Protection of Geographical Indications in Trade Agreements: is it worth it?

Charlotte Emlinger, Karine Latouche

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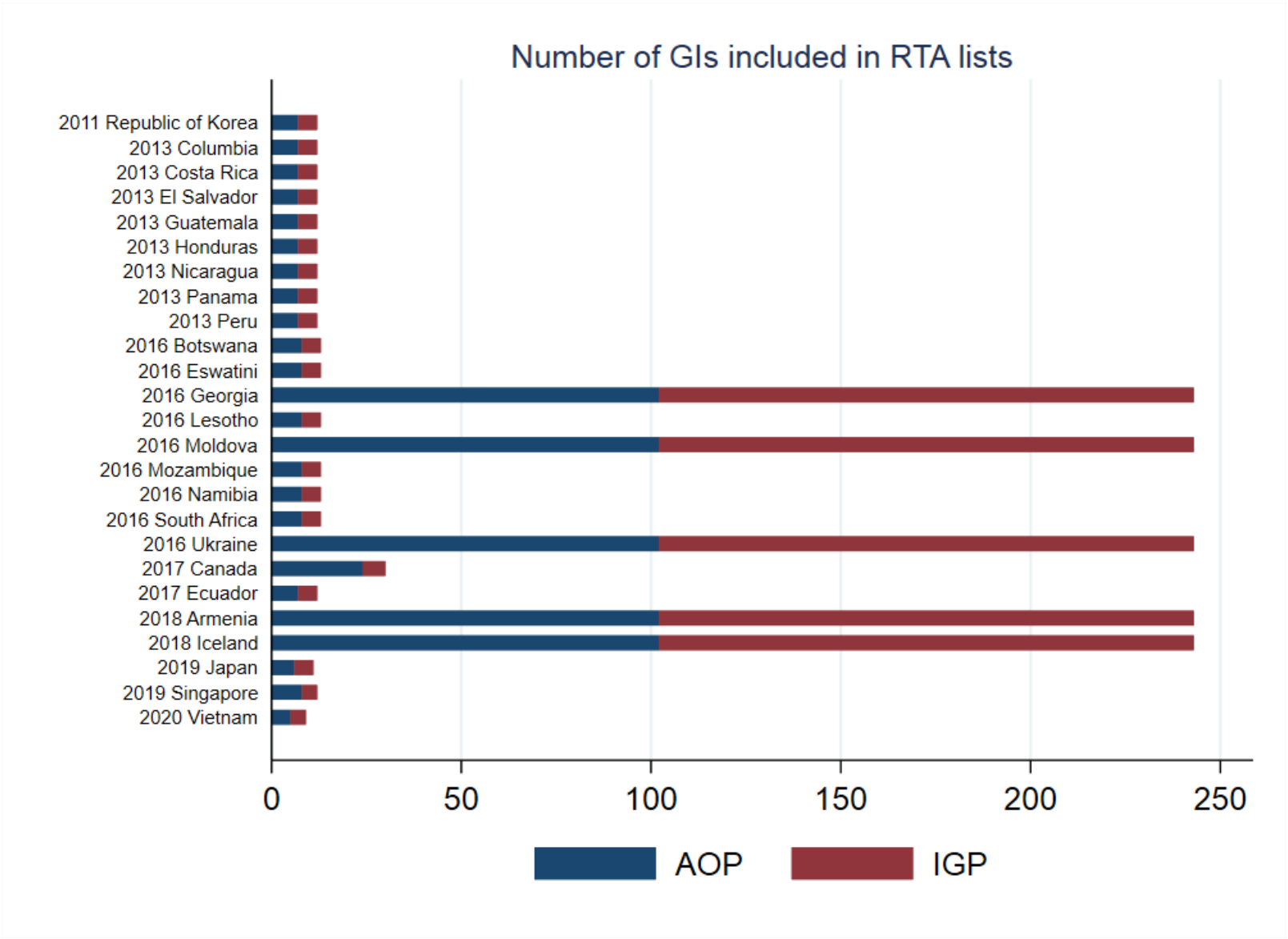
BATModel better agri-food trade modelling for policy analysis

European GIs in trade agreements

- Long time contentious issue in European trade relationships (WTO DSB in 1999 with the US, in 2003 with Canada...)
- Promoted by the European Union in multilateral and bilateral negotiations
- List of GIs included in recent EU trade agreements
  - EU-Korea (2012), EU-South Africa (2017), EU-Canada (2018), EU-Japan (2019)...

