

Institutions and Innovation: Evidence from the Italian Unification

Giacomo Domini Bas Machielsen

Utrecht University School of Economics

PEDD Conference
Münster, 20 February 2024

Introduction

Introduction

Innovation seen at the basis of economic growth (Schumpeter, 1942; Solow, 1957)

Innovation is a *proximate* cause of economic growth; it is itself determined by *fundamental* causes, most importantly institutions (Acemoglu et al., 2005; North, 1990; North and Thomas, 1973)

19th-century Europe: many episodes of institutional change, at a time in which the First Industrial Revolution spread and the Second started

We focus on an episode from Italy's unification process (1850-60s), namely the annexation of Lombardy to Piedmont from Austria:

- ▶ Significant shift towards liberal institutions
- ▶ Quasi-random assignment, based on military circumstances

Relevant Literature

Institutions and growth: old question (De Long and Shleifer, 1993), boost after Acemoglu et al., 2001, 2002 (Aghion et al., 2007; Rodrik et al., 2004)

Institutions and innovation:

- ▶ Democracy and innovation (the “Popper hypothesis”, Gao et al., 2017): Acemoglu et al., 2019; Aghion et al., 2007; Gao et al., 2017; Wang et al., 2021
- ▶ Patent systems and innovation: Lerner, 2009; Moser, 2005
- ▶ Social institutions and innovation: Greif and Iyigun, 2002
- ▶ Access to useful knowledge and innovation: Buonanno et al., 2024
- ▶ “High-level” institutions: **donges2022**
 - ▶ Closest to us i.t.o. type of institutions and identification strategy

Relevant Literature

Innovation in Italy in the very long run (Barbiellini Amidei et al., 2013; Nuvolari and Vasta, 2015):

- ▶ Micro evidence at province (Nuvolari et al., 2017), municipality (Buonanno et al., 2024), firm (Domini, 2023), and entrepreneur level (Domini, 2019; Nuvolari et al., 2017; Toninelli and Vasta, 2014)
- ▶ Few analyses go before Unification (Nuvolari and Vasta, 2019, 2020)

Historical Context

Historical context



Figure 1: Italy in 1848

Historical Context

- ▶ Fragmented since Roman Empire's fall, but flourishing until 15th c.
- ▶ Long political and economic decline in early modern period → Ruled by France, Spain, Austria
- ▶ In the wake of the French Revolution, growing sentiment in favour of national independence and unification (*Risorgimento*)
- ▶ 1848-1849: Uprisings and 1st War of Independence (lost)
- ▶ **1859: 2nd War of Independence → Lombardy joins Piedmont**
- ▶ 1860: Garibaldi conquers the South
- ▶ 1860: Plebiscites across the peninsula to join Piedmont
- ▶ 1861: Vittorio Emanuele II proclaimed King of Italy
- ▶ 1866: 3rd War of Independence: Veneto joins
- ▶ 1870: Rome is captured and becomes capital
- ▶ Post-WWI: Trento and Trieste join

Historical context: 2nd War of Independence

Piedmont (formally the Kingdom of Sardinia) led the unification:

- ▶ Stable monarchy of the House of Savoy
- ▶ The only Italian state not to repeal the constitution in 1848
- ▶ Liberalism, free trade, compulsory universal schooling (since 1859)

Plombières agreement (1858) and Franco-Piedmontese military alliance (1859): France would help freeing the Lombardo-Venetian Kingdom and get Savoy and Nice as reward

War fought over 2.5 months (27/4-12/7/1859)

- ▶ Austria first enters Piedmont, then retreats as French and Piedmontese advance
- ▶ After decisive victory in Solferino (south of the Garda Lake), Napoleon III signs armistice with Austria: Lombardy (but Mantua) ceded to France, then to Piedmont
- ▶ Piedmont's PM Cavour resigns over unsatisfactory outcome

