Debates on Individual Income Tax and Potential Japanese Tax Reforms

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Abstract

This paper reviews the debates on individual income tax and identifies some important tax reforms for Japanese individual income taxation. The basic role of tax on labor income is to ensure fairness by maintaining progressivity of taxation and to incentivize people, particularly women and the elderly, to work. To this end, it will be appropriate to expand the tax base by eliminating some tax deductions while introducing purpose-specific tax credits to provide work incentives. Regarding tax on capital income, it will be necessary to determine whether a one-time tax on capital income should be levied at the corporate level or individual level. Therefore, it is essential to expand the scope of consideration to the entire tax system, including corporate income tax. Since it is difficult to impose source-based taxation on capital in an open economy, a pragmatic approach such as dual income tax (DIT) with a substantially reduced corporate income tax rate will be a likely option. Fortunately, in Japan, it seems that DIT would make the current tax system more efficient and fairer without leading to any serious problems.

Keywords: individual income tax, optimal taxation, corporate income tax, dual income tax
JEL Classification: H21, H24, H25.

I. Introduction

The reexamination of individual income tax in Japan has become essential considering the income inequality between regular and irregular workers and the emergence of the working poor, among others. Individual income tax also plays a role in alleviating the increased regressivity of a VAT rate hike. In Japan, for the first time in 17 years, the government raised the VAT rate by 3 percent this year. However, in the process of the debate on VAT, it was revealed that the allergy for VAT has not been cleared. Given that the VAT rate will continue to be raised in the future, individual income tax will play a more important role in clearing the allergy for VAT by addressing the regressivity problem. Moreover, Japan’s longstanding challenges include greater inclusion of women and the elderly in the labor

1 I am grateful to Motohiro Sato and Tomoyuki Nakajima for their useful comments. All remaining errors are mine.
force, and greater use of risk money to create entrepreneurs for economic growth. Individual income tax will play an important role in attaining these goals.

This paper surveys the literature on individual income tax and associated problems, and discusses how individual income tax should be constructed. Section 2 discusses the U.S. Tax Panel’s (2005) tax reform proposals and confirms the features of consumption tax reforms. Section 3 examines the debates on optimal labor income tax, tax on low-income earners, and the potential of age-dependent income taxes. Section 4 reviews the literature on optimal capital income tax and discusses the important aspects of capital income taxes at the corporate and individual levels. Section 5 discusses the dual income tax (DIT) in Nordic countries as a potential Japanese income tax reform.

II. Fundamental Tax Reform Proposals

1. The U.S. Tax Panel’s Proposals

In many countries, tax panels often propose drastic tax reform plans. Famous tax reform proposals include the Carter Report (Royal Commission on Taxation, 1966), the Blueprints (U.S. Treasury Department, 1977), the Meade Report (Meade, 1978), the report by the U.S. President’s Advisory Panel on Federal Tax Reform (U.S. Tax Panel, 2005), and the Mirrlees Review (Mirrlees et al., 2011). The key issue for these tax panels is whether the tax base should be changed from income to consumption. The change of tax base substantially affects capital income tax and not so much labor income tax as the latter is already a hybrid of the income tax (for example, Simons, 1938) and the consumption tax; corporate income tax and individual capital income tax are drastically altered by the tax base change.

The U.S. Tax Panel’s (2005) proposals are good examples for understanding both income tax and consumption tax proposals (Table 1). These proposals also provide some suggestions for Japanese income tax reforms. The panel proposes two tax reform plans—Simplified Income Tax Plan (SITP) and Growth and Investment Tax Plan (GITP). The common feature of these two plans is that many labor income tax deductions are simplified. Regarding personal deductions, personal exemption, standard deduction, and child tax credit are consolidated into “family credit.” For deductions associated with work incentives, the earned income tax credit (EITC) and other credits are unified into “work credit.” Since deductions are advantageous to rich people, work and childcare incentives are given in the form of tax credits. Moreover, in the U.S. Tax Panel’s proposals, many forms of tax-preferred savings plans are consolidated into three plans—”save at work plans,” “save for retirement accounts,” and “save for family accounts.” In Japan, some authors argue for the introduction of the Japanese individual retirement account (IRA). The U.S. Tax Panel’s proposals suggest that it is important to achieve fair taxation for each newly introduced tax-preferred savings plan.

Regarding tax on corporate income, the GITP incorporates a critical feature of consumption tax. The immediate deduction of an investment is proposed in the GITP, while...
accelerated deduction is proposed in the SITP (Table 2). The immediate deduction of capital stock implies no taxation of capital because immediate deduction completely offsets the present value of future normal profits. For small firms, both the plans involve immediate deduction, although the SITP limits the immediate deduction to machinery.

