



## *Effective Tax Rates, Firm Size and the Global Minimum Tax*

*First Submission: RR\_WLD\_2025\_281*

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This review verifies the reproducibility of the exhibits included in the paper “*Effective Tax Rates, Firm Size and the Global Minimum Tax*”.

### **Contents in this review:**

1. Main findings
2. List of exhibits and reproducibility status
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### *Main findings*

- **Every exhibit has been reproduced accurately.**
- The code was successfully executed on a new computer after:
  1. Setting the file paths in the script `o_master_ETR_GMT.R` and in the do-files `o_master_cleaning.do`, `2_4_GMT_output.do`, and `Code_FA2.do`.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 2 hours to run.
- We conducted our reproducibility analysis based on the paper shared by the authors on February 12, 2025 using the project’s private GitHub repository.
- **Reproducibility Summary:**
  - **Data:** Some data is restricted and has not been included in the reproducibility package. For more details, please refer to the README file.
  - **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
  - **Outputs:** All outputs are generated by code included in the reproducibility package.
  - **Reproducibility verification:** Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The reviewers did not verify if publicly available data matches the data provided by the authors.
  - **Dependencies environment:** The reviewers created a new environment using the latest versions of dependencies available at the moment of the review.

## List of exhibits and reproducibility status

### Results in the Main Section of the Paper

- **Table 1 Reproduced.** This exhibit was compared against *T1\_desc\_stats.tex*.
- **Table 2 Reproduced.** This exhibit was compared against *T2\_regression\_ETR\_Top1.tex*.
- **Figure 1 Does not apply** The exhibit does not show analysis results.
- **Figure 2 Reproduced.** This figure was compared against *F2\_ETR\_size\_all.pdf*.
- **Figure 3 Reproduced.** This figure was compared against *F3\_ETR\_minus\_STR.pdf*.
- **Figure 4 Panel A Reproduced.** This figure was compared against *F4\_a\_ETR\_country\_avg.pdf*.
- **Figure 4 Panel B Reproduced.** This figure was compared against *F4\_b\_ETR\_sector\_avg.pdf*.
- **Figure 4 Panel C Reproduced.** This figure was compared against *F4\_c\_ETR\_lifetime\_avg.pdf*.
- **Figure 5 Panel A Reproduced.** This figure was compared against *F5\_a\_share\_less15\_nodat.pdf*.
- **Figure 5 Panel B Reproduced.** This exhibit was compared against *F5\_b\_ETR\_below15\_nodat.pdf*.
- **Figure 5 Panel C Reproduced.** This exhibit was compared against *F5\_c\_profit\_less15\_nodat.pdf*.
- **Figure 5 Panel D Reproduced.** This figure was compared against *F5\_d\_revchange\_nodat.pdf*.
- **Figure 6 Panel A Reproduced.** The exhibit was compared against *F6\_GMT\_Share\_Tax\_Orbis\_CbC\_topup.png*.
- **Figure 6 Panel B Reproduced.** The exhibit was compared against *F6\_GMT\_Share\_N\_G\_E\_Orbis\_CbC\_topup.png*.
- **Figure 7 Panel A Reproduced.** The exhibit was compared against *F7\_CRI\_GMT\_Share\_Tax\_Cbc\_topup.png*.
- **Figure 7 Panel B Reproduced.** The exhibit was compared against *F7\_GRC\_GMT\_Share\_Tax\_Cbc\_topup.png*.
- **Figure 7 Panel C Reproduced.** The exhibit was compared against *F7\_HND\_GMT\_Share\_Tax\_Cbc\_topup.png*.
- **Figure 7 Panel D Reproduced.** The exhibit was compared against *F7\_JAM\_GMT\_Share\_Tax\_Cbc\_topup.png*.
- **Figure 7 Panel E Reproduced.** The exhibit was compared against *F7\_ZAF\_GMT\_Share\_Tax\_Cbc\_topup.png*.

### Results in the Annex

For the Appendix, we did not review every exhibit. Instead, we randomly selected 10 exhibits. Since they were chosen randomly, we are operating under the assumption that if all randomly selected exhibits are reproducible, then the rest should be as well. The seed used to generate the random selection

was 353572, the Stata version used was 18.0 MP, and the exhibits selected were: Figure A.3, Figure A.4, Figure A.5, Figure A.6, Figure A.7, Table A.3, Table A.5, Table A.6, Figure B.2, Figure B.4.

- **Figure A.3 Reproduced.** The exhibit was compared against *FA3\_ETR\_size\_profitable.pdf*.
- **Figure A.4 Reproduced.** The exhibit was compared against *FA4\_unprofitable.pdf*.
- **Figure A.5 Reproduced.** The exhibit was compared against *FA5\_regressions\_robustness\_STR.pdf*.
- **Figure A.6 Reproduced.** The exhibit was compared against *FA6\_ETR\_size\_robust.pdf*.
- **Figure A.7 Panel A Reproduced.** The exhibit was compared against *FA7\_panelA\_correlation.pdf*.
- **Figure A.7 Panel B Reproduced.** The exhibit was compared against *FA7\_panelB\_missing.pdf*.
- **Table A.3 Reproduced.** The exhibit was compared against *TA3\_panelA\_bins\_all.tex* and *TA3\_panelB\_bins\_profitable.tex*.
- **Table A.5 Reproduced.** The exhibit was compared against *TA5\_regression\_ETR\_B90.tex*.
- **Table A.6 Reproduced.** The exhibit was compared against *TA6\_regression\_robustness.tex*.
- **Figure B.2 Panel A Reproduced.** The figure was compared against *FB2\_GMT\_Share\_Tax\_Orbis\_CbC\_topup\_Y10.png*.
- **Figure B.2 Panel B Reproduced.** The figure was compared against *FB2\_GMT\_Share\_N\_G\_E\_Orbis\_CbC\_topup\_Y10.png*.
- **Figure B.4 Panel A Reproduced.** The figure was compared against *FB4\_a\_GMT\_N\_Groups\_Orbis\_V.png*.
- **Figure B.4 Panel B Reproduced.** The figure was compared against *FB4\_b\_GMT\_Share\_Profits\_Orbis\_V.png*.
- **Figure B.4 Panel C Reproduced.** The figure was compared against *FB4\_c\_GMT\_N\_Groups\_CbCR\_V\_topup.png*.
- **Figure B.4 Panel D Reproduced.** The figure was compared against *FB4\_d\_GMT\_Share\_Profits\_CbCR\_V\_topup.png*.

### *Reproduction Environment*

- Paper exhibits were reproduced on a computer with the following specifications:
  - OS: Windows Server 2016 Standard
  - Processor: Intel(R) Xeon(R) CPU E7-4890 v2 @ 2.80GHz 2.79 GHz (8 processors)
  - Memory available: 128 GB
  - Software version: R 4.4.2, Stata 16.1 MP