



ELSEVIER

Contents lists available at ScienceDirect

Journal of The Japanese and International Economies

journal homepage: www.elsevier.com/locate/jjie



Estimates of average marginal tax rates on factor incomes in Japan

Hiroshi Gunji^a, Kenji Miyazaki^{b,*}

^a Faculty of Economics, Daito Bunka University, Japan

^b Faculty of Economics, Hosei University, Japan

ARTICLE INFO

Article history:

Received 10 November 2009

Revised 8 December 2010

Available online 18 February 2011

JEL classification:

E20

E62

H20

O5

ABSTRACT

Gunji, Hiroshi, and Miyazaki, Kenji—Estimates of average marginal tax rates on factor incomes in Japan

In this paper, we estimate average marginal tax rates on factor incomes in Japan from 1963 to 2007. We adapt the method of D.H. Joines [Estimates of effective marginal tax rates on factor incomes. *J. Bus.* 54 (2), 191–226.] to the Japanese tax and social security system. Average marginal tax rates on labor incomes without social security premiums range from 14% to 21%, whereas the rates on incomes with social security have increased from 21% to 33%. Tax rates on capital incomes have fluctuated between 35% and 58%. We also compare our estimates with average tax rates and the wedges from business cycle accounting. *J. Japanese Int. Economies* 25 (2) (2011) 81–106. Faculty of Economics, Daito Bunka University, Japan; Faculty of Economics, Hosei University, Japan.

© 2011 Elsevier Inc. All rights reserved.

1. Introduction

Tax is often introduced into economic models to increase their realism, and sometimes to evaluate quantitatively welfare levels and policy effects. For accurate evaluation, estimating effective tax rates in the macroeconomy is crucial. The average marginal tax rate, which is a weighted average of the marginal tax rates of economic agents with different incomes, is more appropriate as an effective

* Corresponding author. Address: Faculty of Economics, Hosei University, 4342 Aihara, Machida, Tokyo, Japan. Fax: +81 42 783 2611.

E-mail address: miya_ken@hosei.ac.jp (K. Miyazaki).

tax rate for macroeconomic analysis than is the average tax rate, which is simply the ratio of total tax revenues to national income. In this paper, we estimate Japanese average marginal tax rates.

Many researchers have estimated average marginal tax rates for the US. [Joines \(1981\)](#) and [McGrattan et al. \(1997\)](#), updating the Joines series, used the amounts of income and tax revenue for each income bracket to estimate a series of tax rates on labor and capital incomes. Making fewer assumptions, [Seater \(1985\)](#) and [Stephenson \(1998\)](#), updating the Seater series, adopted the same method to calculate a series of tax rates on total income. [Barro and Sahasakul \(1983, 1986\)](#) used the statutory rate to compute a series of tax rates on total income. [Akhand and Liu \(2002\)](#) used a non-parametric approach to estimate a series of average marginal rates on total income.

Following [Joines \(1981\)](#), most research into average marginal taxes has attempted to relax these assumptions, but has computed tax rates only on total income. In many studies in which dynamic macroeconomic models have been calibrated, the Joines (or its updated) series has been used so that the effects of taxes on each factor income can be evaluated separately.¹ To similarly assist macroeconomists investigating the Japanese economy, in this paper we compute average marginal tax rates on capital and labor incomes by using the methodology of Joines.

To determine the factors that were detrimental to the Japanese economy after 1990, many researchers have simulated Japanese business cycles in the 1990s by using neoclassical macroeconomic models that incorporate income tax. [Hayashi and Prescott \(2002\)](#) used a constant capital income tax rate of 0.48. [Braun et al. \(2006\)](#) set the labor income tax rate to 0.24, and [Esteban-Pretelet et al. \(2010\)](#) set the labor and capital tax rates to 0.28 and 0.44, respectively. In these studies, average tax rates were used as marginal tax rates; it is important to estimate Japanese marginal tax rates accurately.

To our knowledge, the only estimated average marginal tax rates on factor incomes for Japan are those obtained by [McKee et al. \(1986\)](#).² The paucity of studies may be a product of the Japanese tax system. Many OECD countries adopt a self-assessment income tax system under which, even though wages and salaries are taxed at source, employees usually file a final tax return to make a year-end tax adjustment. In Japan, however, most employees have no such incentive because employers are obliged to make year-end tax adjustments for their employees. This makes it difficult to determine average marginal tax rates for all taxpayers.

To be specific, we divided Japanese workers into three categories: employees not filing a final tax return; employees filing a final tax return; and self-employed workers filing a final tax return. The first two are withholding income taxpayers, and the last two are self-assessment income taxpayers.³ For the US, where most are self-assessment income taxpayers, the *Statistics of Income* published by the Internal Revenue Service can provide data on almost all taxpayers' tax revenues for each income bracket. In Japan, the *Sample Survey for Self-assessment Income* (Shinkoku Shotoku Zei Hyohon Chosa) and the *Statistical Survey of Actual Status for Salary in the Private Sector* (Minkan Kyuyo Jittai Tokei Chosa), published by the National Tax Agency, present tax data for each income bracket. Thus, with some assumptions, one can construct series of average marginal tax rates for both self-assessment income taxpayers and withholding income taxpayers. The challenge is to estimate average marginal tax rates for all taxpayers by combining these series. In Japan, workers filing a final tax return are both self-assessment and withholding income taxpayers, and they are included in both surveys.

To overcome this difficulty in estimating average marginal tax rates, we use a weight to estimate total average marginal tax rates. The weight is chosen so that the *average* tax rate on total income is equal to a weighted sum of *average* tax rates on self-assessment income and *average* tax rates on withholding income. By using this weight, we treat the weighted sum of the average marginal tax rates for self-assessment taxpayers and those for withholding income as the total average marginal tax rates. Furthermore, one can broadly consider social security premiums as a component of taxes on labor income. We calculate average marginal social security premium rates and add them to the average marginal tax rates on labor incomes.

¹ For example, [McGrattan \(1994\)](#), [McGrattan et al. \(1997\)](#), [Cole and Ohanian \(1999\)](#), [Chari et al. \(2000\)](#), [Siu \(2008\)](#), and [McGrattan and Ohanian \(2010\)](#) used the Joines series.

² McKee et al. calculated tax rates for 1979, 1981, and 1983 only, without using time series data.

³ Retirees, whose main incomes are no longer salaries and wages, are included in both categories of taxpayer.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات