MANAGING THE FOOD SHOCKS OF THE GREAT TRANSITION

FLEMISH CITIES AND THE FOOD CRISES OF THE FOURTEENTH CENTURY

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ESTER RDC Florence | 29-31 October 2018

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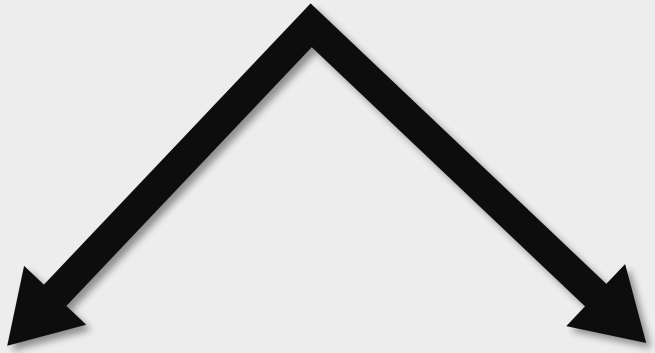
CENTRAL QUESTION

COPING OF URBAN SOCIETY VS FOOD DEARTH PERIODS



FOOD PRICES

GRAIN ECONOMY

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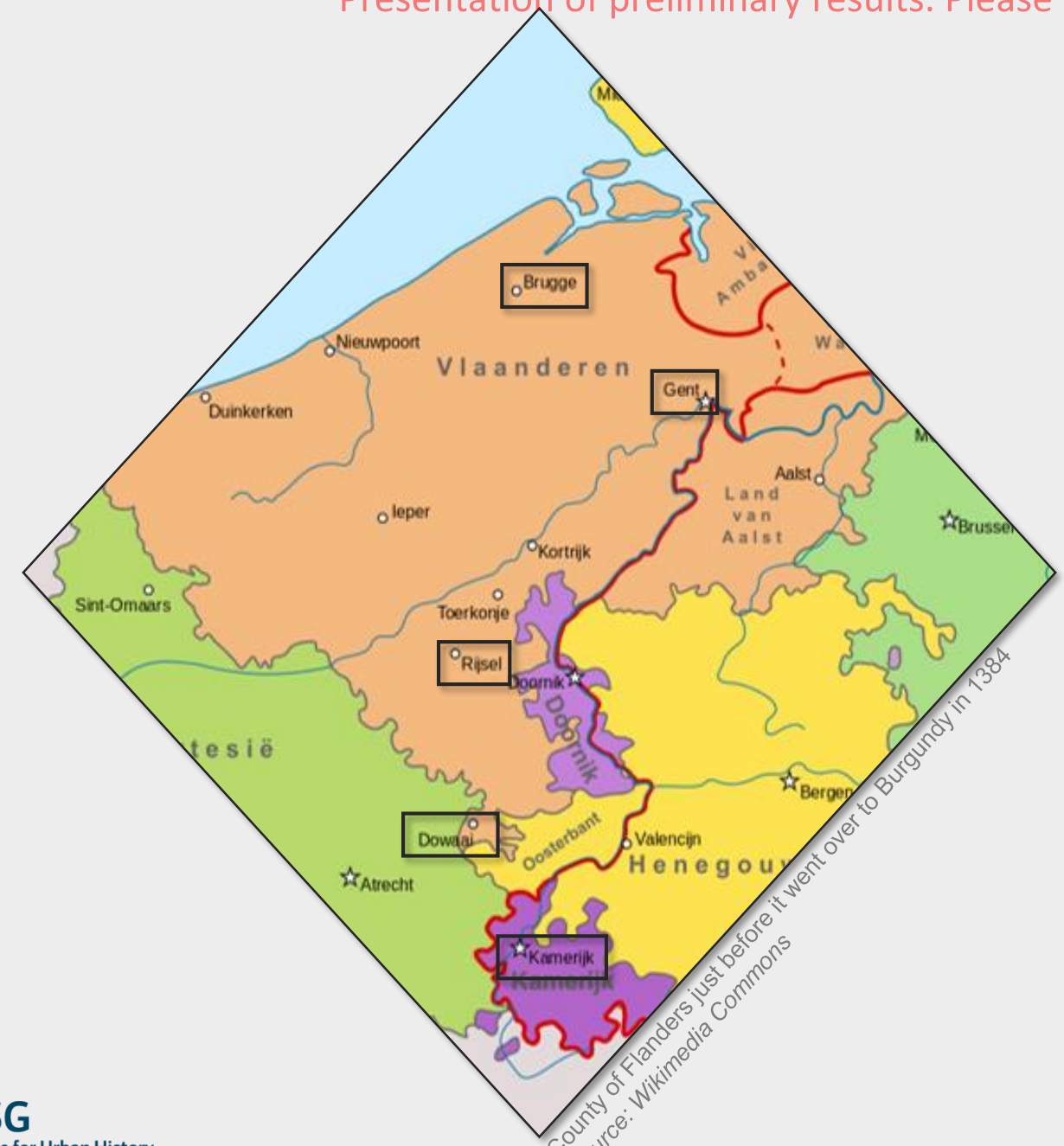

County of Flanders just before it went over to Burgundy in 1384
Source: Wikimedia Commons

