

# Trading Capital

## European trade in the aftermath of the collapse of the Iron Curtain

Matthias Beestermöller  
University of Munich

Ferdinand Rauch  
University of Oxford

December 10, 2014

**Incomplete and preliminary**



# Iron Curtain



## Motivation

*“Das Österreichische Institut für Wirtschaftsforschung (WIFO) stellt in zahlreichen Analysen fest, dass österreichische Unternehmen die Investitionschancen dabei früher als die internationale Konkurrenz nutzten und bereits 1990 rund 0,4 Mrd. Euro in den mittel - und osteuropäischen Ländern (MOEL) investierten. “*

Wirtschaftskammer

*“Andererseits lebten aber auch Verbindungen aus alten, imperialen Zeiten wieder auf, etwa in Form von Investitionen Österreichs in den ehemals habsburgischen Gebieten, im Engagement Polens für die Ukraine und Weissrussland (gegen Russland), in den Wirtschaftsbeziehungen zwischen der Türkei und dem Balkan und so weiter. Dies ist ein deutliches Zeichen für die Beharrungskraft gewachsener Strukturen.”*

Schweizer Sonntagszeitung

# Summary

- ▶ We estimate gravity equations for Europe in the aftermath of the collapse of the Iron Curtain.
- ▶ We show that Austria trades more with Eastern economies and former members of the Austro-Hungarian Empire than the gravity framework would predict.
- ▶ This trade surplus declines steadily over time.
- ▶ We discuss the forces explaining this initial trade surplus and decline.

# Data

- ▶ Bilateral trade flows from UN COMTRADE
- ▶ Years 1990-2011
- ▶ Data cleaning following Feenstra (2005)
  - ▶ Prefer importer reported statistics
  - ▶ CIF, FOB adjustment
  - ▶ Merge trade flows to smallest unit for which a continuous trade flow is observable.
- ▶ 46 European Economies
- ▶ Control variables from standard sources (WDI, CEPII Database etc.)

# Empirical Strategy

- ▶ Gravity approach
- ▶ Head and Mayer (2013) toolkit, work of James Anderson
- ▶ A maximum fixed effects approach
  - ▶ OLS with origin- and destination-year fixed effects
  - ▶ Poisson Pseudo Maximum Likelihood
  - ▶ Lag dependent variable
  - ▶ Dyad fixed effects