At the individual level, the income tax principle is applied to capital income in the SITP, while double taxation is avoided via a 100 percent dividend deduction. In the GITP, the dividend tax rate and capital gains tax rate are set at 15 percent. This implies that the GITP is not a pure consumption tax. A tax on capital income is levied for the purpose of redistribution. The existence of capital income tax at the individual level is different from the consumption tax proposal by Mirrlees et al. (2011).

2. Efficiency and Fairness of Consumption Tax

There are some reasons why the transition from the income tax to the consumption tax is repeatedly proposed. First, the consumption tax is more efficient. Under income taxes, individuals’ savings are taxed first at the corporate level and then again at the individual

| Table 1 The U.S. Tax Panel’s (2005) Proposals (Selected for Labor Income) |
|---------------------------------|---------------------------------|
| **Tax rates**                   | **Simplified Income Tax Plan**  | **Growth and Investment Tax Plan** |
| Personal exemption             | Four tax brackets: 15%, 25%, 30%, 33% | Three tax brackets: 15%, 25%, 30% |
| Standard deduction             | Replaced with Family Credit available to all taxpayers: $3,300 credit for married couples, $2,800 credit for unmarried taxpayers with child, $1,650 credit for unmarried taxpayers, $1,150 credit for dependent taxpayers; additional $1,500 credit for each child and $500 credit for each other dependent |
| Child tax credit                | Replaced with Work Credit (and coordinated with the Family Credit); maximum credit for working family with one child is $3,570; with two or more children is $5,800 |
| EITC                           | All taxpayers may purchase health insurance with pre-tax dollars, up to the amount of the average premium (estimated to be $5,000 for an individuals and $11,500 for a family) |
| Defined contribution plans     | Consolidated into Save at Work plans that have simple rules and use current-law 401(k) contribution limits; AutoSave features point workers in a pro-saving direction (Growth and Investment Tax Plan would make Save at Work accounts “prepaid” or Roth-style) |
| Defined benefit plans          | No change                       |
| Retirement savings plans       | Replaced with Save for Retirement accounts ($10,000 annual limit) available to all taxpayers |
| Education savings plans        | Replaced with Save for Family accounts ($10,000 annual limit): would cover education, medical, new home costs, and retirement savings needs; available to all taxpayers; refundable Saver’s Credit available to low-income taxpayers |
| Health savings plans           |                                      |
| Home mortgage interest         | Home Credit equal to 15% of mortgage interest paid; available to all taxpayers; mortgage limited to average regional price of housing (limits ranging from about $227,000 to $412,000) |

level\textsuperscript{2}. Under consumption taxes, savings are taxed only once when they are consumed. Therefore, consumption taxes are advantageous for capital accumulation.

In the U.S., the consumption tax proposals, Fundamental Tax Reform, were quantitatively examined in the mid-1990s. The U.S. Joint Committee on Taxation (1997) examined nine consumption tax proposals including Hall and Rabushka’s (1985, 1995) flat tax, and found that while some proposals have strong growth effect as highlighted by Summars (1981), the effects of the other proposals are relatively small. Since the growth effect of consumption tax depends on assumptions such as closed economy or open economy and the elasticity of parameters, there is no consensus on the quantitative effects of consumption tax reforms. In general, consumption taxes are preferred in a country with low individuals’ savings rate where savings need to be stimulated for economic growth.

Second, the principle of horizontal equity is satisfied under consumption taxes because persons with equal lifetime incomes bear equal tax burden. With no bequest, tax on consumption is equivalent to tax on income, although the timing of these taxes is different. On the other hand, under income taxes, since capital income from savings is taxed again in addition to labor income tax, persons with equal lifetime incomes may bear different tax burdens.

\textsuperscript{2} This view is based on consumption tax. Under income tax, taxing income arising at different places is not a problem. There is no concept of double taxation on savings under income tax.