Region

COUNTY OF FLANDERS

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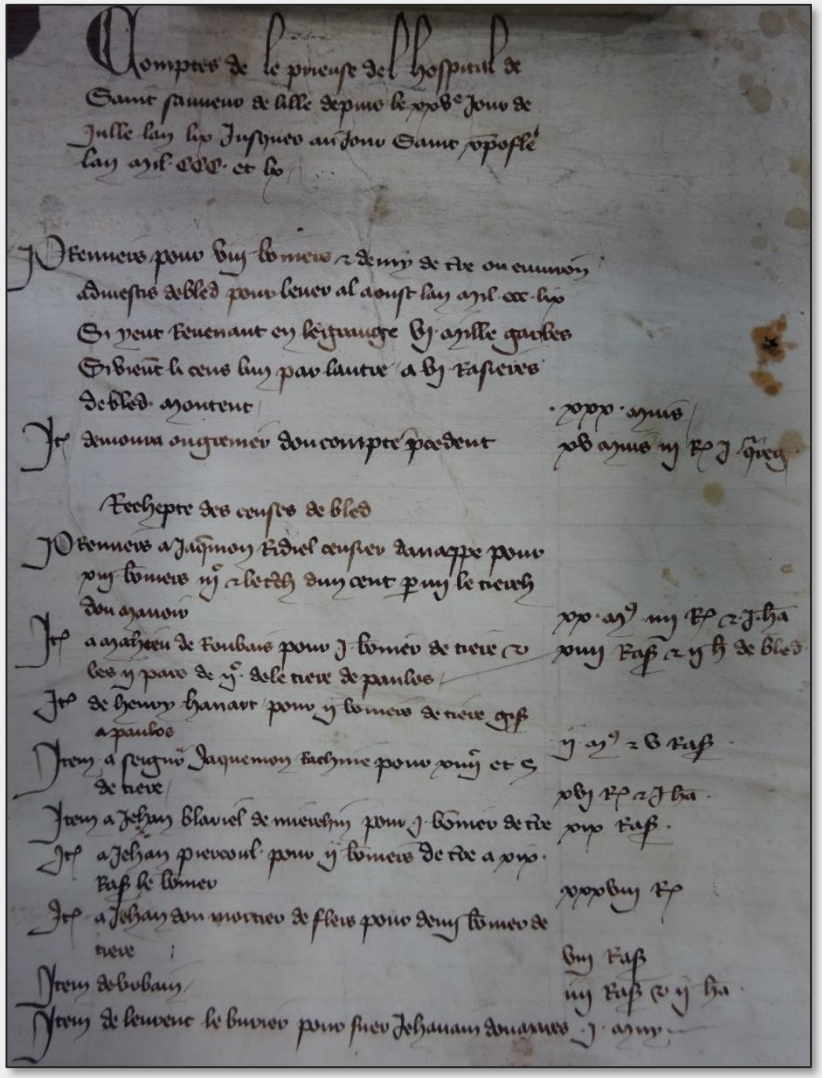
Sources

ACCOUNTS FROM HOSPITALS, ABBEYS AND CHURCH CHAPTERS



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

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PRICE MOVEMENTS

- Long term: 14th century
- Short-term: price spikes

GRAIN ECONOMY

- Production
- Consumption vs. commercialisation
- Surplus extraction

PRELIMINARY CONCLUSIONS

Simon Bening, *The Harvest in August,* 1520-1530.
(British Library, *Golf Book:* Add. 24098, f°25v.)

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PRICE MOVEMENTS

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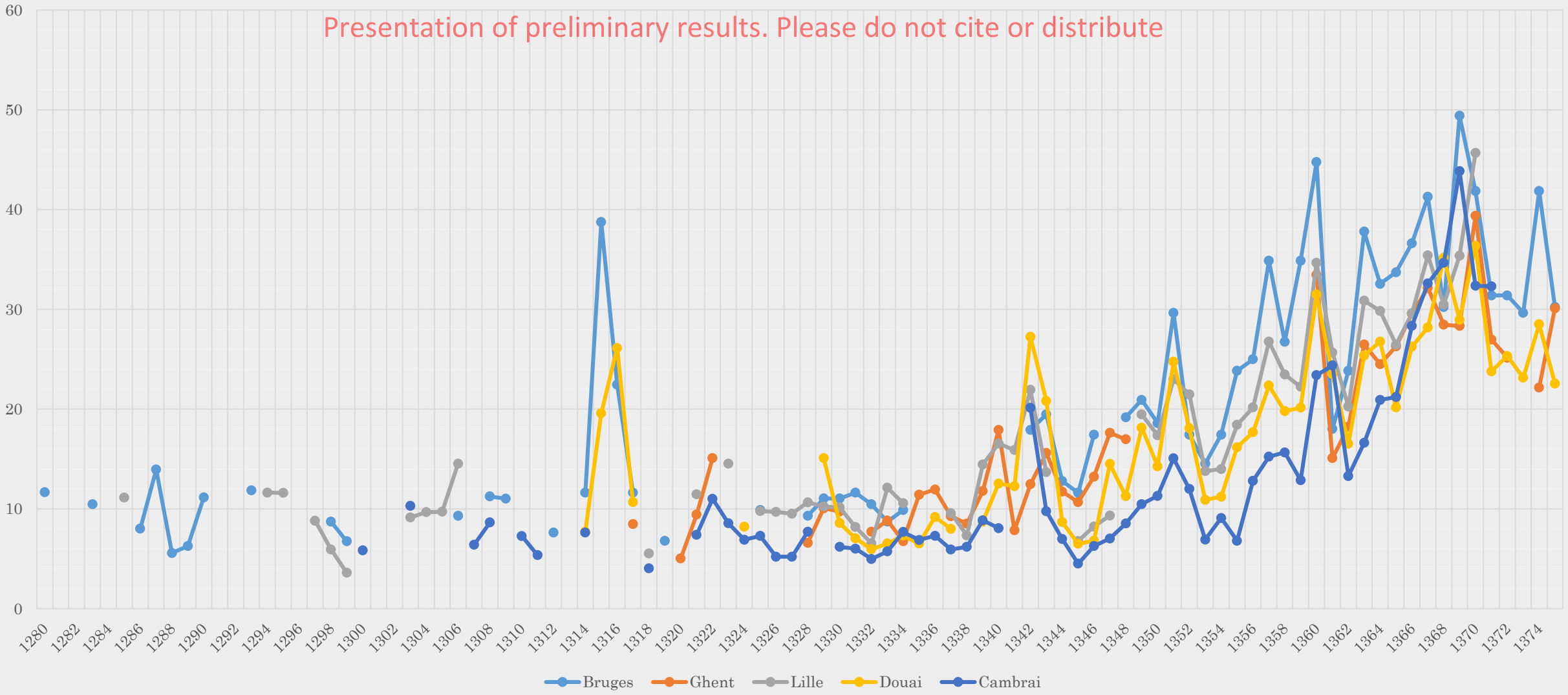

