

Read Me File for “The Berlin Stock Exchange in Imperial Germany – a Market for New Technology?”

By Sibylle Lehman-Hasemeyer and Jochen Streb

The enclosed data and codes reproduce the results reported in the paper “The Berlin Stock Exchange in Imperial Germany – a Market for New Technology?”.

Included data sets are *Berlinipos_and_privatefirms_data*; *Berlinipos_data.dta* and *figure1_and_2_data*.

Included programs are *Berlinstockexchange_dofile* and *figure1_and_2_dofile*. The file *Berlinstockexchange_dofile* reproduces all tables from the paper and figure 3. *figure1_and_2_dofile* reproduces figure 1 and 2 based on the estimation of table 2.

To run each of the code files:

- 1) Place the respective datasets in a folder.
- 2) Change the respective paths in the local variable as the path to the folder with datasets.
- 3) Run code.

The data file *Berlinipos_data.dta* contains the following variables

<i>variable</i>	<i>description</i>
nr	label of the firm
firm	firm name
underwriter	lead underwriter
headquarters	headquarters of the firm
dbankall	In the tables labelled "Big Four banks". Dummy variable that is set equal to one if the lead underwriter was Deutsche Bank, Dresdner Bank, Discontogesellschaft or Darmstädter Bank.
issuingprice	Issuing price
firstprice	first trading price in percent of the nominal share value
dayipo	day of the IPO
monthipo	month of the IPO
yearipo	year of the IPO
Afirst	equals the actual stock market index on the first trading day of the IPO
Aoffering	Aoffering is the stock market index at the day before the first trading day
pastmarketreturn	average stock market return of year before IPO
size	size of the issue in mill. marks
age	age of the firm in years on the day of the IPO
Trading	Trading is calculated as the percentage share of observed end of the year prices in the five calendar years after the IPO took place in percentage of potentially observable prices. For example, a firm that was issued in 1909 and for which we observe end of the year prices in 1909, 1910, 1911, 1912 and 1913, trading would be equal to one. If we observe only three prices, trading would be equal to 0.6. If an IPO was issued in 1912, we only need to observe the end of year price in 1912 and 1913 in order to reach the trading value on
survival	equals 1 if the firm survived the first 5 years
annualreturnyear1	annual return one year after the IPO
annualreturnyear2	annual return two years after the IPO
annualreturnyear3	annual return three years after the IPO
annualreturnyear4	annual return four years after the IPO
annualreturnyear5	annual return five years after the IPO
meanannualreturn	average annual return in the first 5 years
annualexcessreturnyear1	annual excess return one year after the IPO
annualexcessreturnyear2	annual excess two years after the IPO
annualexcessreturnyear3	annual excess three years after the IPO
annualexcessreturnyear4	annual excess four years after the IPO
annualexcessreturnyear5	annual excess five years after the IPO
meanannualexcess	average annual return in the first 5 years
allpatentsbeforeipo	All patents before IPO
patents5	All patents within 5 years of IPO
allpatentsbeforeipov	All valuable patents before IPO
patents5v	All valuable patents within 5 years of IPO

