

Grain trade 1725-1821

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The data

- How many flows recorded:

```
unique values: 41085          missing "": 0/376754
```

```
examples: "Charbon de terre et de bois"  
          "Fer ; en platines"  
          "Meubles et miroirs"  
          "Saumons ; salés"
```

- How many of them concern «grains or substitutes»:

```
unique values: 5          missing .: 0/5971
```

```
tabulation:  Freq.  Value  
             1313   1  
             936   2  
            2569   3  
             273   4  
             880   5
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A first trial

- Classifications

- 1: Froment
- 2: méteil, seigle, orge (Baillarge), métillon, epeutre
- 3: sarrasin, mais, avoine, couscoute, autres
- 4 chataignes, pommes de terre, pois, haricots
- 5: farines, gruaus, biscuits, pain, pates etc.

«Directions»

• direction		Freq.	Percent
• Bayonne		325	13.13
• Bordeaux		335	13.54
• La Rochelle		314	12.69
• Marseille		294	11.88
• Nantes		336	13.58
• Rouen		283	11.43

Country of origin

pays_regroupees	Freq.	Percent	Cum.
...tats-Unis d'Amérique	105	1.88	1.88
?	62	1.11	3.00
Allemagne et Pologne (par terre)	286	5.13	8.13
Angleterre	422	7.57	15.71
Colonies	506	9.08	24.79
Espagne	685	12.30	37.08
Flandre et autres états de l'Empereur	346	6.21	43.30
France	19	0.34	43.64
Hollande	835	14.99	58.63
Indes	8	0.14	58.77
Italie	952	17.09	75.86
Levant	225	4.04	79.90
Nord	772	13.86	93.75
Nord-Hollande	2	0.04	93.79
Petites îles	2	0.04	93.83
Portugal	185	3.32	97.15
Suisse	159	2.85	100.00
Total	5,571	100.00	

Country of origin by direction of flow

- Export:

pays_regroupees	Freq.	Percent	Cum.
...tats-Unis d'Amérique	43	1.92	1.92
?	15	0.67	2.59
Allemagne et Pologne (par terre)	148	6.60	9.19
Angleterre	109	4.86	14.05