WHEAT PRICE

D.GR.VL. PER HECTOLITRE

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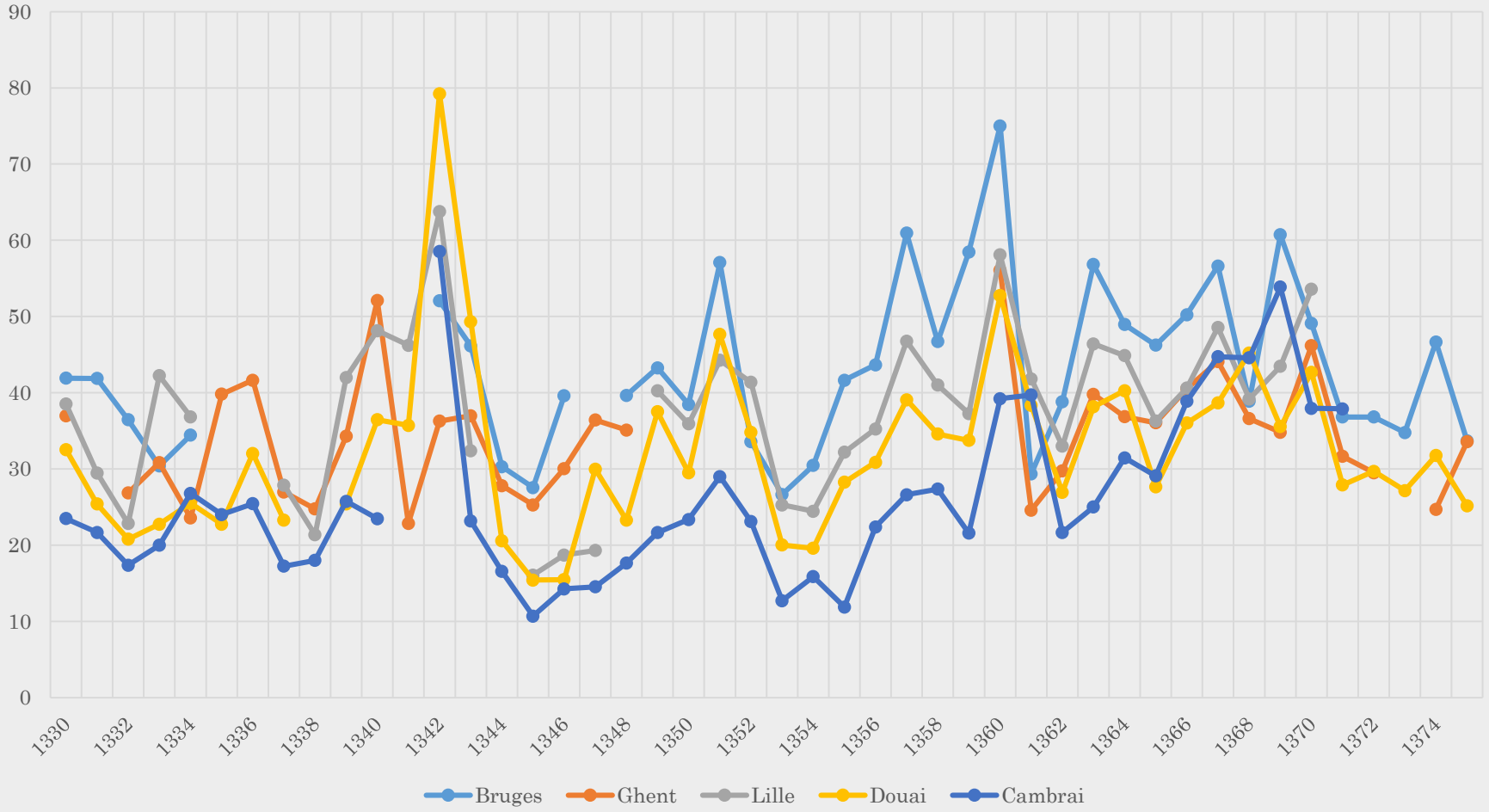

SILVER

Comparisons

- Diachronic
- Interregional

Flanders: only possible from 1330 onwards

WHEAT PRICE

GRAMS OF SILVER PER HECTOLITRE

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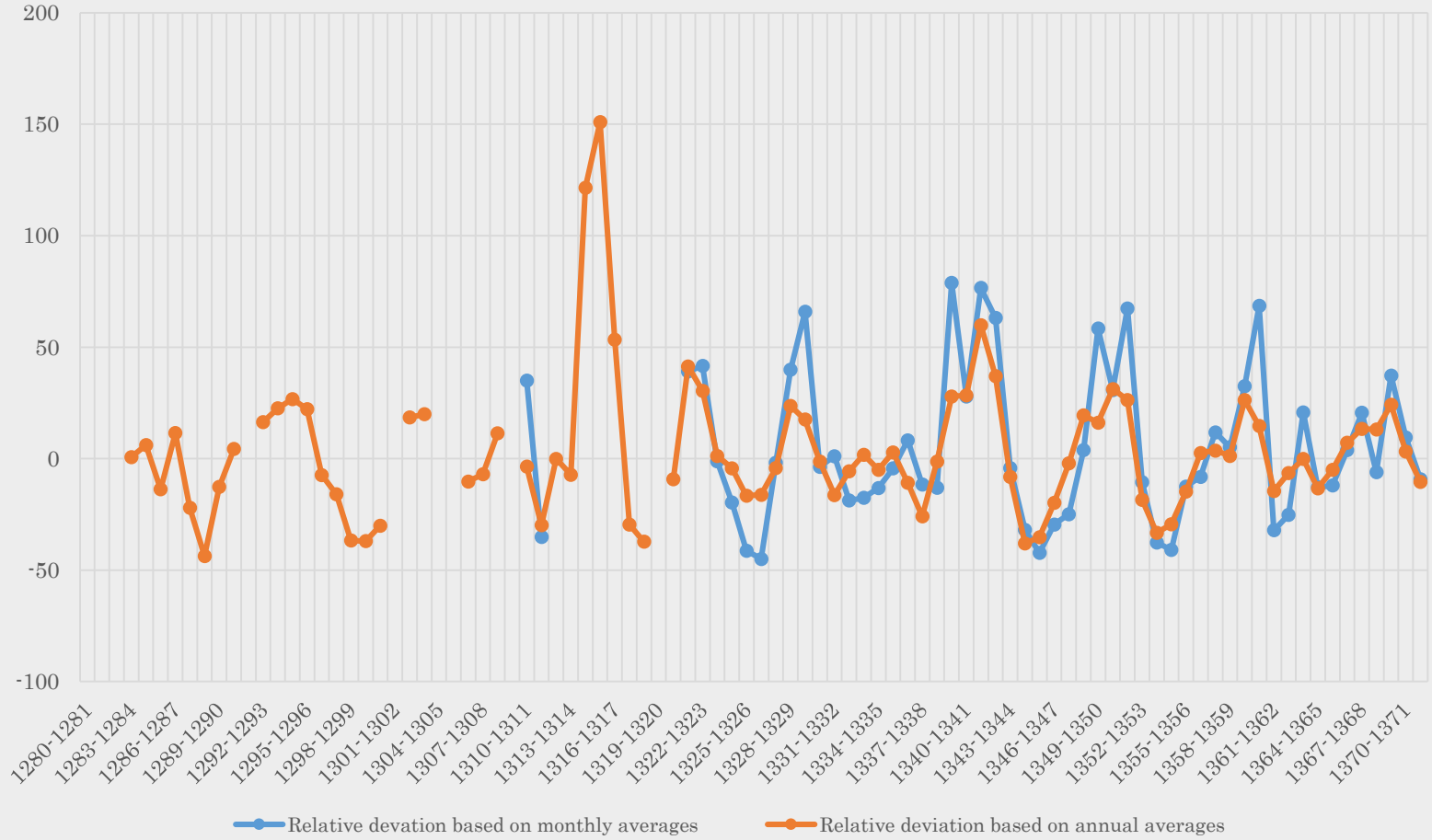
DETERMINATION OF SHORT TERM PRICE SPIKES

