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Session 5 (Salon E): 4 April 2013

Economic and Cultural Interactions in Northern Europe

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How Golden was the Burgundian 'Golden Age' in the 15th century?

How financing warfare reduced the living standards of urban craftsmen in the southern Low Countries

The Burgundian Golden Age 1

- **In the Burgundian Low Countries**, **the 15th century** is commonly viewed as the **late-medieval 'Golden Age'**
- **Such a term can apply, however, only to the second half of Duke Philip the Good's reign (1419-67)**
- –from peace treaty of Arras with France, in Sept. 1435, to Philip's death in 1467
- **Rest of century suffered from destructive warfare**
- **a) previous period: especially 1416-35**
- **b) the succeeding and more war-torn reigns** of Duke Charles (1467-77), Duchess Marie (1477-82) and Habsburg Archduke Maximilan (especially civil wars of 1482-1493)

The Burgundian Golden Age 2

- **At least the second half of Duke Philip's reign (1435-67) should qualify for the term 'Golden Age': for two reasons:**
- (1) **social and cultural**: **the flourishing of literature and the arts** --- music, painting, architecture – especially at the greatly expanded Burgundian court in Brussels
- (2) **economic**:
- - **rising real wages:** for many urban craftsmen
- **- other signs of urban prosperity** in the most highly urbanized society of northern Europe

The Burgundian Golden Age 3

- **Major Thesis of this Paper:**
- (1) **Despite widespread European evidence for rising real wages and incomes in the 15th century**, even Philip the Good's reign was **no 'Golden Age' for the Burgundian Low Countries**
- (2) **Rising real wages were the product NOT of economic growth or prosperity,** but rather of **Deflation combined with Nominal Wage Stickiness:** both of which reflect depression rather than growth & prosperity

The Burgundian Golden Age 4

- (3) **In Low Countries, in contrast to England, the rise in real wages was often counteracted by war-related monetary & fiscal policies**
- a) **by coinage debasements**, to produce seigniorage revenues → severe inflations
- b) **excise taxes on consumption** (hitting the poor most adversely) in order to provide payments on rising public debts almost entirely for financing warfare/defence

The Burgundian Golden Age 4

- (4) **Other negative war-related factors:**
- - a) **continuing population decline**, especially rural
- - b) **poverty**: evidence for increasing incidence of poverty (tax relief for the poor)
- - c) **severe, irredeemable decline of region's industrial mainstay**: **woollen textiles**
- - but the last is not topic of this paper

What do 'Real Wages' Mean? (1)

- 1) **The 'real wage' is simply the purchasing power – in goods and services – of the nominal money wage** paid to the craftsmen, usually in current silver coin: **wage defined in money-of-account**
- 2) **Usually measured in terms of the daily wage (paid by the day, not the hour):** and so we cannot measure annual money incomes without knowing number of days of paid employment
- here: an estimate of 210 days employment
- 3) **Real Wages are NOT real incomes – but best proxy**

What do Real Wages Mean? (2)

- 4) **Two ways of measuring Real Wages:**
- a) **by Index numbers:** here the 'base' for the indexes: the mean of 1451-75 = 100:
- - **The formula is:** NWI/CPI = RWI
- - Nominal Money Wage Index divided by the Consumer Price Index = Real Wage Index
- b) **by the number of commodity baskets that a master mason could purchase** with his annual money wage income (for 210 days).

BASKET OF CONSUMABLES COMMODITY PRICE INDICES					M1451-75 = 100							
COMMODITY	ENGLAND	(Adjusted Munro)			BRABANT				FLANDERS			
	Amount	Unit	Value in d sterl	Percent	Amount	Unit	Value in d. gr. Fl.	Percent	Amount	Unit	Value in in d. gr. Fl.	Percent
Farinaceous												
Wheat	1.25	bushels	9.967	8.84%					45.461	litres	13.279	10.51%
Rye	1.00	bushels	6.279	5.57%	126.000	litres	28.269	18.24%	36.369	litres	7.062	5.59%
Barley	0.50	bushels	2.606	2.31%					18.184	litres	2.867	2.27%
Peas	0.67	bushels	2.947	2.61%					24.243	litres	7.341	5.81%
Barley Malt: drink	4.50	bushels	24.227	21.48%	162.000	litres	26.475	17.08%	163.659	litres	25.805	20.43%
Sub-total	**7.92**	**bushels**	**46.026**	**40.81%**	**288.000**	**litres**	**54.744**	**35.32%**	**287.917**	**litres**	**56.354**	**44.61%**
Meat, Fish, Dairy												
Pigs	0.50	no.	15.418	13.67%								
Sheep	0.50	no.	8.532	7.56%								
Beef					23.500	kg	36.469	23.53%				
Herrings	40.00	no.	6.595	5.85%	40.000	no.	6.659	4.30%				
Butter	10.00	lb.	10.238	9.08%	4.800	kg	13.152	8.48%	13.610	kg	36.087	28.57%
Cheese	10.00	lb.	5.341	4.73%	4.700	kg	3.979	2.57%	13.610	kg	8.578	6.79%
Sub-total			**46.124**	**40.89%**			**60.259**	**38.88%**			**44.665**	**35.36%**
Industrial												
Charcoal	4.25	bushels	3.813	3.38%	162.000	litres	7.045	4.54%				
Candles	2.75	lb.	3.475	3.08%	1.350	kg	5.072	3.27%				
Lamp Oil	0.50	pint	0.865	0.77%								
Canvas/Linen	0.67	yard	2.757	2.44%	1.800	metres	11.333	7.31%				
Shirting	0.50	yard	2.718	2.41%								
Coarse Woollens	0.33	yard	7.023	6.23%	1.125	metres	16.563	10.68%	1.225	metres	25.276	20.01%
Sub-total			**20.651**	**18.31%**			**40.013**	**25.80%**			**25.276**	**20.01%**
TOTAL			**112.801**	**100.00%**			**155.016**	**100.00%**			**126.295**	**100.00%**

What do Real Wages Mean? (3)

- 5) **The Economists' Definition of Real Wages:**
- **a) RW = MRP_L:** the real wage is determined by the marginal revenue product of labour
- **b) the market value of the last (marginal) unit** of product produced by the last unit of labour
- **c) many economists too simplistically believe** that increases in **labour productivity** provide the sole explanation for rising real wages

The problem of Wage Stickiness

- 1) **A predominant feature of late-medieval wages is (downward) nominal WAGE-STICKINESS: from 1370s**
- 2) **More precisely, this phenomena is normally found only during times of deflation** – with falling or generally stable prices: that is, nominal wages usually remained rigid and did not fall along with other prices ➔ **RW rise**
- 3) **During times of inflation**, nominal money wages may rise, but usually less so than prices ➔ **RW fall**
- 4) **Therefore: real wages were largely determined by movements of the price level**:

Money & Prices

- - **Behaviour of prices : fundamental to study of real wages** (and incomes) in late-medieval society
- (1) **changes in *relative* prices (short & long term):** largely a function of **real factors:** such as demography, commercial institutions, technology, etc.
- (2) **changes in *nominal* prices with both short- and long-term behaviour of the price level (CPI)**: largely, but not entirely, a function of **monetary factors**, combining **changes** in the **STOCKS & FLOWS OF MONEY, *relative* to real factors: M.V = P.y (M = kPy)**
- A) **monetary expansion** → inflation (usually)
- B) **monetary contraction** → deflation (usually)

Coinage Debasements (1)

- 1) **Coinage Debasements**: **the only monetary factor** to be discussed here: with even short-run importance in the price level
- 2) **Definition of debasement**: a **reduction** in the **quantity** of fine precious metal represented in the **unit of the money-of-account**: e.g., the quantity of pure silver in the penny (d), shilling (s), pound (£):
- - £1 = 20s. = 240d.

Coinage Debasements (2)

- 3) **How debasements were achieved**
- a) **by reducing the fineness**: more copper ➔ less silver (or gold) in the coin; **and/or** by
- b) **by reducing the weight** of the coin itself
- c) **by increasing the money-of-account value** of the coin: virtually always **only** for gold and high-value silver coins (never for the penny)
- - **the results for the first two was to INCREASE the number of coins struck** from a lb or *marc* of fine metal
- **and for all three, the result was to REDUCE** the quantity of such metal in the money-of-account unit

Coinage Debasements (3)

- 4) **Motives for debasements: two-fold**
- a) **aggressive fiscal policy**: to increase prince's **seigniorage revenues** (tax on minting) by luring/forcing more bullion to his mints – one of few elastic revenue sources at his command
- b) **defensive monetary policies:**
- i) **to protect a realm's money supplies and mints** from its neighbour's predatory mint policies
- ii) **to remedy deficiencies in current circulating coinages,** with deterioration from counterfeits, clipping, normal wear & tear etc. [complicated]

Coinage Debasements (4)

- 5) **Coinage Debasements: Effects on Prices**
- a) **almost always INFLATIONARY**: because debasements **increased** both the effective **money supply** (number of circulating coins) and often also the **income velocity** of money
- b) **But inflationary effects were generally less powerful than would normally be expected:**
- i) **offset in part by prevailing deflationary conditions**
- ii) **offset by stimulus that inflation → ▵ production**
- ii) **money supply not increased proportionally**: not all current coins were reminted; and many coins would be exported (especially coins of the other metal)

Coinage Debasements (5)

- 5) **Coinage Debasements: Effects on Prices**
- c) N.B.: **relationship between debasement and inflation is NOT directly proportional**, but **inversely** related, as reciprocals:
- **(1/1 - *x*) - 1,** where *x* = the percentage reduction in the silver content of the money of account.
- Thus, with a 20% reduction in the silver content of the coin: (1/1 - 0.20) - 1 = 0.25,
- ➔ a 25% increase in the money-of-account value of a *marc* or pound of fine silver (but NOT necessarily of prices in general).

The Statistical Evidence on Real Wages

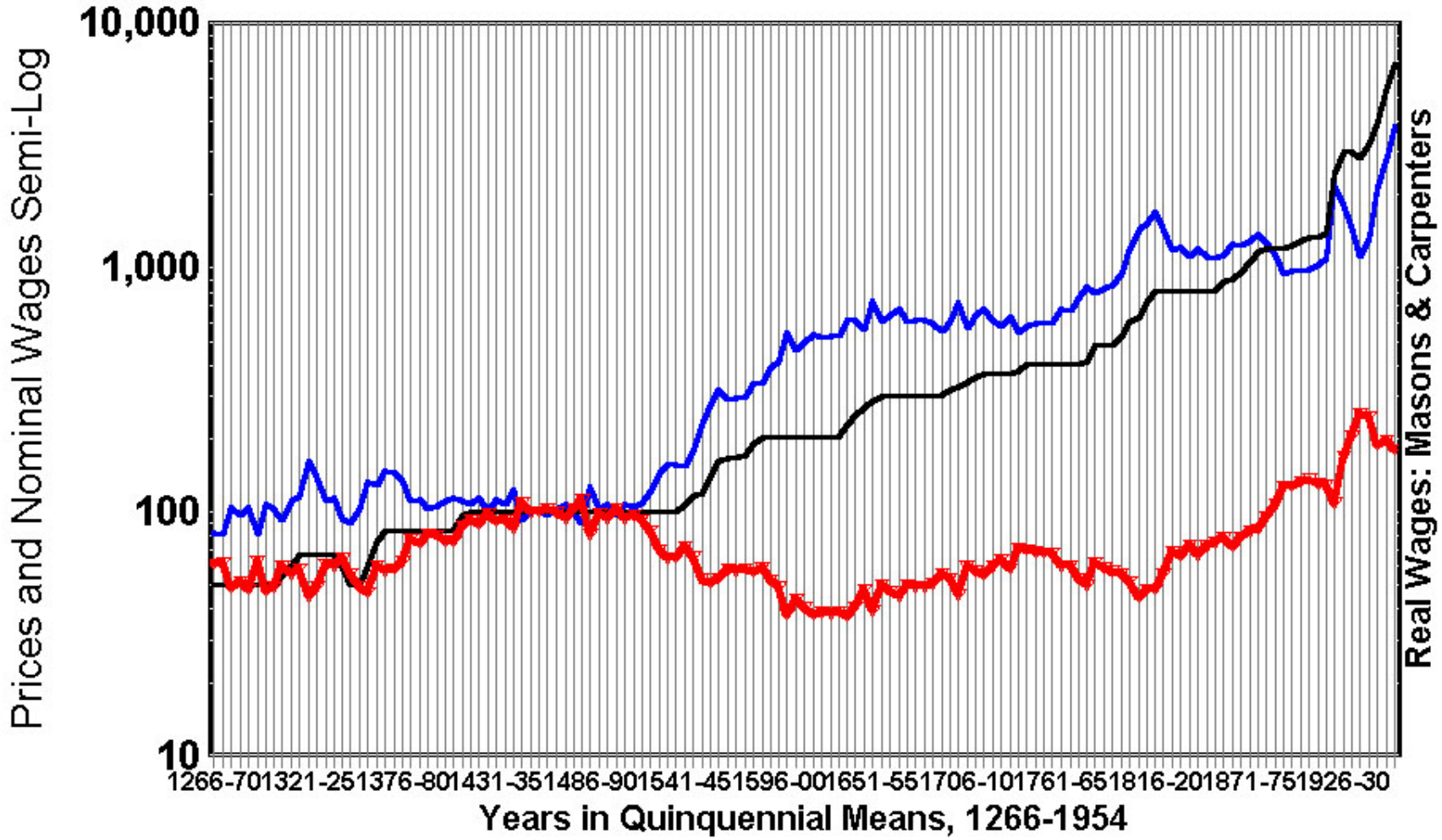
- **The following slides are presentations of the evidence for real wages of urban building craftsmen, in the 15th century, for the following:**
- **In SW England:** at Oxford & Cambridge colleges
- **In Flanders**: for the towns of Bruges and Aalst
- **In Brabant**: for the Antwerp-Lier region
- **For more effective comparisons**, real wages for previous & later periods are shown – when and where they are available.

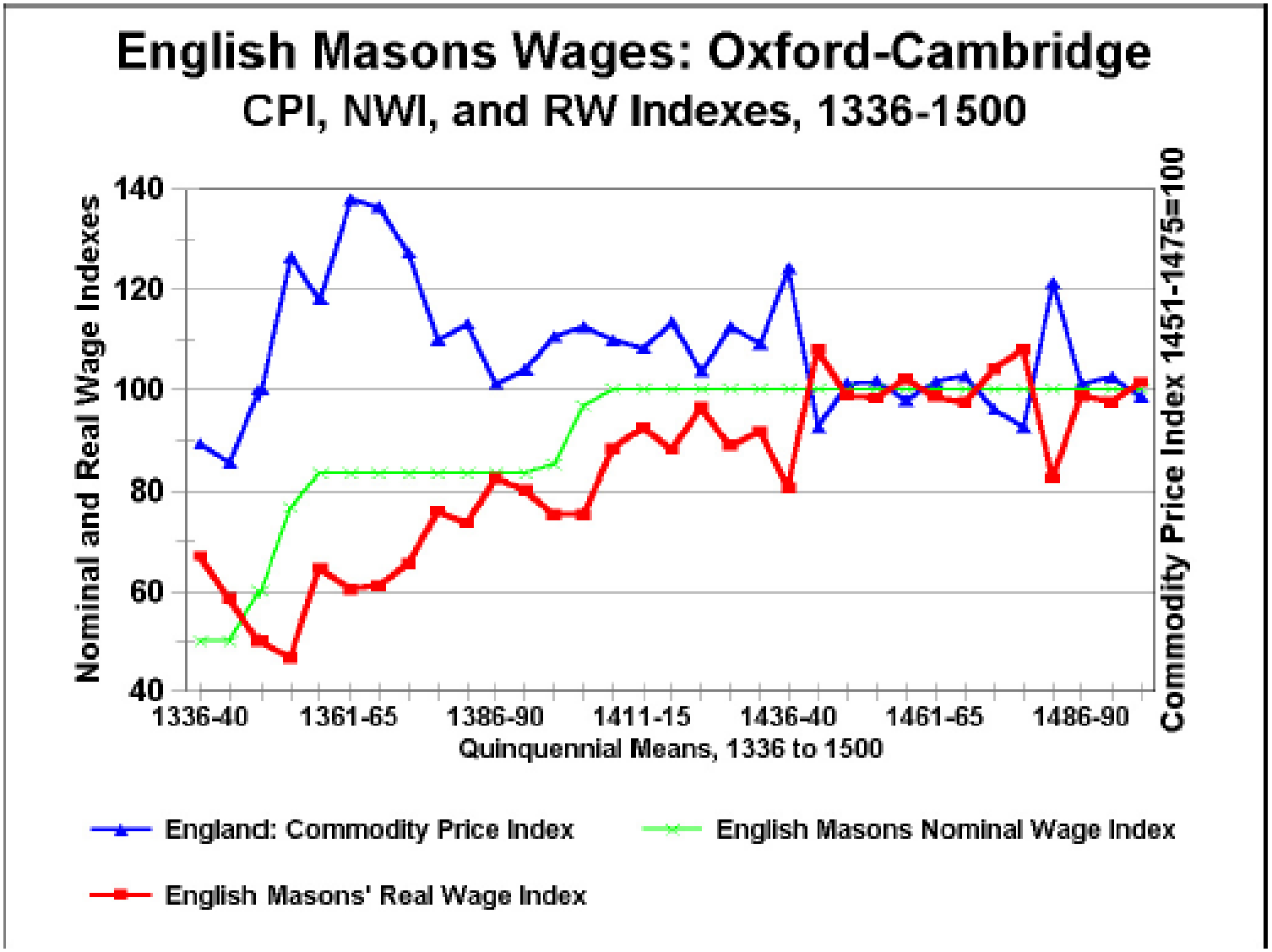
The Special Case of England

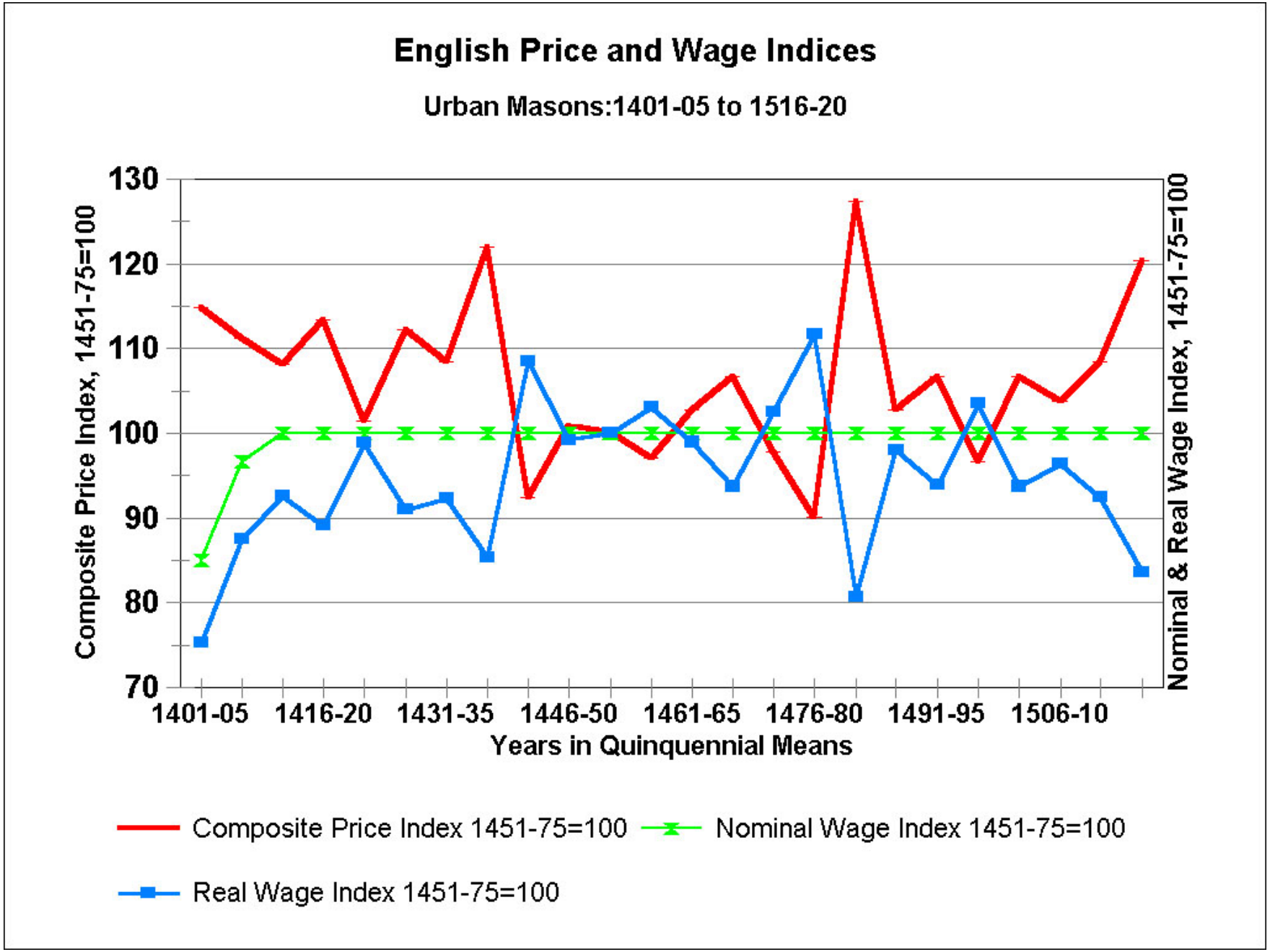
- **The 19th-century English economist**, James E. Thorold Rogers (1823-90), stated that:
- - **the fifteenth century was the Golden Age of the English artisan**: in terms of the purchasing power of his money wages.
- **Or the post-Plague era**: **from 1370s**: Rogers and most historians believe that **depopulation was the major cause of rising real wages** in the later Middle Ages: **by increasing labour productivity**
- **the following graphs demonstrate why the 15th century is seen as a 'Golden Age' for artisans:**

Phelps Brown & Hopkins Indices

Prices & Builders' Wages: 1451-75=100




English Masons Wages: Oxford-Cambridge
CPI, NWI, and RW Indexes, 1336-1500
Nominal and Real Wage Indexes
Commodity Price Index 1451-1475=100
140
120
100
80
60
40
1336-40
1361-65
1386-90
1411-15
1436-40
1461-65
1486-90
Quinquennial Means, 1336 to 1500
England: Commodity Price Index
English Masons Nominal Wage Index
English Masons' Real Wage Index


English Price and Wage Indices
Urban Masons:1401-05 to 1516-20
Composite Price Index, 1451-75=100
Nominal & Real Wage Index, 1451-75=100
130
120
110
100
90
80
70
1401-05
1416-20
1431-35
1446-50
1461-65
1476-80
1491-95
1506-10
Years in Quinquennial Means
Composite Price Index 1451-75=100
Nominal Wage Index 1451-75=100
Real Wage Index 1451-75=100

Differences between late-medieval England and the Low Countries

- 1) **Warfare:** **England's terrain**: far less involved in Hundred Years' War than was that of Low Countries,
- **also beset by civil wars**, while England's Wars of Roses (1455-87) had minimal impact.
- 2) **Coinage debasements: as fiscal policies**
- a) **rare in England:** only in 1411 (purely defensive) and 1464-65 (more aggressive, under Edward IV): crown had ample revenues from wool-export taxes
- b) **very common in Low Countries, and always aggressive (war-related):** in 1416, 1418, 1428-32, 1466-67, 1477, 1482-93
- 3) **Urban excise taxes**: absent in England (to 1652)

Debasements and Inflation in Medieval and Early Modern Europe

Relationships between the debasements of the Flemish

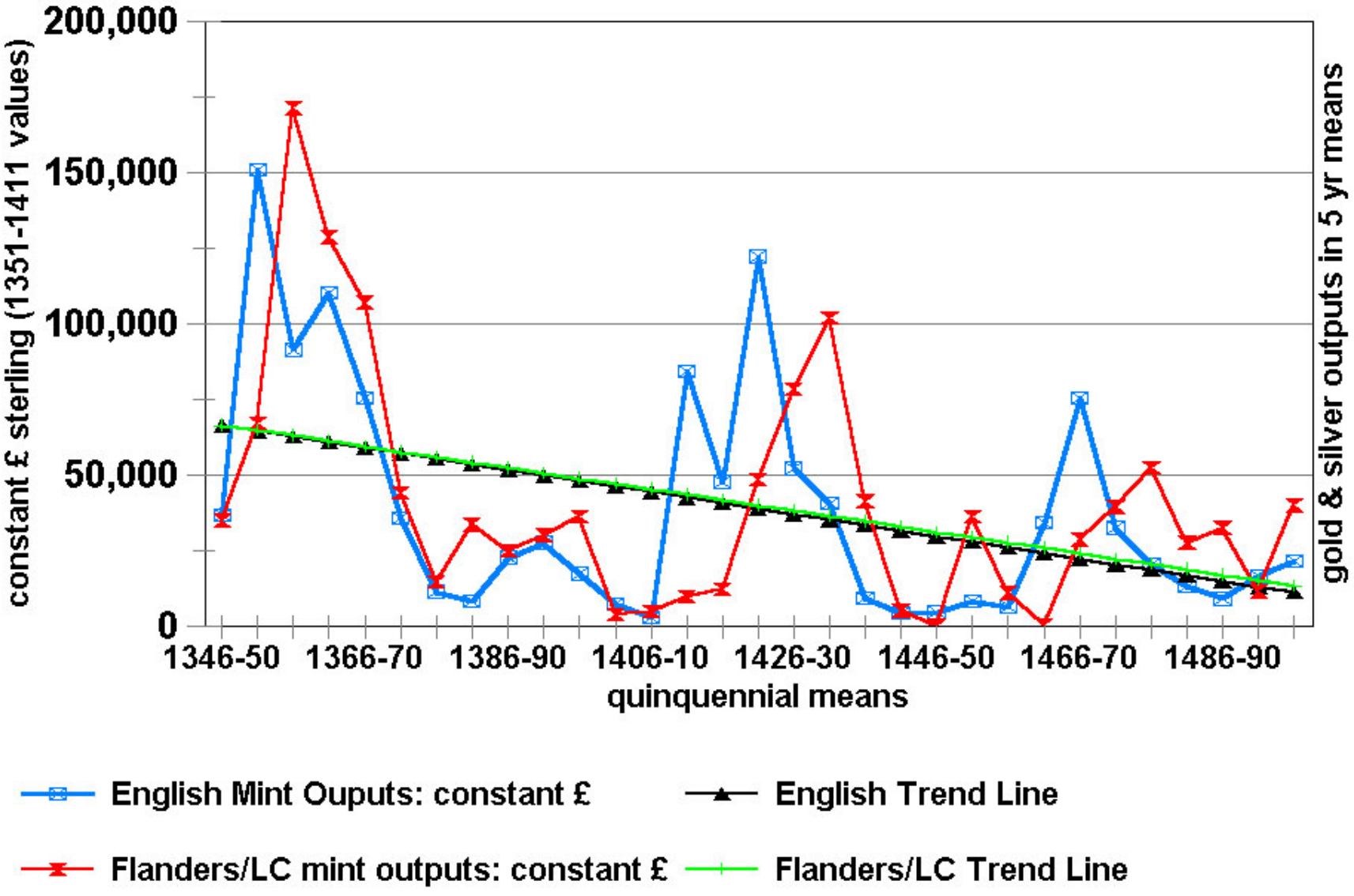
silver penny groot and changes in the Consumer Price Index in Flanders, 1409 - 1484

Consumer Price Index: base 1451-75 = 100

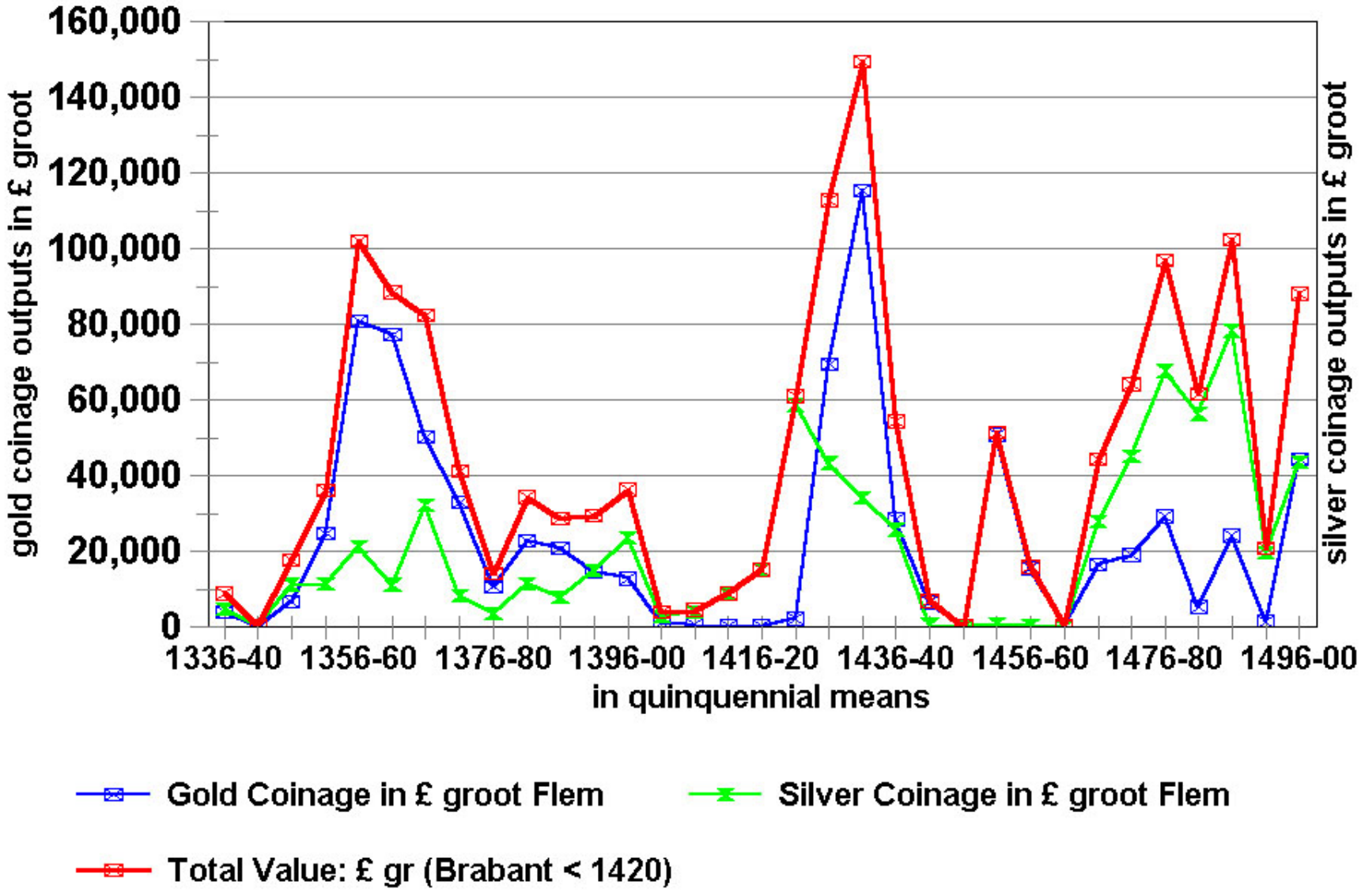
Years	Silver Content of the Flemish silver penny in grams	percentage change from previous coinage	Value of 1 kg fine silver in £ groot Flemish	percentage change from previous coinage	Year 1	Year 3	Price Index in Year 1	Price Index in Year 3	Percentage Change 2 years
1409	1.182		3.524						
1416	0.958	-18.95%	4.349	23.39%	**1416**	**1418**	118.916	92.239	-22.43%
1418	0.850	-11.30%	4.903	12.75%	**1418**	**1420**	92.239	98.118	6.37%
1428	0.749	-11.91%	5.566	13.53%	**1428**	**1430**	112.317	125.849	12.05%
1433	0.814	8.80%	5.116	-8.09%	**1433**	**1435**	139.210	108.046	-22.39%
1466	0.703	-13.67%	5.926	15.83%	**1466**	**1468**	95.930	96.153	0.23%
1467	0.677	-3.77%	6.158	3.92%	**1467**	**1469**	102.146	96.000	-6.02%
1474	0.597	-11.79%	6.981	13.37%	**1474**	**1476**	108.208	92.370	-14.64%
1477	0.522	-12.50%	7.979	14.29%	**1477**	**1479**	98.775	149.327	51.18%
1482	0.466	-10.71%	8.936	12.00%	**1482**	**1484**	193.932	120.307	-37.96%

