

# Replication package: Taxes and Growth: New Narrative Evidence from Interwar Britain

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This package reproduces the figures and tables contained in “Taxes and Growth: New Narrative Evidence from Interwar Britain”.

## 1 Main files

### 1.1 Files to produce all the main results:

- **Figure 1: MainData/Figure1.xlsx**: Excel file used to plot Figure 1 and Appendix Figure A5.
- **Figure2.m**: Matlab file to plot Figure 2.
- **mainRun.do**: Stata file to create Figures 3-8, Table 3 and Appendix Figures A1-A4, A6-A17 and A19.
- **AppendixFigureA18/runAppendixFigureA18.m**: Creates Appendix Figure A18. Requires functions from the replication packages of Gorodnichenko and Lee (2020) and Plagborg-Møller and Wolf (2021).
- **ConstructShocks/AppendixFigureA20A21.do**: Stata file to create Appendix Figures A20 and A21.

### 1.2 Data construction files

- **ConstructShocks/runA11.do**: Stata file to construct the main quarterly narrative tax shock data.

### 1.3 Folder structure

- **RawTaxData**: Contains a spreadsheet with the raw narrative data including all individual tax changes.

- **ConstructShocks**: A collection of do files to transform the raw narrative tax data into a quarterly shock series.
- **NarrativeShocks**: The output folder containing the quarterly narrative tax shock series.
- **MainData**: Folder containing all the main time series data for analysis. Precise sources are contained in the “Notes” tab of each Excel file. Stata also outputs various “dta” files into this folder.
- **DoFiles**: Contains all the Stata do files called by `mainRun.do`.

## 2 Instructions

All results can be reproduced by running the main files listed in Section 1.1 in order.

## 3 Computational requirements

### 3.1 Software requirements

- **Stata**: Results were produced using Stata 16. Requires packages: `ivreg2`, `weakivtest` and `estout`.
- **Matlab**: Matlab replication files were produced using version 2022a. Appendix Figure A18 requires the replication files from Gorodnichenko and Lee (2020) (folder `lib`) and Plagborg-Møller and Wolf (2021) (folder `functions`).

### 3.2 Memory and runtime requirements

- The code was last run on a Quad-Core Intel Core i5-based desktop with 16GB of RAM and running MacOS version 13.3.1.
- Approximate time needed to reproduce the analyses: less than 10 minutes.

## 4 Data Availability Statement

All data needed to reproduce the main results are contained in the replication package. Each spreadsheet also contains information on the underlying source for each series. The main data files in the replication package are summarized below.

- **MainMacroData.xlsx**: Main time series data.
- **AnnualData.xlsx**: Annual data for Appendix Figures A1-A4.
- **Figure1.xlsx**: Data for Figure 1 and Appendix Figure A5.

- `NominalGDP.xlsx`: Nominal GDP data
- `NominalGDPForShocks.xlsx`: Lagged data used for scaling the narrative tax shocks.

Table 1 below summarizes the sources for the data contained in these files. This information is also summarized within each Excel file.

Table 1: Full list of data sources

Variables	Source(s)
<i>Quarterly Data</i>	
Narrative tax changes	<i>Financial Statements</i> Stationary Office (1938) <i>Hansard</i> UK Parliament (1938) <a href="https://api.parliament.uk/historic-hansard/index.html">https://api.parliament.uk/historic-hansard/index.html</a> Finance Act(s) <a href="https://www.legislation.gov.uk/">https://www.legislation.gov.uk/</a> .
Real GDP	Thomas and Dimsdale (2017), tab <i>Q2</i> . <i>Qrtly GDP 1920</i> Column C.
Bank Rate	Thomas and Dimsdale (2017), tab <i>Q1</i> . <i>Qrtly headline series</i> Column U
Wages	Thomas and Dimsdale (2017), tab <i>Q1</i> . <i>Qrtly headline series</i> Column S
Consumer prices	Thomas and Dimsdale (2017), tab <i>Q1</i> . <i>Qrtly headline series</i> Column O. Seasonally adjusted using X-13ARIMA-SEATS.
Unemployment	Thomas and Dimsdale (2017), tab <i>M1</i> . <i>Mthly headline series</i> Column F. Quarterly average.
Government expenditure	Lennard (2020). Seasonally adjusted using a 4-quarter moving average filter.
Government receipts	Lennard (2020). Seasonally adjusted using a 4-quarter moving average filter.
GDP deflator	Weighted average of the cost of living index and the export price deflator, Capie and Collins (1983)
<i>Annual Data</i>	
Real GDP	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column B
GDP deflator	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column AI
Nominal GDP	Thomas and Dimsdale (2017), tab <i>A9</i> . <i>Nominal GDP (A)</i> Column P
Consumer prices	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column AO
Debt to GDP ratio	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column BV
Bank Rate	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column AS
Unemployment	Thomas and Dimsdale (2017), tab <i>A1</i> . <i>Headline series</i> Column AB
Government spending to GDP ratio	Thomas and Dimsdale (2017), tab <i>A27</i> . <i>Central govt borrowing</i> Column AU
Tax receipts to GDP ratio	Thomas and Dimsdale (2017), tab <i>A27</i> . <i>Central govt borrowing</i> Column AX
Deficit as a share of GDP (Figure 1)	Thomas and Dimsdale (2017), Mallet and George (1933), Peden (2000), Middleton (1985), Mitchell (1988), Mitchell et al. (2012) (see <b>Figure1.xlsx</b> )

## References

- Capie, F. and M. Collins (1983). *The Inter-war British Economy: A Statistical Abstract*. Manchester University Press.
- Gorodnichenko, Y. and B. Lee (2020). Forecast error variance decompositions with local projections. *Journal of Business and Economic Statistics* 38(4), 921–933. Replication package: <https://sites.google.com/view/bclee>.
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- Middleton, R. (1985). *Towards the managed economy : Keynes, the Treasury and the fiscal policy debate of the 1930s*. Methuen.
- Mitchell, B. R. (1988). *British Historical Statistics*. Cambridge: Cambridge University Press.
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- Plagborg-Møller, M. and C. K. Wolf (2021). Instrumental variable identification of dynamic variance decompositions. Matlab code suite and data (GitHub): [https://github.com/mikkelpm/svma\\_iv/releases/tag/v1.1.0](https://github.com/mikkelpm/svma_iv/releases/tag/v1.1.0).
- Stationary Office (1918-1938). Financial Statement.
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