The Border



Figure 2: The border after the war in 1859

The Border

Lombardy and Veneto Regions
1861 Borders

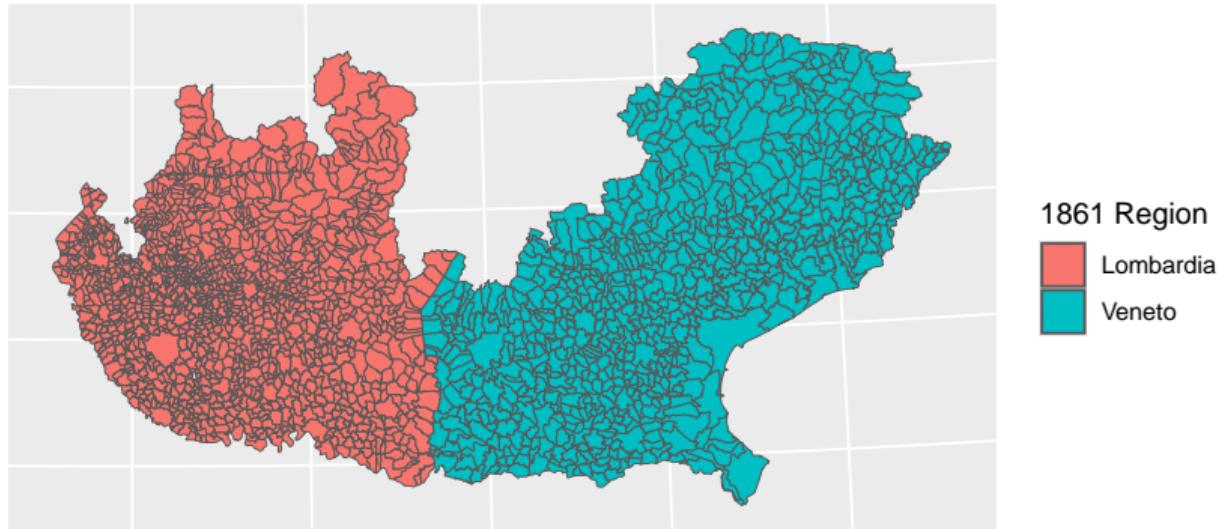


Figure 3: The border after the war in 1859

The Treatment

The Treatment: Liberal Institutions

Piedmont's *Statuto Albertino* (1848-1947):

- ▶ Representative monarchy with appointed Upper House and elective Lower House
- ▶ King formally owns executive power; in practice, strong PMs (notably Cavour)
- ▶ Equality, individual liberty, free press, inviolability of private property

Meanwhile, in Austria: Pillersdorfs Constitution (1848), March Constitution (1848-1851), none (1852-1860), October Diploma (1860), **February Patent (1861-1865)**, December Constitution (1867-1918)

- ▶ One chamber appointed, one indirectly elected (by provincial diets)
- ▶ Mild constraints on executive
- ▶ Liberal newspaper *Wanderer* (1864): “[S]ince 1861 ... a constitution without freedom of association, without jury courts, without freedom of press, without equality of confessional rights, lacking a reform of justice and administration”
- ▶ Nothing on fundamental rights (only in 1867)

Other Treatment Dimensions

The transfer of Lombardy from Austria to Piedmont/Italy represented a shock also along other dimensions relevant to innovation, in particular:

- ▶ Innovation institutions, e.g. patent system
 - ▶ Both registration systems, recently reformed along French model
 - ▶ Italian *privative industriali* somewhat cheaper than Austrian *Privilegien* ▶ Patent Fees
- ▶ Market access and Trade policy
 - ▶ Lombardy lost tariff-free access to Veneto and rest of Empire, while gaining it to Piedmont and rest of Italy
 - ▶ It also became subject to Piedmont's more liberal trade policy
 - ▶ Tariffs ▶ Tariffs, Treaties of Commerce ▶ ToC, Trade ▶ International Trade
- ▶ Cultural homogeneity of new state (Ertug et al., 2022; Mokyr, Forthcoming):
 - ▶ Less diversity, less creativity
 - ▶ Less diversity, better diffusion of knowledge

Data and Methods

We proxy innovation by:

- ▶ **Patents**: standard gauge, especially in historical settings (Streb, 2023), but: (1) invention, not innovation; (2) not all inventions are patented, with propensity to patent widely varying (Griliches, 1990; Nagaoka et al., 2010)
 - ▶ Piedmont/Italy and Austria
- ▶ Exhibits at **universal exhibitions** can capture innovation with and without patents (Moser, 2005, 2012); but may suffer from opposite drawbacks with respect to patents and rather be informative about production structure (Domini, 2019, 2022)
 - ▶ Catalogues from Paris 1855, 1867, 1878, 1889, 1900, and 1911
 - ▶ More granular than patents! Italy, 1867: 431 patents, 3841 exhibits

Empirical Strategy

We focus on municipalities within $k = 100$ kilometers from the border.

