

Execution Report

Title: **The Origins of Limited Liability: Catering to Safety Demand with Investors' Irresponsibility**

Authors: **Guillaume Vuilleme**

Full reference: Vuilleme, Guillaume, "The Origins of Limited Liability: Catering to Safety Demand with Investors' Irresponsibility" Working paper, September 15, 2022.

The structure and contents of this execution report provided by **cascad** for the certification are similar to those recommended by the [AEA Data Editor](#).

1. DATA DESCRIPTION

The paper uses data on asset prices and capital flows in mid-19th century England from Global Financial Data. The dataset contains monthly information on the securities traded in the London Stock Exchange (LSE) from 1800 to 1870, including the issuer name, prices, the number of securities outstanding, and industry classifications.

For a thorough description of the data, please refer to section 3.2 and appendix A.2 of the paper.

2. CODE DESCRIPTION

The replication package contains the following datasets and scripts:

a-millennium-of-macroeconomic-data-for-the-uk.xlsx
data_bonds.dta
data_mcap_stock_level.dta
data_stocks.dta
data_unusual_stocks.dta
gdp.dta
macrodata.dta
PAPER - The_Origins_of_Limited_Liability.pdf
REPLICATION CODES.do
Replication guidelines.docx
ticker_y.dta

The "REPLICATION CODES" do-file imports the data files and generates all the Tables and Figures.

3. REPLICATION STEPS

The code was received as a Zip file and run using Stata 17.1 on a computer with 64GB RAM, intel® Core™ i9-9900K CPU @3.60-5.00GHz, Nvidia Geforce RTX 2060, and Windows 10 OS. We encountered no issues during the replication.

4. FINDINGS

We reproduced all the Figures and Tables with accuracy.

4.1. TABLE 1 – STOCKS TRADED IN THE LONDON STOCK EXCHANGE – DESCRIPTIVE STATISTICS

Original:

	1800-1825	1826-1843	1844-1861	1862-1870	All years
<i>Standard stocks</i>					
Average number	52	204	272	678	226
Average share of non-UK	0.055	0.131	0.231	0.261	0.145
<i>Non-standard stocks</i>					
Average number	4	12	75	268	62
Average share of non-UK	0.344	0.192	0.173	0.225	0.238
<i>Debt securities</i>					
Average number	16	54	65	271	70
Average share of non-UK	0.305	0.668	0.705	0.718	0.551
<i>All securities</i>					
Average number	85	270	412	1,218	383
Average share of non-UK	0.130	0.244	0.289	0.355	0.236
<i>Industry shares (among all standard stocks) – in %</i>					
Banks	3.53	11.55	9.36	18.90	13.01
Canals and Docks	47.24	30.53	11.07	4.05	15.88
Commercial Services & Supplies	4.80	1.58	0.85	1.74	1.69
Gold mining	0.49	0.98	1.33	2.33	1.56
Insurance	15.46	16.48	12.33	9.40	12.43
Mining	1.64	5.55	8.30	10.25	7.85
Railroads	1.86	11.37	39.82	18.58	22.03
Shipping	0.07	0.79	1.44	3.05	1.79
Utilities - Gas	4.47	9.37	6.39	7.02	7.15
Utilities - Water	7.18	3.76	1.69	2.35	2.87
<i>Country shares (among non-UK standard stocks) – in %</i>					
Australia	1.92	12.26	18.40	15.37	15.80
Brazil	3.68	14.54	5.71	6.91	7.53
Canada	4.00	8.59	7.99	7.09	7.58
Ireland	52.96	25.05	13.77	17.56	17.86
Mexico	13.60	21.57	3.38	2.24	5.65
United States	14.40	2.65	5.30	3.25	4.09
France	0	1.13	17.54	6.31	9.51
India	0	0.65	3.69	9.24	5.83
South Africa	0	2.87	2.05	3.20	2.68
Belgium	0	0	4.83	2.08	2.74

Reproduced:

	Avg. N.	%Foreign	Avg. N.	%Foreign	Avg. N.	%Foreign	Avg. N.	%Foreign
1800-1825	52	0.055	4	0.344	16	0.305	85	0.130
1826-1843	204	0.131	12	0.192	54	0.668	270	0.244
1844-1861	272	0.231	75	0.173	65	0.705	412	0.289
1862-1870	678	0.261	268	0.225	271	0.718	1218	0.355
Total	226	0.145	62	0.238	70	0.551	383	0.236

	pct	pct	pct	pct	pct
Banks	3.53	11.55	9.36	18.90	13.01
CanalsandD	47.24	30.53	11.07	4.05	15.88
Commercial	4.80	1.58	0.85	1.74	1.69
GoldMining	0.49	0.98	1.33	2.33	1.56
Insurance	15.46	16.48	12.33	9.40	12.43
Mining	1.64	5.55	8.30	10.25	7.85
Railroads	1.86	11.37	39.82	18.58	22.03
Shipping	0.07	0.79	1.44	3.05	1.79
Util-Gas	4.47	9.37	6.39	7.02	7.15
Util-Water	7.18	3.76	1.69	2.35	2.87

	pct	pct	pct	pct	pct
Australia	1.92	12.26	18.40	15.37	15.80
Brazil	3.68	14.54	5.71	6.91	7.53
Canada	4.00	8.59	7.99	7.09	7.58
Ireland	52.96	25.05	13.77	17.56	17.86
Mexico	13.60	21.57	3.38	2.24	5.65
UnitedStates	14.40	2.65	5.30	3.25	4.09
France		1.13	17.54	6.31	9.51
India		0.65	3.69	9.24	5.83
SouthAfrica		2.87	2.05	3.20	2.68
Belgium			4.83	2.08	2.74

4.2. TABLE 2 – CONSOL SUPPLY AND CONSOL YIELDS

Original:

