**The Relationship Between Income Taxation and Wealth Inequality in OECD Countries: Exploring the Factors Contributing to Unequal Household Wealth**

**Duncan Gates**

**Introduction**

Taxes and transfers have a significant redistributive impact. Inequality in income after

taxes and transfers, as measured by the Gini index, was about 25% lower than for income

before taxes and transfers on average in the OECD area in the late 2000s. (Joumard, 2012). Over the last few years there has been an increasing field of literature regarding wealth inequality as most measures indicate that it has vastly increased since the 1980s in major OECD countries. The evidence over the last four decades has shown a clear rise in income inequality, but the development of new literature in wealth inequality has shown an even sharper increase in the concentration of wealth at the top in the US. (Zucman, 2019). So far the evidence has suggested that wealth inequality has been increasing in many countries over the last couple decades, but at different speeds, putting the critical role of domestic taxation institutions in a spotlight (Alvaredo et al., 2018). Since the mid-1990s, the redistributive effect of taxes and transfers has declined, both on average and in the majority of OECD countries for which data are available (Immervoll and Richardson, 2011). Additionally, wealth inequality is about twice that of income inequality (Zucman, 2015). Most OECD countries tax policies include an income tax but omit taxes specifically on wealth, therefore it is crucial that there be a relationship between income and wealth inequality if governments that have an interest in decreasing inequality in their countries through taxes on income.

**Thesis Statement/Hypothesis**

I hypothesize that in countries that have higher personal income taxes there will be lower levels of wealth inequality. The amount of wealth inequality that is actually dependent will vary widely depending on other factors on each country's economy, which will be controlled for through the use of other explanatory variables.

**Approach/Methodology**

I will first take the distribution of wealth in OECD countries, and use this as a baseline to compare the marginal effects of income taxes, inheritance taxes, and transfers or welfare effects of different countries on overall wealth inequality. The data to conduct this analysis is available under the recently published OECD Wealth Distribution Database, and in the OECD Tax database. After performing ordered least squares regression analysis on the comparative levels of wealth and income inequality with variables to adjust for unemployment, GDP growth rate, and other associated confounding variables I will attempt to establish the true marginal relationship between different levels of income taxation and wealth inequality.

The equation Yi = β0 + β1X1 + μ where Yi is the overall level of wealth inequality measured as the GINI of wealth in each country and X1 is the average personal income tax of each country will be used to perform a simple linear regression with the hypothesis that β1 < 0. The use of country fixed effects and time fixed effects with the equation will additionally be used to adjust for confounding factors.

APPROACH SUBSECTION (REQUIRED FOR ALL THESES): Does your thesis project involve any research activity that requires compliance procedures (e.g., human subject research requiring Institutional Review Board approval)? No.

**Expected Results/Anticipated Outcome and Significance**

I expect to find that higher levels of taxes on personal income will result in lower levels of wealth inequality. However, I expect the magnitude of the reduction to be small, and less than a 0.1 point GINI wealth coefficient reduction. My analysis of the data will have significant consequences for both our understanding of the influences of inequality and the usefulness of income inequality in predicting wealth inequality.

SIGNATURE LINE

Mentor: Todd Pugatch , Economics 3/15/2020

Mentor’s Name (typed), (Department) Date

By signing, the mentor gives his/her assurance that they have read the proposal, sees it as a legitimate HC research project, and is willing to serve as your thesis advisor for the proposed project. If this project requires IRB approval, the mentor confirms eligibility as a Principal Investigator according to IRB criteria.

# Honors College Thesis Expectations Agreement



### Student Responsibilities

* Work 3 hours each week per research credit in EC0N 403 course.

Students typically work 3-5 hours each week per graded research credit in the discipline of their mentor. (i.e. 2 credits of BB 403 is equivalent to 6-10 hours per week)

* Maintain a notebook/journal/lab record to verify accomplishments, protocols, problems, questions, dates and number of hours worked and results.
* Mid-way through the research, student will select committee members (the committee will include the mentor, and two others) to review the thesis. Selection of committee members is in consultation with and approved by the thesis mentor.
* Submit a final draft copy of the thesis to their thesis committee no later than ten business days prior to their scheduled thesis defense date
* Present their thesis in front of their thesis committee, discuss and defend their thesis by answering questions about their research and related topics such as theoretical background, rationale, results, experimental design and overall significance
* Revise, edit, and complete the final thesis and submit to OSU Scholar Archive no later than Friday of week 10 of their graduation term.
* Gather signatures for thesis submission form and submit to the Honors College no later than Friday of week 10 of their graduation term.

Student: Duncan Gates 03/15/2020

Student’s Name (typed) Duncan Gates Date

By signing, the student gives their assurance that they agree to the ‘Student Responsibilities’ outlined for the proposed project.

### Mentor Responsibilities

* Provide guidance on the development and direction of the research project. The project, including background reading and real-time research, should take about 18-30 total hours (6 credits at 3-5 hours per credit).
* Explain and demonstrate how records should to be kept, including notebooks or data organization and storage.
* Identify the publishing or style guide to be used for the thesis: o Typical examples are APA, Harvard, IEEE, MLA, etc.
* Recommend a secondary person for the student to utilize in case of questions: Assist in preparing and reviewing:
  + project timeline
  + project reference materials
  + drafts of the written thesis
* Assist in selecting and approving fellow committee members.
* Provide grades for research credits in terms student enrolls.
* Provide guidance as the student designs the poster and prepares for the thesis defense.
* Chair the student’s thesis defense.

Mentor: Todd Pugatch, Economics 03/15/2020

Mentor’s Name (typed), (Department) Date

By signing, the mentor gives their assurance that they agree to the ‘Mentor Responsibilities’ outlined for the proposed project.

# Honors College Thesis Proposed Timeline



General Guidelines: In Stage 4, 1st term - Read & Research / 2nd term -Analyze Results & Write / 3rd term – Edit, Defend & Submit

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| --- | --- | --- |
| Suggested Submit Date: |  | Submit to: |
| By April 15 | Read and summarize past literature on topic | Dr. Pugatch |
|  |  |  |
| By April 20 | Gather questions / research / data / themes | Dr. Pugatch |
|  |  |  |
| By April 31 | Analyze thesis questions / data / research / themes | Dr. Pugatch |
|  |  |  |
| By May 31 | Select committee members | Dr. Pugatch |
|  |  |  |
| By June 15 | Write and format thesis | Dr. Pugatch |
|  |  |  |
| By July 1 | Revise thesis draft #1, #2, #3 | Dr. Pugatch |
|  |  |  |
| By July 16 | Finalized draft to the thesis committee | Dr. Pugatch |
|  |  |  |
| By August 1 | Schedule the thesis defense | Duncan |
|  |  |  |
| By July 17 | Design and print the thesis poster | Duncan |
|  |  |  |
| By July 21 | Create a presentation on your project | Duncan |
|  |  |  |
| By August 1 | Defend the thesis project | Duncan |
|  |  |  |
| By August 15 | Make revisions to the thesis and format it | Duncan |
|  |  |  |
| By August 17 | Upload thesis to the OSU Scholars Archive | Duncan |
|  |  |  |
| By August 17 | Gather approval signatures | Duncan |
|  |  |  |
| By August 20 | Submit the thesis | HC  Office |