*Online Appendix*

**Table A- 1**

**Summary statistics of the data used in the regressions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| Interest rate | 0.059 | 0.008 | 0.040 | 0.074 |
| Holland rate | 0.048 | 0.006 | 0.041 | 0.065 |
| Share assigned | 0.062 | 0.060 | 0 | 0.226 |
| Debt to GDP | 0.007 | 0.003 | 0.004 | 0.013 |
| Current ratio | 0.000 | 1.011 | -1.340 | 2.470 |
| Deficit | 0.000 | 1.011 | -3.266 | 1.538 |

Notes: Interest rate weighted by loan amount. Holland rate: average cost of debt from Wantje Fritschy Gewestelijke Financiën ten tijde van de Republiek der Verenigde Nederlanden 1572-1795. Province of Holland rate G-J: market prices communicated by Gelderbloom and Jonker. Deficit in millions of pounds.

**Table A- 2**

**Results of Augmented Dickey-Fuller unit-root tests**

|  |  |  |
| --- | --- | --- |
| **Variable** | **level** | **first difference** |
| **ADF p-value** | **ADF p-value** |
| Interest rate | 0.4834 | 0 |
| Holland rate | 0.0948 | 0 |
| Debt | 0.9614 | 0 |
| Current ratio | 0.1014 | 0 |
| Deficit | 0.2684 | 0 |

**Table A- 3**

**Cointegration rank test**

|  |  |  |
| --- | --- | --- |
| Number of cointegrating Vectors | tracestatistic | criticalvalue |
| 0\* | 83.972 | 60.061 |
| 1 |  37.211 | 40.175 |
| 2 | 17.404 | 24.276 |
| 3 |  0.982 | 12.321 |

Notes:Estimated regression*: equation* (2) $i\_{t}=c+βr\_{t}+γ\_{i}α\_{it}+δl\_{t}+u\_{t}$

Johansen method with a trend.

**Table A- 4**

**Result of Augmented Dickey-Fuller unit-root test,**

**residuals from equation (2):** $i\_{t}=c+βr\_{t}+γ\_{i}α\_{it}+δl\_{t}+u\_{t}$

|  |  |  |  |
| --- | --- | --- | --- |
| Test Statistic | 1% Critical Value | 5% Critical Value | 10% Critical Value |
| -4.864 | -2.62 | -1.95 | -1.61 |

Notes: Based on estimating an OLS regression for 34 observations where the usury ceiling was not binding. Test on levels without constant.

**Table A- 5**

**Results of cointegration regressions using equation (2):** $i\_{t}=c+βr\_{t}+γ\_{i}α\_{it}+δl\_{t}+u\_{t}$

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| Method | FMOLS | DOLS |
|  |  |  |
| $$r\_{t}$$ | 1.009\*\*\*(8.76) | 1.090\*\*\*(7.62) |
| $$l\_{t}$$ | -0.003\*\*\*(-4.04) | -0.004\*\*\*(-4.2) |
| current ratio | -0.002\*\*\*(-2.13) | -0.003\*\*\*(-2.69) |
| Deficit | 0.002\*\*\* | 0.003\*\*\* |
|  |  (3.62) |  (3.03) |
| *N* | 45 | 43 |
| adj. *R*2 | 0.819 | 0.92 |

Notes: FMOLS: Cointegrating equation deterministic: C; Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000). DOLS: Cointegrating equation deterministic: C; Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000); Lead=1, lag=1.

**Table A- 6**

**Alternative estimation results**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |  (1) |  (2) |  (3) |  (4) |  (5) |  (6) |  |
|   | it |  it  | it | it | it | it |  |
|  Holland | 1.009\*\*\* | 0.709\*\*\* | 0.229 | -0.279 | 0.315\*\* | 0.628\*\*\* |  |
|   | (0.180) | (0.161) | (0.287) | (0.177) | (0.127) | (0.180) |  |
|  Genoa |  |  |  |  |  | 0.318 |  |
|   |  |  |  |  |  | (0.193) |  |
|  Share assigned | -0.023\* |  |  | -0.047\*\*\* |  |  |  |
|   | (0.013) |  |  | (0.016) |  |  |  |
| Debt to GDP |  | -0.004\*\*\* |  |  | -0.006\*\*\* | -0.004\*\*\* |  |
|   |  | (0.001) |  |  | (0.001) | (0.001) |  |
|  Current ratio | -0.002\*\* | -0.002\*\*\* |  | -0.000 | -0.002\*\* | -0.002\*\* |  |
|   | (0.001) | (0.001) |  | (0.001) | (0.001) | (0.001) |  |
|  Deficit | 0.000 | 0.002\*\*\* |  | -0.001 | 0.002\*\* | 0.002\*\* |  |
|   | (0.001) | (0.001) |  | (0.001) | (0.001) | (0.001) |  |
|  civil war | 0.000 | 0.002 |  | 0.010\*\*\* | 0.005\*\*\* |  |  |
|   | (0.002) | (0.002) |  | (0.002) | (0.002) |  |  |
|  Parliament | -0.000 | 0.001 |  | 0.001 | -0.000 |  |  |
|   | (0.002) | (0.002) |  | (0.002) | (0.002) |  |  |
|  Restoration | 0.020\*\*\* | 0.010\*\*\* |  | 0.026\*\*\* | 0.012\*\*\* | 0.010\*\*\* |  |
|   | (0.003) | (0.001) |  | (0.004) | (0.002) | (0.001) |  |
|  Plague | 0.005 | -0.002 |  | 0.000 | -0.004 |  |  |
|   | (0.004) | (0.003) |  | (0.005) | (0.005) |  |  |
|  Fire | 0.001 | 0.001 |  | -0.006 | -0.001 |  |  |
|  | (0.004) | (0.003) |  | (0.004) | (0.003) |  |  |
| Stop of Exchequer | 0.000 | -0.003\* |  | 0.005 | -0.003 |  |  |
|   | (0.003) | (0.001) |  | (0.003) | (0.002) |  |  |
| Anglo-Dutch III | 0.002 | 0.003\*\*\* |  | 0.002 | 0.006\*\*\* | 0.003\*\*\* |  |
|   | (0.002) | (0.001) |  | (0.003) | (0.002) | (0.001) |  |
|  Constant | 0.007 | 0.022\*\*\* | 0.049\*\*\* | 0.066\*\*\* | 0.043\*\*\* | 0.018\*\*\* |  |
|   | (0.009) | (0.008) | (0.012) | (0.007) | (0.005) | (0.005) |  |
|  |  |  |  |  |  |  |  |
|  Obs. | 46 | 46 | 46 | 46 | 46 |  46 |  |
|  |  |  |  |  |  |