Our main empirical approach is a normalized difference-in-differences design, exploiting the quasi-random establishment of a new border in 1859, for municipality i in period t in 1861 province $j \in \{\text{Lombardy, Veneto}\}$:

$$Y_{ijt} = \alpha_j + \gamma_t + \beta 1_{i \in \text{Lombardy}} \cdot 1_{t \in \{\text{Post}\}} + Z'_{ijt} \delta + \epsilon_{ijt} \quad (1)$$

where Y_{ijt} is {Patents/Capita, Exhibitions/Capita}.

Control Variables: Population, geographic controls (elevation, ruggedness, climate, agricultural suitability, distance to border, area).

We also estimate generalized versions of Equation 1 with more periods.

Results

Descriptive Statistics

- ▶ We have about 900 issued patents from roughly 1820 to 1911.
- ▶ In later years (1867+), patent data only available at snapshots (1878, 1889, 1902, 1911)
- ▶ About 1000 inhabitants in average *Comune*

Table 1: Descriptive Statistics

	Mean	Median	SD	Min	Max	N
Dependent Variables						
Italian/Piedmontese Patent Count	4.14	1.00	27.22	0.00	452.00	366
Austrian Patent Count	1.46	1.00	2.97	0.00	21.00	540
Total Patent Count	0.01	0.00	1.11	0.00	452.00	232849
Total Patens Per Capita	3.80	0.00	163.23	0.00	25005.23	221292
Exhibition Count	0.24	0.00	6.32	0.00	550.00	12936
Exhibition Count Per Capita	12.70	0.00	113.61	0.00	5028.92	12294
Independent Variables						
Lombardy Allegiance 1861	0.63	1.00	0.48	0.00	1.00	232849
Control Variables						
Longitude	10.45	10.03	1.32	8.58	13.64	232849
Latitude	45.67	45.67	0.35	44.92	46.63	232849
Abs. Distance to Border	88454.84	88608.87	44759.95	0.00	217222.27	232849
Area	21371548.21	14023274.52	25490660.34	1060034.34	458305120.41	232849
Log (Population)	7.39	7.40	0.83	0.40	12.26	221292

The Lombardo-Venetian Economy: by Province

A priori, Lombardy and Veneto look similar in terms of population statistics and workforce breakdown by sector and province (%), 1857 (based on Chilosi and Ciccarelli, 2021)

Province	Pop.	Pop./Ha	Urb.	Agr.	Ind.	Serv.
Bergamo	0.39	0.98	0.07	0.68	0.17	0.15
Brescia	0.36	1.16	0.12	0.54	0.23	0.23
Como	0.44	1.60	0.04	0.71	0.16	0.13
Cremona	0.21	1.57	0.14	0.59	0.22	0.19
Lodi e Crema	0.22	1.90	0.08	0.6	0.21	0.2
Mantova	0.26	1.13	0.11	0.65	0.19	0.16
Milano	0.48	2.59	0.29	0.64	0.18	0.19
Pavia	0.18	1.80	0.16	0.60	0.21	0.19
Sondrio	0.10	0.32	0.00	0.76	0.13	0.11
Lombardy	2.66	1.45	0.11	0.64	0.19	0.17
Belluno	0.15	0.48	0.07	0.72	0.18	0.10
Padova	0.31	1.45	0.18	0.57	0.29	0.15
Rovigo	0.17	1.58	0.07	0.65	0.23	0.13
Treviso	0.30	1.23	0.07	0.71	0.16	0.13
Udine	0.43	0.65	0.05	0.70	0.19	0.11
Venezia	0.30	1.18	0.47	0.38	0.4	0.22
Verona	0.31	1.11	0.17	0.53	0.31	0.16
Vicenza	0.32	1.12	0.17	0.58	0.27	0.15
Veneto	2.29	1.10	0.16	0.61	0.25	0.14

Results: Patents in the Short Run

Analysis of patents shows a null result in the short run.

No *increased* difference between Lombardy and Veneto in patents per capita in the years following Unification for Lombardy (1859-1866) compared to before Unification (1855-1859).