Mint Outputs of England & Flanders/LC

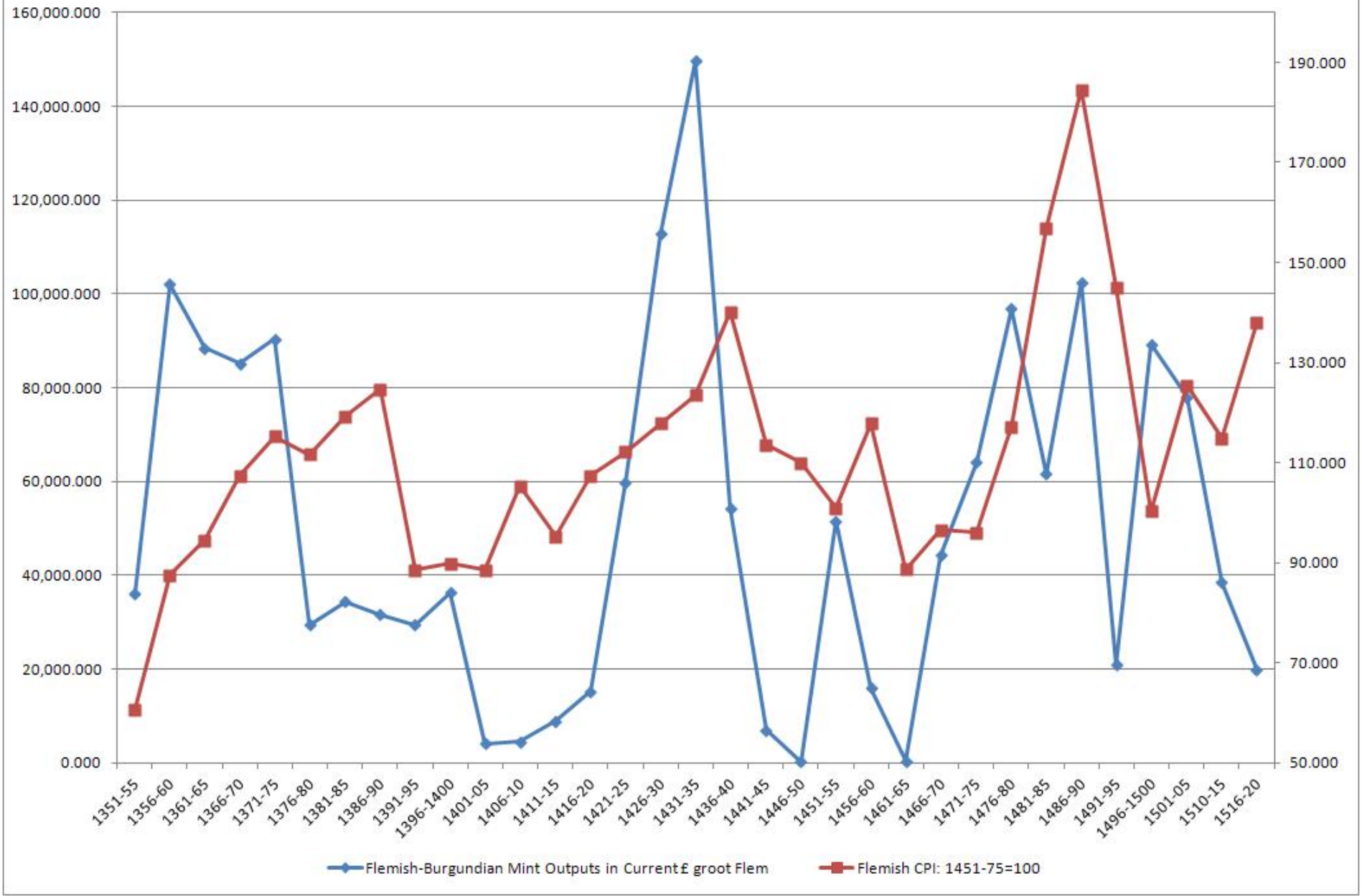
1346 - 1500 in constant £ sterling:



Flanders/Brabant:Gold & Silver Outputs
in £ groot Flemish: 1336-40 to 1496-00

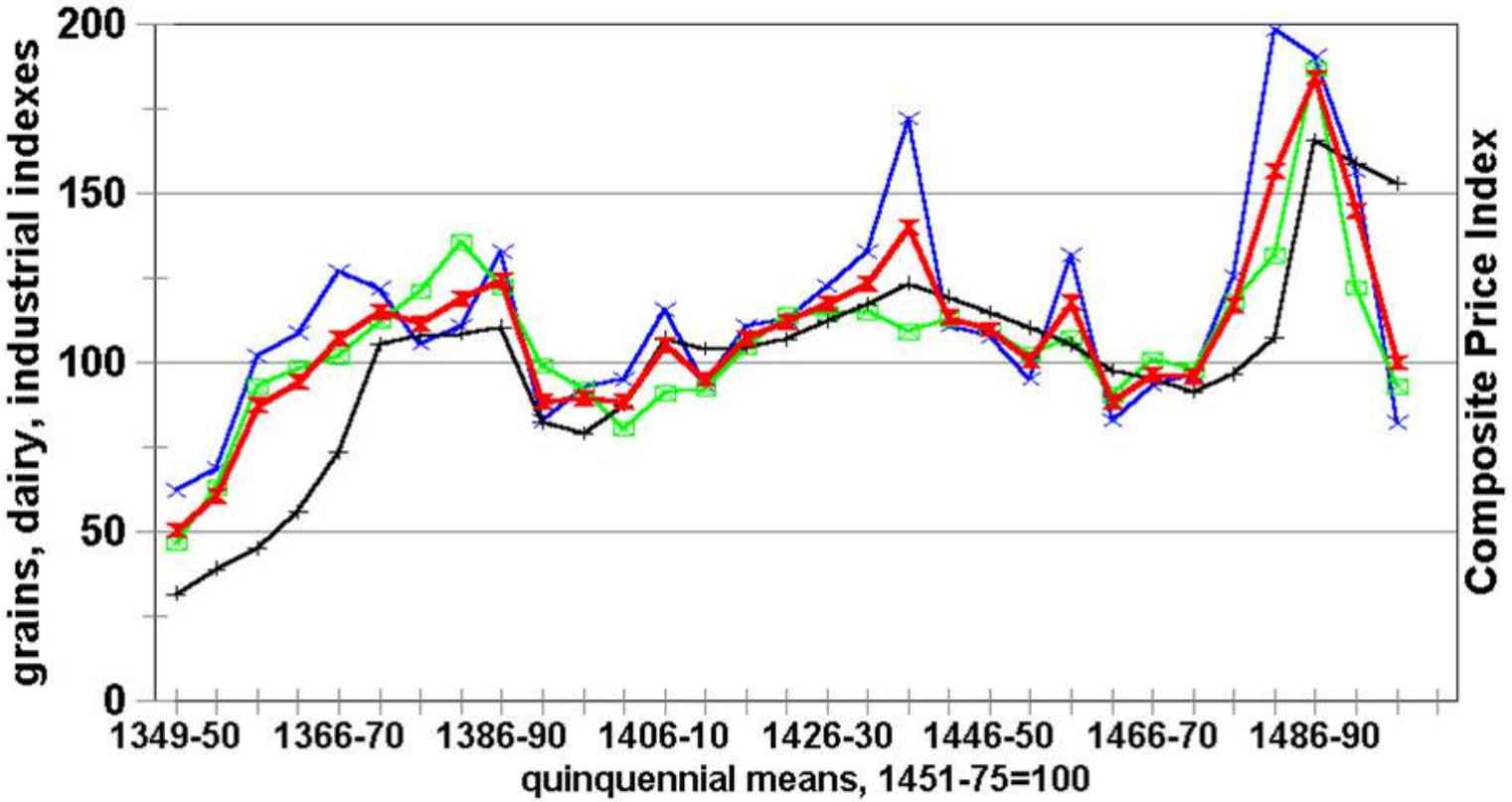


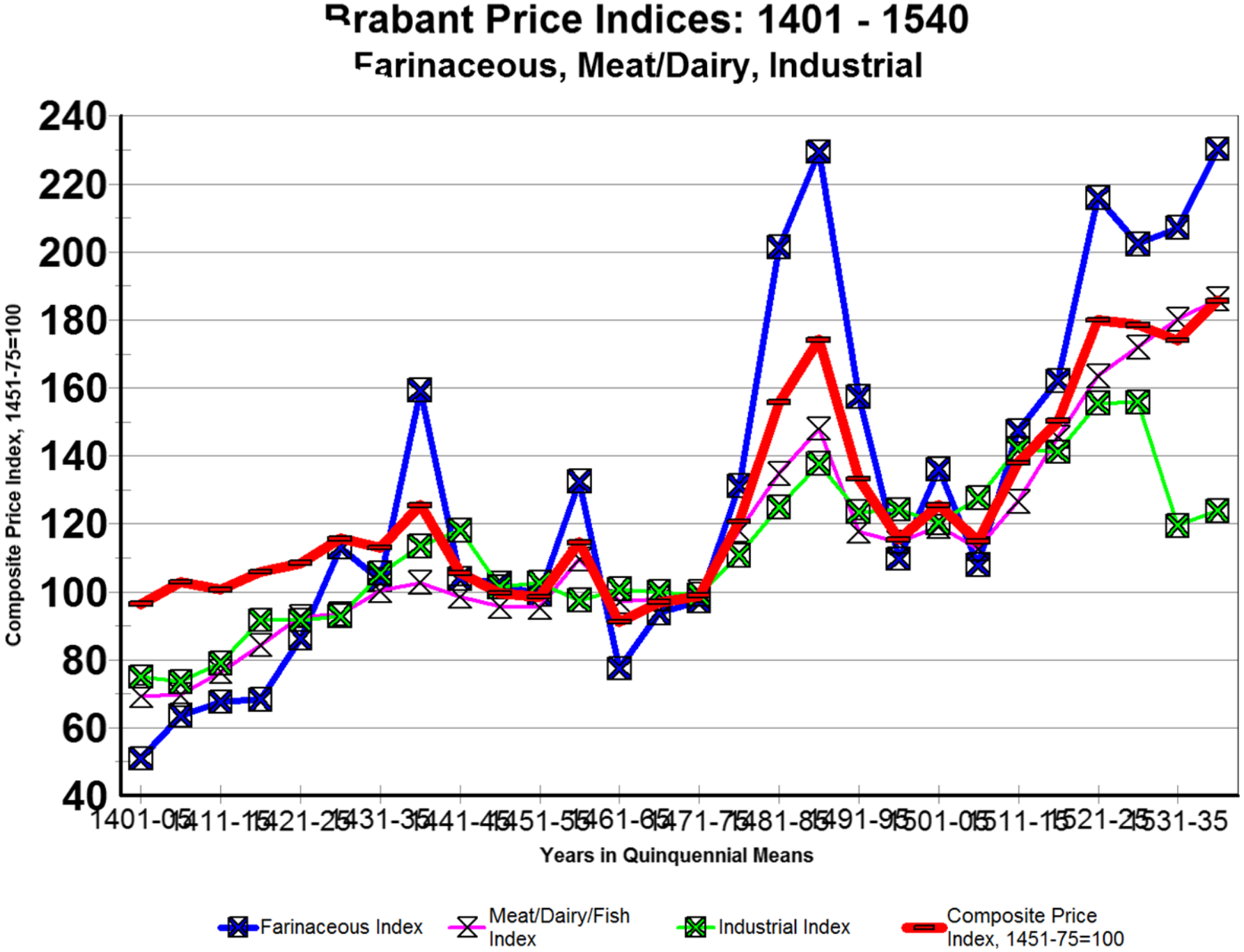
Flemish-Burgundian Mint Ouputs in Current Pounds Groot Flemish and the Flemish Consumer Price Index: Mean 1451-75 =100 in quinquennial means, 1351-55 to 1516-20