*t* statistics in parentheses

\* *p* < 0.10, \*\* *p* < 0.05, \*\*\* *p* < 0.01

Source: COL/CHD/CT/01/002-017. Dutch rates: Wantje Fritschy Gewestelijke Financiën ten tijde van de Republiek der Verenigde Nederlanden 1572-1795,. GDP from Broadberry et al. (2011). Dummy variables equal 1 for Restoration (1660); Third Anglo-Dutch War (1672-4).

Regressions were estimated using *Tobit* in Stata with weighting by annual loan amount using robust standard errors. The debt to GDP, current ratio, and deficit were standardized.

Holland rate: Colum (1) and (2) based on Fritschy, columns (3)-(5) based on Gelderbloom and Jonker.

Genoa rate from (Chilosi et al. 2018) https://journaldata.zbw.eu/dataset/1d5fb8dc-7443-4ffe-917a-547fd2f8ce14/resource/3c3ccfb0-519d-4601-8412-2750908f233b

**Table A- 7**

**Survival regression on duration to redemption**

|  |  |  |
| --- | --- | --- |
|   |  (1) |  (2) |
|   |  |  |
|  Loan amount | -0.000\*\*\* | -0.000\*\*\* |
|   | (0.000) | (0.000) |
|  Alderman | -0.644\*\*\* | -0.507\*\*\* |
|   | (0.137) | (0.159) |
|  Gent | -0.205\* | -0.108 |
|   | (0.106) | (0.111) |
|  Non-City | 0.041 | 0.076 |
|   | (0.103) | (0.135) |
|  Spinster | 0.066 | 0.133 |
|   | (0.098) | (0.098) |
|  Widow | 0.242\*\*\* | 0.283\*\*\* |
|   | (0.080) | (0.098) |
|  Annuity | 0.648\*\*\* | 0.760\*\*\* |
|   | (0.187) | (0.250) |
|  Note | -0.800\*\*\* | -0.868\*\*\* |
|   | (0.201) | (0.165) |
| Short | -0.766\*\*\* | -0.823\*\*\* |
|   | (0.197) | (0.205) |
|  Assigned third-party | 0.522\*\*\* | 0.521\*\*\* |
|   | (0.109) | (0.120) |
|  Assigned heir | 0.683\*\*\* | 0.680\*\*\* |
|   | (0.107) | (0.112) |
|  Assigned to Husband | -0.221 | -0.271\* |
|   | (0.180) | (0.161) |
|  Restoration | -0.264\*\*\* |  |
|   | (0.083) |  |
| Stop of Exchequer | -0.145\*\*\* |  |
|   | (0.046) |  |
|  Plague | 0.503\*\*\* |  |
|   | (0.151) |  |
|  Fire | -0.357\*\* |  |
|   | (0.144) |  |
|  Parliament | -0.037 |  |
|   | (0.102) |  |
|  installment | 0.973\*\*\* | 0.971\*\*\* |
|   | (0.075) | (0.052) |
|  Constant | 6.805\*\*\* | 7.990\*\*\* |
|   | (0.081) | (0.636) |
|  lnsigma | 0.114\*\*\* | 0.071\*\* |
|   | (0.025) | (0.028) |
|  kappa | 0.643\*\*\* | 0.711\*\*\* |
|   | (0.080) | (0.071) |
|  Obs. | 2162 | 2162 |
| Year fixed effects | No | Yes |
| Clustered errors | Year |  ID |
|  |
| Standard errors are in parenthesis  |
| *\*\*\* p<0.01, \*\* p<0.05, \* p<0.1* Estimated using ***streg*** in Stata, gamma distribution. |

**Figure A-1**

**Actual versus predicted borrowing rates**

**Corporation of London: 1638-1683**

**Based on estimation results in Table 3 column 3.**