

# A Choice Experiment on Tax: Are Income and Consumption Taxes Equivalent?

Fumio Ohtake<sup>1</sup>   Hirofumi Kurokawa<sup>2</sup>   Tomoharu Mori<sup>3</sup>

January 2016

## Abstract

We conduct a laboratory experiment to study whether income and consumption taxes are equivalent. Under a given set of income and consumption parameters, subjects were asked to choose among an income tax of 20%, a consumption tax of 25% (which is an equivalent tax burden), a consumption tax of 22%, and a consumption tax of 20%. The consumption tax rate of 22% turned out to be a smaller tax burden, despite higher nominal tax rate than the income tax. Our results showed that subjects prefer income tax to consumption tax when the nominal consumption tax rate is higher than the nominal income tax rate. However, subjects tend to prefer consumption tax to income tax when the nominal tax rates are identical. Our result, that subjects prefer income tax to consumption tax despite a higher tax burden, implies the consumption tax miscalculation bias. The consumption tax miscalculation bias is a bias where subjects miscalculate the amount of consumption tax as if it is declared by tax inclusive, as in the case of income tax, despite consumption tax being tax exclusive. If the income tax burden is equivalent to the consumption tax burden, subjects prefer income tax. This result implies that income and consumption taxes are not equivalent due to the consumption tax miscalculation bias.

JEL classification: H24, C91

Keywords: Tax equivalence, Income tax, Consumption tax, Misperception of tax, Behavioral and experimental economics

---

<sup>1</sup> Institute of Social and Economic Research, Osaka University. E-mail address: ohtake@iser.osaka-u.ac.jp

<sup>2</sup> Graduate School of Economics, Osaka University and Research fellow of JSPS. E-mail addresses: nge007kh@student.econ.osaka-u.ac.jp

<sup>3</sup> The Research Institute for Socionetwork Strategies, Kansai University. E-mail: r148033@kansai-u.ac.jp