## Specification

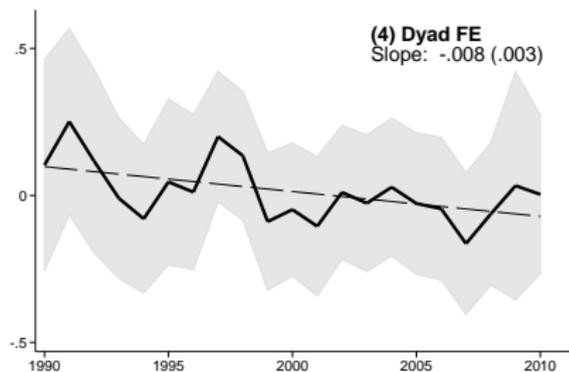
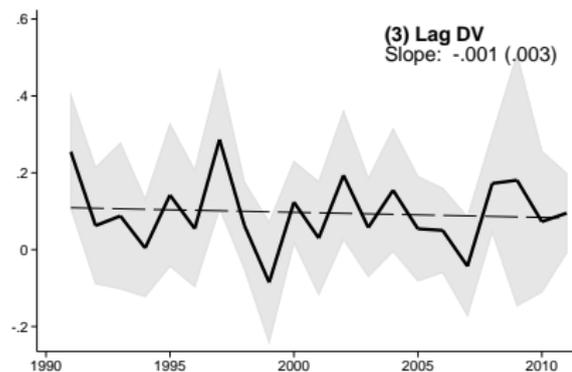
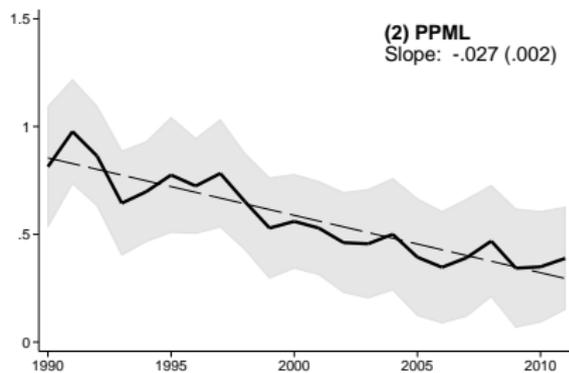
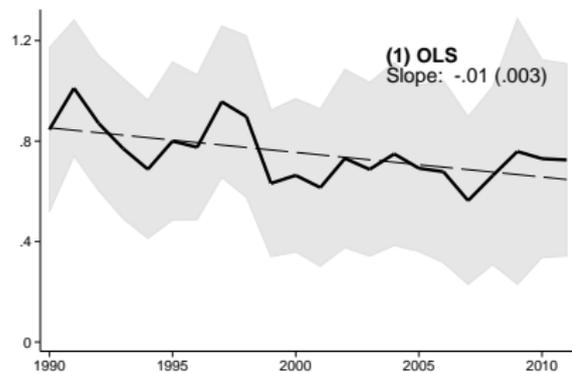
$$\ln(X_{int}) = \mu_{it} + \mu_{nt} + b_0 D_{in} \times n_t + b_1 D_{int} + b_2 (Austria \times East)_{in} \times n_t + \epsilon_{int}$$

- ▶  $\mu_{it}$  and  $\mu_{nt}$  are origin- and destination-year fixed effects
- ▶  $D_{int}$  are bilateral covariates:
  - time invariant*: Indicators for joint border, official common language, other common language, common legal institutions, common religion, east of the curtain
  - time varying*: common currency, regional trade agreement, and indicators for joint EU, joint Eurozone
- ▶  $(Austria \times East)_{in} \times n_t$ : Austria with East border dummy interacted with time?

# Table 1: Covariates

		(1) OLS	(2) PPML	(3) Lag DV	(4) Dyad FE
<i>Time fixed dyadic effects</i>	Log distance	-1.115*** (0.0249)	-0.632*** (0.0112)	-0.205*** (0.0215)	
	Common religion	0.384*** (0.0333)	0.110*** (0.0308)	0.0675*** (0.0163)	
	Both East	0.555*** (0.0504)	0.159*** (0.0441)	-0.0153 (0.0311)	
	Shared border - year	Yes	Yes	Yes	Yes
	Official common language - year	Yes	Yes	Yes	Yes
	Common language spoken - year	Yes	Yes	Yes	Yes
	Common legal institutions - year	Yes	Yes	Yes	Yes
<i>Time varying dyadic effects</i>	Common currency	-0.158*** (0.0355)	0.0111 (0.0338)	-0.000199 (0.0187)	-0.0200 (0.0310)
	Regional Trade agreement	0.251*** (0.0555)	0.300*** (0.0512)	0.0621 (0.0407)	0.349*** (0.0567)
	Both EU	0.00251 (0.0392)	-0.0906*** (0.0317)	0.0190 (0.0198)	-0.00267 (0.0221)
	Both Euro	-0.0864*** (0.0276)	0.264*** (0.0305)	-0.0451*** (0.0156)	-0.0272 (0.0365)
	Lagged exports			0.829*** (0.0126)	
	Origin country - year fixed effects	Yes	Yes	Yes	Yes
	Destination country - year fixed effects	Yes	Yes	Yes	Yes
	Bilateral fixed effects	No	No	No	Yes
	Habsburg - year fixed effects	Yes	Yes	Yes	Yes
	Observations	13,147	13,200	12,518	13,147
	R-squared	0.938	0.966	0.982	0.976