### Table 2 The U.S. Tax Panel’s (2005) Proposals (Selected for Capital Income)

<table>
<thead>
<tr>
<th></th>
<th>Simplified Income Tax Plan</th>
<th>Growth and Investment Tax Plan</th>
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</thead>
<tbody>
<tr>
<td><strong>Large Business</strong></td>
<td></td>
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<tr>
<td>Tax rates</td>
<td>31.5%</td>
<td>30%</td>
</tr>
<tr>
<td>Investment</td>
<td>Simplified accelerated depreciation</td>
<td>Expensing for all new investment</td>
</tr>
<tr>
<td>Interest paid</td>
<td>No change</td>
<td>Not deductible (except for financial institutions)</td>
</tr>
<tr>
<td>Interest received</td>
<td>Taxable</td>
<td>Not taxable (except for financial institutions)</td>
</tr>
<tr>
<td>International tax system</td>
<td>Territorial tax system</td>
<td>Destination-basis (border tax adjustments)</td>
</tr>
<tr>
<td><strong>Small Business</strong></td>
<td></td>
<td></td>
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<tr>
<td>Tax rates</td>
<td>Taxed at individual rates (top rate has been lowered to 33%)</td>
<td>Sole proprietorships taxed at individual rates (top rate lowered to 30%); Other small businesses taxed at 30%</td>
</tr>
<tr>
<td>Investment</td>
<td>Expensing (exception for land and buildings under the Simplified Income Tax Plan)</td>
<td></td>
</tr>
<tr>
<td><strong>Individuals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends received</td>
<td>Exclude 100% of dividends of U.S. companies paid out of domestic earnings</td>
<td>Taxed at 15% rate</td>
</tr>
<tr>
<td>Capital gains received</td>
<td>Exclude 75% of corporate capital gains from U.S. companies (tax rate would vary from 3.75% to 8.25%)</td>
<td>Taxed at 15% rate</td>
</tr>
<tr>
<td>Interest received</td>
<td>Taxed at regular income tax rates</td>
<td>Taxed at 15% rate</td>
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\textsuperscript{2} This view is based on consumption tax. Under income tax, taxing income arising at different places is not a problem. There is no concept of double taxation on savings under income tax.
burdens in their lifetimes. Moreover, in a progressive income tax system, persons are taxed at a higher rate when their incomes are higher than the average lifetime incomes, while the taxes paid in the past are not refunded when their incomes become lower than the average. In other words, under the income tax system, success is heavily taxed, while failure does not enjoy any support from the government. This violates the principle of horizontal equity. In order to encourage risk-taking among individuals for the growth of the Japanese economy, the tax system needs to be adjusted in line with the environment. Consumption may be a more reasonable choice of tax base in this regard\(^3\).

The biggest defect of consumption tax is its regressivity in terms of current income or the lack of vertical equity. If workers randomly move across income brackets in their lifetimes, we do not need to take regressivity into account. Consumption taxes are desirable because it taxes lifetime income equally. According to the U.S. Council of Economic Advisors (2003), the ratio of workers who remain in the same tax bracket 10 years later is 24.0–53.4 percent\(^4\). Many workers move to a different tax bracket in 10 years as their income changes. However, the proportion of low-income earners (10 percent tax bracket) who move to higher tax brackets (28 percent or more) is less than 1 percent, while the proportion in the opposite case is less than 5 percent. Therefore, the U.S. Tax Panel (2005) proposed an arrangement for the regressivity of consumption tax in terms of current income\(^5\). Similar statistics are not observed in Japan, but considering the low employment mobility, the regressivity of consumption tax should be taken into account. The use of refundable tax credit in individual income tax is a better method to alleviate regressivity than differentiated VAT rates (Crawford, Keen, and Smith, 2010). It is important to construct an efficient and fair taxation system that generates increased revenues from VAT and achieves redistribution through individual income tax.

The logic needs to be altered if there are bequests. In this case, we cannot interpret that lifetime income is equal to lifetime consumption. Logically, bequests should be taxed as a part of consumption\(^6\). The Hall-Rabushka flat tax is a prepayment type of consumption tax. Therefore, heirs should bear the tax burden when they receive bequests under the flat tax system. On the other hand, under a deferred consumption tax system such as VAT, ancestors’ bequests should be taxed as consumption.

However, the logic changes in the infinite horizon models. If parents regard their

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\(^3\) The transition from the income tax to the consumption tax affects persons at different stages of lifecycles differently. Generally, elderly people who have faced high tax rates in the past are at a disadvantage due to this transition. However, in Japan, since the tax and social security systems excessively benefit elderly people, higher dependency on consumption tax contributes to a reduction in generational inequality.

\(^4\) This observation is for the period 1987–1996. The tax brackets are 0, 10, 15, 25, 28, 33, and 35 percent.

\(^5\) The consumption tax proposal by Mirrlees et al. (2011) also focuses on conventional regressivity.

\(^6\) This does not imply that tax on consumption (including bequests) excludes estate tax or inheritance tax. The necessity of tax on bequests or inheritance should be considered separately from the logic of consumption tax.
children’s utility as their own, the children’s utility becomes a part of the parents’ utility function. Assuming the infinite continuation of this relationship, individuals are treated as if they live forever in the optimization problem. In this altruistic model, bequests imply deferral of consumption. Therefore, the bequests that the heirs receive should not be taxed under the Hall-Rabushka flat tax and they should be taxed on consumption under VAT.

To sum up, consumption tax has merit in terms of efficiency because double taxation on savings is avoided. In terms of equity, consumption tax is supported by horizontal equity and has more validity in an economy where labor mobility is high and risk-taking is important. A complete transition to the consumption tax has not yet occurred in any country, but considering the global trend of higher dependency on VAT, the feature of consumption tax has already intensified across countries. In such an environment, individual income tax must play the role of redistribution.

**III. Labor Income Tax**

Labor income tax plays an important role under both income tax and consumption tax. In this section, we review three issues pertaining to labor income tax—the tax rate schedule, tax on low-income earners, and age-dependent taxation.