What constitutes as a 'dearth period'?

➔ Here: severe price peak

Method:

- Constructing annual avg for harvest years
- Based on monthly/annual averages
- Relative devation with interquartile mean
- Severity of price spike



➔ Inter- and intra-urban comparison

➔ Market integration already in the 14th century?

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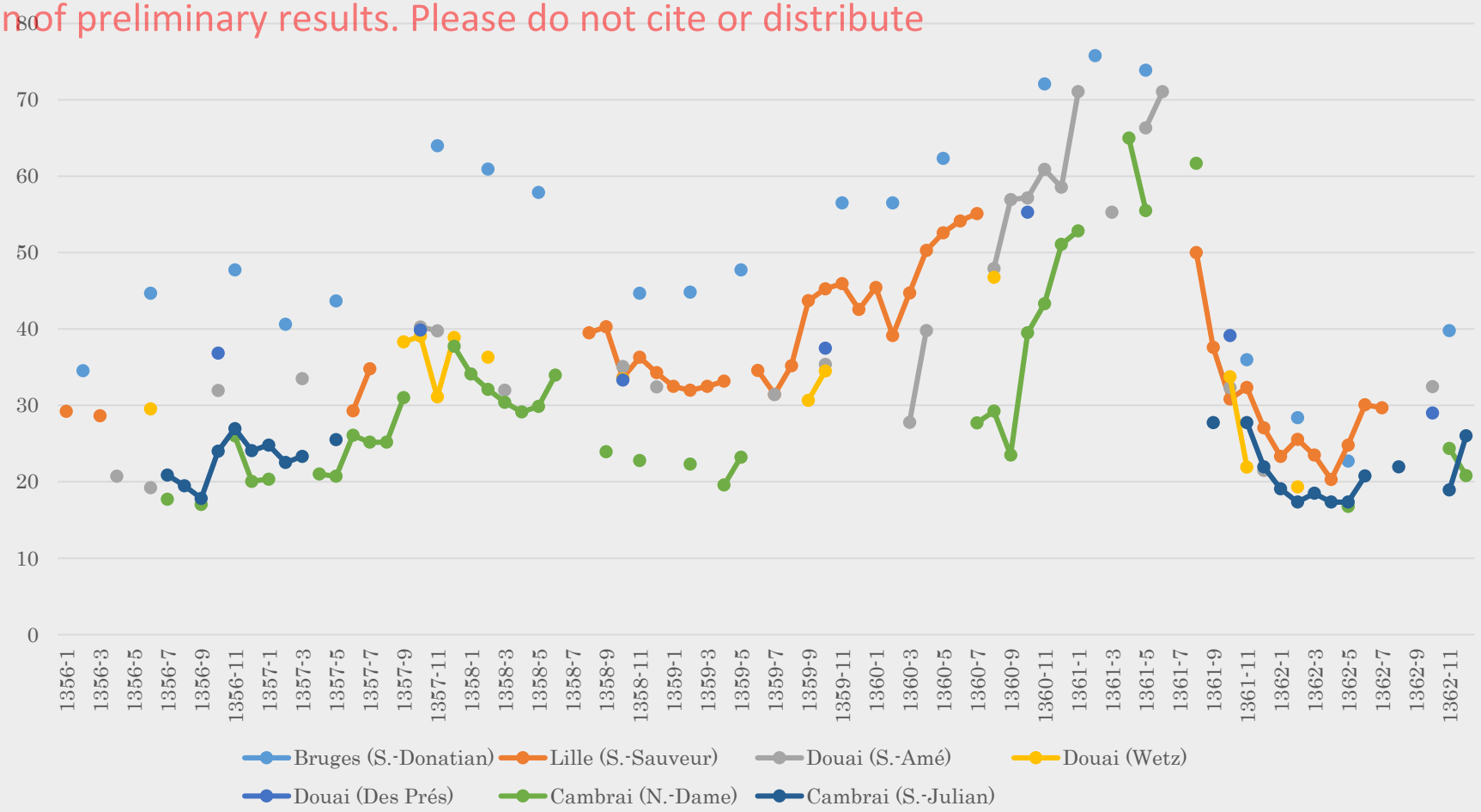
SHORT TERM PRICE MOVEMENTS

Monthly averages

Co-evolutions with:

- Plague outbreaks
- War events
- Harvest failures
- Climate/weather events
- Coin depreciation