	Δ Yield	Δ Yield	Δ Yield	Δ Yield
Issuance of consols	4.397*	4.266*	4.578*	6.605**
	(1.959)	(2.169)	(2.330)	(2.492)
GDP growth		0.315	-0.370	-0.629
		(0.573)	(0.607)	(0.666)
Inflation rate			0.935*	1.154**
			(0.433)	(0.386)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.061	0.050	0.058	0.003
Obs.	62	62	62	62

Reproduced:

	Δ Yield	Δ Yield	Δ Yield	Δ Yield
Issuance of cons	4.397*	4.266*	4.578*	6.605**
	(1.959)	(2.169)	(2.330)	(2.492)
GDP growth		0.315	-0.370	-0.629
		(0.573)	(0.607)	(0.666)
Inflation rate			0.935*	1.154**
			(0.433)	(0.386)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.061	0.050	0.058	0.003
Obs.	62	62	62	62

4.3. TABLE 3 – CONSOL SUPPLY AND STOCK RETURNS

Original:

Panel A: Unweighted market return

	Market return	Market return	Market return	Market return
Issuance of consols	-2.475*** (0.609)	-2.661*** (0.624)	-2.681*** (0.696)	-2.042** (0.640)
GDP growth		0.448 (0.300)	0.491 (0.374)	0.446 (0.312)
Inflation rate			-0.0588 (0.248)	-0.151 (0.315)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.052	0.064	0.048	0.101
Obs.	62	62	62	62

Panel B: Weighted market return

	Market return	Market return	Market return	Market return
Issuance of consols	-2.313** (0.642)	-2.549*** (0.660)	-2.494** (0.696)	-1.490 (0.787)
GDP growth		0.570* (0.288)	0.449 (0.397)	0.240 (0.363)
Inflation rate			0.165 (0.232)	0.297 (0.220)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.060	0.101	0.088	0.088
Obs.	62	62	62	62

Reproduced:

	Market ~n	Market ~n	Market ~n	Market ~n
Issuance of convs	-2.475*** (0.609)	-2.661*** (0.624)	-2.681*** (0.696)	-2.042** (0.640)
GDP growth		0.448 (0.300)	0.491 (0.374)	0.446 (0.312)
Inflation rate			-0.0588 (0.248)	-0.151 (0.315)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.052	0.064	0.048	0.101
Obs.	62	62	62	62

	Market ~n	Market ~n	Market ~n	Market ~n
Issuance of convs	-2.313** (0.642)	-2.549*** (0.660)	-2.494** (0.696)	-1.490 (0.787)
GDP growth		0.570* (0.288)	0.449 (0.397)	0.240 (0.363)
Inflation rate			0.165 (0.232)	0.297 (0.220)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.060	0.101	0.088	0.088
Obs.	62	62	62	62

4.4. TABLE 4 – SAFE ASSET SUPPLY AND PURCHASES OF FOREIGN SECURITIES

Original:

Panel A: Standard stocks only

	New stocks	New stocks	New stocks	New stocks
Issuance of consols	-64.31 (43.87)	-71.44* (34.03)	-90.54** (33.68)	-93.33* (43.13)
GDP growth		25.90** (8.496)	56.66*** (14.89)	58.25** (17.61)
Inflation rate			-42.95* (18.75)	-47.42* (21.27)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.004	0.031	0.083	0.032
Obs.	59	59	59	59

Panel B: All securities

	New securities	New securities	New securities	New securities
Issuance of consols	-127.4** (36.90)	-127.6** (36.89)	-140.1*** (36.10)	-94.01** (36.77)
GDP growth		0.494 (10.24)	27.94 (21.07)	24.15 (19.63)
Inflation rate			-37.47 (25.64)	-46.59 (26.19)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.015	-0.001	0.000	0.112
Obs.	62	62	62	62

Reproduced:

	New stons	New stons	New stons	New stons
Issuance of cons	-64.31 (43.87)	-71.44* (34.03)	-90.54** (33.68)	-93.33* (43.13)
GDP growth		25.90** (8.496)	56.66*** (14.89)	58.25** (17.61)
Inflation rate			-42.95* (18.75)	-47.42* (21.27)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.004	0.031	0.083	0.032
Obs.	59	59	59	59

	New secns	New secns	New secns	New secns
Issuance of cons	-127.4** (36.90)	-127.6** (36.89)	-140.1*** (36.10)	-94.01** (36.77)
GDP growth		0.494 (10.24)	27.94 (21.07)	24.15 (19.63)
Inflation rate			-37.47 (25.64)	-46.59 (26.19)
Decade cluster	Yes	Yes	Yes	Yes
Decade FE	No	No	No	Yes
Adj. R2	0.015	-0.001	0.000	0.112
Obs.	62	62	62	62

4.5. TABLE 5 – CUMULATIVE EXCESS RETURNS OF NEW FIRMS AROUND MAJOR ACTS

Original:

Panel A: Around the Joint Stock Companies Act of 1844

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	-0.0430 (0.0336)	-0.0309 (0.0772)	-0.0265 (0.118)	0.106 (0.130)	0.220 (0.149)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	-0.004	-0.006	-0.008	-0.007	0.001
Obs.	164	149	120	101	90

Panel B: Around the Limited Liability Act of 1855

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	-0.0698 (0.0558)	-0.108 (0.0659)	-0.148 (0.0810)	-0.158 (0.117)	-0.237* (0.122)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.002	0.004	0.009	0.006	0.016
Obs.	111	100	97	87	82

Panel C: Around the Companies Act of 1862

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	-0.135*** (0.0147)	-0.151** (0.0454)	-0.216** (0.0728)	-0.202* (0.0922)	-0.131 (0.0769)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.013	0.010	0.018	0.013	0.002
Obs.	475	428	385	356	329

Reproduced:

	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	-0.0430 (0.0336)	-0.0309 (0.0772)	-0.0265 (0.118)	0.106 (0.130)	0.220 (0.149)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	-0.004	-0.006	-0.008	-0.007	0.001
Obs.	164	149	120	101	90