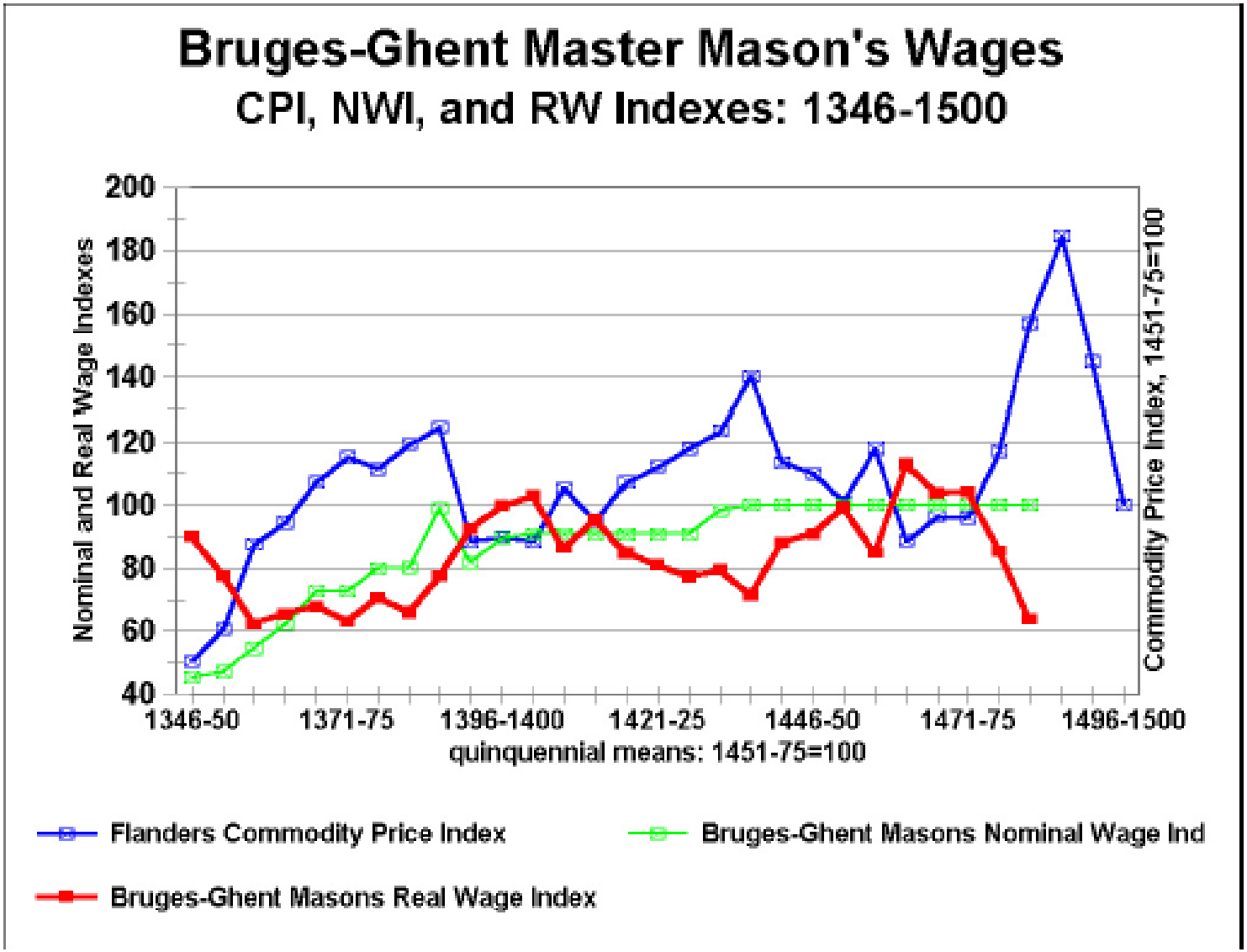


Flemish Commodity Prices, 1346 - 1500

in 5 yr means: 1451-75=100




Brabant Price Indices: 1401 - 1540
Farinaceous, Meat/Dairy, Industrial
Composite Price Index, 1451-75=100
240
220
200
180
160
140
120
100
80
60
40
1401-05
1411-15
1421-25
1431-35
1441-45
1451-55
1461-65
1471-75
1481-85
1491-95
1501-05
1511-15
1521-25
1531-35
Years in Quinquennial Means
Farinaceous Index
Meat/Dairy/Fish Index
Industrial Index
Composite Price Index, 1451-75=100


Bruges-Ghent Master Mason's Wages
CPI, NWI, and RW Indexes: 1346-1500
Nominal and Real Wage Indexes
Commodity Price Index, 1451-75=100
200
180
160
140
120
100
80
60
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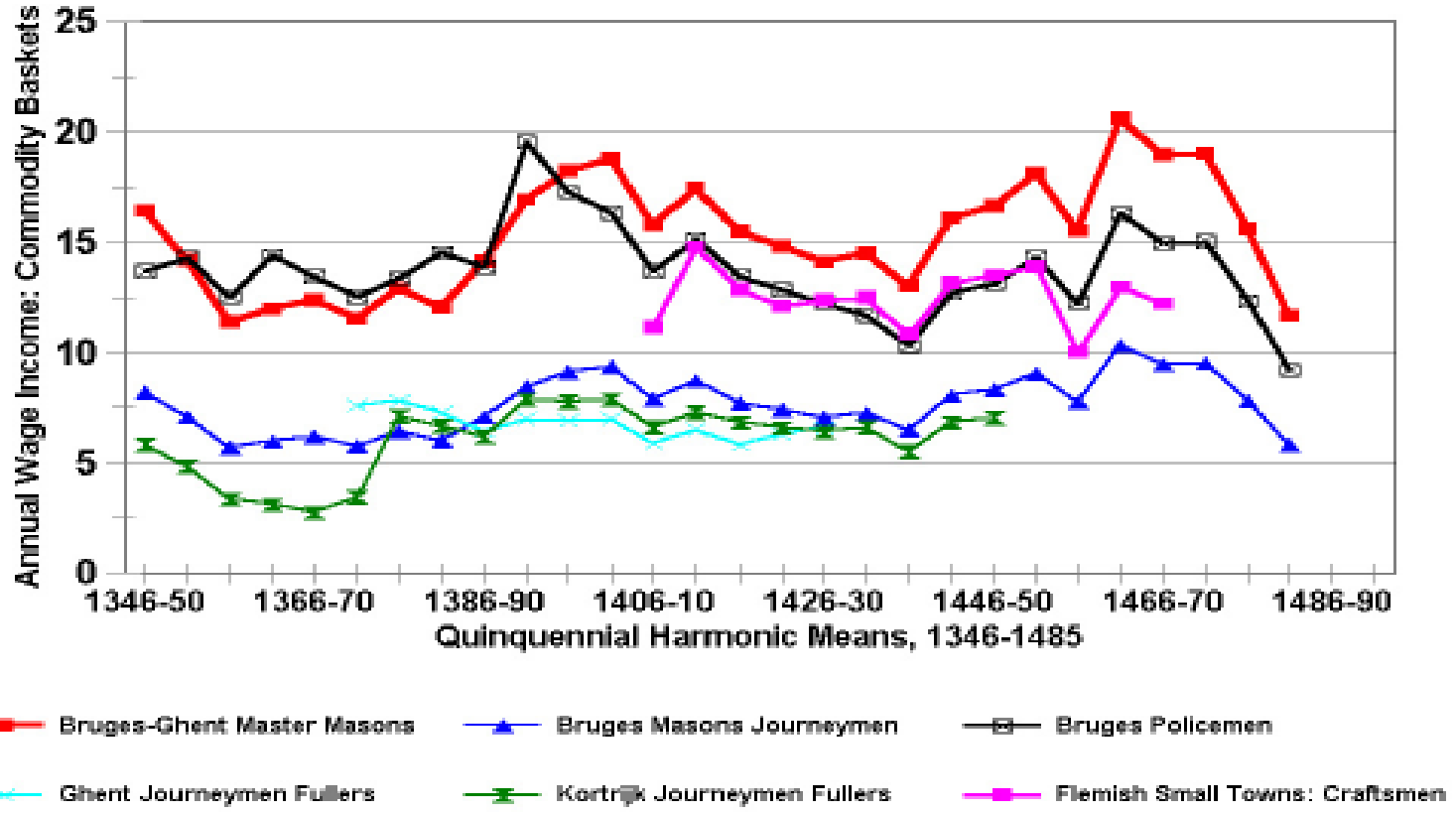
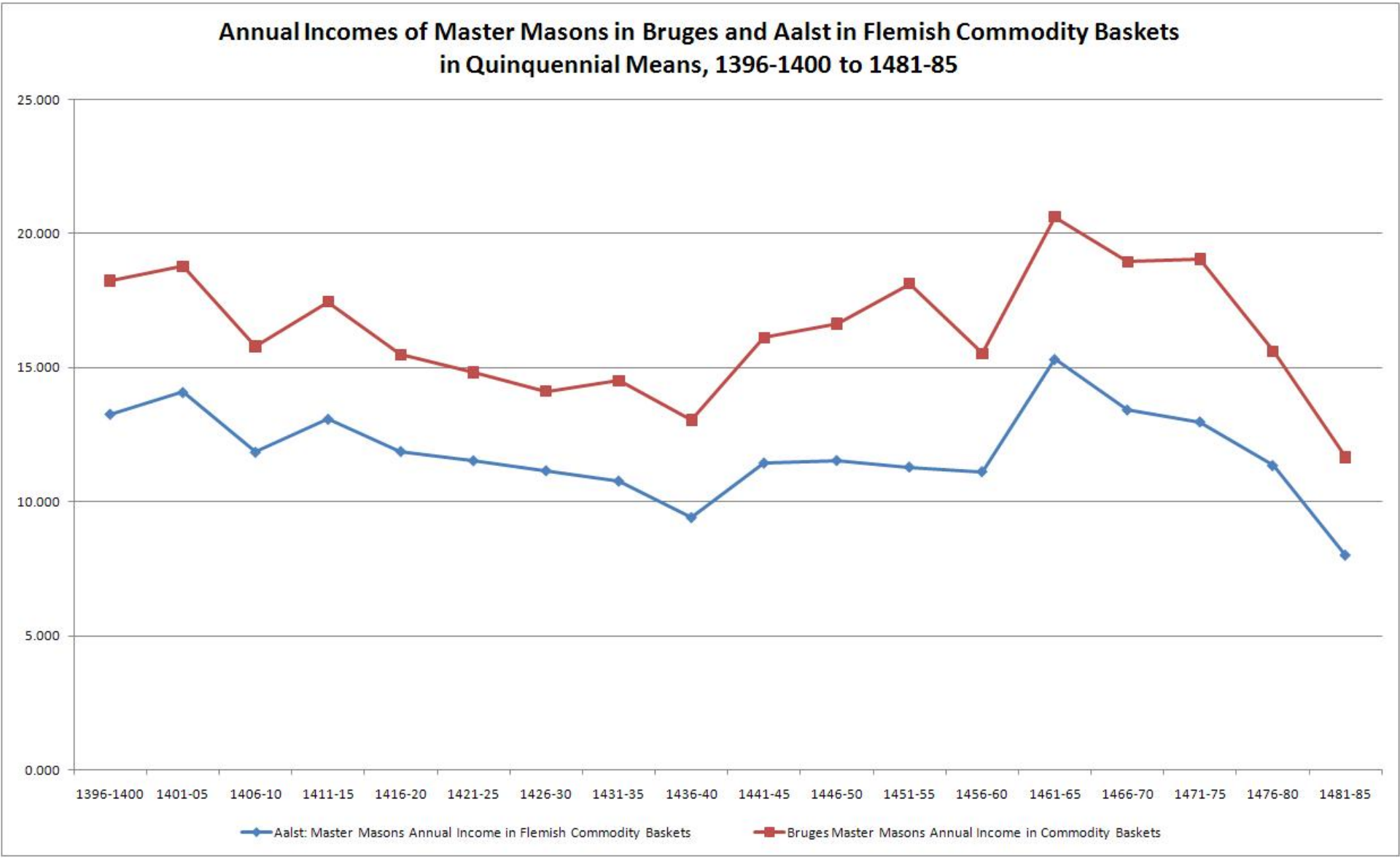
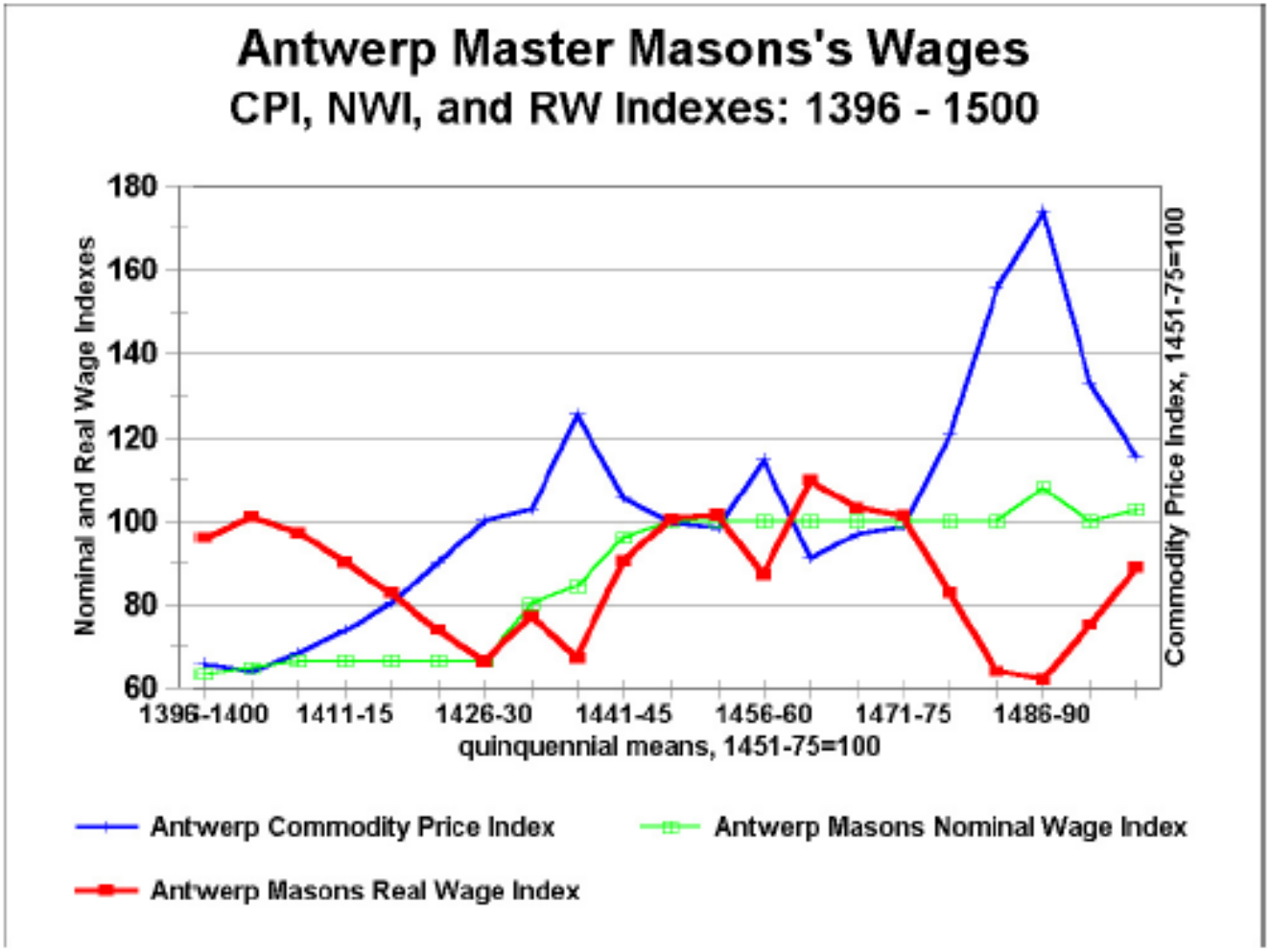
1346-50
1371-75
1396-1400
1421-25
1446-50
1471-75
1496-1500
quinquennial means: 1451-75=100
Flanders Commodity Price Index
Bruges-Ghent Masons Nominal Wage Ind
Bruges-Ghent Masons Real Wage Index