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GRAIN ECONOMY

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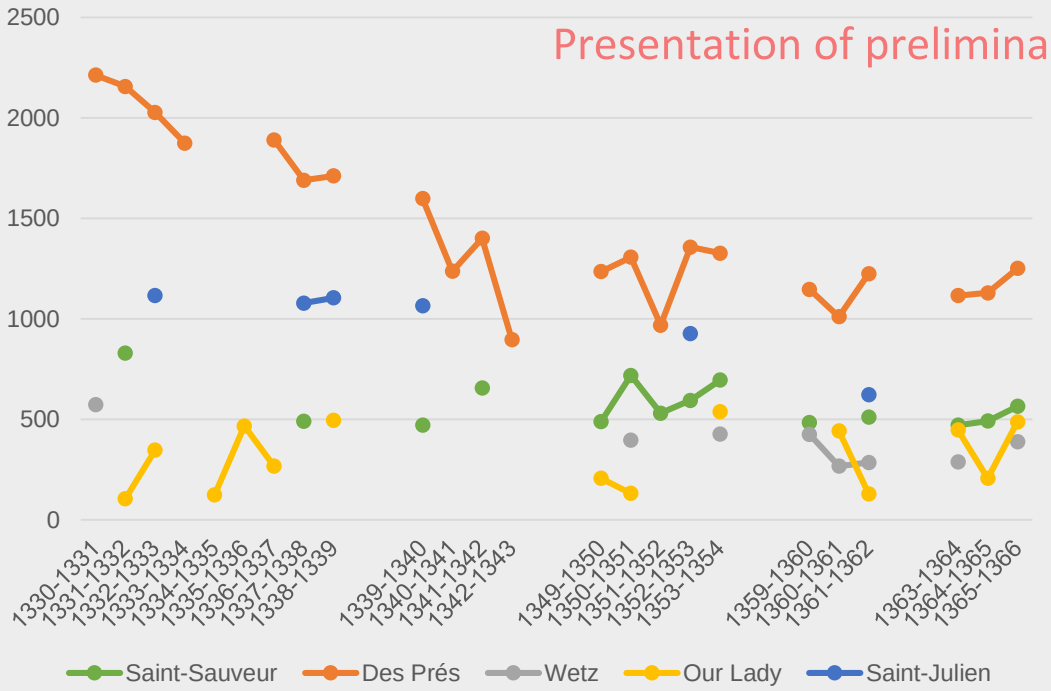
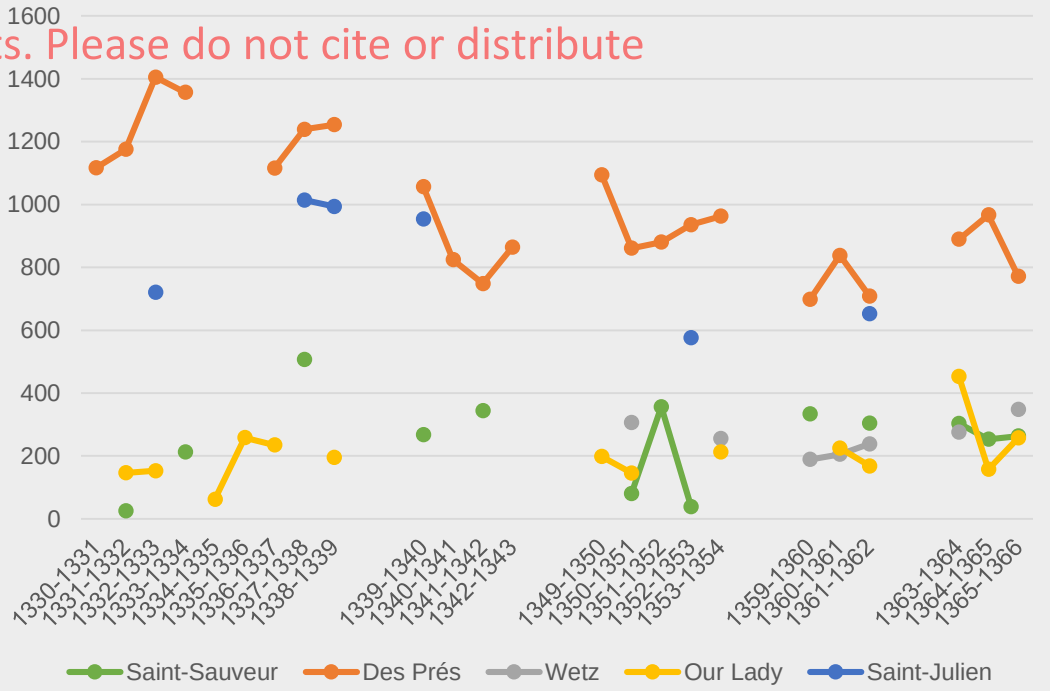


WHEAT



OATS

PRODUCTION: GRAIN INCOME

- Origins: direct exploitation, leases-in-kind, customary fixed rents
- Theoretical income ≠ real income
- Certain expenses = practical income
- Downward trend for most landowners, started before the Black Death

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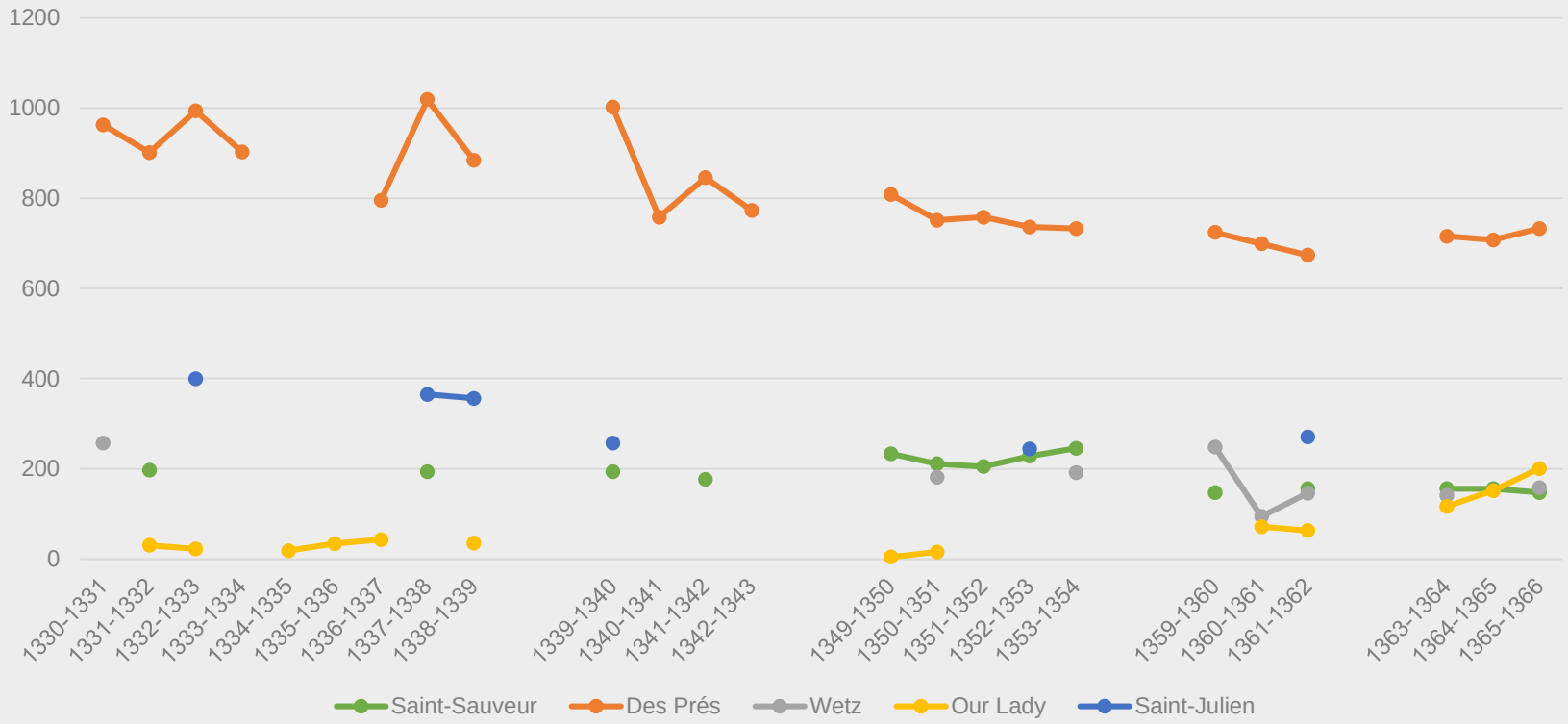