Colonies	434	19.36	33.41
Espagne	434	19.36	52.77
Flandre et autres états de l'Empereur	101	4.50	57.27
France	3	0.13	57.40
Hollande	140	6.24	63.65
Indes	8	0.36	64.01
Italie	330	14.72	78.72
Levant	63	2.81	81.53
Nord	207	9.23	90.77
Portugal	148	6.60	97.37
Suisse	59	2.63	100.00
Total	2,242	100.00	

Country of origin by direction of flow

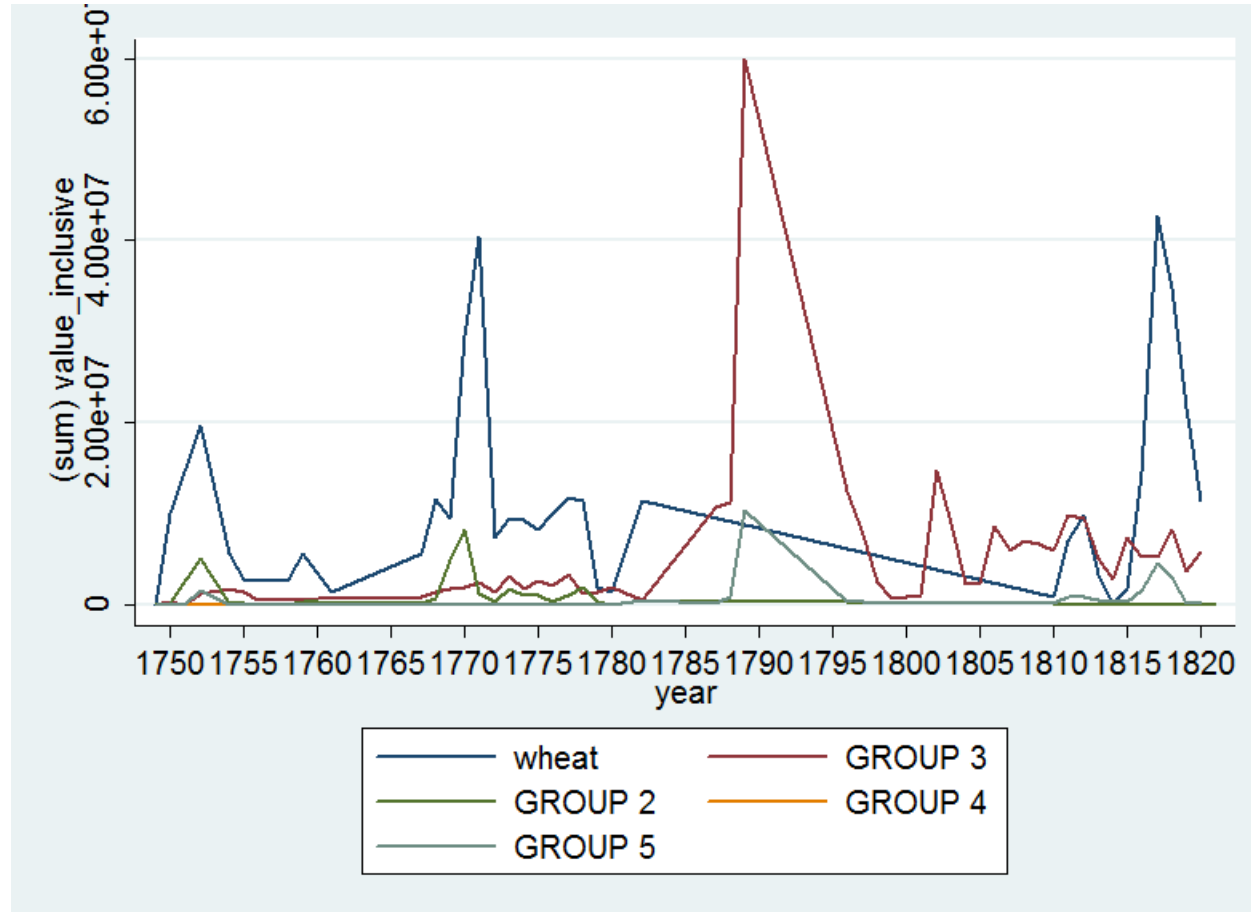
- Import:

pays_regroupees	Freq.	Percent	Cum.
...tats-Unis d'Amérique	62	1.86	1.86
?	47	1.41	3.27
Allemagne et Pologne (par terre)	138	4.15	7.42
Angleterre	313	9.40	16.82
Colonies	72	2.16	18.98
Espagne	251	7.54	26.52
Flandre et autres états de l'Empereur	245	7.36	33.88
France	16	0.48	34.36
Hollande	695	20.88	55.24
Italie	622	18.68	73.93
Levant	162	4.87	78.79
Nord	565	16.97	95.76
Nord-Hollande	2	0.06	95.82
Petites îles	2	0.06	95.88
Portugal	37	1.11	97.00
Suisse	100	3.00	100.00
Total	3,329	100.00	

