

Quantifying Loss-Averse Tax Manipulation

Alex Ress-Jones

Reviewd by Reio TANJI

Osaka University

Nov 13th, 2018

Abstract

Alex Rees-Jones (2018) "Quantifying Loss-Averse Tax Manipulation"
Review of Economic Studies (2018) 85, 12511278

- Presents the effects of *loss-aversion* from the evidence of US taxpayers.
- Taxpayers are engaged to pursue tax reduction activity especially when they have some positive due near the date of payment.
- Distribution of reported tax bill has excess mass around the border whether they must pay or not.

Institutional Background

- In the US, one's tax payment in each year is determined by the Internal Revenue Service (IRS), based on the difference between the reported taxable income and the her/his payment in advance: "balance due."
- If the balance due (denoted by b) is positive, the tax filer must that amount to the IRS, and if negative, then s/he can receive a refund.
- Balance due can be "manipulated," by reporting donation they did, or enrollment in charitable contribution.
⇒ Loss-Averse affects the tax filers' behavior according to their initial balance due, resulting in the bunching of the reported (observed) payment.

contribution

This paper contributes in three ways:

- 1 Illustrate robust and observable features of the presence of loss-aversion with minimal assumptions.
- 2 Estimate the impact of loss-aversion measured in dollars.
- 3 Specify the way to apply similar settings:
loss-averse individual is able to manipulate an observable outcome.

Sequential Manipulation

- Given b_{PM} : balance due prior to manipulation, taxpayers face a sequence of manipulation opportunities, each of which is characterized by the parameters : $\{m_i, c_i\}_{i=1}^J$
 m_i denotes the tax reduction by the i th manipulation
 c_i is the intrinsic cost

Cost by manipulation

Taxpayers consider their benefits and costs to decide whether to make efforts to tax manipulation.

- Blumenthel and Slemrod (1992)
It spend on average 27 hours documenting and reporting for tax reduction
- Benzarti (2015)
They dislike tasks for tax 4.2 times as that for working with same time length

- Ordinary gain-loss function:

$$\Phi(x|r) = \begin{cases} x - r & \text{if } x \geq r \\ \lambda(x - r) & \text{if } x < r \end{cases}$$

- Applying this structure, loss-averse taxpayers' evaluation of the benefit from each manipulation:

$$\begin{aligned} V(m_i|b, r) &= \Phi(-b + m_i|r) - \Phi(-b|r) \\ &= \begin{cases} m_i & \text{if } -b \geq r \\ \lambda(r + b) + (m_i - b - r) & \text{if } -b \in [r - m_i, r] \\ \lambda m_i & \text{if } -b \leq r - m_i \end{cases} \end{aligned}$$

Gain-Loss Function

- If there remains tax due after reduction, then all the value of the manipulation is evaluated as loss.
- When, on the other hand, manipulation cancels out the due before, the margin to be refunded is evaluated as gain.
- If s/he does not have to pay more, then the reduction by the manipulation is fully counted as gain.