FLANDERS: Wage Incomes in Baskets

Craftsmen, Journeymen, Policemen




Annual Incomes of Master Masons in Bruges and Aalst in Flemish Commodity Baskets
in Quinquennial Means, 1396-1400 to 1481-85
25.000
20.000
15.000
10.000
5.000
0.000
1396-1400
1401-05
1406-10
1411-15
1416-20
1421-25
1426-30
1431-35
1436-40
1441-45
1446-50
1451-55
1456-60
1461-65
1466-70
1471-75
1476-80
1481-85
Aalst: Master Masons Annual Income in Flemish Commodity Baskets
Bruges Master Masons Annual Income in Commodity Baskets


Antwerp Master Masons's Wages
CPI, NWI, and RW Indexes: 1396 - 1500
Nominal and Real Wage Indexes
Commodity Price Index, 1451-75=100
180
160
140
120
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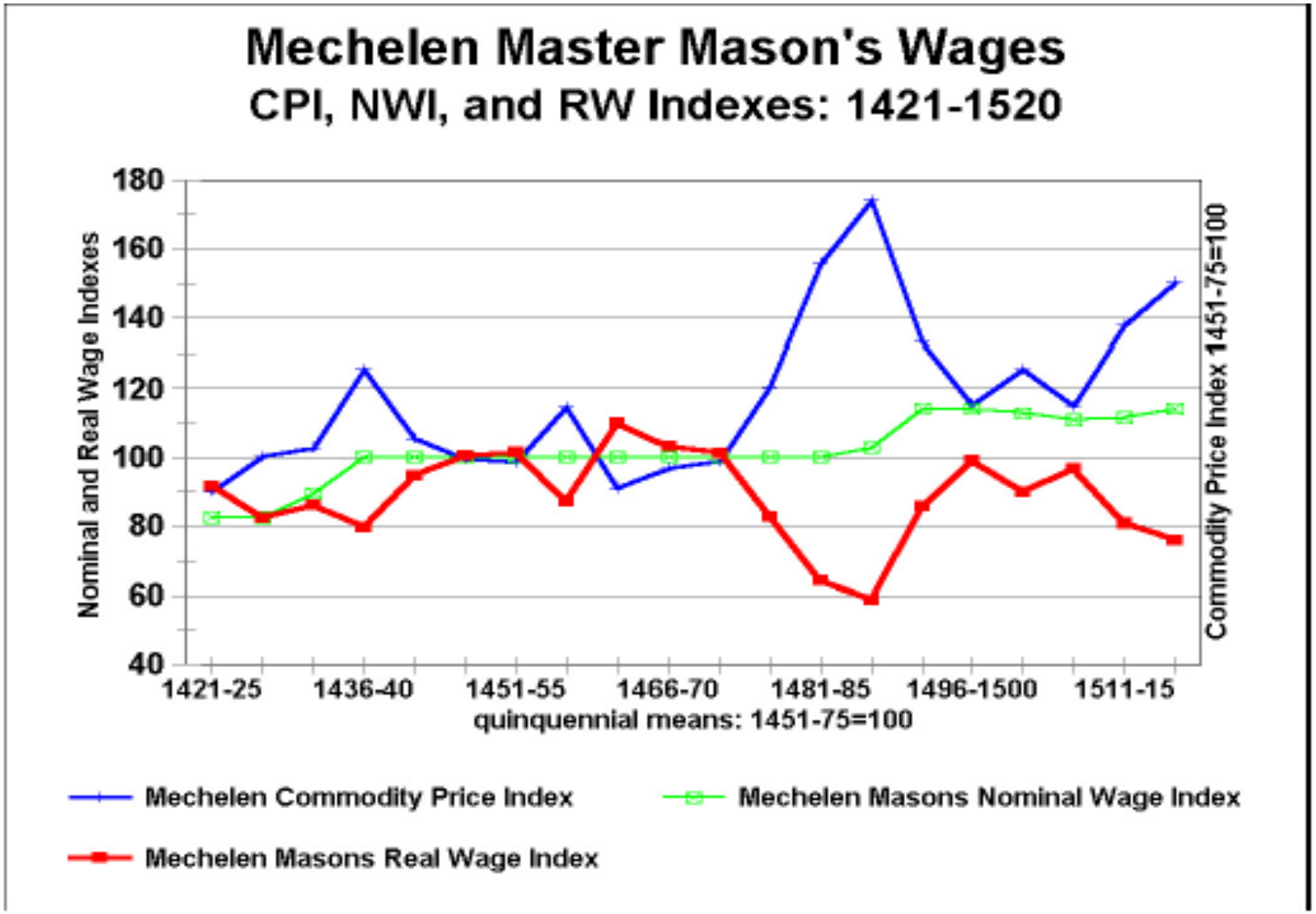
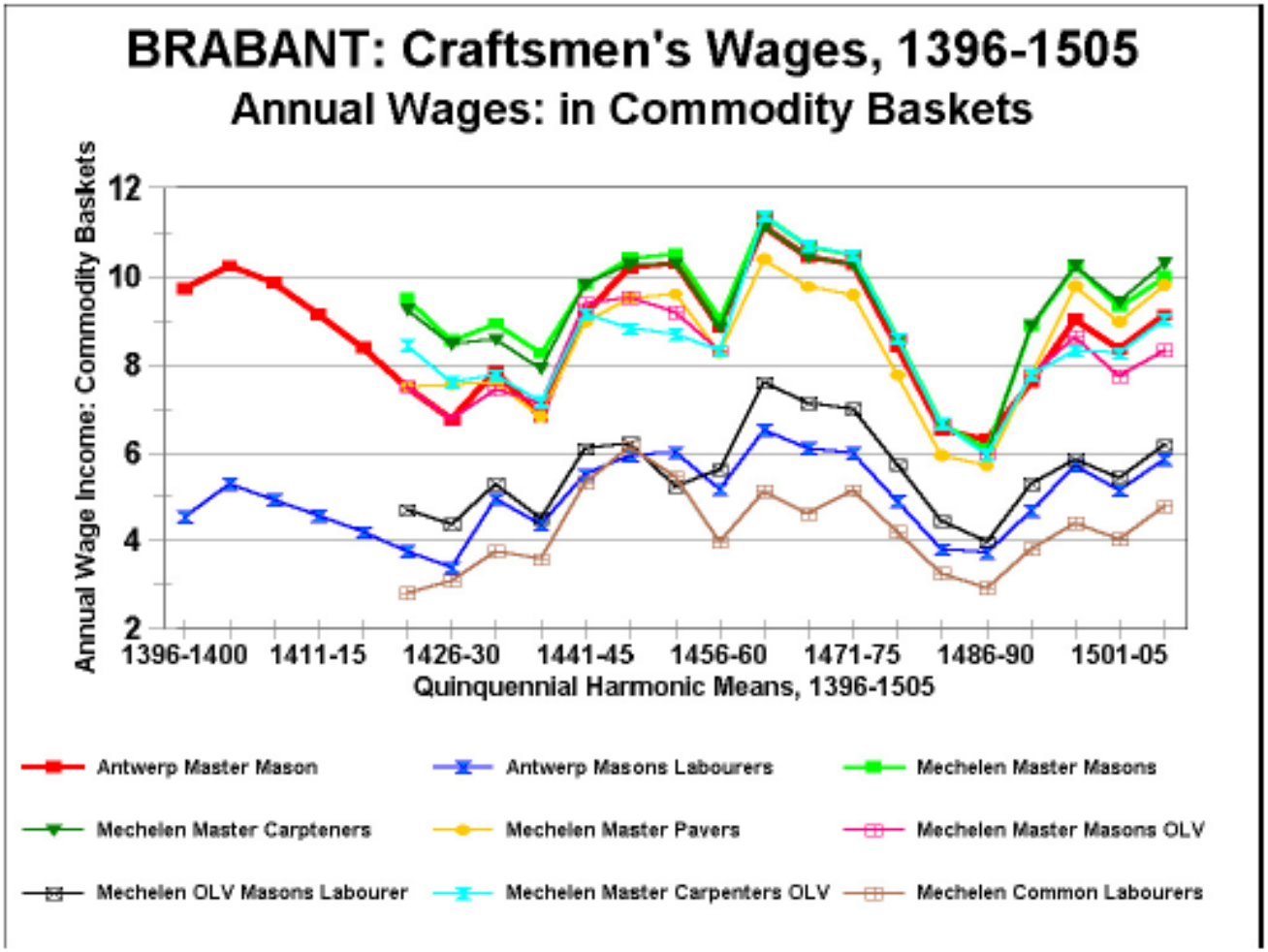
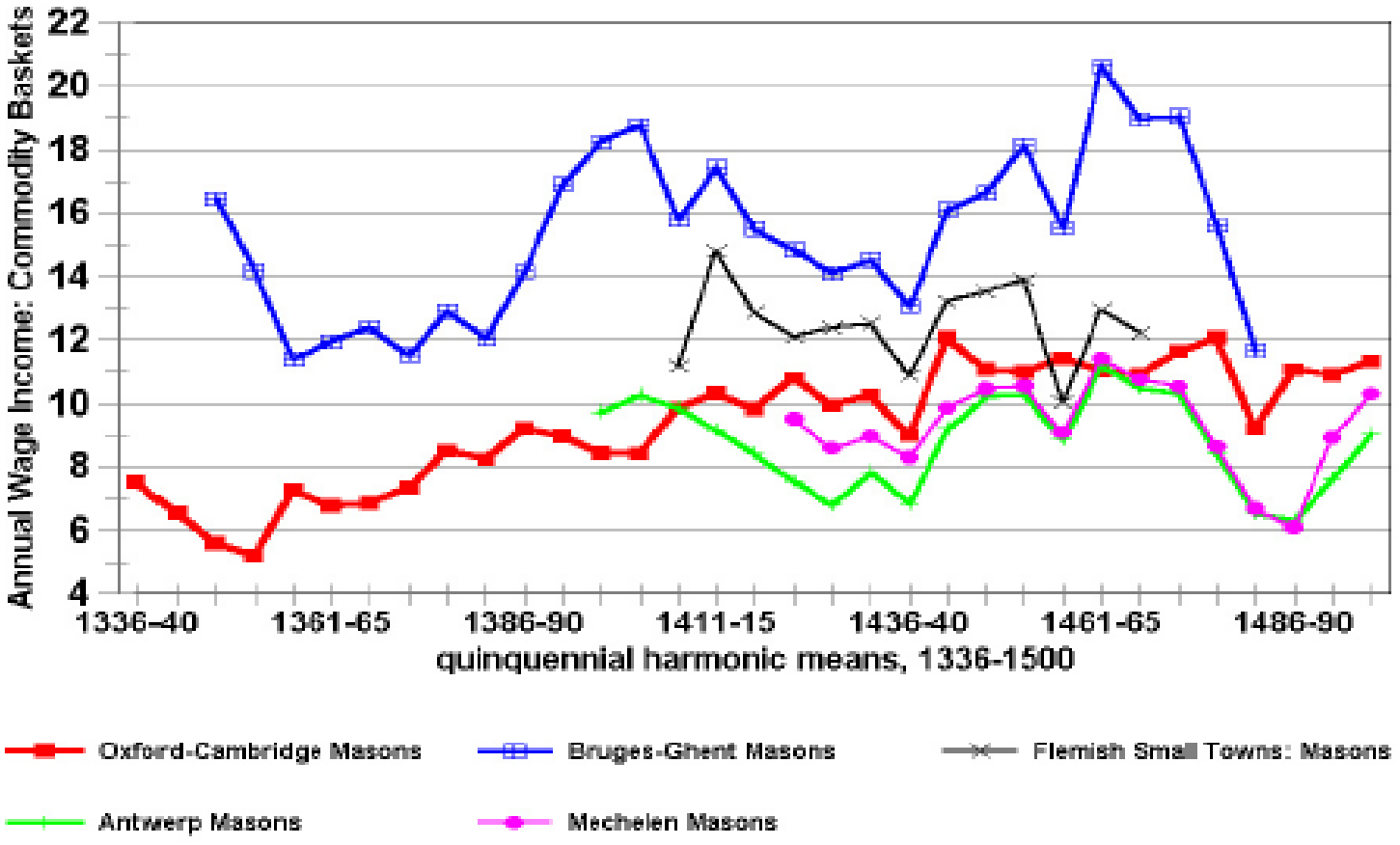
60
1396-1400
1411-15
1426-30
1441-45
1456-60
1471-75
1486-90
quinquennial means, 1451-75=100
Antwerp Commodity Price Index
Antwerp Masons Nominal Wage Index
Antwerp Masons Real Wage Index

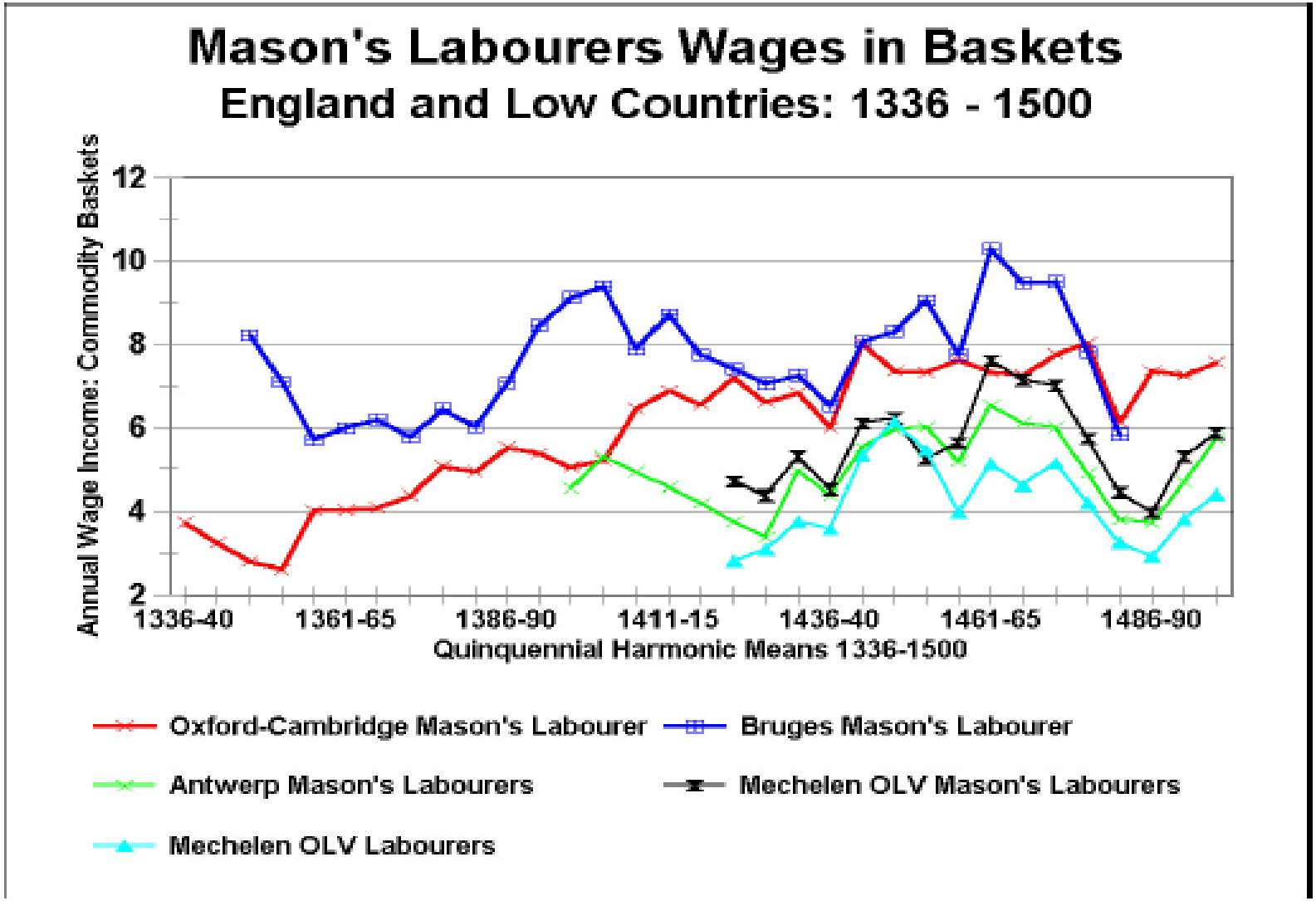

Mechelen Master Mason's Wages
CPI, NWI, and RW Indexes: 1421-1520
Nominal and Real Wage Indexes
Commodity Price Index 1451-75=100
180
160
140
120
100
80
60
40
1421-25
1436-40
1451-55
1466-70
1481-85
1496-1500
1511-15
quinquennial means: 1451-75=100
Mechelen Commodity Price Index
Mechelen Masons Nominal Wage Index
Mechelen Masons Real Wage Index