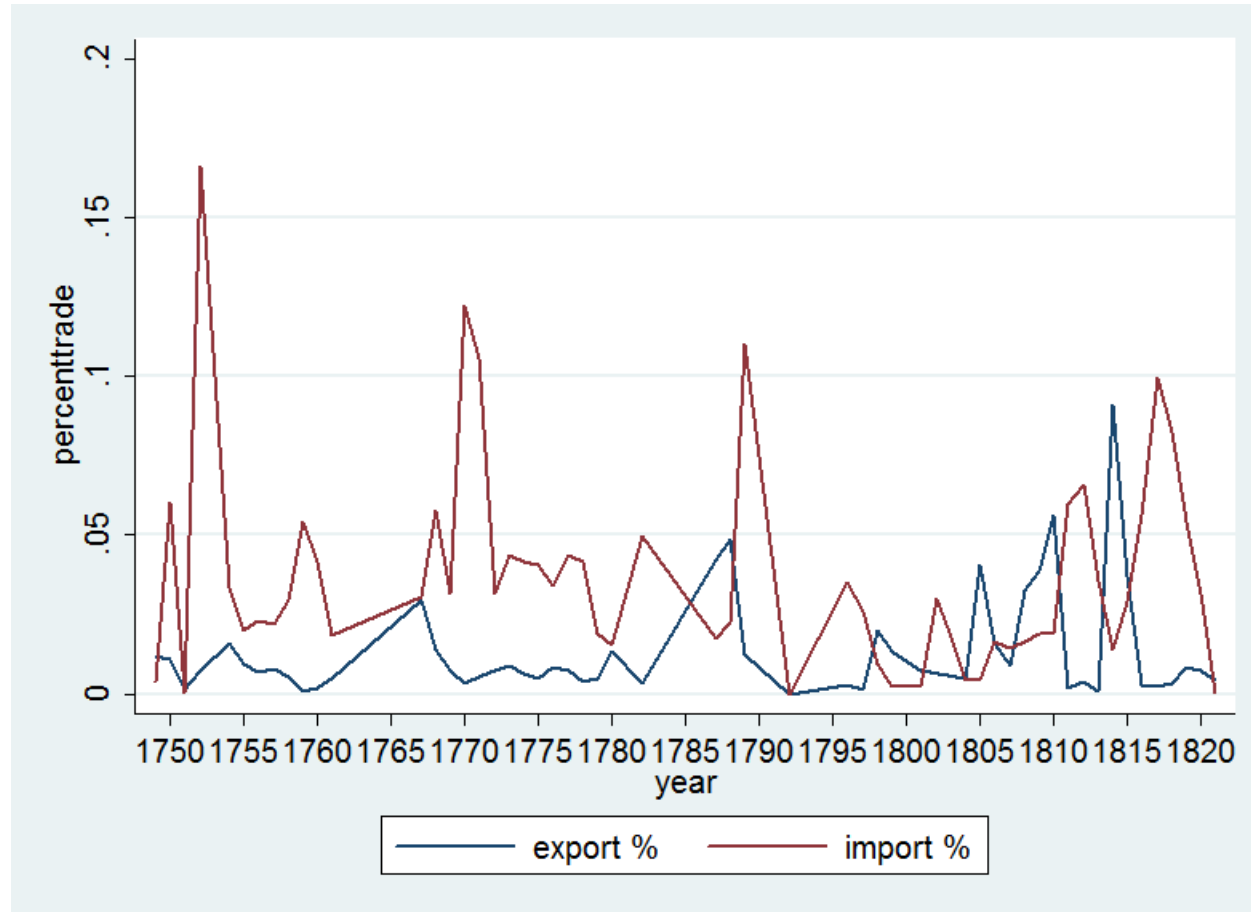
Grain Trade: Import Export



Grain trade: Import by group



Grain trade as % of total trade



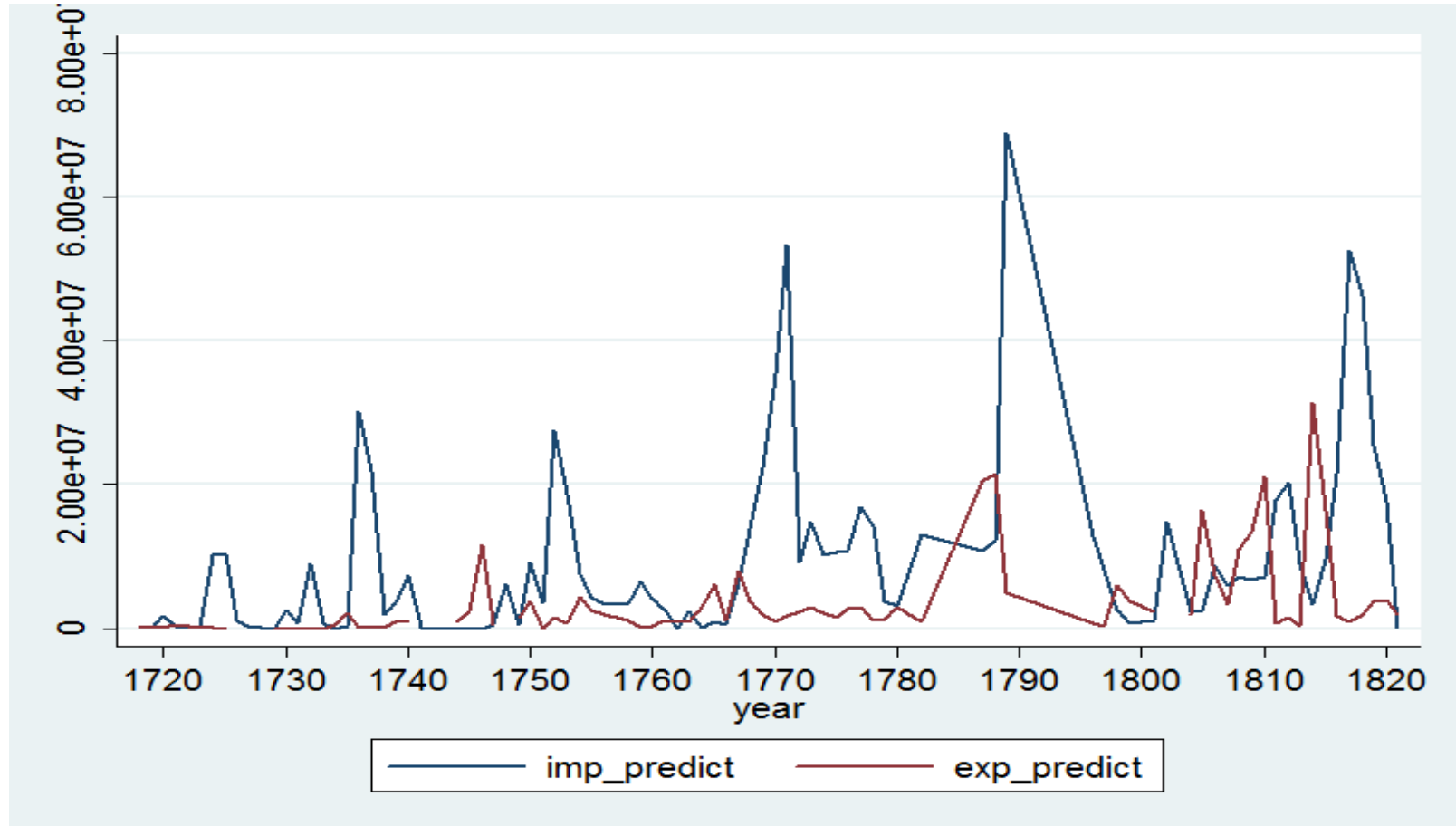
Grain trade FE

- Repeated sales model
- Fixed Effect of geography and year dummies

$\log(\text{value}) = A + \text{Beta}(i.\text{year}) + \text{Gamma}(i.\text{geography}) + e$
weighted by value

- Use model to «predict» missing values

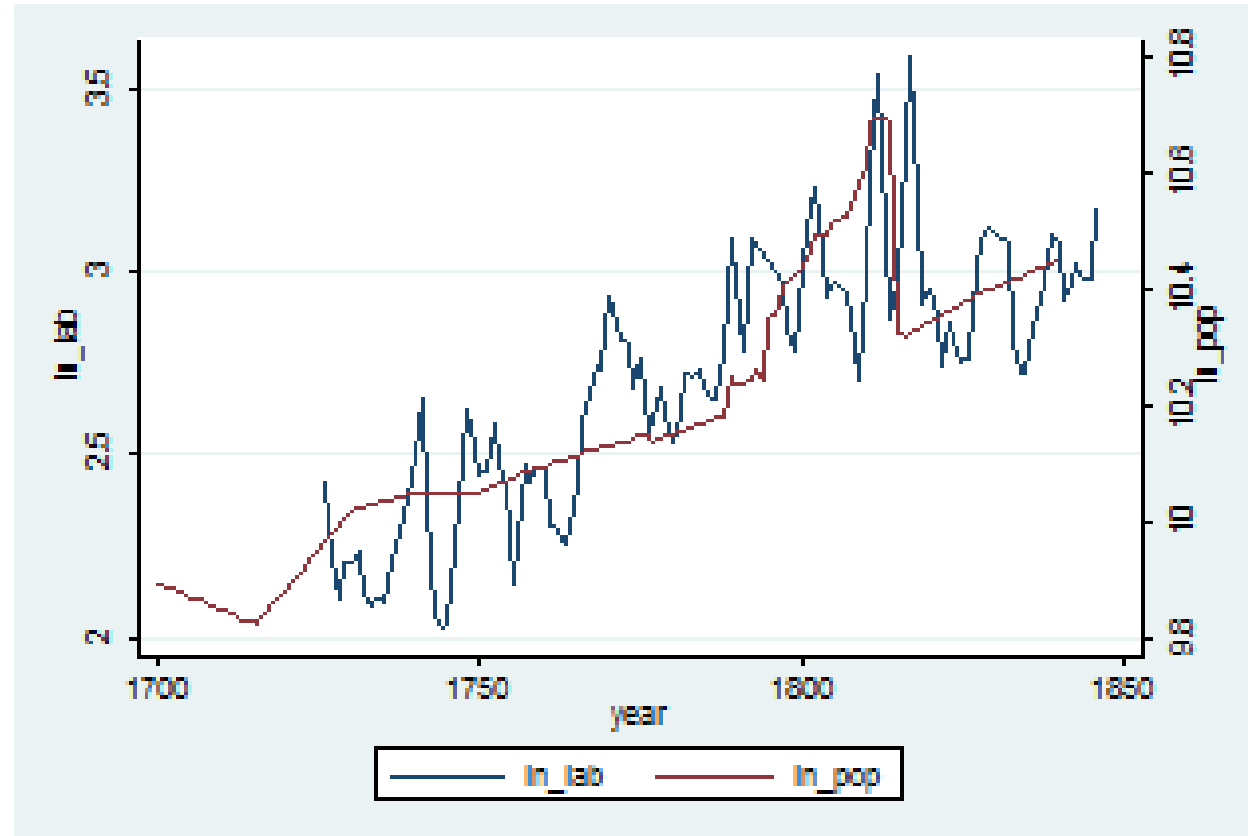
Predicting the model



Grain trade and its distribution

- In 1749, Marseille covers 98% of recorded exports and 31% of imports, while Bayonne has 52% of imports
- In 1750, Marseille accounts for 85% of imports and 98% of exports
- In 1789, instead, the data seem more realist: Marseille accounts for over 21% of total imports, while Rouen for more than 42% and Lille for about 17%; Through Marseille passes 95% of recorded exports.

