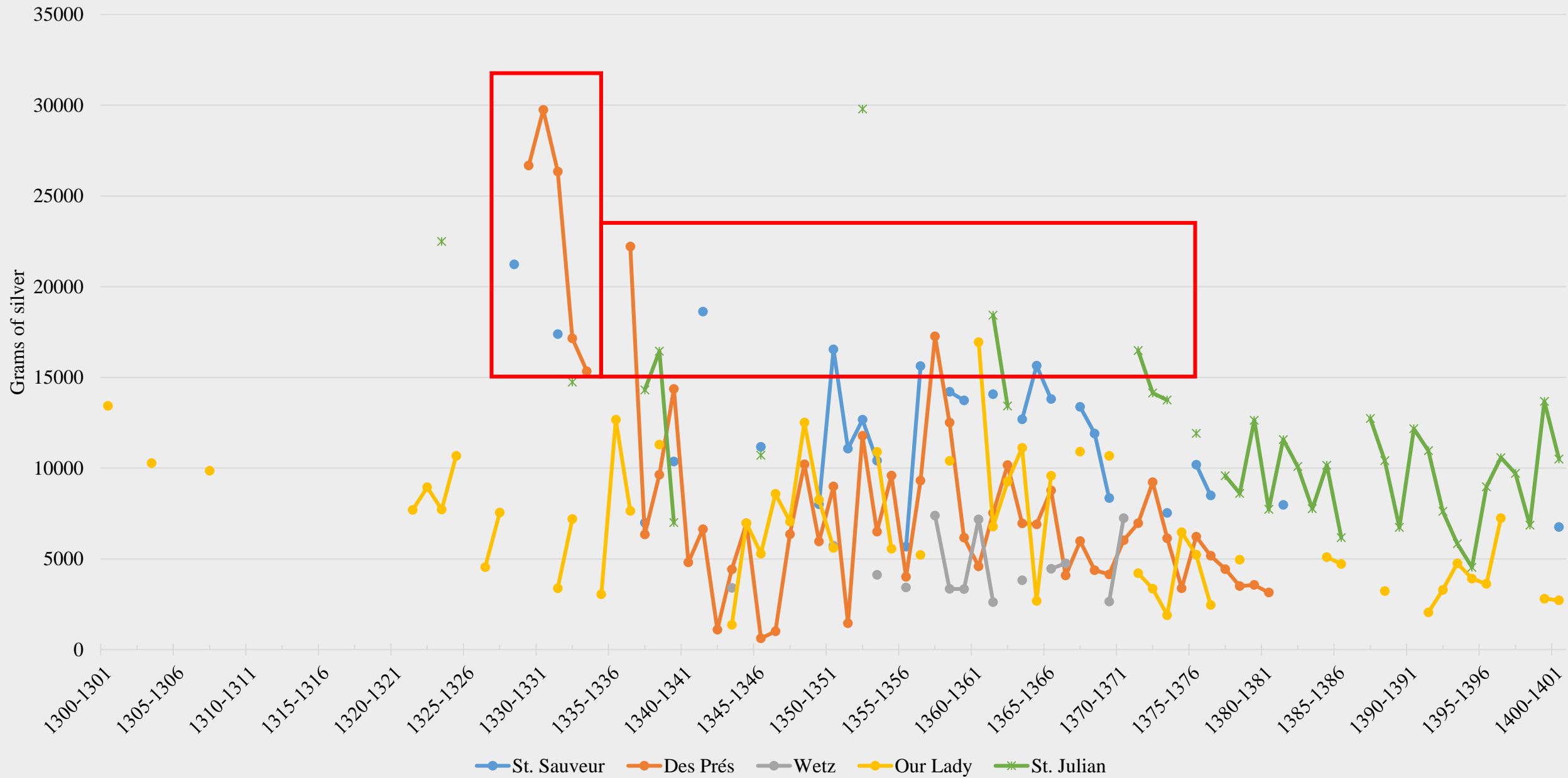
CASH INFLUX

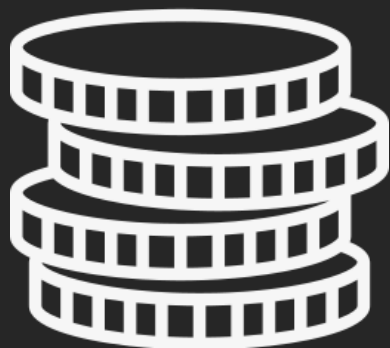
IS THERE A SIGN OF SPECULATION?

HIGHEST PROFITS FROM CEREAL SALES

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

Presentation of preliminary results. Please do not cite or distribute





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



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

WHEAT

SURPLUS EXTRACTION

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