CONSUMPTION

› *Hospitals*: stable evolution

› *Abbey Des Prés*: stable, serious dip in 1340

› *Our Lady*: low consumption, high CV due to changing pattern in 1360's

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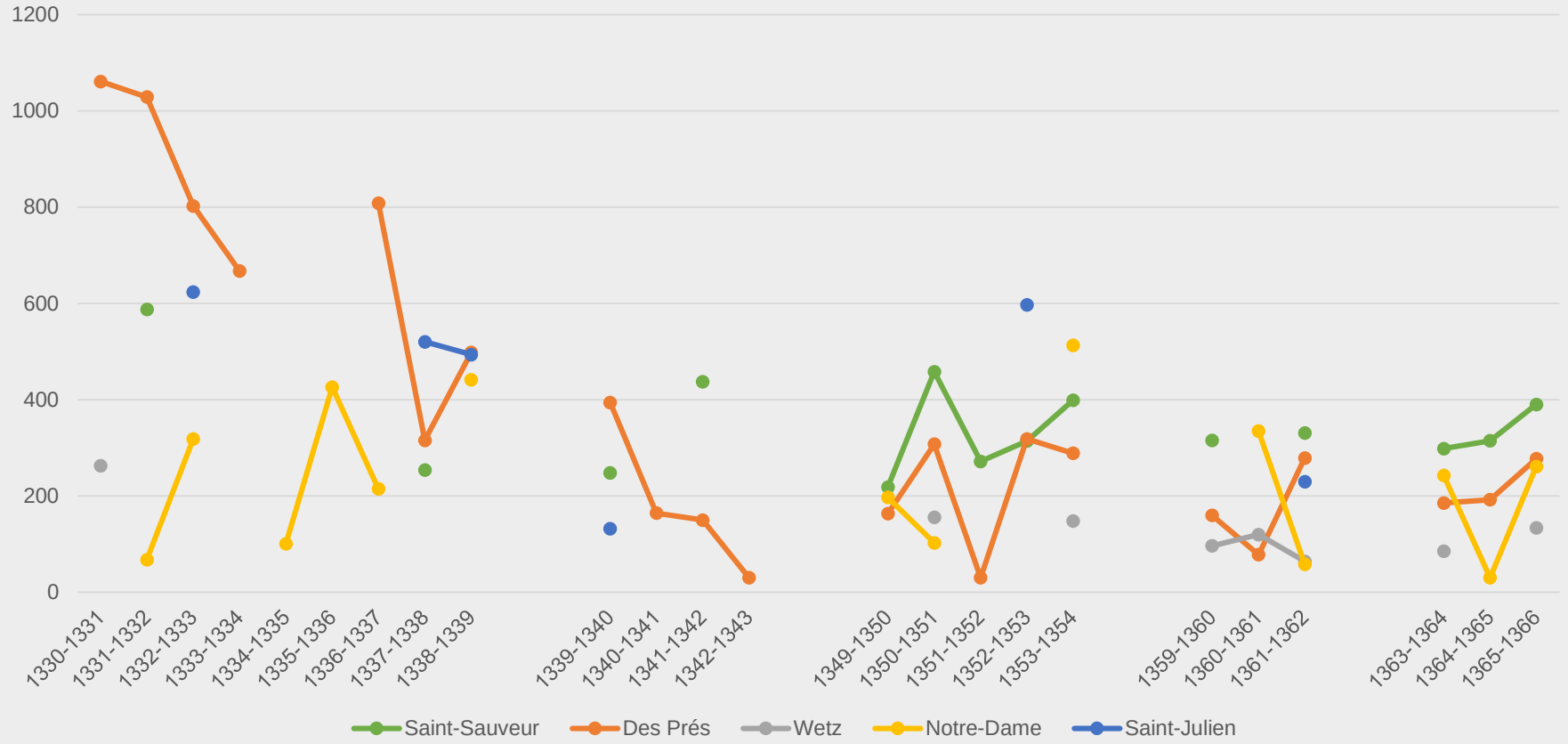

COMMERCIALISATION

- Very volatile for all landowners
- Most of the times: what wasn's used for food = sold