BRABANT: Craftsmen's Wages, 1396-1505
Annual Wages: in Commodity Baskets
Annual Wage Income: Commodity Baskets
12
10
8
6
4
2
1396-1400
1411-15
1426-30
1441-45
1456-60
1471-75
1486-90
1501-05
Quinquennial Harmonic Means, 1396-1505
Antwerp Master Mason
Antwerp Masons Labourers
Mechelen Master Masons
Mechelen Master Carpteners
Mechelen Master Pavers
Mechelen Master Masons OLV
Mechelen OLV Masons Labourer
Mechelen Master Carpenters OLV
Mechelen Common Labourers

Master Masons's Wages: Basket of Goods

England & Low Countries: 1336 to 1500




Mason's Labourers Wages in Baskets
England and Low Countries: 1336 - 1500
Annual Wage Income: Commodity Baskets
12
10
8
6
4
2
1336-40
1361-65
1386-90
1411-15
1436-40
1461-65
1486-90
Quinquennial Harmonic Means 1336-1500
Oxford-Cambridge Mason's Labourer
Bruges Mason's Labourer
Antwerp Mason's Labourers
Mechelen OLV Mason's Labourers
Mechelen OLV Labourers

Urban Excise Taxes & Warfare 1

- 1) **The evidence on REAL WAGES for the southern Low Countries in 15th century:**
- a) **during periods of coinage debasements**, **real wages fell**, and fell sharply
- b) **during periods of monetary stability, with monetary contraction and prevailing deflation**, **real wages rose**, often sharply
- 2) **But urban taxation often offset the real income effects of rising real wages -** during the mid-century period of rising real wages

Urban Excise Taxes & Warfare 2

- 3) **Urban taxes were also, to a large extent, war-related: to make required payments on public debts** and the Flemish towns' obligation to render subventions to the Duke: **to finance Burgundian warfare and defence**
- 4) **Thus warfare was financed (everywhere)** not through taxation but through **borrowing**
- 5) **Public civic borrowing was in the form of sales of annuities**: known as *rentes* or *renten* (**not** in form of interest-bearing loans)

Urban Excise Taxes & Warfare 3

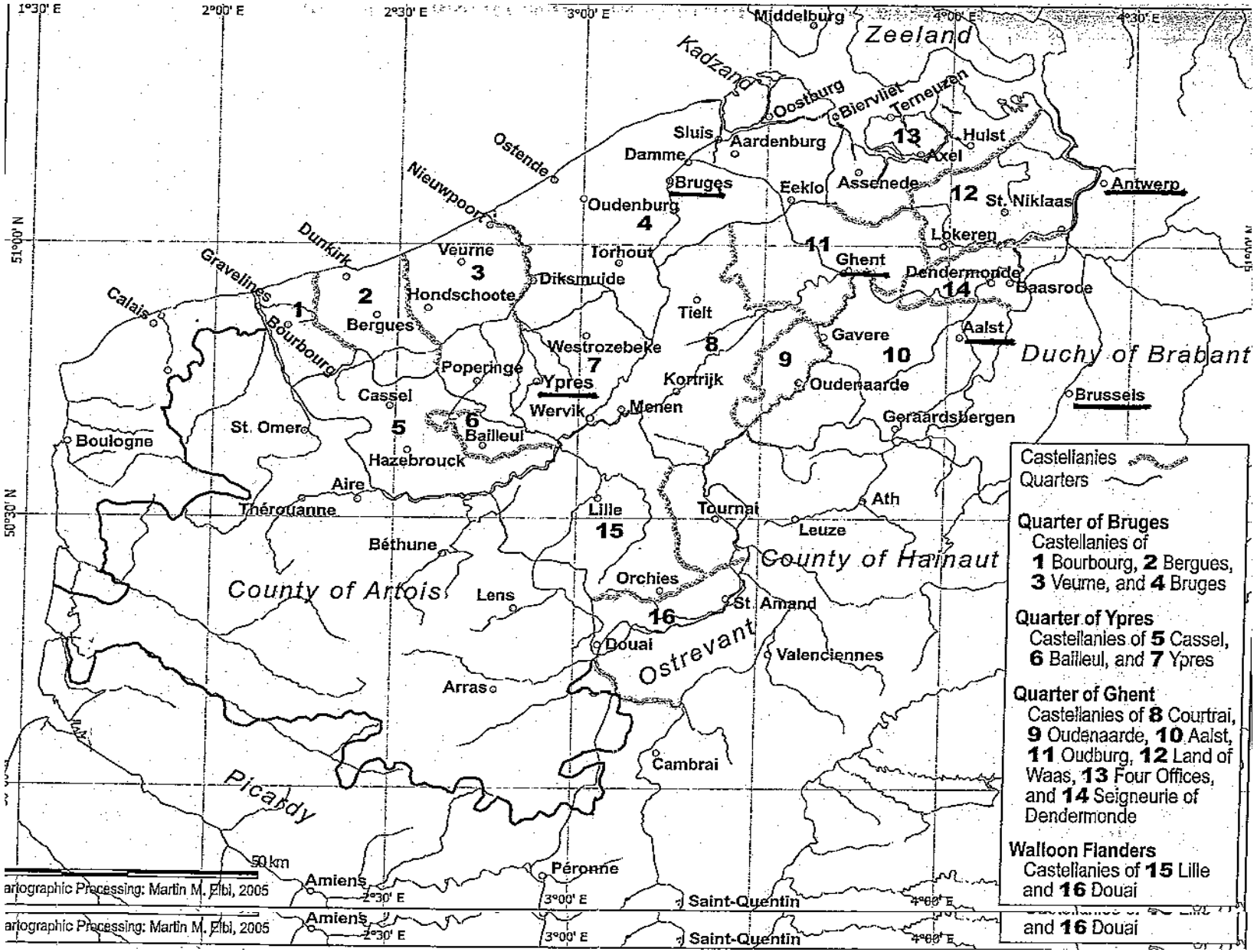
- 6) **Usury ban: explains why public borrowing was NOT generally in the form of interest bearing loans**
- a) **From revival of anti-usury campaign in northern France, in 1220s**, towns and principalities switched from loans to 'rentes' or annuities
- b) ***rentes***, **based on an older agrarian contract,** by which lenders & investors
- - provided town & territorial gov'ts with a lump sum of money, never to be repaid
- - in return for a life-time or perpetual stream of income

Urban Excise Taxes & Warfare 4

- 7) **Papacy and Church Theologians on *Rentes***
- a) **1250: Innocent IV decreed that *rentes* were not usurious PROVIDED that** the buyer (lender-investor) could never require redemption of *rentes*, while sellers (debtor-issuers) were free to redeem them at will (but only at par)
- b) ***rentiers:*** could instead reclaim some capital by selling *rentes* to 3rd parties ➔ growth of financial markets
- c) **15th century Papal bulls (1425, 1452, 1455)**: **upheld Innocent IV's decree**, while also stipulating that annual payments (de facto interest) for and redemptions of *rentes* had to come from the '**fruits of the land' [usufruct]**, as in any normal rent contract.
- d) **This form of public borrowing** now almost universal

Urban Excise Taxes & Warfare 5

- 7) **Papacy and Church Theologians on *Rentes* (cont'd)**
- e) **excise taxes on the consumption of products of the land & sea met this provision**: on wine, beer, bread, meat, fish, textiles (wool, linen), etc.
- f) **highly regressive form of taxation**, hitting lower income strata far more than rich – and only **urban** inhabitants (not applicable in rural areas)
- g) **different from property taxes**: which excluded poor
- h) **gov'ts: sold tax farms for right to levy** these excise taxes (so that evidence is indirect)
- 8) **Evidence from town of Aalst (eastern Flanders):**

