# DATA APPENDIX

This document contains details on the construction of the data used for "Canst Thou Beggar Thy Neighbour? Evidence from the 1930s" by Paul Bouscasse.

## B.1 Macroeconomic Data

Table B.1: Monthly interpolation

| Variable | Country | Original frequency | Monthly series |
|---|---|---|---|
| Industrial production | Netherlands | Annual | Coal production, unemployment |
| | UK | Quarterly | Business activity |
| | Switzerland | Annual | Watches, unemployment |
| Nominal wages | Austria | Annual | WPI, unemployment |
| | Belgium | Annual | WPI, unemployment |
| | Canada | Annual | WPI, employment |
| | Czechoslovakia | Annual | WPI, employment |
| | Denmark | Annual | WPI, unemployment |
| | France | Quarterly | WPI, unemployment |
| | Netherlands | Annual | WPI, unemployment |
| | Switzerland | Annual | WPI, unemployment |

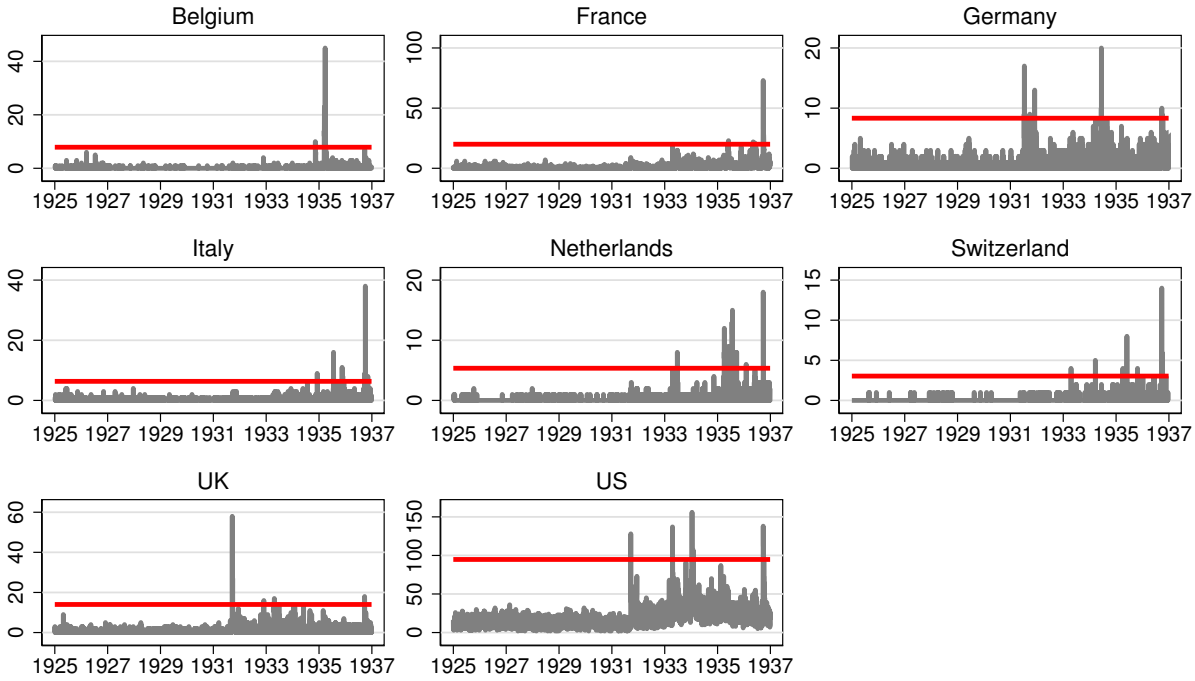
Note: this table summarizes the monthly series used to infer monthly industrial production and nominal wages with the methodology of Stock and Watson (2012). The implementation uses the code of Jarociński and Karadi (2020). WPI stands for wholesale price index. Monthly series other than the WPI are taken from Albers (2018).