Table 2: Estimates of Unification on Patenting Activity

	OLS		Poisson	OLS		Poisson
	(1)	(2)	(3)	(4)	(5)	(6)
Post x Lombardy	-0.414 (0.493)	-0.216 (0.491)	0.417 (0.897)	-0.414 (0.493)	-0.197 (0.486)	-1.761 (1.168)
Adj. R^2	-0.000	0.062		-0.000	0.063	0.033
N	26637	26637	26637	26637	26637	26637
Year FE	Yes	Yes	Yes	No	No	No
Comune FE	No	Yes	No	No	Yes	No
Controls	No	Yes	Yes	No	Yes	Yes

Results: Exhibitions in the Short Run

Exhibition results show an *increase* in the Lombard-Venetian difference in 1867 relative to 1855. The difference is significant in all the OLS specifications, including the most stringent specification.

Table 3: Estimates of Unification on Exhibition Activity

	OLS			Poisson		
	(1)	(2)	(3)	(4)	(5)	(6)
Lombardy x 1867	10.776 (6.961)	11.926* (6.966)	23.724*** (7.224)	0.230 (0.661)	0.249 (0.659)	0.361 (0.652)
Adj. R^2	0.003	0.051	0.123			
N	3752	3752	3752	3752	3752	3752
Controls	No	Full	Full	No	Partial	Full
Municipal FE	No	No	Yes	No	No	No

Results: Patents in the Long Run

In the long run, we find a significant increase relative the baseline difference in the early 20th century.

Potentially due to the "first-mover advantage" of Lombardy vs. Veneto

Table 4: Estimates of Unification on Long-Run Patenting Activity

	OLS		Poisson		OLS		Poisson	
	(1)	(2)	(3)	(4)	(5)	(6)		
Lombardia x 1822	1.677 (1.917)	-0.853 (2.377)	1.659 (1.167)	0.396 (0.681)	-1.211 (0.869)	0.651 (0.853)		
Lombardia x 1833	-0.056 (0.071)	-2.252 (1.572)	-0.702 (0.932)	-0.005 (0.037)	-1.330** (0.569)	-0.016 (0.616)		
Lombardia x 1844	0.093 (0.237)	-1.739 (1.582)	0.480 (0.924)	0.111 (0.166)	-0.906 (0.583)	0.585 (0.680)		
Lombardia x 1867	1.245 (0.828)	0.310 (1.744)	1.939*** (0.730)	-0.087 (0.913)	-0.381 (1.044)	0.017 (0.960)		
Lombardia x 1878	1.453 (1.572)	1.032 (2.128)	1.155 (1.084)	1.453 (1.571)	1.629 (1.642)	1.162 (1.084)		
Lombardia x 1889	1.327 (2.207)	1.284 (2.581)	0.440 (0.497)	1.327 (2.207)	1.823 (2.224)	0.448 (0.497)		
Lombardia x 1902	4.036** (1.973)	4.483* (2.382)	0.904** (0.366)	4.036** (1.973)	4.946** (1.976)	0.915** (0.367)		
Lombardia x 1911	3.877 (2.911)	5.647* (3.110)	0.635* (0.336)	3.877 (2.910)	5.905** (2.884)	0.652* (0.338)		
Adj. R^2	0.005	0.029	0.142	0.006	0.032	0.180		
N	18441	18441	18441	38931	38931	38931		
Controls	Yes	Yes	Yes	Yes	Yes	Yes		
Comune FE	No	Yes	No	No	Yes	No		

Results: Exhibitions in the Long Run

Exhibitions, on the contrary, show a significant short-run difference, but absence of long-term effect.

Table 5: Estimates of Unification on Exhibition Activity

	OLS			Poisson		
	(1)	(2)	(3)	(4)	(5)	(6)
Lombardia x 1867	10.776 (6.961)	11.459* (6.959)	10.608*** (1.072)	0.230 (0.661)	0.240 (0.660)	0.257*** (0.010)
Lombardia x 1878	3.516 (5.148)	4.887 (5.143)	3.178 (2.150)	0.057 (0.680)	0.077 (0.680)	0.114*** (0.021)
Lombardia x 1889	-3.165 (3.491)	-1.350 (3.510)	-3.612 (2.846)	-0.388 (0.933)	-0.324 (0.936)	-0.281*** (0.053)
Lombardia x 1900	1.380 (6.649)	3.532 (6.619)	0.849 (3.376)	-0.335 (0.646)	-0.200 (0.650)	-0.131 (0.125)
Lombardia x 1911	6.032 (5.325)	9.981* (5.322)	5.059 (6.194)	0.066 (0.659)	0.371 (0.672)	0.682* (0.374)
Adj. R^2	0.004	0.032	0.073	0.056	0.103	0.127
N	11256	11256	11256	11256	11256	11256
Controls	No	Full	Full	No	Partial	Full
Municipal FE	No	No	Yes	No	No	No