	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	-0.0698 (0.0558)	-0.108 (0.0659)	-0.148 (0.0810)	-0.158 (0.117)	-0.237* (0.122)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.002	0.004	0.009	0.006	0.016
Obs.	111	100	97	87	82

	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	-0.135*** (0.0147)	-0.151** (0.0454)	-0.216** (0.0728)	-0.202* (0.0922)	-0.131 (0.0769)
Year cluster	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.013	0.010	0.018	0.013	0.002
Obs.	475	428	385	356	329

4.6. TABLE 6 – SURVIVAL OF NEW FIRMS AROUND MAJOR ACTS

Original:

Panel A: Around the Joint Stock Companies Act of 1844

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	0.491*	0.0819	0.0619	-0.0206	0.0426
	(0.294)	(0.269)	(0.238)	(0.232)	(0.231)
Adj. R2	0.025	0.001	0.000	0.000	0.000
Obs.	180	180	180	180	180

Panel B: Around the Limited Liability Act of 1855

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	-0.319	0.104	0.0586	0.110	0.0857
	(0.347)	(0.270)	(0.262)	(0.244)	(0.238)
Adj. R2	0.013	0.001	0.000	0.001	0.001
Obs.	121	121	121	121	121

Panel C: Around the Companies Act of 1862

	After 1 year	After 2 years	After 3 years	After 4 years	After 5 years
Treated	-0.0557	-0.447*	-0.644***	-0.718***	-0.309
	(0.295)	(0.266)	(0.249)	(0.237)	(0.199)
Adj. R2	0.000	0.007	0.014	0.017	0.004
Obs.	508	508	508	508	508

Reproduced:

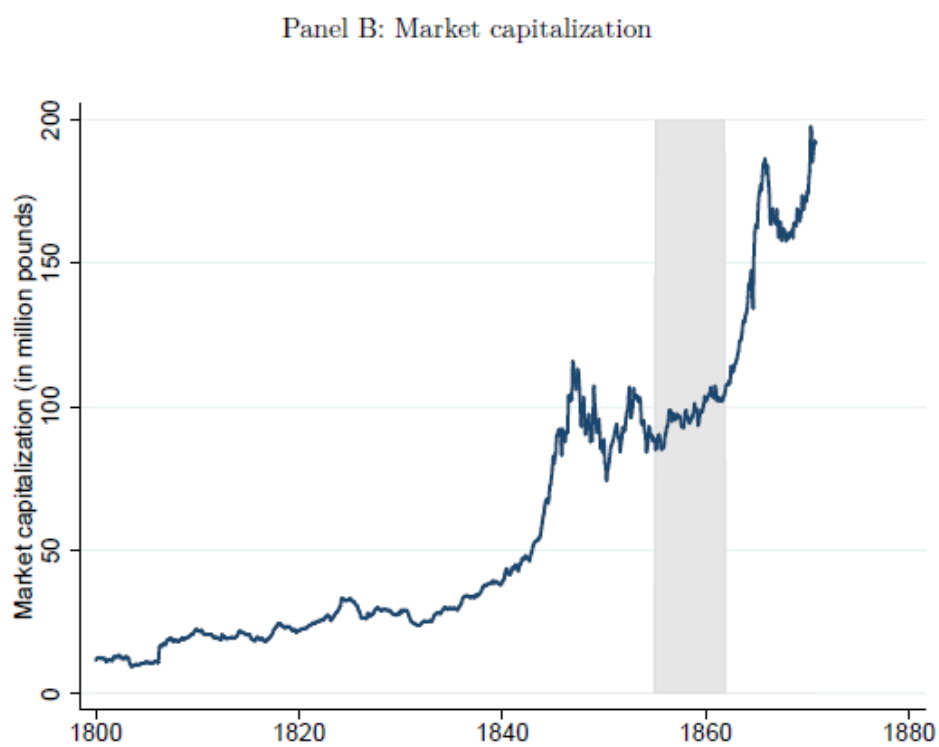
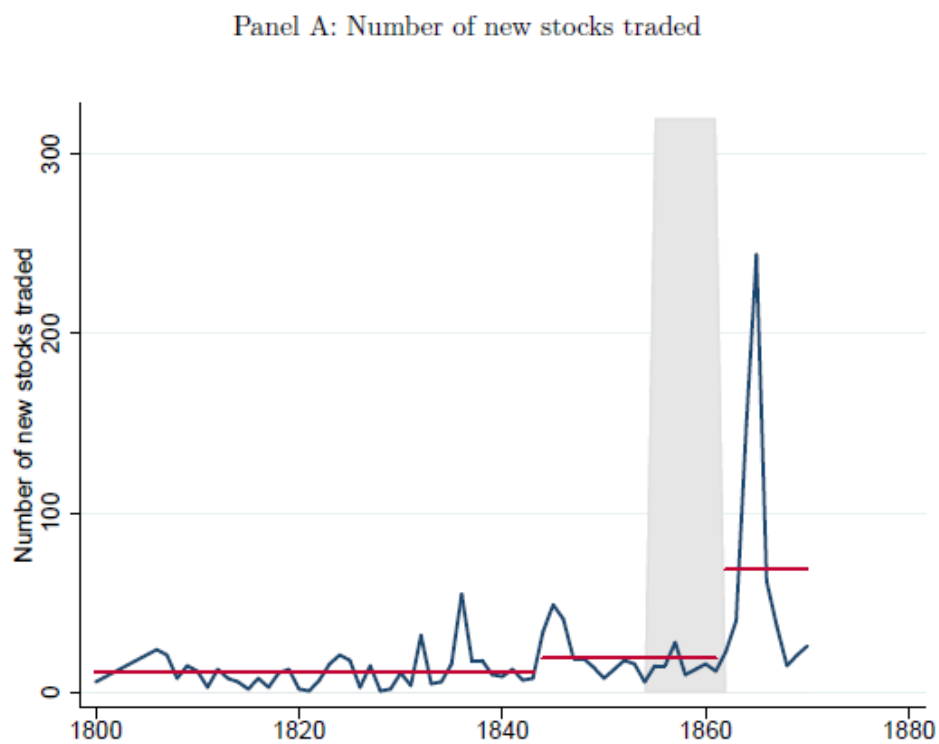
	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	0.491* (0.294)	0.0819 (0.269)	0.0619 (0.238)	-0.0206 (0.232)	0.0426 (0.231)
Adj. R2	0.025	0.001	0.000	0.000	0.000
Obs.	180	180	180	180	180