European GIs in trade agreements



This paper

- Investigates the impact of the inclusion of lists of GIs in European RTA on trade patterns
  - at the extensive margin (probability of export)
  - at the intensive margin (value)
  - on unit value (proxy for prices)
- Uses an original and exhaustive dataset of French agri-food firms data concerned by geographical indications
- Shows that protection of GIs in RTA has a positive impact on trade

Previous work

- *Duvaleix, Emlinger, Gaigné et Latouche 2021* on the French cheese industry
  - Price and quality effect of GI on exports
  - Higher market access to European markets and to countries with a similar policy about geographical indications
  - No volume effect

Data sources

- **INAO** dataset : authorized plants for a given GI product 2012-2019
- **French customs dataset** : export in value and quality, by firm, destination and NC8 product
- **FARE Dataset** from INSEE : characteristics by firm and year (size, productivity)
- list of GIs products included in RTA

Correspondance issues

1. Correspondence **GI products** $\Rightarrow$ **NC8 codes**
   - A GI product may correspond to several NC8
   - A NC8 may correspond both to GI and non-GI product

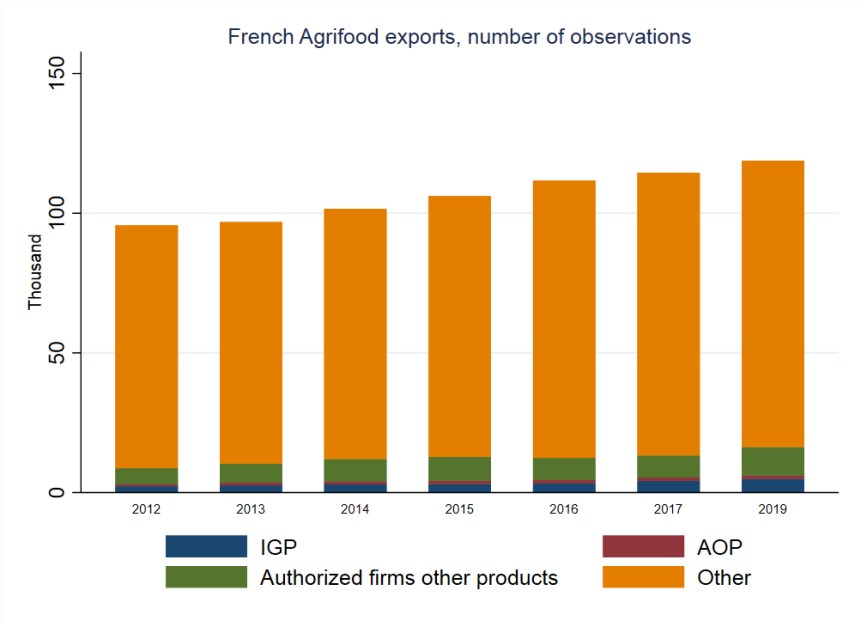
     $\Rightarrow$ All exports of a authorized firm of a NC8 code concerned by a GI are considered labelled in our dataset

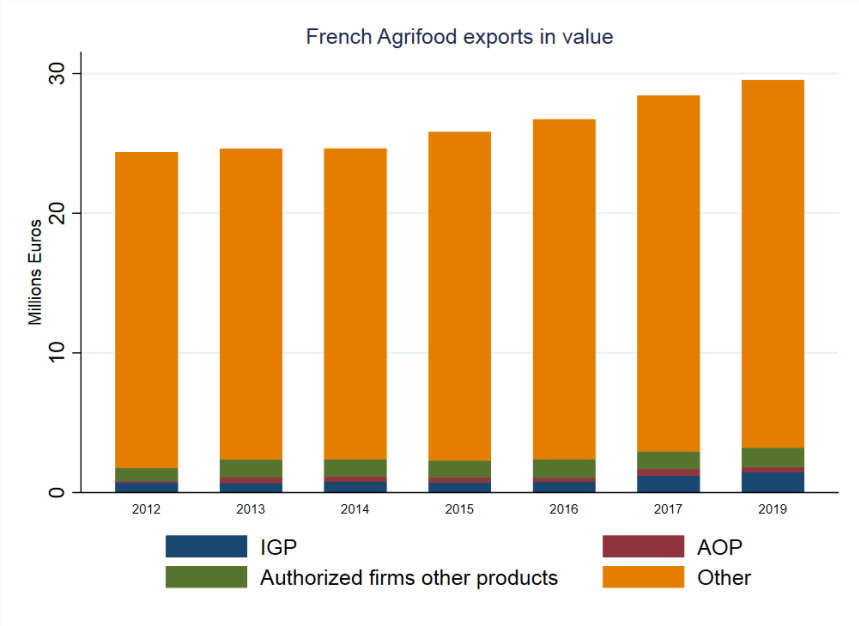
     $\Rightarrow$ GI firms may export both labelled and non-labelled products
2. Correspondence **plant** (SIRET) $\Rightarrow$ **firms** (SIREN)