Conclusion

Conclusion

Current results:

- ▶ Veneto and Lombardy seem comparable *a priori*: No prior differences
- ▶ Veneto falls behind Lombardy after the latter joins Piedmont while it remains under Austrian rule
- ▶ Gap closes after Veneto is also "treated", but remarkable persistent differences in the long-term

Our plan:

- ▶ Where does it come from? Intensive vs. extensive margin
 - ▶ Collect individual-level data
- ▶ Mechanisms: Quantification of Market Potential as a Control.
- ▶ Education

Still in progress - Any feedback is welcome!

Appendix

International Trade

Table 6: Italian pre-unification states international trade, 1859

	Import	Export	Pop.	Trade/ Pop.	Tariff/ Import (%)
Sardinia	319.20	183.71	4.92	102.22	4.92
Tuscany	74.64	29.94	1.83	57.26	8.79
Parma	17.93	10.00	0.47	58.84	8.95
Lombardy (1858)	86.00	126.45	3.10	68.42	9.88
Modena (1848)	13.61	10.53	0.63	38.24	12.86
Papal States (1858)	71.87	62.19	3.12	42.98	15.00
Naples	89.14	58.35	6.79	21.73	22.68
Sicily (1857)	26.23	59.21	2.39	35.72	N/A

Source: own calculations based on Colomba, 1866, pp. 138, 554. Notes: imports and exports are in million Italian lire, population is in million inhabitants; Lombardy's population refers to 1859; Sardinia's population includes Nice and Savoy.

Austria moved from *prohibitionism* to *protectionism* with the 1851 tariff

Piedmont also adopted a much more liberal tariff in 1851

Both kept reducing tariffs in the following years

Treaties of Commerce (ToC)

- ▶ A small open economy, Piedmont was very active in signing ToCs: notably, with Austria (1851, then 1867), Britain (1851, then 1863), France (1852, then 1863), and Zollverein (1851) (Pahre, 2008); as well as with Switzerland (1851)
 - ▶ Sardinia accords to Austria MFN tariffs and further reductions on some products; Austria accords a within-Italy MFN clause and lowers tariffs on Piedmontese wine, rice, and cattle.
 - ▶ Piedmontese ToCs extended to rest of Italy, together with tariff; other Italian states' tariffs considered nonexistent
- ▶ Austria also had a ToC with Britain and Zollverein, but not with France and Switzerland (Pahre, 2008)
 - ▶ Customs union with Modena and Parma (1853-1857), then a looser one with Modena (1857)
 - ▶ Plans to create a wider customs union with Central Italy

▶ [Return](#)

Treaties of Commerce (ToC)

Number of bilateral ToCs steadily expanding in 1850s-1860s (Pahre, 2008) → creation of “Cobden-Chevalier network” thanks to widespread use of MFN clauses (Timini, 2023)

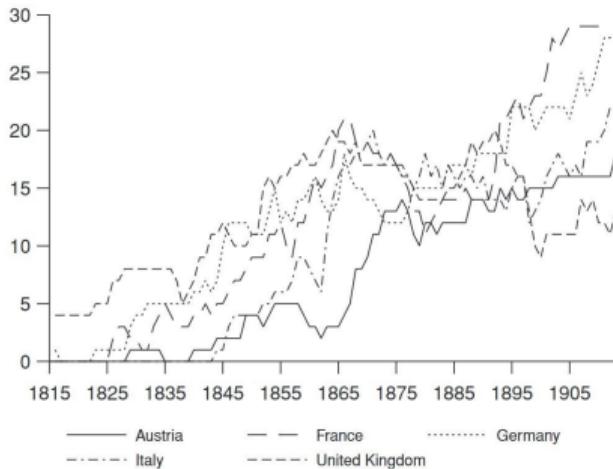


Figure 4: Annual treaties in effect: European Great Powers, 1815–1913. Source: Pahre, 2008, Fig. 6.2