	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	-0.319 (0.347)	0.104 (0.270)	0.0586 (0.262)	0.110 (0.244)	0.0857 (0.238)
Adj. R2	0.013	0.001	0.000	0.001	0.001
Obs.	121	121	121	121	121

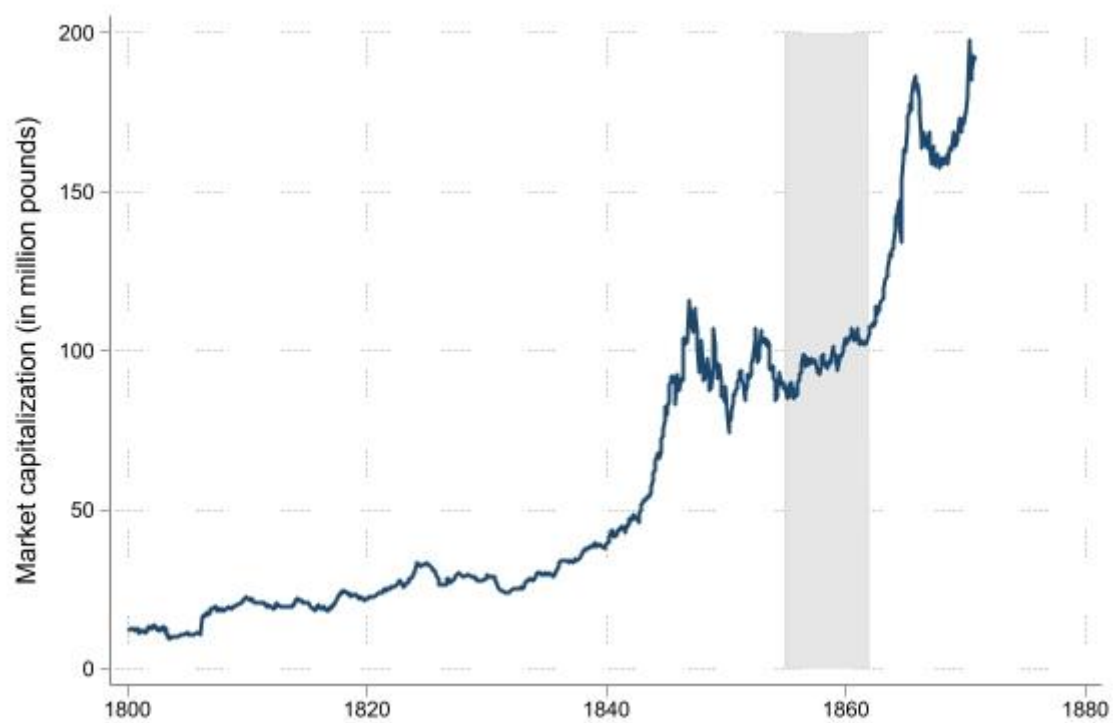
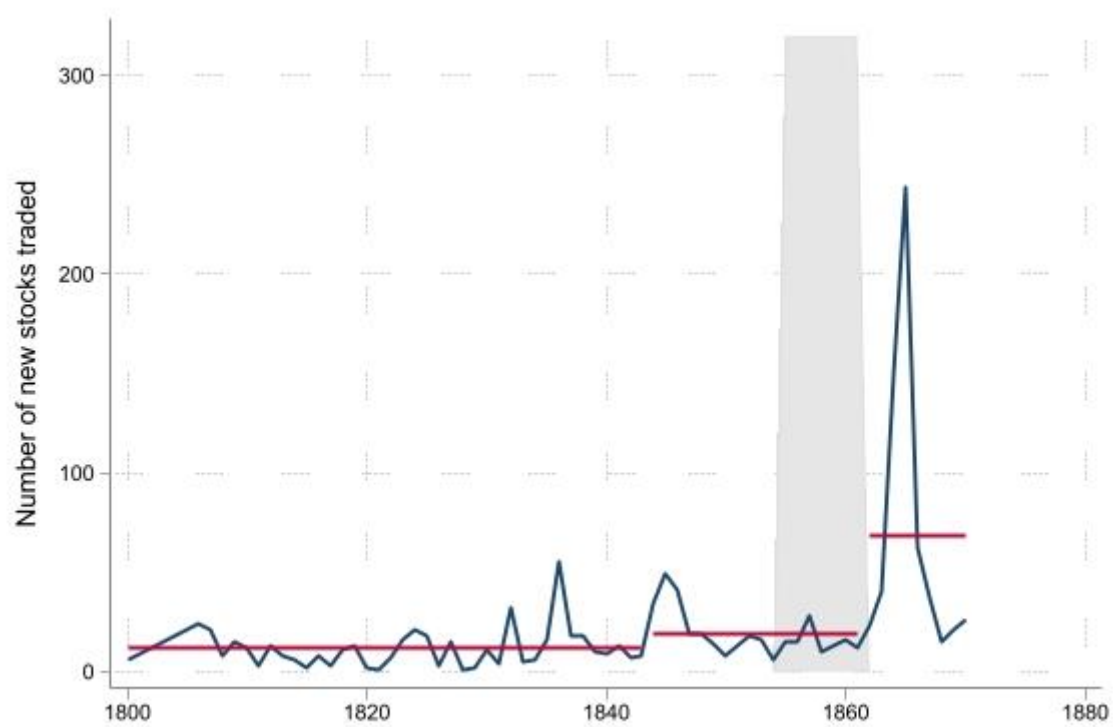
	After 1~r	After 2~s	After 3~s	After 4~s	After 5~s
Treated	-0.0557 (0.295)	-0.447* (0.266)	-0.644*** (0.249)	-0.718*** (0.237)	-0.309 (0.199)
Adj. R2	0.000	0.007	0.014	0.017	0.004
Obs.	508	508	508	508	508