1. **Optimal Tax Rate**

Consider a situation where a government implements progressive taxation on individuals’ skills. If the skills are observable, the government can implement lump sum taxes and transfers (first best). However, since individuals’ skills are not observable, the government has no choice but to tax their incomes, which adversely affects labor supply. Therefore, the government needs to raise tax revenues taking into consideration the effect on labor supply. Mirrlees (1971) first formally dealt with the problem of optimal non-linear income tax when individuals’ skills are not observable.

Regarding non-linear labor income taxes, the effects of raising the marginal tax rate for a particular income level are explained as follows. With the marginal tax rates for the other income levels remaining constant, the increase in the marginal tax rate for a particular income level increases the tax burden for the taxpayers above that income level without aggravating work incentives. In other words, the marginal tax rate hike for a particular income level is a lump sum tax on taxpayers above that income level. A benefit of this hike is that the government can get more tax revenues for redistribution. However, individuals at the income level for which the marginal tax rate is raised have less incentive to work, leading to a decrease in the labor supply. This is a drawback of raising the tax rate. Moreover, in the

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7 This section partially draws on some survey papers on optimal labor income tax, including Brewer, Saez and Shepard (2010), Diamond and Saez (2011), Boadway (2012), and Mankiw, Weinzierl and Yagan (2009).
upper tails of the income level, welfare loss occurs because the tax burden is raised for that income level. To summarize, the marginal tax rate hike for a particular income level has three effects (Brewer, Saez, and Shephard, 2010):

(a) Increased revenues from the taxpayers above the income level for which the tax rate is raised (mechanical effect).
(b) Decreased labor supply for the income level for which the tax rate is raised (substitution effect).
(c) Welfare loss for taxpayers above the income level for which the tax rate is raised. The volume of welfare loss depends on the extent to which the government values redistribution.

Thus, the optimal marginal tax rate for each income level depends on the tax elasticity of labor and skill (or income) distribution. Mirrlees (1971) concluded that the optimal marginal tax rate is between 0–100 percent and the marginal tax rate schedule is close to linear. In subsequent research, it was clarified that the top tax rate is zero (Sadka, 1976) and the bottom tax rate is also zero if “bunching” does not occur (Seade, 1977). The top tax rate is zero because the social cost of aggravating the work incentives of the top income earner is higher than the increased tax revenues from the person. While it is possible to understand the logic of traditional optimal taxes, there are various hurdles in terms of putting the conclusion into practice. Thus, the optimal labor income taxation suggestions have so far failed to garner support at the policy-making stages.

Diamond (1998) and Saez (2001) used the Pareto distribution that has a long tail towards the high end for skill (or income) distribution instead of the normative distribution that is bilaterally symmetric, and suggested a new optimal marginal tax rate schedule. Assuming a quasi-linear utility function for consumption and unrestricted skills distribution, Diamond (1998) showed that the top tax rate rose towards the top income earner. Moreover, he argues that the marginal tax rate schedules are U-shaped instead of the traditional inverse U-shaped. There are two reasons for the U-shaped tax rate schedules. First, since the welfare loss from raising the marginal tax rate for a particular income level increases as the number of taxpayers increases, the distortion expands until the mode of income distribution. Thus, the optimal marginal tax rate declines to the mode of income distribution. Second, assuming the Pareto distribution, the benefit of redistribution arising from the higher marginal tax rate for income above the mode decreases at a slower rate than the cost of the marginal tax rate hike; this suggests upward shape of the optimal marginal tax rates. Notably, the U-shaped optimal tax rate is not related to social preference in redistribution. Contrary to intuition, the strong

8 Tuomala (1984; 1990) showed that the conclusion can be different by changing the assumptions of the utility function.
9 “Bunching” occurs when taxpayers choose the same point as equilibrium after a tax reform that causes the kink in the marginal tax rate structure. Bunching depends on the marginal tax rate structure and the shape of the indiff'rence curve. When bunching occurs, the optimal bottom tax rate is positive.
preference for redistribution such as the Maximin objective function leads to higher marginal
tax rates for low-income earners. This occurs because the strong preference for redistribution
necessitates more tax revenues and the government has to raise the average tax rate as high
as possible, resulting in higher marginal tax rates for low-income earners.