▶ Return

Market Potential

Italian Unification resulted in single national market

- ▶ Kingdom of Italy (excluding Lombardy): ca. 18 M inhabitants
- ▶ Veneto + rest of Austrian empire: ca. 35 M inhabitants

“Actually, the creation of a large national [Italian] market is more a compensation than a gain for the provinces that were still part of the Austrian Empire in 1859. It is easy to see how the damage caused by a barrier that had suddenly arisen between the factories of Como and the main outlet for their products had to be felt before the hoped-for benefit of the abolition of internal barriers could be realised.”

(Report from the Commission of the Chamber of Deputies on the Navigation Convention and Trade Treaty between Italy and France, 1864)

The Lombardo-Venetian economy

Table 7: Population statistics and workforce breakdown by sector and province (%)

	Pop.	Pop./Ha	Urb.	Agr.	Ind.	Serv.
1857						
Lombardy	2.66	1.45	0.11	0.64	0.19	0.17
Veneto	2.29	1.10	0.16	0.61	0.25	0.14
1820s						
Lombardy (1821)	2.22	1.07	0.11	0.72	0.16	0.12
Veneto (1823)	1.89	0.80	0.14	0.82	0.07	0.11

Source: own calculations and Chilosi and Ciccarelli, 2021, based on Ministero di Agricoltura, Industria e Commercio, 1862.

Note: Pop. is in millions; Urb. is the share of pop. living in towns of 10K or more.

Table 8: Number of firms, 1851

	Industry	Services	Total
Lombardy	130,066	48,187	178,253
Veneto	64,818	33,487	98,305

Source: Direction der administrativen Statistik im K.K. Handels-Ministerium, 1855.

The Lombardo-Venetian economy: sector specialisation

Table 9: Sectoral shares (%) and Revealed Comparative Advantages with respect to rest of Austria, 1851

Group	Share		RCA	
	(all groups)	V	L	V
Products made from mineral materials	11.13	10.27	3.11	3.17
- Trade	0.36	0.42		
Chemical products	17.03	23.64	0.65	0.99
- Trade	6.09	13.89		
Refined animal products	4.27	4.66	0.39	0.48
- Trade	0.36	0.33		
Mining and metals	6.05	5.70	0.86	0.90
- Trade	0.32	0.37		
Mechanical engineering	2.03	0.87	0.90	0.43
- Trade	0.12	0.01		
Textiles and clothing	19.10	9.43	1.26	0.69
- Trade	1.96	1.99		
Paper and printing	0.71	0.79	1.35	1.68
- Trade	0.22	0.31		
Wood and miscellaneous materials	2.95	1.92	0.51	0.36
- Trade	0.88	0.69		
Other industries	9.70	8.66	6.75	6.67
- Trade	3.11	5.14		
Personal services	13.62	10.90		

Source: own calculations based on the total number of firms for Lombardy and Veneto, and the number tax-payers for the rest of the Austrian Empire, as reported in Direction der administrativen Statistik im K.K.

The Lombardo-Venetian economy: sector specialisation

Table 10: Revealed Comparative Advantages, Textile and clothing classes, 1851

Group	Share		RCA	
	(all groups)	V	L	V
VI. Textiles and clothing	19.10	9.43	1.26	0.69
24. Gold and silver, embroidery	0.04	0.02	0.17	0.03
25. Silk and silk fabrics	9.66	1.72	47.11	3.15
26. Wool and woollen fabrics	0.19	0.23	0.13	0.06
27. Cotton and mixed goods	0.15	0.03	0.03	0.00
28. Raw flax and mixed goods	5.37	2.80	5.35	1.05
29. Dyeing and printing, miscellaneous woven articles, manufactured articles and articles of apparel	3.70	4.64	0.48	0.23

Source: own calculations based on the total number of firms for Lombardy and Veneto, and the number tax-payers for the rest of the Austrian Empire, as reported in Direction der administrativen Statistik im K.K. Handels-Ministerium, 1855.