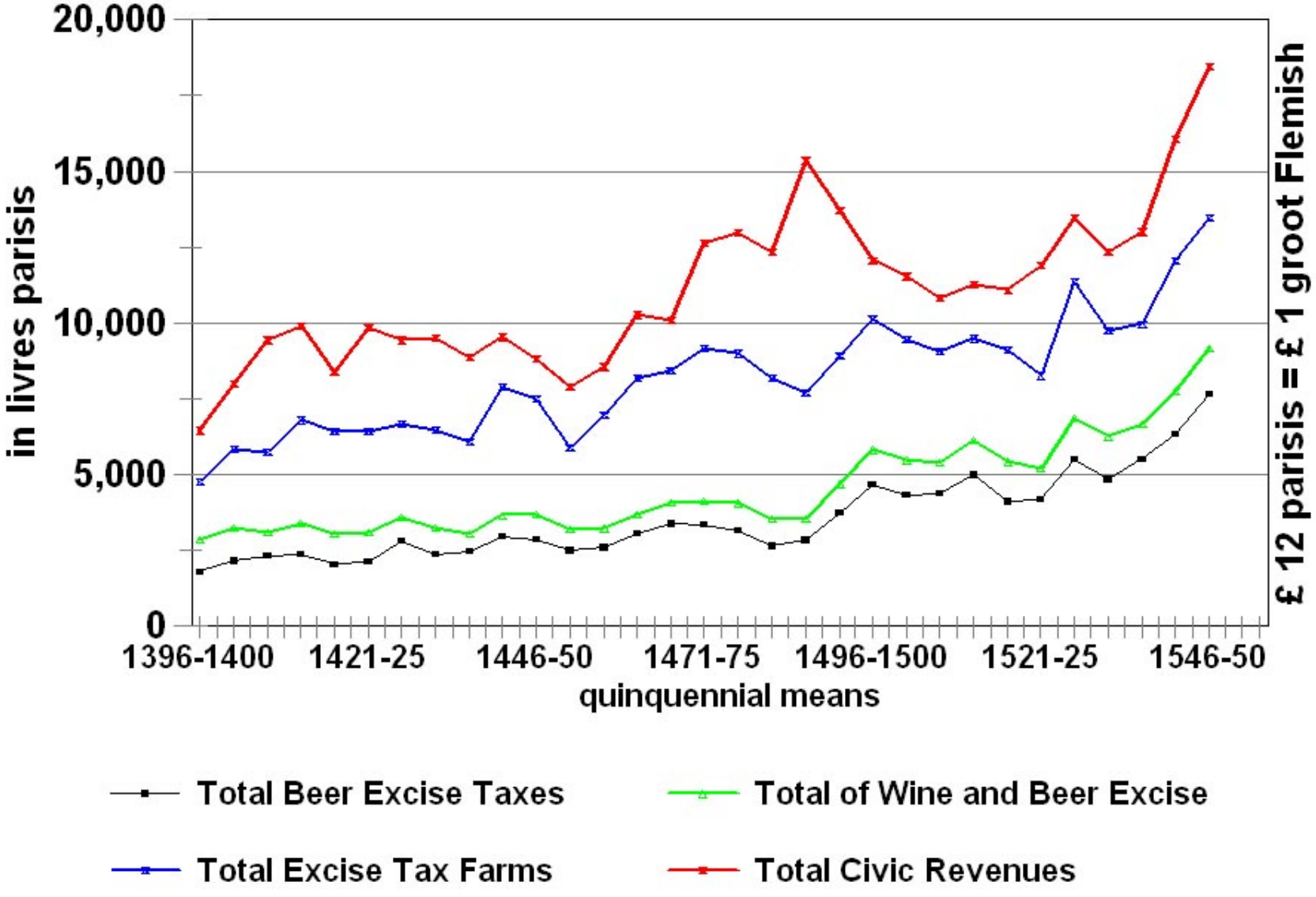


artographic Processing: Martin M. Elbl, 2005
Amiens
Saint-Quentin
and 16 Douai


RESTAURANT
CAFE

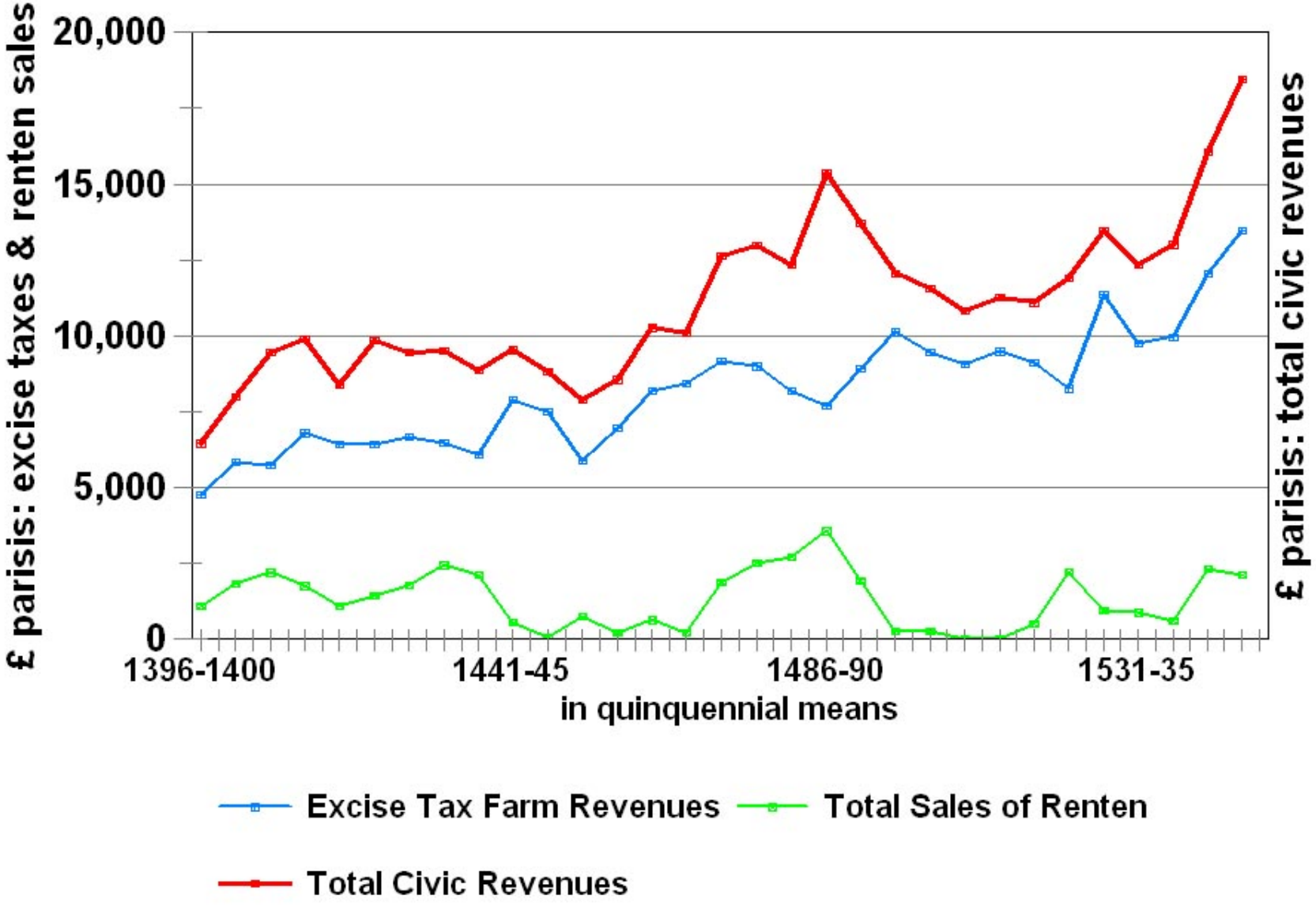
Aalst Total Tax Farms and Revenues

livres parisis, 1396-1550: 5 yr means



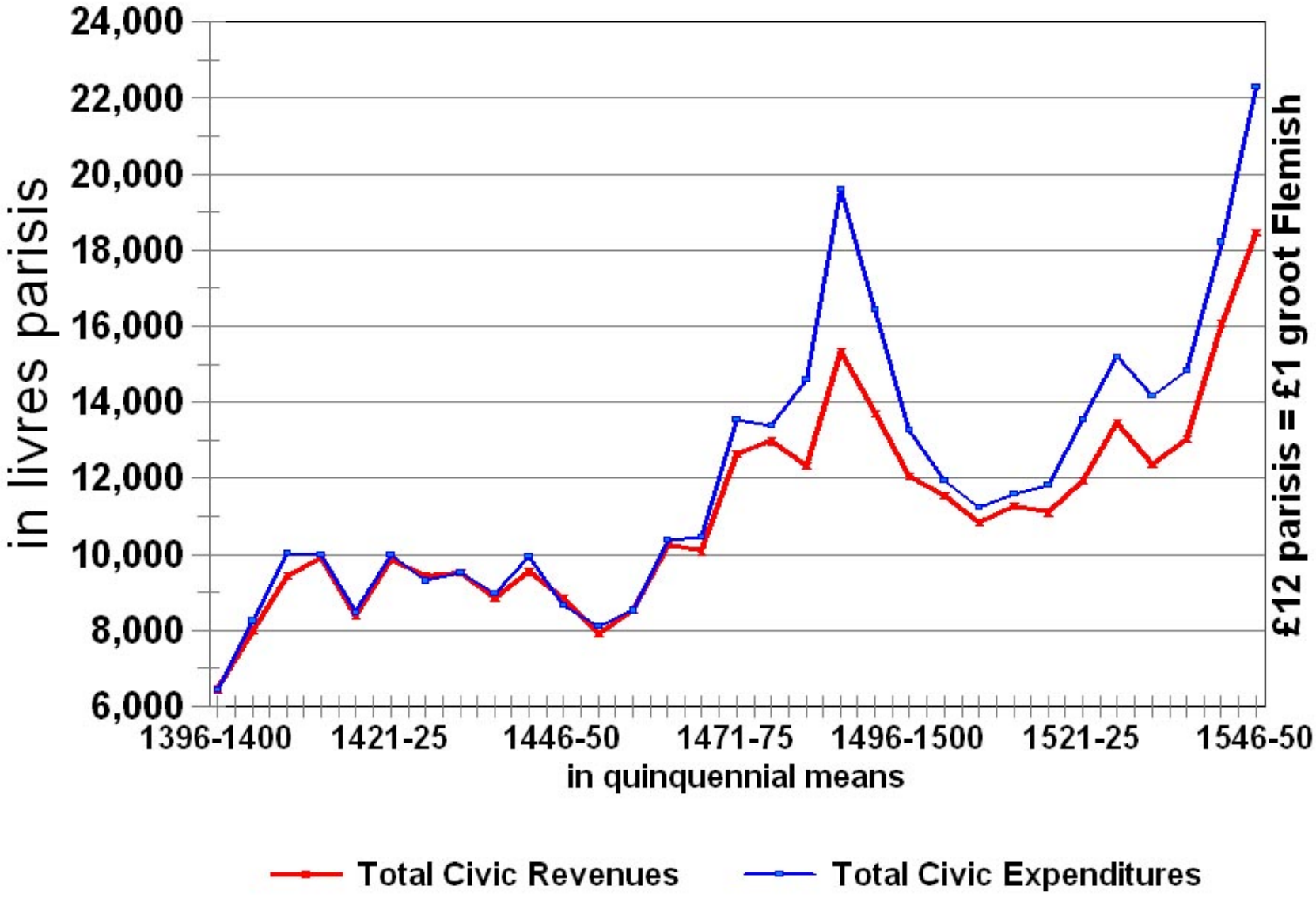
Aalst: Renten & Excise Tax Revenues

in £ parisis: 1396-1550 in 5 yr means



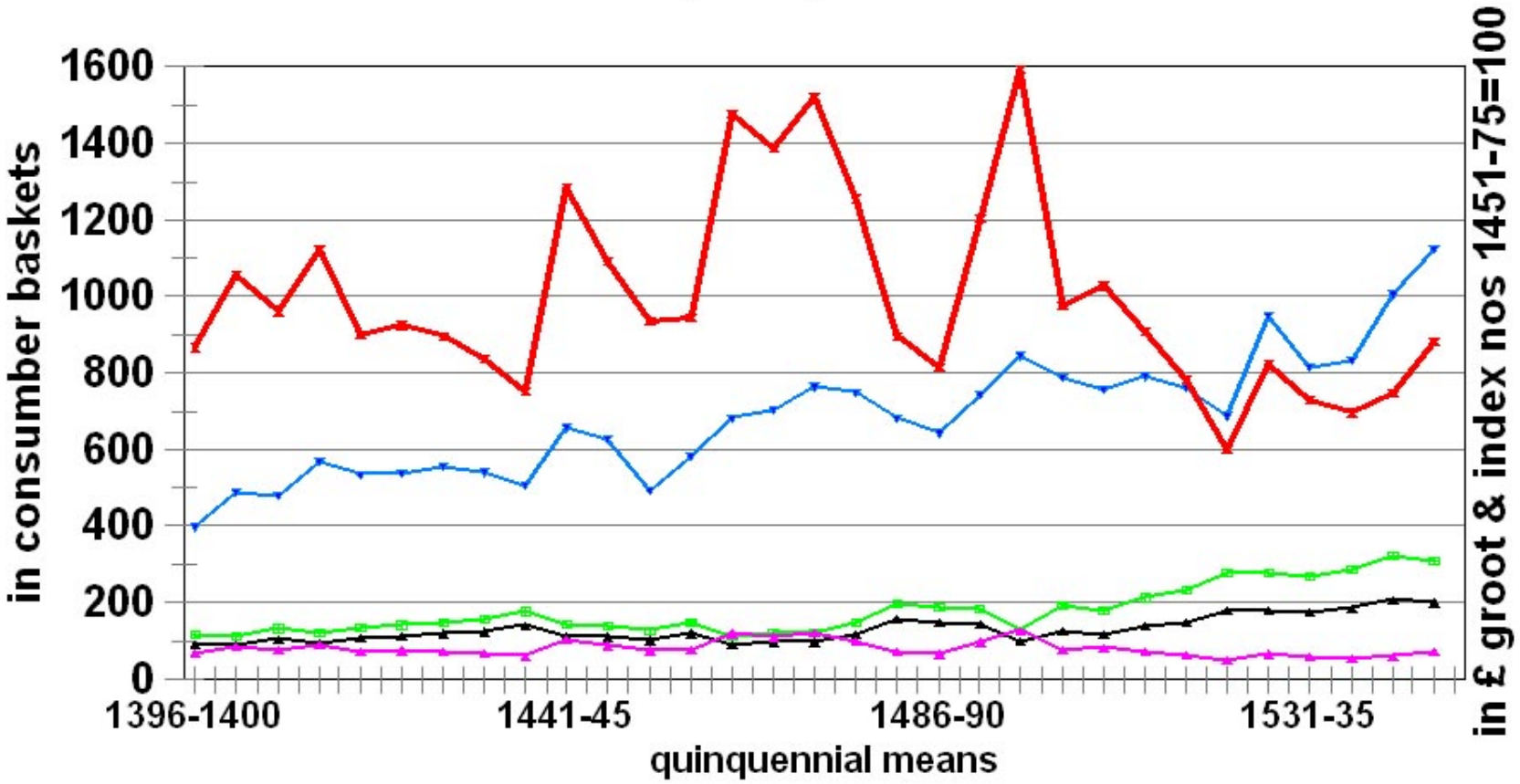
Aalst: Revenues & Expenditures

in £ parisis: 1396-1550 in 5 yr means



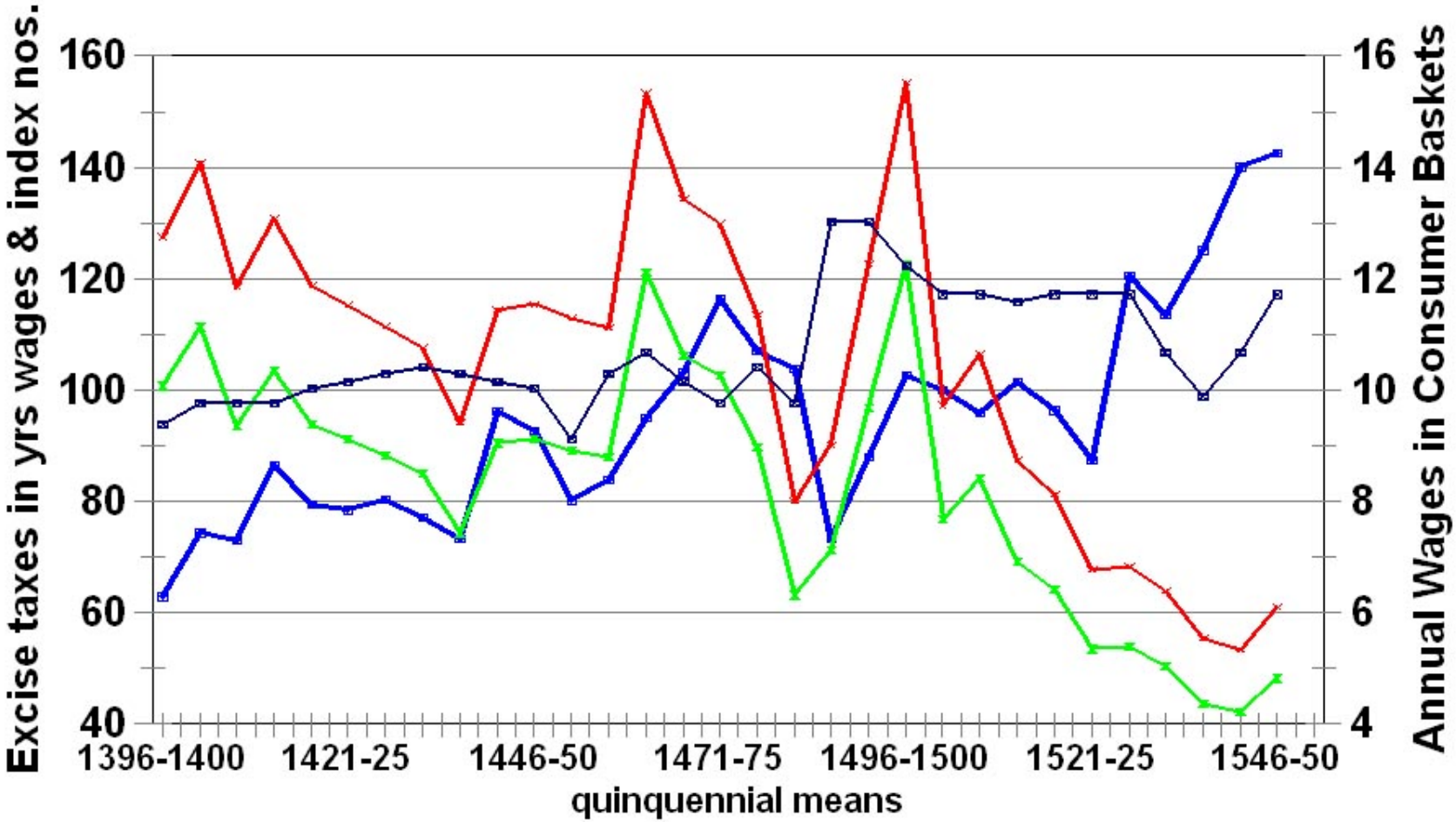
Aalst Excise Taxes in Consumer Baskets

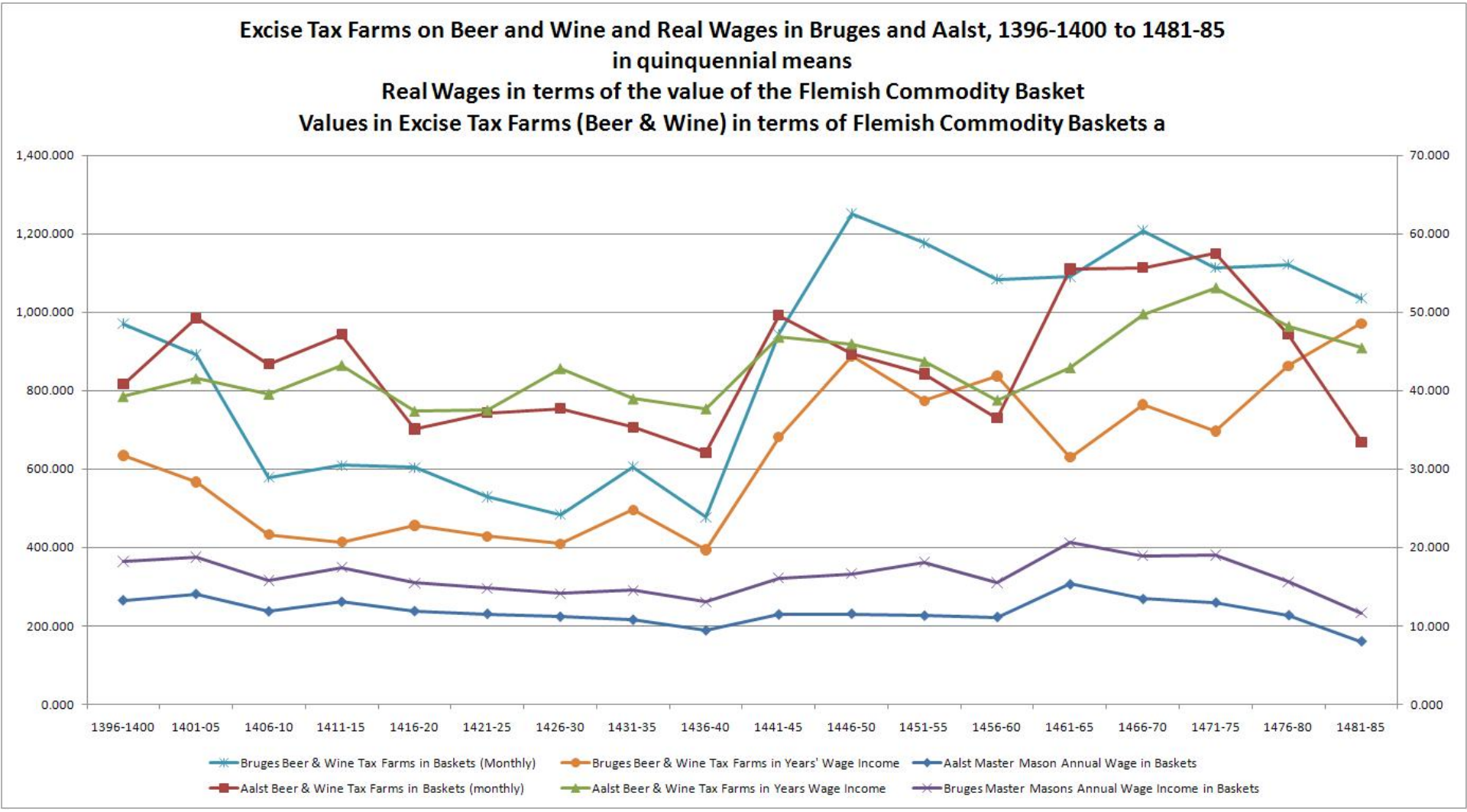
1396-1550 in quinquennial means



Aalst Masons' Wages, 1396-1550

Wages in baskets, index nos., & taxes




Excise Tax Farms on Beer and Wine and Real Wages in Bruges and Aalst, 1396-1400 to 1481-85
in quinquennial means
Real Wages in terms of the value of the Flemish Commodity Basket
Values in Excise Tax Farms (Beer & Wine) in terms of Flemish Commodity Baskets a
1,400.000
1,200.000
1,000.000
800.000
600.000
400.000
200.000
0.000
70.000
60.000
50.000
40.000
30.000
20.000
10.000
0.000
1396-1400
1401-05
1406-10
1411-15
1416-20
1421-25
1426-30
1431-35
1436-40
1441-45
1446-50
1451-55
1456-60
1461-65
1466-70
1471-75
1476-80
1481-85
Bruges Beer & Wine Tax Farms in Baskets (Monthly)
Bruges Beer & Wine Tax Farms in Years' Wage Income
Aalst Master Mason Annual Wage in Baskets
Aalst Beer & Wine Tax Farms in Baskets (monthly)
Aalst Beer & Wine Tax Farms in Years Wage Income
Bruges Master Masons Annual Wage Income in Baskets

Urban Taxes and Population (1)

- 1) **the Population Problem and Taxation**

- a) **Flemish population continued to decline over course of 15th century** – especially after the 1439 plagues
- b) **Problem: a smaller and smaller number of survivors were forced to bear the entire tax burden** of financing previously incurred public debts: ➔ **rising per capita taxes**
- c) **Population: evidence varied (none for Aalst, ca. 4,000):**
- - **Hulst**: 3,600 in 1417 ➔ 3,000 in 1469: -17%
- - **Dendermonde**: 9,000 in 1360 ➔ 4,500 in 1460: -50%
- - **Ypres**: 10,523 in 1431 ➔ 7,626 in 1491: - 27.5%

Urban Taxes and Population (2)

- 2) **Population and Poverty in duchy of Brabant**
- a) **towns and villages of Brabant: lying to the east of Flemish town of Aalst**
- b) **1437 to 1496:** no. of hearth fell by 19%: population fell even more, as household size contracted
- b) **Note the relationship between falling population and increasing poverty:** i.e., proportion of 'poor hearths' that gained relief from **property** taxes (1437 ➔ 1480 only)
- c) **For excise taxes**: never any such tax relief
- d) **hardly indications of a Golden Age**

Population Decline and Poverty in the Duchy of Brabant, 1437 - 1496
Number of Family Hearths (Households) and Percentage of Total Hearths without Taxable Income ('Poor Hearths'): 1437, 1480, and 1496