4.7. FIGURE 1 – NEW STOCKS AND MARKET CAPITALIZATION TRADED IN THE LONDON STOCK EXCHANGE

Original:

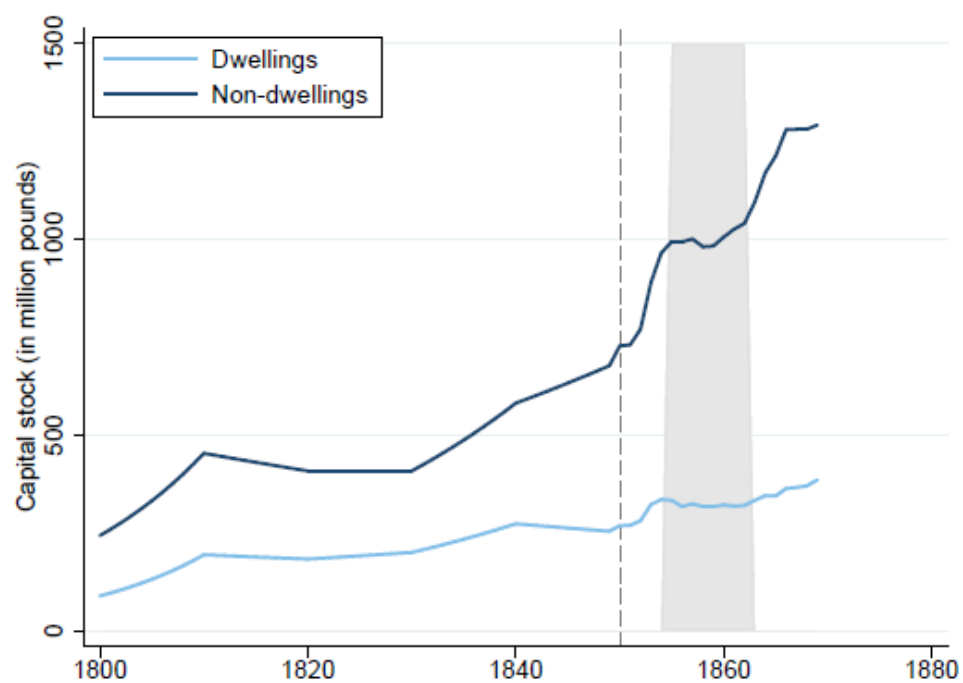


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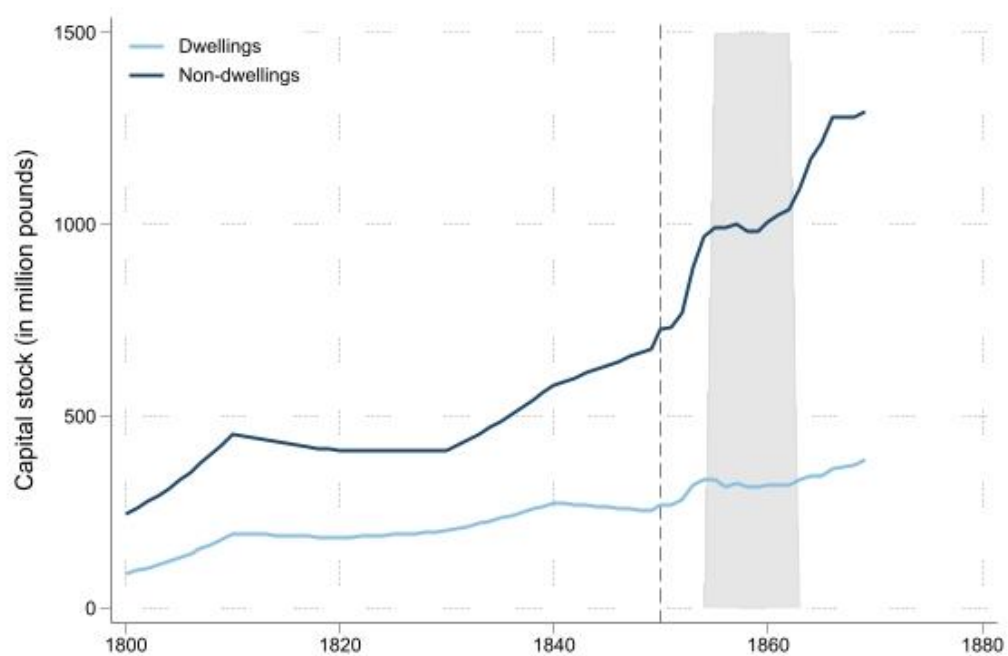


4.8. FIGURE 2 – CAPITAL FORMATION IN THE UK

Original:

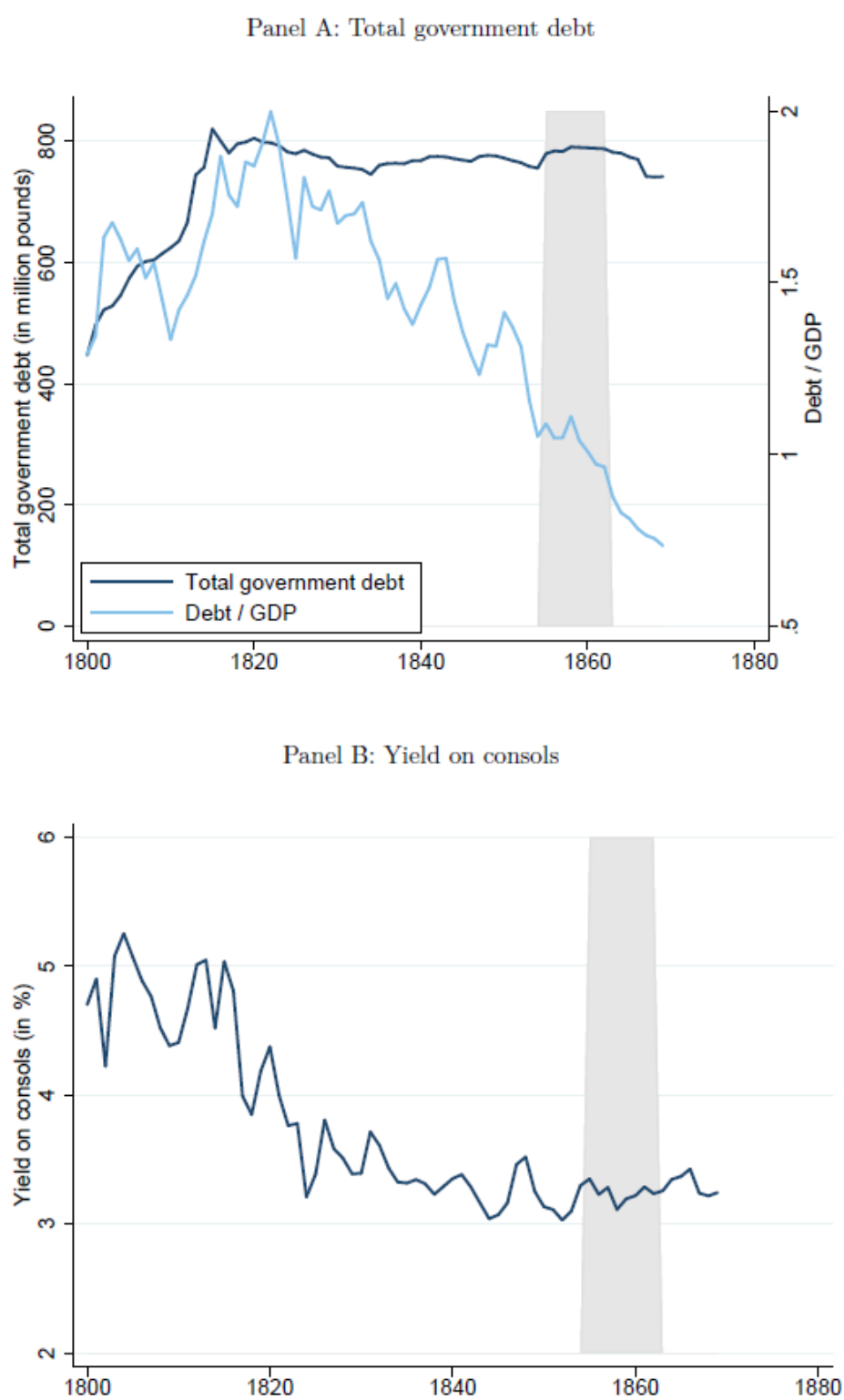


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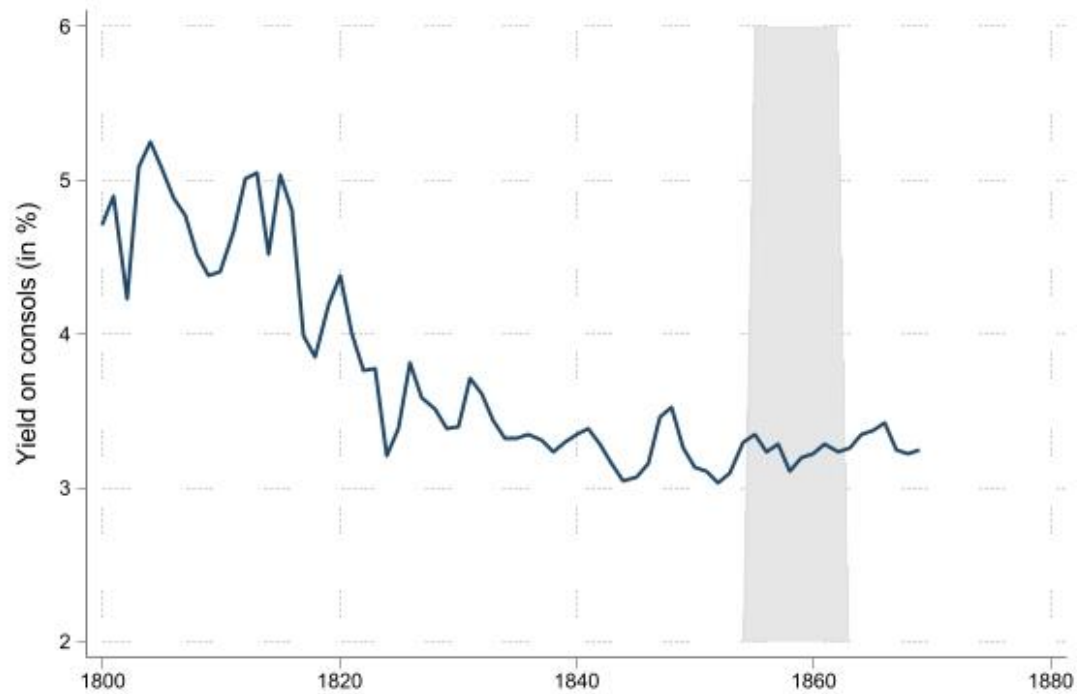
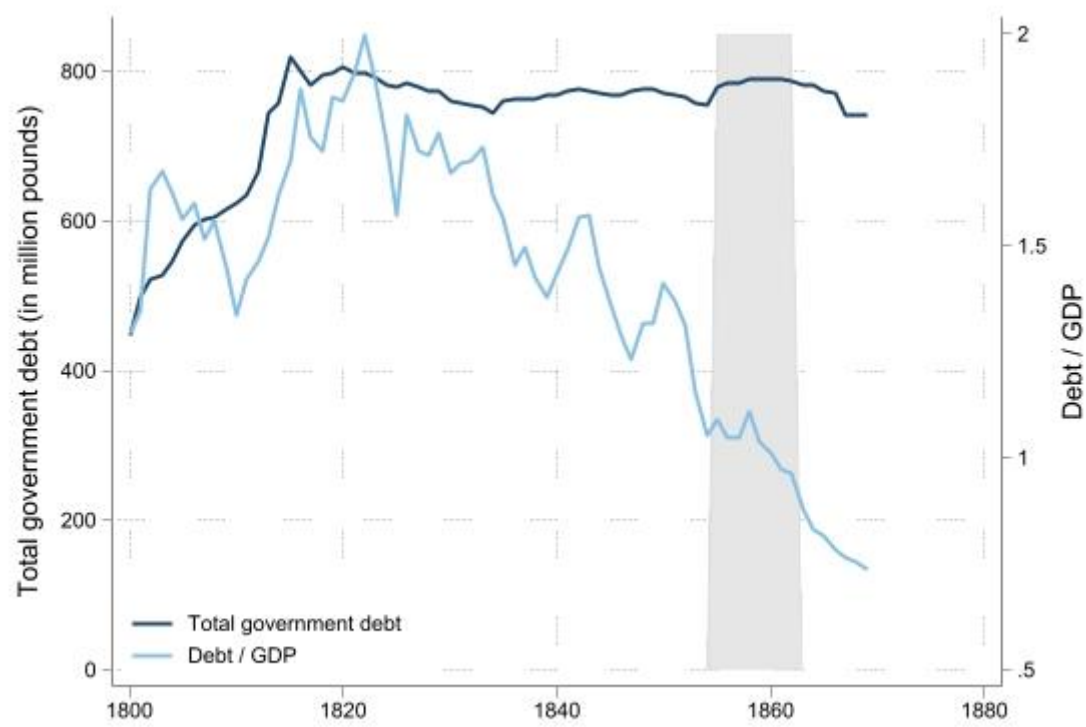