Descriptive statistics

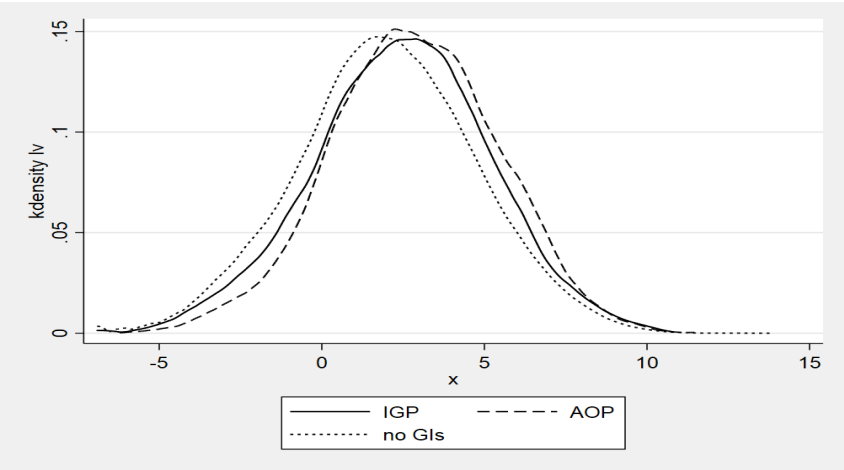
- 225 French **Geographical Indications** (99 AOP and 126 IGP)
- 313 **NC8 codes** (over a total of 2,313), mainly in the dairy and meat sectors
- 337 **authorized firms** (over 5,046)
- GIs exported to 160 **destinations** (over 226)
- 25 countries have RTAs with the EU which include **lists of GIs**