Patente1878	Patents in year 1878
Patente1879	Patents in year 1879
Patente1880	Patents in year 1880
Patente1881	Patents in year 1881
Patente1882	Patents in year 1882
Patente1883	Patents in year 1883
Patente1884	Patents in year 1884
Patente1885	Patents in year 1885
Patente1886	Patents in year 1886
Patente1887	Patents in year 1887
Patente1888	Patents in year 1888
Patente1889	Patents in year 1889
Patente1890	Patents in year 1890
Patente1891	Patents in year 1891
Patente1892	Patents in year 1892
Patente1893	Patents in year 1893
Patente1894	Patents in year 1894
Patente1895	Patents in year 1895
Patente1896	Patents in year 1896
Patente1897	Patents in year 1897
Patente1898	Patents in year 1898
Patente1899	Patents in year 1899
Patente1900	Patents in year 1900
Patente1901	Patents in year 1901
Patente1902	Patents in year 1902
Patente1903	Patents in year 1903
Patente1904	Patents in year 1904
Patente1905	Patents in year 1905
Patente1906	Patents in year 1906
Patente1907	Patents in year 1907
Patente1908	Patents in year 1908
Patente1909	Patents in year 1909
Patente1910	Patents in year 1910
Patente1911	Patents in year 1911
Patente1912	Patents in year 1912
Patente1913	Patents in year 1913
Patente1914	Patents in year 1914
Patentsall	All patents per firm
valuablepat1878	Valuable patents in year 1878
valuablepat1879	Valuable patents in year 1879
valuablepat1880	Valuable patents in year 1880
valuablepat1881	Valuable patents in year 1881
valuablepat1882	Valuable patents in year 1882
valuablepat1883	Valuable patents in year 1883
valuablepat1884	Valuable patents in year 1884
valuablepat1885	Valuable patents in year 1885
valuablepat1886	Valuable patents in year 1886

valuablepat1887	Valuable patents in year 1887
valuablepat1888	Valuable patents in year 1888
valuablepat1889	Valuable patents in year 1889
valuablepat1890	Valuable patents in year 1890
valuablepat1891	Valuable patents in year 1891
valuablepat1892	Valuable patents in year 1892
valuablepat1893	Valuable patents in year 1893
valuablepat1894	Valuable patents in year 1894
valuablepat1895	Valuable patents in year 1895
valuablepat1896	Valuable patents in year 1896
valuablepat1897	Valuable patents in year 1897
valuablepat1898	Valuable patents in year 1898
valuablepat1899	Valuable patents in year 1899
valuablepat1900	Valuable patents in year 1900
valuablepat1901	Valuable patents in year 1901
valuablepat1902	Valuable patents in year 1902
valuablepat1903	Valuable patents in year 1903
valuablepat1904	Valuable patents in year 1904
valuablepat1905	Valuable patents in year 1905
valuablepat1906	Valuable patents in year 1906
valuablepat1907	Valuable patents in year 1907
valuablepat1908	Valuable patents in year 1908
valuablepat1909	Valuable patents in year 1909
valuablepat1910	Valuable patents in year 1910
valuablepat1911	Valuable patents in year 1911
valuablepat1912	Valuable patents in year 1912
valuablepat1913	Valuable patents in year 1913
valuablepat1914	Valuable patents in year 1914
valuablepatentsall	All valuable patents per firm
signal	signal is a dummy variable which takes the value one if the Salinger Börsenhandbuch provided information about the patents that a firm going public held
signalindex	index that indicates whether the Salinger Börsenhandbuch only mentioned patents for a particular firm(=1) or emphasized the role of these patents for future market success (=2)
distance	distance between headquarters and berlin measured in km
sector	indicates the sector in which the firm is operating (mining, bank, chemicals, textiles, metal and machine working or others)

The data file *Berlinipos_and_privatefirms_data* contains the following variables

variable	description
year	year
firm	Name of the firm
Patente	Number of valuable patents
berlinlisted	equals one after the firm listed in Berlin
yearipo	year of IPO
IPOyear	variable indicates -10 to 10 (years) before and after IPO
nr	encoded variable firm
goingpublic	equals one if the firms went public in the period 1877-1913, equals zero if the firm remained private

The data file *figure1_and_2_data* contains the following variables

variable	description
patenttype	equals one if the dependent variable was patents (table 2 regression2), equals two if the dependent variable was valuable patents (table 2 regression5)
ipo	indicates years before IPO event and after (-5,+5)
coeff	Beta-coefficients of year dummies, corresponds to Table 2, regression (2,5)
lb	lower bound of the 95% confidence intervals of year dummies, corresponds to Table 2, regression (2)
ub	upper bound of the 95% confidence intervals of year dummies, corresponds to Table 2, regression (2)