4.9. FIGURE 3 – AMOUNT AND YIELD OF UK GOVERNMENT DEBT

Original:

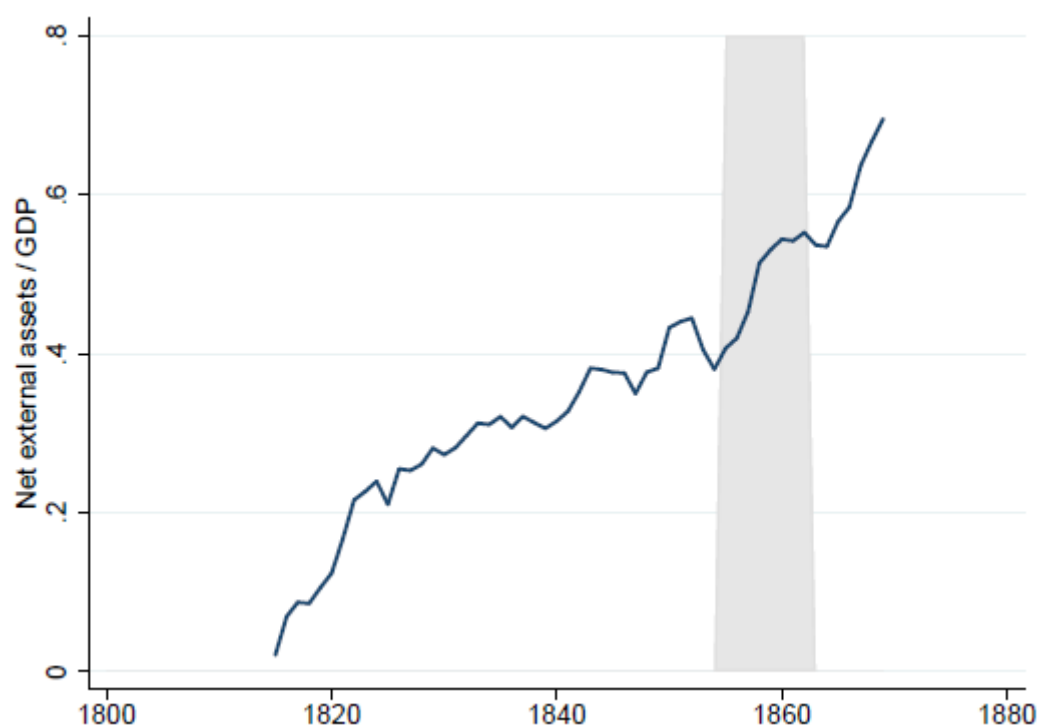


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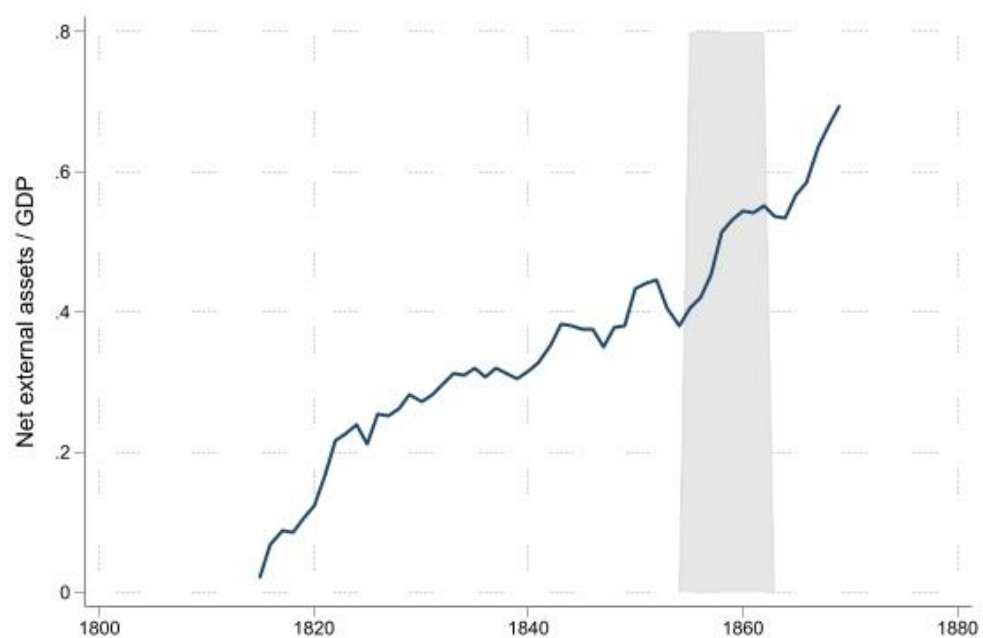


4.10. FIGURE 4 – NET EXTERNAL ASSETS / GDP IN THE UK

Original:



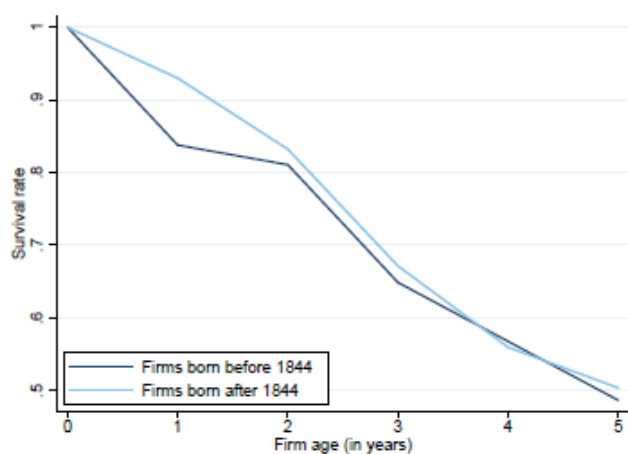
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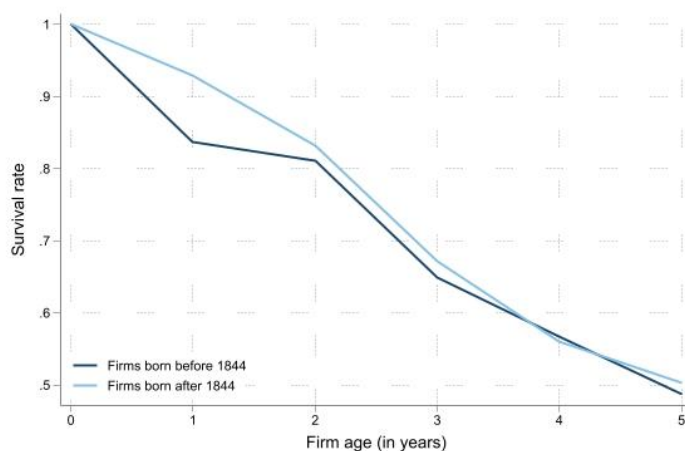