# Figure 1: The decline of the Austria x East coefficient



# What about the Habsburg Monarchy?

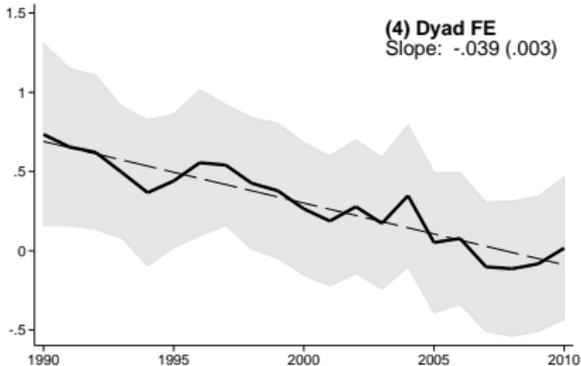
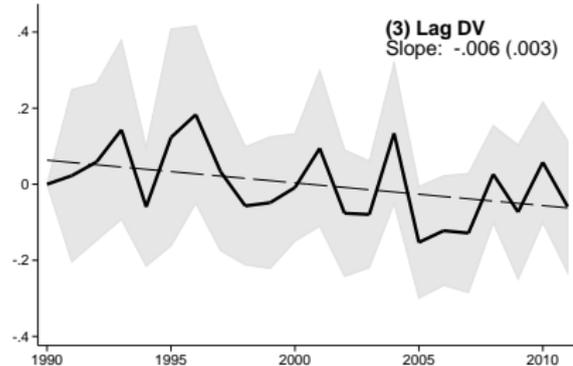
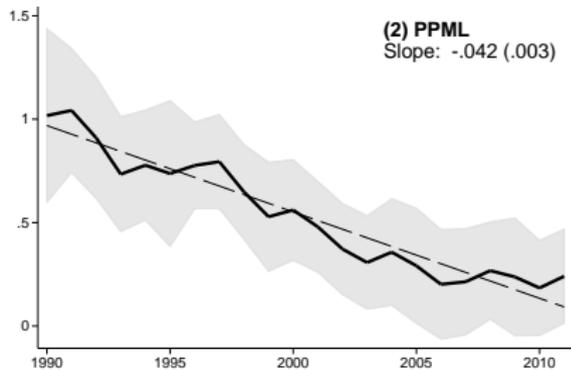
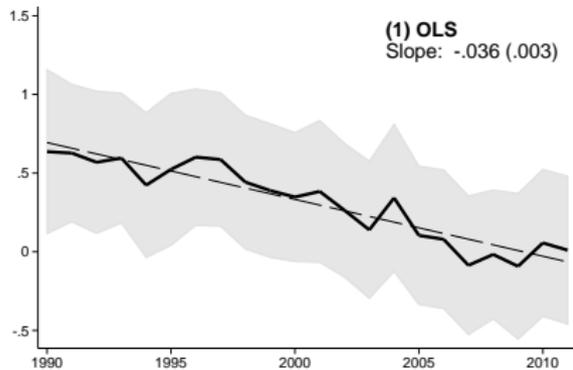
Figure: Habsburg Empire in 1910 and modern borders