Descriptive statistics

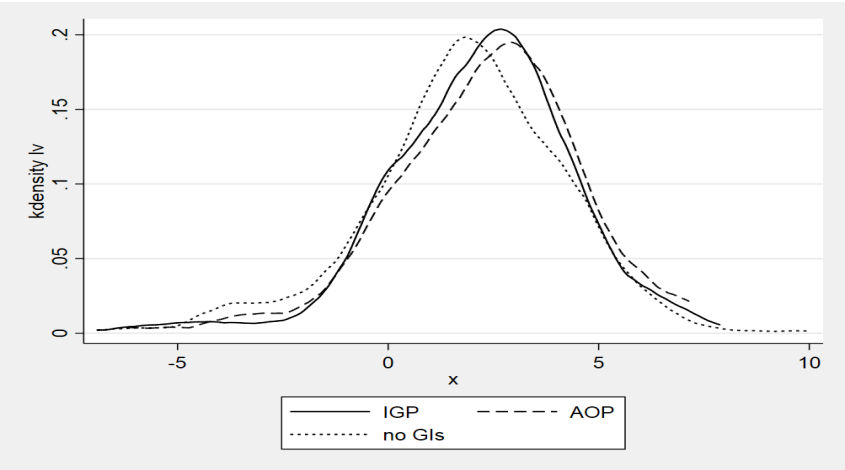




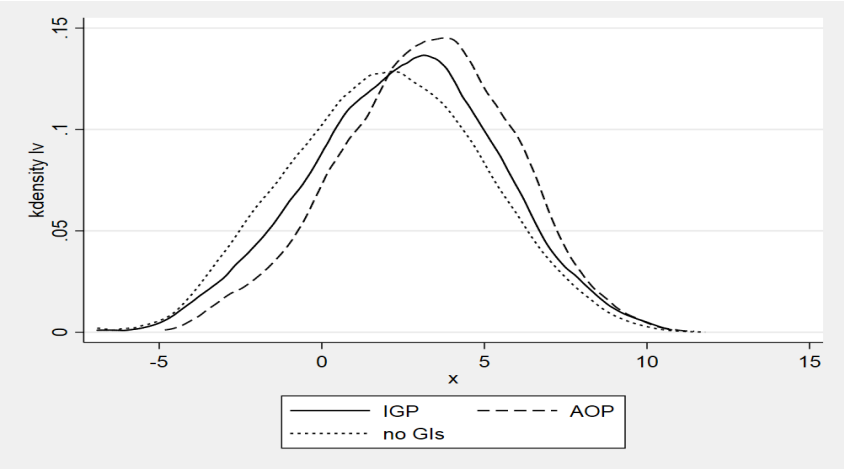
Descriptive statistics



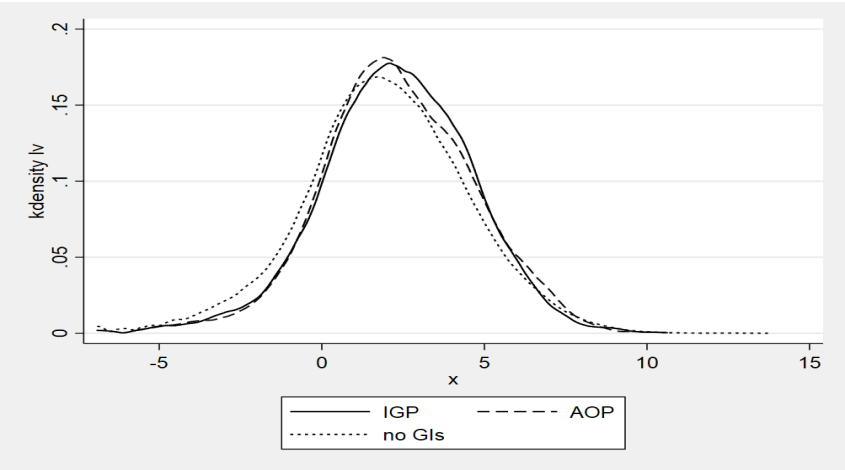
All



Markets with agreements



EU



Other markets

Specification

$$Exp_{fjkt} = \alpha GI_{fkt} + \beta GI_{fkt} \times Agreement_{jkt} + \Pi_{ft} + \xi_{jkt} + \varepsilon_{fjkt}$$

- GI_{ft} is a dummy indicating whether firm f is authorized to handle GIs for k in t
- $Agreement_{jkt}$ is a dummy indicating whether country j recognizes a GI for product k in t
- Π_{ft} time variant firm characteristics (productivity) or fixed effects
- ξ_{jkt} fixed effects controls for characteristics of the market of country j and good k the year t
- $Exp_{fjkt} =$
  - lv_{fjkt} log of export values of f to j for the k at t
  - X_{fjkt} dummy=0 if f exports k to j at t
  - luv_{fjkt} log of export unit values of f to j for the k at t

Results: intensive margin

	$\ln v_{fjkt}$				
	(1)	(2)	(3)	(4)	(5)
$\ln productivity_{ft}$	0.0157				
	(0.0101)				
GI_{fkt}	0.6885***	0.8314***	0.8654***	0.3176	
	(0.0573)	(0.0598)	(0.0623)	(0.9704)	
$GI_{fkt} \times Agreement_{jkt}$	0.3446*	0.3452*	0.5115**	0.4726**	0.8797**
	(0.1976)	(0.2069)	(0.2132)	(0.2385)	(0.3670)
$GI_{fkt} \times EU_j$	0.0906	0.1206**	0.1113	0.1111	0.1171
	(0.0597)	(0.0598)	(0.0715)	(0.0806)	(0.1015)
N	576,970	587,525	571,657	482,162	381,385
R2	0.52	0.53	0.67	0.83	0.87
destination-product-time	yes	yes	yes	yes	yes
Firm	yes	-	-	-	-
firm-time	no	yes	yes	yes	-
Firm-destination	no	no	yes	yes	-
Firm-product	no	no	no	yes	-
firm-product-time	no	no	no	no	yes
firm-destination-time	no	no	no	no	yes

Notes: All continuous variables are in logarithm. Clustered standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Results: extensive margin