4.11. FIGURE 5 – FIRM SURVIVAL RATE AROUND MAJOR ACTS

Original:

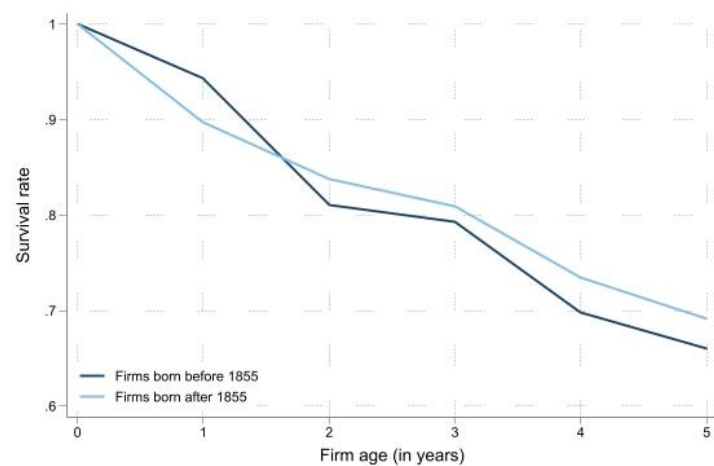
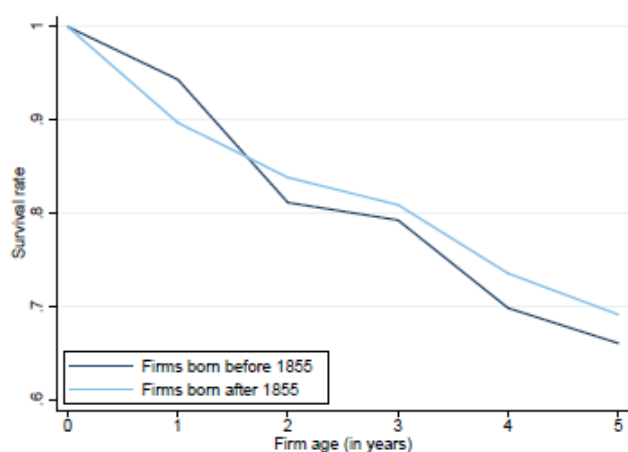
Panel A: Around the Joint Stock Companies Act of 1844



Reproduced :



Panel B: Around the Limited Liability Act of 1855



Panel C: Around the Companies Act of 1862