# Table 1: Covariates

		(1) OLS	(2) PPML	(3) Lag DV	(4) Dyad FE
<i>Time fixed dyadic effects</i>	Log distance	-1.380*** (0.0274)	-0.0690*** (0.00152)	-0.249*** (0.0238)	
	Common religion	0.844*** (0.0420)	0.0530*** (0.00243)	0.151*** (0.0216)	
	Both East	0.724*** (0.0550)	0.0480*** (0.00305)	0.00933 (0.0337)	
	Shared border - year	Yes	Yes	Yes	Yes
	Official common language - year	Yes	Yes	Yes	Yes
	Common language spoken - year	Yes	Yes	Yes	Yes
	Common legal institutions - year	Yes	Yes	Yes	Yes
<i>Time varying dyadic effects</i>	Common currency	0.156*** (0.0489)	0.00210 (0.00280)	0.0631*** (0.0215)	-0.0828* (0.0438)
	Regional Trade agreement	0.0925 (0.0575)	-0.0103*** (0.00393)	0.0118 (0.0445)	0.249*** (0.0624)
	Both EU	0.143*** (0.0467)	0.00243 (0.00279)	0.0427* (0.0240)	0.0561** (0.0272)
	Both Euro	-0.0342 (0.0292)	-0.00465*** (0.00165)	-0.0328* (0.0172)	-0.00356 (0.0440)
	Lagged exports			0.834*** (0.0133)	
	Origin country - year fixed effects	Yes	Yes	Yes	Yes
	Destination country - year fixed effects	Yes	Yes	Yes	Yes
	Bilateral fixed effects	No	No	No	Yes
	Habsburg - year fixed effects	Yes	Yes	Yes	Yes
	Observations	13,993	13,993	13,248	15,361
	R-squared	0.928	0.911	0.979	0.969

# Figure 1: The decline of the Habsburg coefficient



## Possible explanation (1)

Miss-specification of gravity equation.

- ▶ Highly structured approach could easily lead to miss specification of estimation equation.
- ▶ If we overestimate the distance between Austria and its eastern neighbors residuals would be positive.

Answer:

- ▶ Would predict static rather than dynamic effect.
- ▶ Germany placebo diminishes concerns over mechanical argument we missed.

## Possible explanation (2)

Better transportation infrastructure could predict such a pattern.  
However:

- ▶ Most of the infrastructure was unused and lay bare to degenerate until 1989.
- ▶ Some of it not rebuilt until today (Pressburger Bahn).
- ▶ If this was important we would expect a rise in trade levels in the first few years while trade increases to full capacity.

## Possible explanation (3)

Historic starting advantage.

- ▶ Iron Curtain first opened between Austria and Hungary.
- ▶ (Curiously in the presence of the would be emperor Otto von Habsburg).

This advantage is slight.

- ▶ Less than three months before the general opening.
- ▶ Most of the people using the first gap were East Germans, moving to West Germany.

## Possible explanation (4)

### Language

- ▶ Language barriers with respect to non-German countries could be slowly fading.

Consider again the Placebo exercise involving Germany.

## Possible explanation (5)

There could be other cultural factors giving Austria preference, other than the Habsburg past. This might be for example Austria's political neutrality, which might have made it more popular than other Western European countries.

- ▶ This would predict a general rise of the Austrian residual with respect to all Eastern countries, rather than just the former monarchy countries.
- ▶ If neutrality gives a bonus, it is not obvious that it should decline so rapidly. Austria is still neutral.

## Possible explanation (6)

Head, Mayer, Ries (2010): Decay of trading capital

- ▶ Habsburg monarchy was a politically and economically integrated: built up trading capital which erodes after independence
- ▶ Iron Curtain has destroyed infrastructure and personal contacts, institutional similarities and cultural links may still persist
- ▶ Leaves open the question why this early cultural advantage disappears so quickly

## Possible explanation (7)

Albornoz et al (2012): Sequential exporting

- ▶ Slope of Habsburg coefficients is steeper than with other Eastern Economies
- ▶ So relative importance moves from former Habsburg members to other Eastern economies

# Conclusion

We study trade between Austria and former Eastern economies after the collapse of the Iron Curtain:

- ▶ Unique historic setting

We find:

- ▶ Austria trades significantly more with Eastern economies especially former members of the Habsburg-Monarchy.
- ▶ This trade surplus disappears steadily and linearly over time

Cultural forces explain a significant part of initial trade orientation.

**Address for correspondence:**

Matthias Beestermöller

Munich Graduate School of Economics

Ludwigstrasse 28/RG

80539 Munich

Germany

Many thanks for your attention.

Email: [matthias.beestermoeller@econ.lmu.de](mailto:matthias.beestermoeller@econ.lmu.de)