In recent years, several U-shaped results for the optimal tax rate schedules using actual
income distribution have been presented and more explicit policy proposals drawn from
them\textsuperscript{10}. However, there are caveats attached to these U-shaped marginal tax rate schedules. If
the utility functions and skill (or income) distribution differ, the optimal tax schedule varies.
Following Mirrlees (1971), Diamond (1998) derives the U-shaped tax schedule based on an
unbounded skills distribution. But with a bounded skills distribution, the optimal marginal
tax rate schedule may return to the inverse U-shaped one. Boadway, Cuff, and Marchand
(2000) assume a quasi-linear utility function for leisure and analytically show that the optimal
tax rate schedule is inverse U-shaped assuming a bounded Pareto distribution. Dahan and
Strawczynski (2000) present four combinations of utility function (assumptions of
consumption and leisure) and skills distribution (log-normal or Pareto) and conclude that the
U-shaped tax rate schedule depends on the assumption of consumption in the utility function.
Boadway and Jacquet (2008) consider the tax rate schedule under the Maximin objective
function and suggest that higher-income earners should face lower tax rates if the utility
function is an additive of consumption and leisure. Thus, while a new consideration of the
optimal taxation provides a new perspective on the optimal tax rate schedule, it must be
noted that the optimal tax rate schedule varies depending on the assumption regarding the
economic situation.

2. Optimal Taxation for Low-Income Earners

Various studies on optimal taxation in recent years have provided new conclusions. The
first conclusion pertains to how the bottom should be taxed. As per the traditional optimal tax
theory, the optimal tax rate for the bottom is zero if bunching does not occur. However, this
conclusion is based on the assumption that workers respond along the intensive margin by
varying their working hours. If the labor supply decision along the extensive margin is
considered, the optimal tax rate for the bottom presents a different picture (Saez, 2002a).

In the actual policy stages, the tax and transfer for the bottom should traditionally be
addressed by negative income tax (NIT). Under NIT, persons below a certain income level
are subsidized, persons with zero income get a guaranteed amount, and the subsidies decrease
as the income level increases. The subsidies become zero at a certain income level and,
thereafter, income begins to be taxed. However, empirically, it became clear that the benefit
program under NIT aggravates individuals’ work incentives; consequently, earned income
tax credit (EITC) is preferred in many countries. Under EITC, no assistance is given to
persons whose incomes are zero. Instead, the benefits increase as income grows. Once the

\textsuperscript{10} For example, Zoutman et. al. (2011).
income surpasses a certain level, the benefits begin to decrease. For incomes beyond a particular threshold, the benefits are zero. The difference between EITC and NIT is the higher labor participation incentives for individuals under EITC\(^{11}\).

Notably, the marginal tax rate is negative for income between zero and the first threshold under EITC. Traditional optimal tax theory does not support a negative marginal tax rate if workers respond along the intensive margin, but supports it if workers respond along the extensive margin. Diamond (1980) considers a model in which individuals can choose to participate with set working hours and shows that a negative marginal tax rate is optimal. According to Saez (2002a), when individuals’ response is concentrated along the intensive margin, a traditional negative income tax program is optimal. However, when individuals’ response is concentrated along the extensive margin, EITC is optimal. Based on a model that includes the response along both the intensive and extensive margins, Jacquet, Lehmann, and Linden (2010) conclude that the marginal tax rate is extremely low as compared to the intensive margin case, although the marginal tax rate for the bottom is not negative.

3. Age-Dependent Labor Income Taxation

The second new research area for optimal taxation is the potential to tax observable elements like age and sex, instead of unobservable elements like workers’ skills. A tax on unobservable skills encourages taxpayers to disguise their skills in order to lower their tax burden. Therefore, the government must construct a taxation system after assessing the effect of taxes on individuals’ behavior; however, if a tax is levied on observable elements like age, no cost arises from the changes in individuals’ behavior. Akerlof (1978) shows that welfare can be improved by using “tagging” instead of imposing a negative income tax on the entire population. Tagging is already used in welfare benefit systems. Therefore, it is intuitively easy to understand that public assistance only for an eligible group with a certain requirement is more efficient than across-the-board subsidies.

There are some criteria for tagging in the tax system. The most promising one is age-dependent taxation\(^{12}\). Banks and Diamond (2010) propose age-dependent income taxation where the marginal tax rates are different across four age groups—less than 30, 30–50, 50–65, and over 65. The age groups are based on income distribution, intertemporal incentives, uncertainty of future income, accumulation of human capital, and borrowing constraints. Banks and Diamond (2010) regard age-dependent taxation as the most promising tax reform in developed countries in the near future.

In a static model, governments face incentive compatibility constraints to deter high-

\(^{11}\) The EITC has certain shortcomings—(1) people with no income who really need assistance are not supported and (2) similar to NIT, work incentives are aggravated when individuals’ incomes cross the first income threshold.

income earners in all age groups from pretending to have lower incomes. If age-dependent taxation is implemented, the government needs to prevent this pretense only within the same age group. In other words, the incentive compatibility constraints are alleviated because the constraints in age-dependent taxation are a subset of those in the static Mirrlees models. Moreover, in the dynamic Mirrlees models, a government can give better allocations to individuals who were made poor allocations in the past. A dynamic model has an advantage of widening the range of policies to the extent that individuals’ circumstances are reflected in the policies; however, it has low feasibility. According to Weinzierl (2011), the welfare improvement due to the change from the static Mirrlees taxation to the dynamic Mirrlees taxation comprises 60 percent of the total welfare improvement. If this calculation is correct, even if the implementation of dynamic policies on labor records is actually difficult, more than half of the total welfare improvement can be achieved through age-dependent taxation.