Table B.2: Data Sources

| Section | Variable | Source |
|---|---|---|
| 2, 5 | Spot exchange rate (XR) | League of Nations, *Statistical Year-book* |
| 2 | Industrial production (IP), general index | Mitchell (2003) for Europe except Latvia and Switzerland; David (1995) for Switzerland; Thorp (1984) for Latin America and League of Nations, *Statistical Year-book* otherwise |
| 2 | IP of investment and consumption goods | League of Nations, *Statistical Year-book*; investment goods are proxied by the engineering industry for France and the UK |
| 2 | Exports and imports, quantity and price indices | Federico and Tena-Junguito (2019) for Austria, the Netherlands, and Mexico; League of Nations, *Review of World Trade* otherwise |
| 2 | Wholesale price index (WPI) | League of Nations, *Monthly Bulletin of Statistics* |
| 2 | Nominal wages | International Labour Office, *Year-Book of Labour Statistics* |
| 3 | Forward exchange rate | *Financial Times* |
| 3 | Quarterly IP (UK only) | London & Cambridge Economic Service, *Monthly Bulletin*, and *Board of Trade Journal*, spliced |
| 3 | Quarterly nominal wages (France only) | *Bulletin de la Statistique Générale de la France* |
| 3 | Monthly XR, IP, WPI, nominal exports and imports | League of Nations, *Statistical Year-book* and *Monthly Bulletin of Statistics*; investment goods in Italy are proxied by the mechanical industry |
| 3 | Monthly nominal wages | Albers (2018) and Statistischen Reichsamt, *Statistisches Handbuch der Weltwirtschaft* |
| 2, 3 | Nominal interest rate (discount rate of central bank) | League of Nations, *Statistical Year-book* |
| 2, 3 | Expected inflation | Ellison et al. (2024) |
| 2, 3 | Stock market index | Vaihekoski (2024) for Finland; Hirayama and Noda (2025) for Japan; League of Nations, *Monthly Bulletin of Statistics* otherwise |
| 5 | US imports | United States Department of Commerce (1934) |

## B.2 Devaluation Shocks

Figure B.1: Daily number of articles for all countries




Note: number of daily articles returned by ProQuest Historical Newspapers with the keywords described in section 3. The red line is the cutoff defined by the formula: mean + 6 × standard deviation.

Table B.3.1: Shocks

| Date | # articles | Event | Shock |
|---|---|---|---|
| Panel A: Belgium (mean=0.2, sd=1.3) | | | |
| 14nov1934 | 10 | Catholics and liberals against devaluation | -0.007 |
| 17mar1935 | 14 | | |
| 18mar1935 | 12 | | |
| 19mar1935 | 22 | | |
| 20mar1935 | 23 | | |
| 21mar1935 | 8 | | |
| 23mar1935 | 10 | | |
| 25mar1935 | 11 | | |
| 26mar1935 | 10 | | |
| 27mar1935 | 12 | Devaluation | +0.116 |
| 28mar1935 | 12 | | |
| 29mar1935 | 25 | | |
| 30mar1935 | 45 | | |
| 31mar1935 | 24 | | |
| 01apr1935 | 24 | | |
| 02apr1935 | 14 | | |
| 08apr1935 | 8 | | |
| Panel B: France (mean=1.3, sd=3.1) | | | |
| 27may1935 | 21 | | |
| 31may1935 | 21 | Fall of Flandin's cabinet | -0.046 |
| 04jun1935 | 21 | | |
| 05jun1935 | 23 | | |
| 11may1936 | 22 | Blum's devaluation speech | -0.013 |
| 05jun1936 | 21 | Strikes | × |
| 25sep1936 | 30 | | |
| 26sep1936 | 60 | | |
| 27sep1936 | 73 | | |
| 28sep1936 | 59 | | |
| 29sep1936 | 33 | | |
| 30sep1936 | 31 | Devaluation | +0.234 |
| 01oct1936 | 25 | | |
| 02oct1936 | 28 | | |
| 03oct1936 | 28 | | |
| 04oct1936 | 27 | | |
| 05oct1936 | 24 | | |

Note: shocks selected by the procedure described in section 3. The numbers in parentheses are the mean and standard deviation of the daily number of articles for the selected country.

Table B.3.2: Shocks

| Date | # articles | Event | Shock |
|---|---|---|---|
| Panel C: Germany (mean=0.7, sd=1.3) | | | |
| 13jul1931 | 9 | Exchange controls | -0.067 |
| 15jul1931 | 17 | | |
| 16jul1931 | 10 | | |
| 21jul1931 | 9 | | |
| 22jul1931 | 9 | | |
| 29sep1931 | 9 | Stock exchange closed indefinitely | n.a. |
| 05dec1931 | 13 | Devaluation rumors | × |
| 13jun1934 | 10 | | |
| 15jun1934 | 20 | | |
| 27sep1936 | 9 | Gold bloc demise | × |
| 28sep1936 | 10 | | |
| 01oct1936 | 9 | | |
| Panel D: Italy (mean=0.3, sd=1.0) | | | |
| 10dec1934 | 9 | Exchange controls | -0.018 |
| 11dec1934 | 7 | | |
| 23jul1935 | 8 | Gold coverage ratio suspended | +0.042 |
| 24jul1935 | 16 | | |
| 25jul1935 | 9 | | |
| 20nov1935 | 11 | Gold-buying monopoly | -0.002 |
| 29nov1935 | 8 | International tensions | × |
| 27sep1936 | 7 | Gold bloc demise | × |
| 28sep1936 | 9 | | |
| 04oct1936 | 8 | Devaluation | n.a. |
| 06oct1936 | 38 | | |
| 07oct1936 | 12 | | |
| 09oct1936 | 8 | | |
| 10nov1936 | 8 | Austro-Italian trade pact | × |

Note: shocks selected by the procedure described in section 3. The numbers in parentheses are the mean and standard deviation of the daily number of articles for the selected country.