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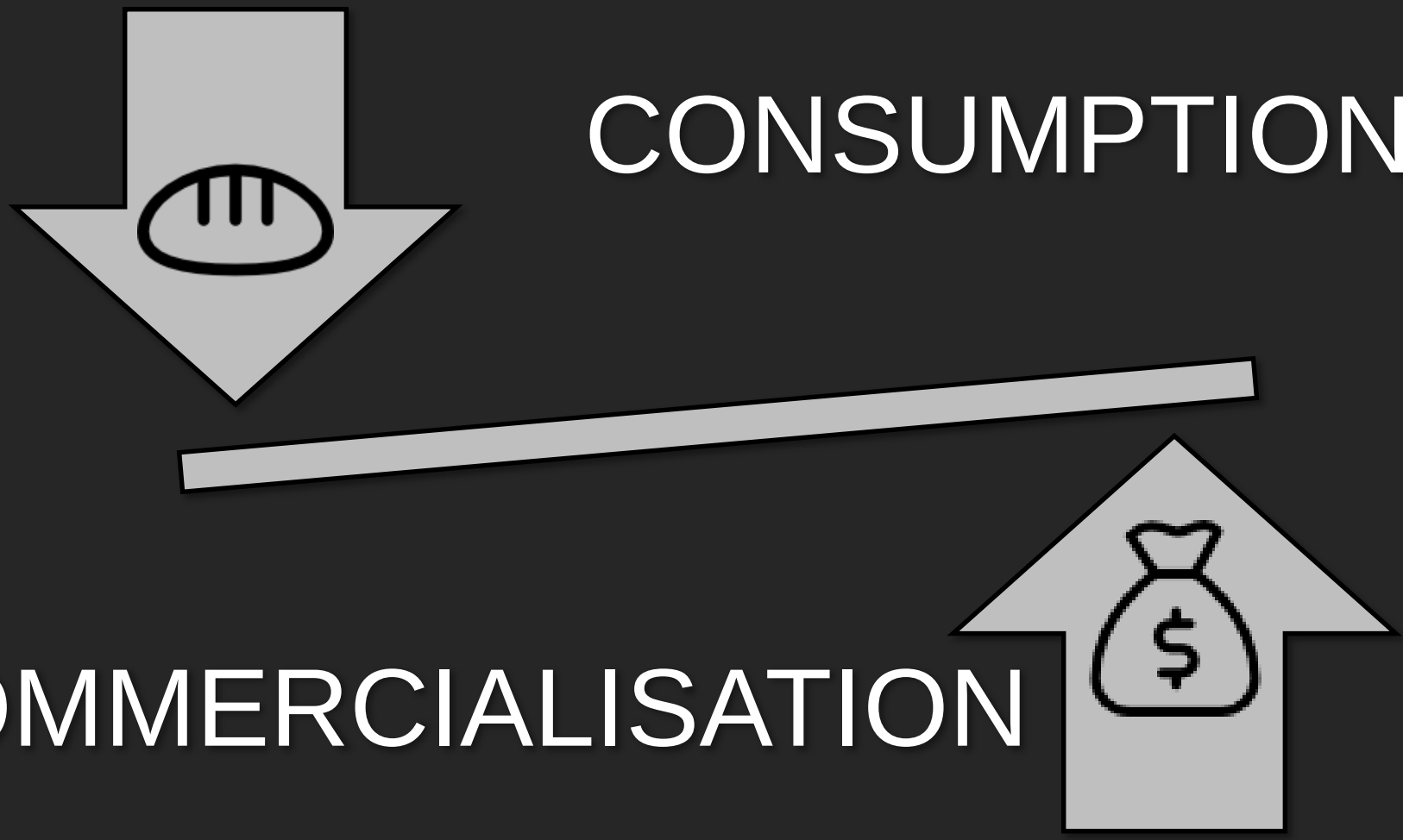

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CONSUMPTION VS. COMMERCIALISATION

WHEAT – COEFFICIENTS OF CORRELATION

- *St-Sauveur (only wheat):* Correlation with income
- *Des Prés (only wheat):* also with income, but also negative with price
- *Our Lady:* strong correlation for oats > almost everything sold

FORMULA:

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

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

	Lille		Douai		Cambrai					
	St-Sauveur		**Des Prés**		**Wetz**		**Our Lady**		**St-Julien**	
Wheat	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*
Price	-0,106	0,718	-0,587**	0,004	0,417	0,303	-0,370	0,214	-0,286	0,583
Wheat Income (quantity)	0,559*	0,038	0,921**	0,000	0,117	0,782	-0,008	0,980	0,141	0,790
Oats	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*	*Corr.*	*Sig.*
Price	N/A	N/A	N/A	N/A	-0,181	0,697	-0,230	0,450	-0,259	0,621
Oats income (quantity)	N/A	N/A	N/A	N/A	0,101	0,830	0,978**	0,000	-0,072	0,892

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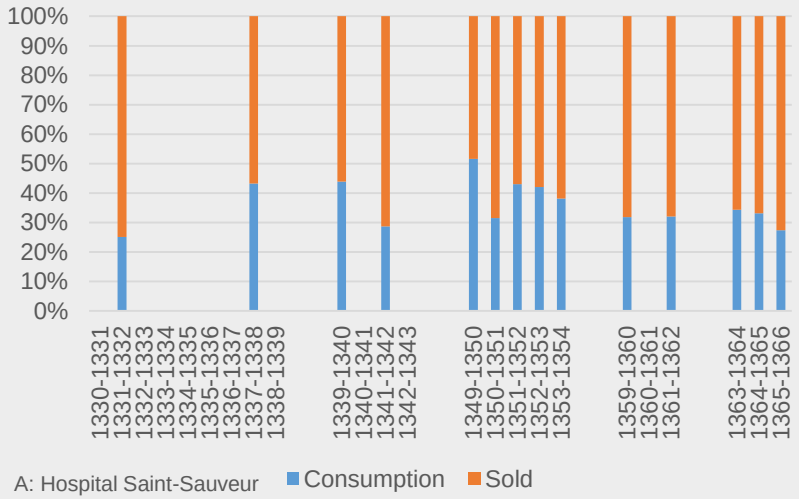
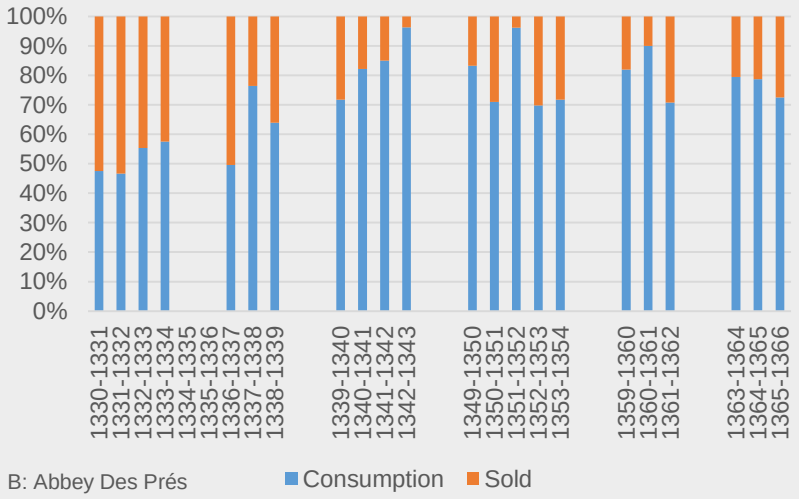
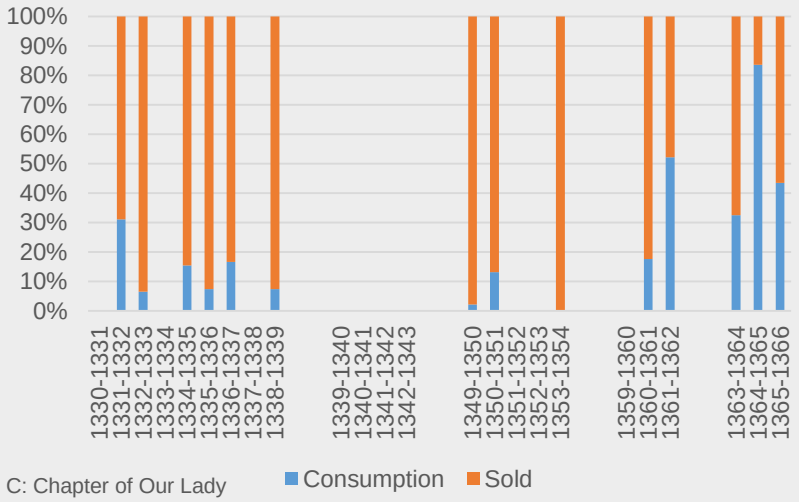
CONSUMPTION VS. COMMERCIALISATION