IV. Capital Income Tax

Tax on capital income distinguishes between income tax and consumption tax. In this section, we consider three problems regarding optimal capital income tax—(1) whether capital income should be taxed in the first place, (2) whether capital income should be taxed at the corporate level or individual level, and (3) what is neutral taxation on individuals’ savings behavior.

1. Optimal Capital Income Taxation

There are two traditional models of optimal capital income tax theory that argue for no taxation on capital income. The first model is the infinite-horizon model by Chamley (1986) and Judd (1985). According to the Chamley model, when the solution to the optimal tax problem converges to steady state, the optimal capital income tax rate is zero. In the infinite horizon model, the capital income tax leads to significant distortion in future consumption. With a constant capital income tax rate, the tax wedge between current consumption and future consumption increases with time. Suppose $r$ is the interest rate and $\tau$ is the tax rate. The value of one yen after $T$ years is $(1 + r)^T$ in the case of no tax and $(1 + (1 - \tau)r)^T$ in the case of tax. Therefore, the tax wedge is expressed as shown in equation (3) and increases with $T$.

$$\text{tax wedge} = 1 - \frac{(1 + (1 - \tau)r)^T}{(1 + r)^T} \quad (3)$$

13 There are several surveys on optimal capital income tax including Chari and Kehoe (1999), Boadway and Keen (2003), Banks and Diamond (2010), and Boadway (2012) and Kopczuk (2013). This section partially draws on some of these surveys.
Suppose $r = 0.05$ and $\tau = 0.3$. Then, the tax wedge is 13.4 percent when $T = 10$, 43.8 percent when $T = 40$, and 76.3 percent when $T = 100$. Since the tax wedge increases with $T$, the optimal tax rate should be zero in order to avoid an accumulated increase in the tax wedge in the infinite-horizon model.

The other model is the theorem by Atkinson and Stiglitz (1976). The Atkinson-Stiglitz theorem suggests that when individuals’ preference for consumption and leisure is weakly separable, the same tax rate should be set for all goods under commodity taxation. In the basic commodity tax model by Corlett and Hague (1953) that considers leisure and two consumption goods, goods that are more complementary with untaxed leisure should be taxed more heavily. Since leisure cannot be taxed directly, consumption goods that increase with leisure are more heavily taxed instead. According to the theorem, it is desirable to set higher tax rates on goods that are more complementary with leisure such as music appliances and sports tickets and set lower tax rates on goods that are less complementary with leisure such as commuter pass. However, if individuals’ utility function is weakly separable with regard to consumption and leisure as in equation (4)

$$U = U(v(C_1, C_2), L) \quad (4)$$

where $v$ is homothetic, the complementarities of leisure with good 1 and good 2 are the same. Therefore, it is optimal to set the same rate for all goods. Commodity tax duplicates optimal non-linear income tax; thus, when the latter can be implemented, the former is not necessary.

The Atkinson-Stiglitz theorem can be applied to capital income tax. Consider two periods where individuals work to earn income in the first period for consumption and savings, and retire in the second period where they consume by dissaving. The problem in this setting is whether capital income arising from savings in the first period should be taxed or not. When the preference for leisure and consumption is weakly separable in the two periods, the Atkinson-Stiglitz theorem argues that the optimal capital income tax rate is zero\(^{14}\). In this situation, weak separability of the preference for consumption and leisure implies that leisure is equally complementary with consumption in the two periods; that is, consumption profiles do not depend on labor supply. Since it is unclear whether leisure is more complementary with consumption in the first or the second period, it is natural to assume that leisure is complementary with consumption equally in the two periods. If leisure is more complementary with consumption in the second period than in the first period, consumption in the second period should be taxed more heavily. However, since it is practically impossible to tax only consumption in the second period more heavily, tax on capital income is used instead.

However, it is uncertain whether the assumptions behind the two benchmark models hold. First, individuals’ behavior is consistent with the finite horizon (life cycle) models in contrast to Chamley-Judd’s assumption of infinite horizon models. If individuals have

\(^{14}\) When individuals are heterogeneous in terms of discount rates due to differences in ability and income, the optimal capital income tax rate is not zero (Saez, 2002b).
altruistic bequest motives, the children’s utility function is effectively included in parents’ utility function and the individuals are considered to act in the infinite time horizon. However, prior research suggests that altruistic bequest motives are not dominant in Japan (Horioka, 2002).