			X_{fjkt}		
	(1)	(2)	(3)	(4)	(5)
$productivity_{ft}$	0.0003				
	(0.0007)				
GI_{fkt}	0.0434***	0.0516***	0.0503***	0.0128	
	(0.0036)	(0.0038)	(0.0033)	(0.0376)	
$GI_{fkt} \times Agreement_{jkt}$	0.0170***	0.0162***	0.0173***	0.0097*	0.0123*
	(0.0062)	(0.0062)	(0.0066)	(0.0058)	(0.0069)
$GI_{fkt} \times EU_j$	0.0600***	0.0614***	0.0598***	0.0689***	0.0758***
	(0.0053)	(0.0053)	(0.0042)	(0.0040)	(0.0040)
N	9,850,369	10,253,238	10,090,376	10,090,165	9,116,999
R2	0.18	0.19	0.39	0.50	0.55
destination-product-time	yes	yes	yes	yes	yes
Firm	yes	-	-	-	-
firm-time	no	yes	yes	yes	-
Firm-destination	no	no	yes	yes	-
Firm-product	no	no	no	yes	-
firm-product-time	no	no	no	no	yes
firm-destination-time	no	no	no	no	yes

Notes: All continuous variables are in logarithm. Clustered standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Results: unit values

	luv_{fjkt}				
	(1)	(2)	(3)	(4)	(5)
$productivity_{ft}$	-0.0017				
	(0.0031)				
GI_{fkt}	0.0055	0.0027	-0.0015	0.1948	
	(0.0138)	(0.0148)	(0.0154)	(0.2269)	
$GI_{fkt} \times Agreement_{jkt}$	0.1170*	0.0941	0.1398*	0.2239***	0.3426***
	(0.0650)	(0.0639)	(0.0721)	(0.0811)	(0.1241)
$GI_{fkt} \times EU_j$	-0.0047	-0.0015	0.0175	0.0501**	0.0774***
	(0.0140)	(0.0145)	(0.0170)	(0.0195)	(0.0235)
N	576,414	586,953	571,097	481,732	380,962
R2	0.77	0.78	0.84	0.90	0.92
destination-product-time	yes	yes	yes	yes	yes
Firm	yes	-	-	-	-
firm-time	no	yes	yes	yes	-
Firm-destination	no	no	yes	yes	-
Firm-product	no	no	no	yes	-
firm-product-time	no	no	no	no	yes
firm-destination-time	no	no	no	no	yes

Notes: All continuous variables are in logarithm. Clustered standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Results: heterogeneity of GIs

	lv_{fjkt} (1)	luv_{fjkt} (2)	X_{fjkt} (3)
IGP_{fkt}	0.8593***	-0.0530***	0.0558***
	(0.0739)	(0.0195)	(0.0043)
$IGP_{fkt} \times Agreement_{jkt}$	0.3978	-0.0764	0.0122
	(0.2950)	(0.1099)	(0.0085)
$IGP_{fkt} \times EU_j$	0.0334	0.0778***	0.0447***
	(0.0775)	(0.0200)	(0.0047)
AOP_{fkt}	0.6113***	0.0572***	0.0364***
	(0.0917)	(0.0192)	(0.0042)
$AOP_{fkt} \times Agreement_{jkt}$	0.5781**	0.2179**	0.0278***
	(0.2765)	(0.0908)	(0.0089)
$AOP_{fkt} \times EU_j$	0.2798**	-0.0788***	0.0803***
	(0.1189)	(0.0241)	(0.0082)
N	571,657	571,097	10,090,376
r2	0.67	0.84	0.39
destination-product-time	yes	yes	yes
firm-time	yes	yes	yes
Firm-destination	yes	yes	yes

Notes: All continuous variables are in logarithm. Clustered standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Conclusion

- We show that :
  - GIs foster exports of French agri-food firms
  - the recognition of GIs in trade agreements increases both the intensive and extensive margins of trade, as well as unit values for these products
  - this outcome is mainly driven by AOP, the oldest and most renowned geographical indication

$\rightarrow$ In favor of the inclusion of lists of GIs in trade agreements

Future steps

- Investigate whether the inclusion of GIs in RTA increases the perceived quality of products (Khandelwal 2013)
- Look at potential spillover effects for the other products of the authorized firms
- Explore the heterogeneity by sector and by country