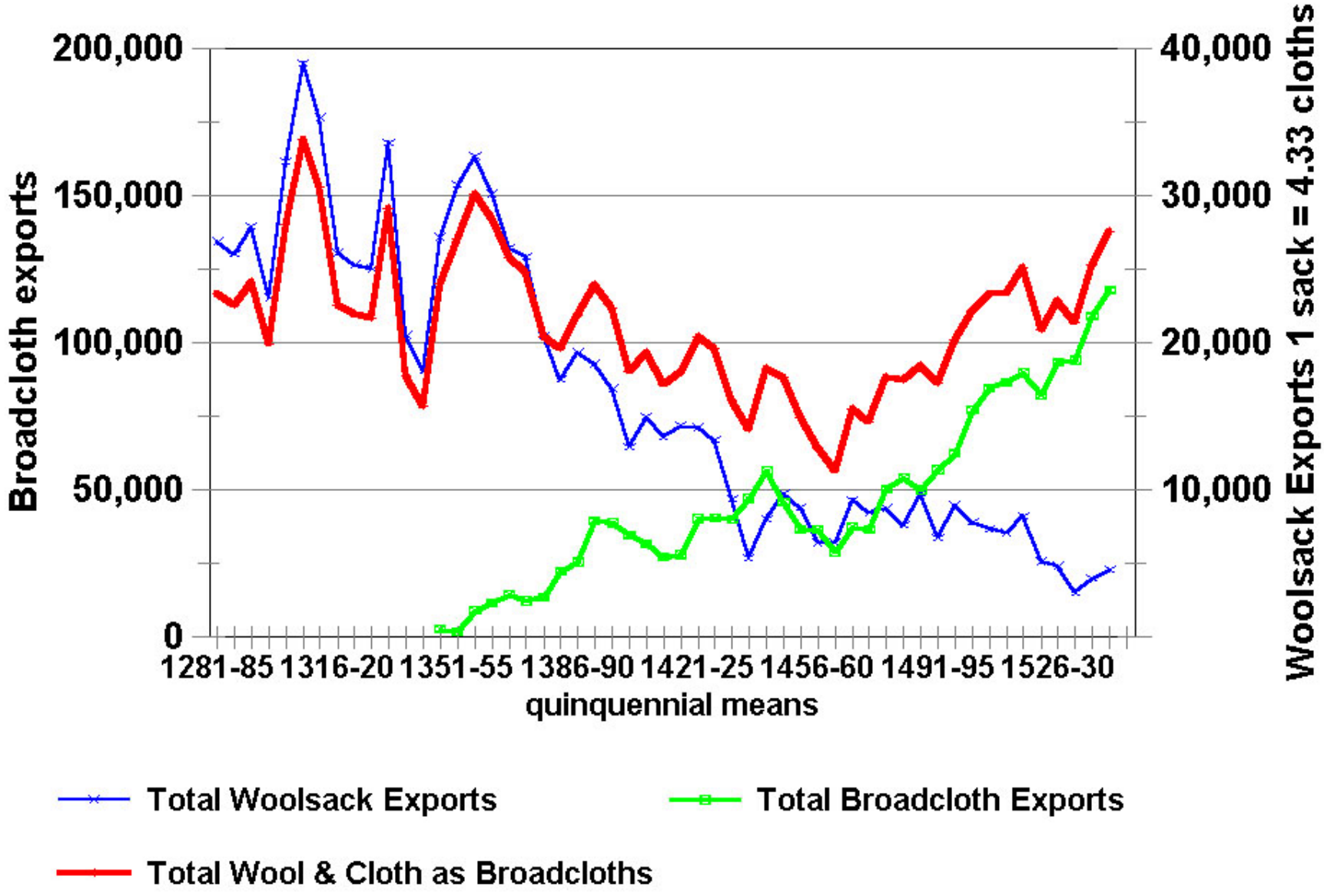
Area of Census	1437: no. of hearths in census	1437: per-cent poor hearths	1480: no. of hearths in census	1480: per-cent poor hearths	1496: no. of hearths in census	1496: no. of poor hearths	Percent Change from 1437 to 1496
Brussels	6,376	10.5	7,414	7.9	5,750	17.1	-9.82%
Antwerp	3,440	13.5	5,450	10.5	6,586	12.5	91.45%
Leuven	3,579	7.6	3,933	18.3	3,069	n.a.	-14.25%
s'Hertogen-bosch	2,883	10.4	2,930	7.9	3,456	n.a.	19.88%
Sub-total Large Towns	16,278	10.5	19,727	14.8	18,861	n.a.	15.87%
Small Towns	14,159	9.2	12,216	28.1	10,600	n.a.	-25.14%
Villages	62,301	29.7	54,540	31.6	45,882	n.a.	-26.35%
Total Duchy	**92,738**	**23.4**	**86,483**	**27.3**	**75,343**	**n.a.**	**-18.76%**
Percentage Change from 1437			**-6.74%**		**-18.76%**		

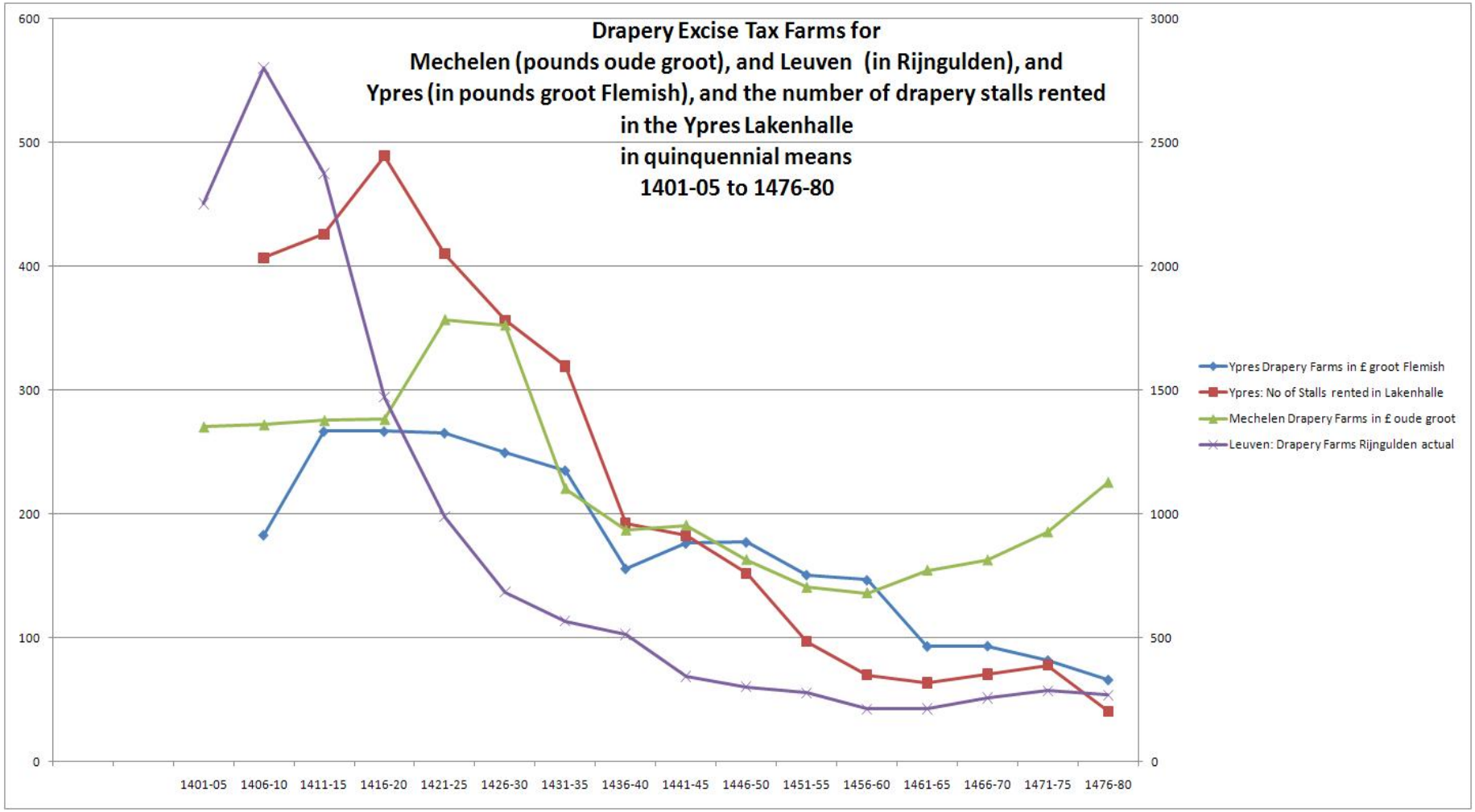
Industrial Decline: Textiles

- 1) **Textiles, esp. high-grade woollens**: industrial & commercial **mainstay of Low Countries' economies**
- 2) **England's War-Related Fiscal Impositions on Wool-Export Trade: Calais Staple Bullion and Partition Ordinances, 1429 – 1473**: to extort bullion & deny credit in Staple wool sales to Low Countries: added to existing burden of high English wool-export taxes (war-finance)
- 3) **Major consequences**: **expansion of English cloth trade,** ultimately **vanquishing most of Low Countries' draperies**
- 4) **Devastating injury of Calais Ordinances inflicted on LC luxury cloth industries** dependent on **English wools**
- 5) **Only partially offset by rise of those Flemish *nouvelles draperies,*** which switched to **Spanish wools**

English Wool and Broadcloth Exports

1281-5 to 1541-45 in 5 year means




Drapery Excise Tax Farms for
Mechelen (pounds oude groot), and Leuven (in Rijngulden), and
Ypres (in pounds groot Flemish), and the number of drapery stalls rented
in the Ypres Lakenhalle
in quinquennial means
1401-05 to 1476-80
600
500
400
300
200
100
0
3000
2500
2000
1500
1000
500
0
1401-05
1406-10
1411-15
1416-20
1421-25
1426-30
1431-35
1436-40
1441-45
1446-50
1451-55
1456-60
1461-65
1466-70
1471-75
1476-80
Ypres Drapery Farms in £ groot Flemish
Ypres: No of Stalls rented in Lakenhalle
Mechelen Drapery Farms in £ oude groot
Leuven: Drapery Farms Rijngulden actual

Conclusions for the southern Low Countries:

- **No Golden Age for their urban craftsmen, if we combine the accumulated evidence on**:
- (1) **sharp declines in real wages** during times of coinage debasements
- (2) **sharp increases in levels of urban excise taxes,** which rose even during peace-time, with rising real wages
- (3) **population decline and increasing poverty** (at least in Brabant, with number of 'poor hearths')
- (4) **Steep declines in urban woollen cloth outputs**: in towns of both Flanders & Brabant