Moreover, Erosa and Gervais (2002) showed that the optimal capital income tax rate is not zero in overlapping generation models. Since consumption and leisure are constant in the steady state in infinite horizon models, the zero capital income tax rate is optimal regardless of the form of utility functions. In contrast, in life cycle models, even a solution to the Ramsey problem converges to the steady state, while individuals’ consumption and leisure are not constant through their lifetime. Therefore, it is optimal to tax individuals’ consumption and labor at each stage of the life cycle differently. According to Erosa and Gervais (2002), when the utility function is weakly separable as shown in equation (5)

$$U = U(v(C_0, \ldots, C_J), L_0, \ldots, L_J) \quad (5)$$

where 0, ..., J denote the individuals’ ages and v is homothetic, the optimal capital income tax rate is zero if the optimal age-dependent labor income tax exists. Without the age-dependent labor income tax, it is optimal to create the same effect using capital income tax.

Second, in the presence of borrowing constraints, a positive capital income tax is justified. Whether the combination of capital income tax cut and labor income tax hike for offsetting the revenue loss increases welfare depends on the elasticity of capital with regards to the interest rate and the borrowing constraints of consumers. While the reduction in the capital income tax rate results in increased savings and output, consumers facing borrowing constraints are forced to decrease consumption due to the labor income tax rate hike. The individuals’ welfare is determined by the relative size of the benefit and the cost. Hubbard and Judd (1986) simulate with plausible parameters and conclude that the tax reform reduces welfare. Moreover, Aiyagari (1995) shows that a positive capital income tax is justified to prevent excess capital accumulation in an incomplete market with borrowing constraints. Conesa, Kitao, and Krueger (2009) simulate an OLG model in an incomplete market with productivity shocks and borrowing constraints and determine an optimal tax rate of 36 percent for capital income tax and 23 percent for labor income tax.

Third, general dynamic Mirrlees models suggest that the optimal capital income tax rate is not zero. Diamond and Mirrlees (1978) and the New Dynamic Public Finance (NDPF) studies showed that it is optimal to distort savings. However, the measure to distort savings is not necessarily positive capital income tax. Kocherlakota (2005) argued that based on the assumption of non-linear labor income tax and linear capital income tax, the optimal capital

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15 In a special case where the utility function is additively separate, productivity is constant, and the government’s discount rate is the same as that of the individual, the optimal capital income tax rate is also zero.

income tax is a regressive tax where the savings of low-income earners are taxed more heavily. Assuming age-dependent labor income tax and a separable utility function, the average optimal capital income tax rate in a regressive taxation system is zero and the tax revenues are also zero. This implies that low-income earners are heavily taxed while high-income earners are subsidized. The regressivity in the dynamic as well as static Mirrlees models is due to constraints of unobservable individuals’ skills. The constraints are addressed by decreasing the extent of redistribution in the static models; however, in the dynamic models, a new problem of not working very hard and consumption using accumulated savings arises. In a system where individuals are heavily taxed when they stochastically become low-income earners, it would be difficult to implement the strategy. Therefore, the government sets higher capital income tax rates for low-income earners.

Finally, some argue for positive capital income tax as the distinction between labor income and capital income cannot be made correctly. The owner of closely held companies can change the allocation of labor income and capital income. This is known as the Achilles heel of DIT in the Nordic countries. Christiansen and Tuomala (2008) show that positive capital income tax is necessary in a model where labor income can be transformed into capital income.

Thus, to obtain an optimal capital income tax rate of zero, we have to fulfill severe conditions that are difficult to hold in reality. It follows that we may obtain a tentative optimal positive capital income tax rate. However, it must be noted that there is no consensus on the optimal capital tax rate and that a flat tax rate on capital income is not necessarily optimal in theory.

2. **How should Capital Income be Taxed?**

Given that one-time taxation on capital income is justified, should it be implemented at the corporate level or the individual level? If capital income is taxed at both levels, it leads to double taxation. Profits are divided into normal profits and excess profits; double taxation means taxing normal profits twice. Since the tax on excess profits does not change firms’ investment decisions, taxing excess profits twice is not a problem at least in a closed economy.

In the classical system, double taxation occurs because both normal profits and excess profits are taxed at the corporate and individual levels (Table 3-①). If normal corporate income tax is changed to cash-flow corporate income tax or allowance for corporate equity (ACE),

17 However, this does not imply that the whole tax system is regressive because progressive labor income tax is secured.

18 ACE was proposed by IFS (1991). By providing for an equity allowance (similar to interest on debt), ACE is neutral to investment as well as cash-flow tax. ACE has been recently implemented in Belgium and Italy.
income tax (CBIT) proposed by the U.S. Department of the Treasury (1992). Under CBIT, capital income tax is levied at the corporate level by making interest rate on debt non-deductible, while no capital income tax is levied at the individual level. The pure DIT by Cnossen (2000) is equivalent to the CBIT. Given that taxing excess profits twice is not a problem, excess profits at the individual level must be taxed as well. This idea leads to normal corporate income tax with the allowance for shareholder equity (ASE) where excess profits are taxed twice at the corporate and individual levels (Table 3-④). Norway has introduced ASE as shareholder income tax (SIT) in 2006.