Table B.3.3: Shocks

| Date | # articles | Event | Shock |
|---|---|---|---|
| Panel E: Netherlands (mean=0.2, sd=0.9) | | | |
| 27jun1933 | 8 | Devaluation rumors | × |
| 06apr1935 | 8 | Gold bloc reaffirms commitment | -0.023 |
| 07apr1935 | 7 | | |
| 08apr1935 | 12 | Pro-devaluation minister resigns | -.009 |
| 04jun1935 | 9 | New government | -0.014 |
| 24jul1935 | 8 | | |
| 25jul1935 | 13 | | |
| 26jul1935 | 8 | | |
| 27jul1935 | 13 | | |
| 28jul1935 | 11 | | |
| 29jul1935 | 15 | | |
| 17sep1935 | 7 | Bank rate hike | -0.003 |
| 18sep1935 | 8 | Deflationary budget | -0.009 |
| 26sep1935 | 8 | Devaluation rumors | × |
| 04feb1936 | 6 | Pro-devaluation speech by former minister | × |
| 27sep1936 | 18 | Devaluation | +0.175 |
| 28sep1936 | 16 | | |
| 29sep1936 | 7 | | |
| Panel F: Switzerland (mean=0.1, sd=0.5) | | | |
| 21apr1933 | 4 | US gold embargo | × |
| 23mar1934 | 5 | Pro-gold minister resigns | +0.003 |
| 24mar1934 | 4 | | |
| 08apr1935 | 4 | Gold bloc reaffirms commitment | -0.020 |
| 03jun1935 | 8 | Devaluation proposal rejected | -0.011 |
| 04jun1935 | 4 | | |
| 28oct1935 | 4 | General elections | -0.003 |
| 27sep1936 | 14 | Devaluation | +0.321 |
| 28sep1936 | 14 | | |
| 30sep1936 | 6 | | |
| 01oct1936 | 4 | | |
| 09oct1936 | 4 | | |

Note: shocks selected by the procedure described in section 3. The numbers in parentheses are the mean and standard deviation of the daily number of articles for the selected country.

Table B.3.4: Shocks

| Date | # articles | Event | Shock |
|---|---|---|---|
| Panel G: UK (mean=1.2, sd=2.1) | | | |
| 21sep1931 | 40 | Pound devaluation | +0.175 |
| 22sep1931 | 58 | | |
| 23sep1931 | 26 | | |
| 27sep1931 | 18 | | |
| 28sep1931 | 27 | | |
| 26nov1932 | 15 | War debt discussions | × |
| 02dec1932 | 16 | | |
| 22apr1933 | 15 | Dollar devaluation | × |
| 26apr1933 | 17 | Exchange equalisation fund increased | +0.018 |
| 26sep1936 | 18 | Gold bloc demise | × |
| 27sep1936 | 15 | | |
| Panel H: US (mean=18.3, sd=12.7) | | | |
| 22sep1931 | 128 | Pound devaluation | × |
| 21apr1933 | 137 | Gold embargo | +0.095 |
| 23apr1933 | 96 | | |
| 16jan1934 | 156 | Dollar devaluation | +0.022 |
| 02feb1934 | 107 | | |
| 26sep1936 | 106 | Gold bloc demise | × |
| 27sep1936 | 138 | | |
| 28sep1936 | 113 | | |
| 29sep1936 | 111 | | |

Note: shocks selected by the procedure described in section 3. The numbers in parentheses are the mean and standard deviation of the daily number of articles for the selected country.

## B.3 Additional Material on Elasticity Estimation

### B.3.1 Data Construction

I discard imports from countries for which I do not have exchange rate data. After this step, I am left with 89% of the value of US imports from 1930 to 1933. I drop products for which I have neither value nor quantity, and those with two values but only one quantity. When a product is broken down between free and dutiable, I sum quantities and values. When there are two measures of quantity in the same unit, I drop the gross weight. When there are two measures of quantity in different units, I keep the one in pounds. Prices are recovered by dividing value by quantity.