Grain trade and population growth



Grain trade and its discontents

```
. pwcorr riots value_0 value_1 l1.value_0 l1.value_1 l2.value_0 l2.value_1 l3.value_0 l3.value_1 l4.value_0 l4.value_1 l
> 5.value_0 l5.value_1, sig
```

	riots	value_0	value_1	L1.va~_0	L1.va~_1	L2.va~_0	L2.va~_1						
riots	1.0000												
value_0	0.6907 0.0000	1.0000											
value_1	0.2913 0.0947	0.0880 0.6206	1.0000										
L1.value_0	0.2996 0.1077	0.4158 0.0223	-0.0379 0.8425	1.0000									
L1.value_1	0.8011 0.0000	0.6495 0.0001	0.1845 0.3292	0.1944 0.3033	1.0000								
L2.value_0	0.1908 0.3308	0.1247 0.5272	0.3460 0.0713	0.3980 0.0398	-0.0394 0.8453	1.0000							
L2.value_1	0.5607 0.0019	0.5098 0.0056	-0.0890 0.6525	0.2073 0.2995	0.5188 0.0056	0.0759 0.7009	1.0000						
L3.value_0	0.2596 0.2003	0.0592 0.7738	0.3471 0.0823	0.1913 0.3706	0.3041 0.1486	0.4195 0.0368	-0.0772 0.7138						
L3.value_1	0.2795 0.1667	0.4214 0.0320	0.1354 0.5097	0.3093 0.1413	-0.0202 0.9252	0.1170 0.5775	0.2837 0.1693						
L4.value_0	0.6391 0.0006	0.0057 0.9783	0.2537 0.2211	0.0683 0.7570	0.3033 0.1594	0.1869 0.3931	0.2958 0.1706						
L4.value_1	0.1739 0.4057	0.4844 0.0141	0.3436 0.0926	0.4569 0.0284	0.0115 0.9585	0.3446 0.1073	-0.0744 0.7357						
L5.value_0	0.4273 0.0331	-0.0268 0.8987	0.1566 0.4547	-0.0115 0.9593	0.2383 0.2854	0.0298 0.8952	0.2971 0.1794						
L5.value_1	0.1661 0.4274	0.0168 0.9366	-0.1552 0.4590	0.5505 0.0079	0.2664 0.2307	0.4590 0.0316	0.0789 0.7270						
				L3.va~_0	L3.va~_1	L4.va~_0	L4.va~_1	L5.va~_0	L5.va~_1				
L3.value_0				1.0000									
L3.value_1				0.1590 0.4379	1.0000								
L4.value_0				0.4027 0.0510	0.0019 0.9930	1.0000							
L4.value_1				0.1259 0.5577	0.3245 0.1219	0.1446 0.4906	1.0000						
L5.value_0				0.1768 0.4314	0.3011 0.1732	0.4180 0.0471	-0.0300 0.8919	1.0000					
L5.value_1				0.3070 0.1646	0.0303 0.8937	0.1273 0.5627	0.2687 0.2151	0.1591 0.4475	1.0000				

To do

- Geography of trade: GIS
- Geography of trade: network
- DEMETEO: regional crises (geography), climate shocks, climate deep time, longue durée (demography)
- International events: wars, treaties