Italy had a share of 42% (29%) in global silk trade in early (late) 1850s (almost 2/3 in early 1820s!) (Federico, 1997, Table AIII)

Production primarily in Lombardy (30-37%), then Veneto (ca. 20%) and Piedmont (14-21%) (Federico, 1997, Table AIVa)

Lombard silk exhibitors at Paris 1855 from between Milan and Bergamo

The Lombardo-Venetian economy: international trade

Table 11: Imports and exports by product, 1858

	Lombardy		Veneto	
	Import	Export	Import	Export
Total	68,905,793	176,219,278	95,093,956	29,549,494
% of total				
I. Primary	37.38	4.42	29.30	55.06
II. Extractive industries	1.39	0.07	0.97	0.08
III. Manufacturing	61.23	95.51	69.73	44.86
% of manufacturing				
1. Food	41.31		36.58	27.42
- 58. Rice				10.91
- 79. Olive oil			21.28	
- 88. Wine	18.78			
4. Industrie tessili		88.91		
- 100. Raw silk		83.90		

Source: own calculations based on Glazier, 1966, Tabb. VII, XIII and XIV. Note: total values are in 1858 Austrian lire.

Veneto primarily exports wheat and timber

► Origins and destinations

Patent fees

Table 12: Patent fees in Austria and Piedmont/Italy (post-1859)

Years	Yearly fee (GBP)		Cumulative fee (GBP)		Rel. diff. (%)
	Austria	Italy	Austria	Italy	
1	2	1.67	2	1.67	-16.67
2	2	1.67	4	3.33	-16.67
3	2	1.67	6	5.00	-16.67
4	2	2.50	8	7.50	-6.25
5	2	2.50	10	10.00	0.00
6	3	2.50	13	12.50	-3.85
7	3.5	3.33	16.5	15.83	-4.04
8	4	3.33	20.5	19.17	-6.50
9	4.5	3.33	25	22.50	-10.00
10	5	4.17	30	26.67	-11.11
11	6	4.17	36	30.83	-14.35
12	7	4.17	43	35.00	-18.60
13	8	5.00	51	40.00	-21.57
14	9	5.00	60	45.00	-25.00
15	10	5.00	70	50.00	-28.57

Source: own elaboration based on Tolhausen (1868).

Average difference = -13.3%, based on distribution of patents for 1902

Note: slightly downward biased since extension fees (as well as completion and reduction) are not taken into account.

▶ Return

Import Tariff Comparison

Table 13: % difference on Lombard import tariffs in various product categories, 1858

	Italy (1865)	Sardinia	Two Sicilies
Lower bound			
Median	-23.37	-40.13	80.92
Mean	-9.01	-13.08	242.74
Min	-100.00	-100.00	-100.00
Max	284.62	410.86	2838.46
Upper bound			
Median	-23.42	-23.37	238.67
Mean	5.11	8.88	943.61
Min	-100.00	-100.00	-100.00
Max	861.54	861.54	9080.77

Source: own calculations based on Colomba, 1866, pp. 132 ff.

▶ Return

Import Tariff Comparison: Silk

Table 14: % difference on Lombard import tariffs for silk products, 1858

	Italy (1865)	Sardinia	Two Sicilies
Raw (*)			
Min	-100.00	-100.00	8.94
Max	-100.00	-100.00	410.27
Processed			
Min	155.43	-100.00	754.29
Max	283.14	283.14	917.69
Fabric			
Min	-61.69	-61.69	-63.45
Max	-8.05	14.94	877.01

Source: own calculations based on Colomba, 1866, pp. 132 ff. Note: (*) Since 1854, imports of raw silk to the Lombardo-Venetian kingdom are tariff-free if used for manufacturing products destined to export.

▶ Return

International Trade

Table 15: Imports and exports by frontier of entry/exit, 1857

	Lombardy		Veneto	
	Import	Export	Import	Export
Total	66,014,010	113,438,602	65,351,294	18,292,197
Foreign Italian states	78.7	31.3	2.0	8.2
Switzerland	18.6	68.3	0.7	0.0
Port of Venice	2.3	0.4	90.7	55.3
Other ports	0.3	0.0	6.6	36.3

Source: own calculations based on Glazier, 1966, Tabb. VII, XIII and XIV. Note: total values are in 1858 Austrian lire.

No information on final origins/destinations (Glazier, 1966, p. 43).

Lombard silk is exported to France (Lyon), England, Southern Germany, and Switzerland (the latter two particularly important in the 1850s).

▶ Return