Products are identified by their customs code. In all specifications, a product-country pair is dropped if its value is 0 in one of the relevant years. For instance, when I use 1930 and 1933 data, I only keep product-country pairs for which US imports are strictly positive in both years. This step drops up to 15% of the value of imports remaining from the previous steps. All in all, I am left with 44% of the value of US imports in 1931, 49% in 1932, and 56% in 1933.

The Hawley–Smoot tariff triggered the creation of several product categories in June 1930. As a result, the same product is not always classified consistently before and after the implementation of the tariff. Sometimes, the product category stays the same but switches from free to dutiable. Some other times, a product category is split into other categories. For instance, leather boots and shoes were divided into men's, women's, and children's. Whenever possible, I merge all of these product categories to be consistent within and across years.

The customs codes were reshuffled between 1929 and 1930, which makes it impossible to use those for the placebo tests. I manually match product categories based on their label. Whenever new product categories were created in 1930, I merge them as described in the previous paragraph.

### B.3.2 Elasticity Estimation: Robustness

This section contains additional results around the estimation of the within-product elasticity in equation (14).

#### B.3.2.1 Weighting

In table 3, I used unweighted observations. In table B.4, I re-estimate equation (14) weighting observations by their 1932 value and obtain similar results.

Table B.4: Elasticity—weighted specification

| | 1930–32 change | | | 1930–33 change | | |
|---|---|---|---|---|---|---|
| | (1) RF | (2) FS | (3) IV | (4) RF | (5) FS | (6) IV |
| Panel A: Estimate | | | | | | |
| XR | 0.998*** | −0.351** | | 0.965*** | −0.327*** | |
| | (0.348) | (0.136) | | (0.264) | (0.088) | |
| Elasticity | | | 2.843** | | | 2.951*** |
| | | | (1.207) | | | (0.853) |
| Observations | 3742 | 3742 | 3742 | 3446 | 3446 | 3446 |
| F-statistic | | | 6.643 | | | 13.781 |
| Panel B: Weighted placebo | | | | | | |
| XR | −0.135 | −0.049 | | −0.181 | −0.061 | |
| | (0.233) | (0.054) | | (0.173) | (0.042) | |
| Elasticity | | | −2.755 | | | −2.955* |
| | | | (3.073) | | | (1.565) |
| Observations | 3755 | 3755 | 3755 | 3579 | 3579 | 3579 |
| F-statistic | | | 0.824 | | | 2.141 |

Note: reduced form (RF), first stage (FS), and instrumented (IV) estimates of equation (14). Standard errors are in parentheses. They are double clustered at the country and product levels. F-statistic is the Kleibergen–Paap Wald rk F-statistic of the first stage.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

#### B.3.2.2 Tariff-Induced Bias

A peculiar feature of inter-war US tariffs may bias my elasticities downward. While the US did not raise tariffs selectively against countries that devalued, customs duties on certain products were a fixed levy per physical unit of good. As a consequence, when the dollar price of these products decreased, the effective *ad valorem* tariff rate increased (Crucini, 1994, Irwin, 1998). Thus the tariff rate could have been correlated with the exchange rate, which would compromise the validity of the instrument.

This point can be formalized by going back to equation (13) in the main text. It is still valid with tariffs if $p_{rt}^{jk}$ is interpreted as the after-tariff price. Unfortunately, I do not directly observe after-tariff prices at the product-country level.[1] Fortunately, I do not need the after-tariff price to infer the elasticity. Indeed, if I break down the price into its before-tariff and

[1]In theory, it should be possible to impute the relevant tariff duty to each product-country pair. In practice, this is impossible to do because the import data is more aggregated than the tariff data, and the tariff data is not broken down by country. As a result, there are several tariff subcategories within a product category as it is defined in the import data, and I do not observe the country information within those subcategories.

tariff components, the equation becomes:

$$\Delta d_{rt}^{jk} = -\theta \Delta \tilde{p}_{rt}^{jk} + \underbrace{\theta \Delta \left( \tau_{rt}^{j*} + \tilde{p}_{rt}^{j*} \right) + \Delta c_{rt}^{j*}}_{\text{fixed effect}} + \underbrace{\Delta \left( \kappa_{rt}^{jk} - \theta \tau_{rt}^{jk} \right)}_{\text{error term}} \tag{B.1}$$

where $\tilde{p}_{rt}^{jk}$ is the before-tariff price and $\tau_{rt}^{jk}$ is the effective tariff rate paid on varieties imported from country $k$. The equation again features a term that can be absorbed by a product-time fixed effect. But the error term now includes country-specific tariffs.