WHEAT – VISUALIZED







DIVERGENT STRATEGIES

- *St-Sauveur* > combining guaranteed cash influx + stable food provisioning
- *Des Prés* > focus on consumption, reducing sales in dearth years
- *Our Lady* > primarily commercialising

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TOTAL CASH INFLUX

FROM GRAIN SALES

MINIMUM INCOME X AVG. PRICE

	Lille	Douai		Cambrai	
Year	**St-Sauveur**	**Des Prés**	**Wetz**	**Our Lady**	**St-Julien**
1330-1331		29485,45	6179,19		
1331-1332	17391,92	26350,38		2835,62	
1332-1333		17156,26		6728,15	14886,80
1333-1334		15345,57			
1334-1335				2814,20	
1335-1336				11861,62	
1336-1337		22218,98		6961,06	
1337-1338	6984,06	6351,40			12869,25
1338-1339		9637,19		9078,37	14938,58
1339-1340	10372,36	14366,42			6170,51
1340-1341		4807,41			
1341-1342	18633,18	6639,84			
1342-1343		1102,38			
1349-1350	8009,05	5773,37		5035,94	
1350-1351	16552,19	8990,22	5954,59	3446,11	
1351-1352	11072,29	1448,96			
1352-1353	12665,94	11786,96			27991,01
1353-1354	10415,10	6070,39	4064,88	6140,42	
1359-1360	11846,62	6167,57	3191,48		
1360-1361		4582,55	7343,43	15470,01	
1361-1362	12392,13	7530,99	2553,80	5532,57	17567,85
1363-1364	12598,14	6957,46	3192,74	9621,01	
1364-1365	14600,35	6901,93		2081,65	
1365-1366	12691,37	8774,35	4537,38	7897,84	

Expressed in grams of silver

TOP-3 YEARS HIGHLIGHTED

› All landowners: happened during (or just before or after) dearth years (apart from Des Prés)

› Prices (still) high > high profits

› No proof of concious speculating > primary concern = own food supply

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SURPLUS EXTRACTION

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WHEAT SURPLUS EXTRACTION

CHAPTER OF OUR LADY

TENANTS WITH DEBT (column 8)

› Avg. 34,7%

› Highest after BD: 62,5%

› Dropped in 1360's

DEBT VS. LEASE (column 4)

› Avg. 55%

› Very high in 1363/4 (115-122%)

› Most did pay, minority defaulted completely

MOBILITY (columns 6 & 7)

› High number of new tenants

Wheat	1	2	3	4	5	6	7	8	9
1331	7	20,49	79,30	25,8%	N/A	N/A	19	36,8%	8,77
1332	7	38,31	111,13	34,5%	7	14	24	29,2%	11,57
1334	6	33,87	73,10	46,3%	N/A	N/A	18	33,3%	8,91
1335	10	53,10	169,87	31,3%	1	17	28	35,7%	12,55
1336	8	26,06	74,23	35,1%	3	12	26	30,8%	11,19
1338	8	19,44	86,06	22,6%	N/A	N/A	36	22,2%	11,87
1349	N/A	N/A	N/A	N/A	N/A	N/A	18	N/A	11,81
1350	20	64,58	201,94	32,0%	7	19	32	62,5%	9,56
1353	14	115,94	323,39	35,9%	N/A	N/A	25	56,0%	17,11
1360	8	61,45	84,83	72,4%	N/A	N/A	25	32,0%	14,28
1361	9	76,45	91,62	83,4%	6	12	26	34,6%	10,54
1363	8	135,92	117,79	115,4%	N/A	N/A	21	38,1%	16,22
1364	3	69,86	56,90	122,77%	6	10	20	15,00%	13,07
1365	6	88,24	152,01	58,05%	5	13	24	25,00%	13,61

1. *Active tenants with debt*
2. *Total debt from active tenants*
3. *Total lease from active tenants with debt*
4. *Debt vs. lease*
5. *Lost tenants (active in the previous year, but not during the current year)*
6. *New tenants (not active in the previous year)*
7. *Total tenants*
8. *% active tenants with debt*
9. *Average lease*

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CONCLUDING REMARKS

PRICE SERIES

› Newly constructed price series: detailed & useful, especially from 1320 onwards

› 1330-1370 period of short-term shocks

GRAIN ECONOMY

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

› Harvest failures ≠ price spikes → huge profits were made (no proof of speculation)

› Missing element = plague → was not absent in this region

› Plague mortality did not disrupt grain economy

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CONCLUDING REMARKS

WORK IN PROGRESS!

- Co-evolution of price series with different factors
- Inclusion of political economy
- Test-case periods need to be expanded (14th century)

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THANK YOU

FOR WATCHING AND LISTENING

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