While the US tariff code did not discriminate across countries until 1934,[2] the effective tariff rate is not necessarily the same across countries because some products were taxed through a fixed nominal duty, not by a fixed proportional rate. As a result, the effective tariff rate becomes inversely proportional to the price:

$$1 + \tau_{rt}^{jk} \left( \tilde{P}_{rt}^{jk} \right) \propto \frac{1}{\tilde{P}_{rt}^{jk}}$$

Which implies that the regression actually identifies:

$$\theta \left( 1 + \tau_{rt}^{jk\prime} \left( \tilde{P}_{rt}^{jk} \right) \right) < \theta$$

There is a downward bias in the coefficient.

To quantify the extent of this bias, I re-estimate the elasticity with the same methodology but allowing it to differ for products that are taxed proportionally and those that are taxed with a fixed nominal duty.[3] The results are displayed in table B.5. I now pool 1930–32 and 1930–33 changes in order to present the results in a more compact way. The products taxed with an *ad valorem* tariff indeed display a higher elasticity, closer to 4 than 3.

[2] Cuba and the Philippines benefited from preferential treatment but they are excluded from the sample.

[3] The data on tariff rates was first used by Bond et al. (2013). For the needs of this project, I re-digitized it in collaboration with Acosta and Cox (2021).

Table B.5: Elasticity—tariff-induced bias

| | Unweighted | | Weighted | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| | All | *Ad valorem* | All | *Ad valorem* |
| | | Panel A: IV | | |
| Elasticity | 2.731*** | 3.784*** | 2.964*** | 4.020** |
| | (0.379) | (0.763) | (0.938) | (1.689) |
| Observations | 7042 | 2912 | 7042 | 2912 |
| F-statistic | 17.170 | 5.890 | 13.890 | 8.970 |
| | | Panel B: OLS | | |
| Elasticity | 1.150*** | 1.013*** | 0.878*** | 0.629* |
| | (0.065) | (0.080) | (0.174) | (0.334) |
| Observations | 7042 | 2912 | 7042 | 2912 |

Note: Columns (1)–(2) are unweighted; columns (3)–(4) are weighted by 1932 value. Standard errors are in parentheses. They are double clustered at the country and product levels. F-statistic is the Kleibergen–Paap Wald rk F-statistic of the first stage.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

# References


Acosta, M. and L. Cox (2021). Hysteresis in the U.S. tariff code: Origins and implications. Work in progress.

Albers, T. N. H. (2018). The prelude and global impact of the great depression: Evidence from a new macroeconomic dataset. *Explorations in Economic History 70*, 150–163.

Bond, E. W., M. J. Crucini, T. Potter, and J. Rodrigue (2013). Misallocation and productivity effects of the Smoot–Hawley tariff. *Review of Economic Dynamics 16*, 120–134.

Crucini, M. J. (1994). Sources of variation in real tariff rates: The United States, 1900–1940. *American Economic Review 84*(3), 732–743.

David, T. (1995). Un indice de la production industrielle de la Suisse durant l'entre-deux-guerres. *Revue Suisse d'histoire 45*, 109–130.

Ellison, M., S. S. Lee, and K. H. O'Rourke (2024). The ends of 30 big depressions. *American Economic Review 114*(1), 134–168.

Federico, G. and A. Tena-Junguito (2019). World trade, 1800–1938: A new synthesis. *Revista de Historia Económica / Journal of Iberian and Latin American Economic History 37*(1), 9–41.

Hirayama, K. and A. Noda (2025). Measuring the time-varying market efficiency in the prewar and wartime Japanese stock market, 1924–1943. *Asia-Pacific Economic History Review 65*(1), 131–159.

Irwin, D. A. (1998). Changes in U.S. tariffs: The role of import prices and commercial policies. *American Economic Review 88*(4), 1015–1026.

Jarociński, M. and P. Karadi (2020). Deconstructing monetary policy surprises—The role of information shocks. *American Economic Journal: Macroeconomics 12*(2), 1–43.

Mitchell, B. R. (2003). *International Historical Statistics: Europe, 1750–2000* (Fifth ed.). New York: Palgrave Macmillan.

Stock, J. H. and M. W. Watson (2012). Disentangling the channels of the 2007-–09 recession. *Brookings Papers on Economic Activity 42*(1), 81–135.

Thorp, R. (1984). *From an Export-led to an Import-substituting Economy: Chile*. New York, NY: St. Martin's Press.

United States Department of Commerce (1930–1934). *Foreign Commerce and Navigation of the United States*. Washington: Government Printing Office. 1929 to 1933 issues.

Vaihekoski, M. (2024). Revisiting stock market index for the Helsinki Stock Exchange 1912–1981. *Journal of Risk and Financial Management 17*(3), 90.