Consumption tax proposals require that normal profits should not be taxed at both corporate and individual levels (Table 3-⑤, ⑥). Under the Hall-Rabushka flat tax, cash-flow tax is levied at the corporate level and no capital income tax is levied at the individual level. Under the consumption tax proposal by Mirrlees et al. (2011), normal profits are not taxed by ACE at the corporate level and ASE at the individual level.

However, these arguments are based on a closed economy. In an open economy, the effect of tax on capital outflow must be taken into account. Desirable capital income taxes in an open economy are different from those in a closed economy in the following aspects. First, in a small open economy, while capital income tax at the corporate level affects firms’ investments, capital income tax at the individual level affects individuals’ savings (Boadway and Bruce, 1992; Sorensen, 2007). When firms finance investment at global interest rates, the cost of capital is unaffected by capital income tax at the individual level. Second, not taxing

### Table 3 Tax on Profits from Equity Investment

<table>
<thead>
<tr>
<th>Corporate Level</th>
<th>Individual Level</th>
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<tbody>
<tr>
<td></td>
<td>Normal Profits</td>
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<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>①Current Corporate Income Tax + Current Dividend and Capital Gains Tax (Classical System)</td>
<td>○</td>
</tr>
<tr>
<td>③CBIT or Pure DIT (Cnossen, 2000)</td>
<td>○</td>
</tr>
<tr>
<td>④Current Corporate Income Tax + ASE (Norwegian Tax System since 2006)</td>
<td>○</td>
</tr>
<tr>
<td>⑤Cash-Flow Corporate Income Tax (Hall-Rabushka Flat Tax)</td>
<td>×</td>
</tr>
<tr>
<td>⑥ACE + ASE (Mirrlees Review)</td>
<td>×</td>
</tr>
</tbody>
</table>

Note: ○ denotes taxed and × denotes untaxed.
normal profits is sufficient to avoid an adverse effect on investments in a closed economy; however, tax on excess profits also affects firms’ behavior in an open economy because firms decide their location after examining this tax. If excess profits (or rent) are location-specific, tax on rent is not a problem. However, if the rent is firm-specific, tax on rent drives capital overseas.

Following the logic described above, in an open economy, tax cuts at the corporate level stimulate investment, but a revenue neutral tax reform leads to higher tax rate and drives firms overseas. This leads to the view that combining rate reduction with base-broadening such as CBIT is more appropriate than base-narrowing reforms such as ACE in an open economy (Bond, 2000). Although CBIT has not been introduced in any country, tax reforms involving rate reduction with base-broadening are seen in several European countries, including the U.K. and Germany. The Nordic countries have also decreased tax rates more drastically in response to capital mobility across countries.

3. Neutral Taxation on Individuals’ Savings

Next, we consider neutral taxation on individuals’ savings. Individuals’ savings are taxed at three stages—when income is received, when returns accrue, and when funds are withdrawn. We denote taxed as T, exempt as E, and tax on excess return as t. Using this notation, taxes on individuals’ savings are expressed as follows. Income tax is denoted by TTE because savings are obtained from taxed income, returns are taxed as capital income, and withdrawals are not taxed. Expenditure tax (consumption tax) is denoted by EET because savings are deducted from the tax base, returns are not taxed, and withdrawals are taxed. Wage tax (consumption tax) is denoted by TEE. Alternatively, the ASE involves a notional deduction equal to normal profits called the rate of return allowance (RRA). RRA is calculated as savings stock multiplied by the risk-free interest rate; excess return is obtained by deducting RRA from the tax base. An income tax with ASE is denoted by TtE.

Clearly, the current TTE is not neutral to individuals’ savings behavior. The neutral taxes are TEE, EET, and TtE. However, as highlighted by Mirrlees et al. (2011), these taxes have different revenue implications in the presence of risk. Under TEE, revenues are determined when savings are made, while under EET, revenues depend on the ex-post rate of return because savings are taxed in the future. Under TtE, tax revenues from normal returns are secured and excess returns accrued in the future are also taxed. Therefore, when excess returns occur, TtE is preferred over TEE. TtE can also alleviate future revenue loss from individuals’ tax avoidance behavior of moving savings overseas.

However, these arguments assume only one tax rate. In practice, tax rates differ depending on the income at each stage of the life cycle under a progressive tax system. Consider two periods where individuals earn a higher income when they are young and lower income when they grow old. In this situation, EET urges individuals to save more when they are

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19 This section draws on Mirrlees et al. (2011).
young and withdraw savings when they are old in order to minimize their lifetime tax burdens. In contrast, under TEE and TtE, savings made during youth lead to a higher lifetime average tax rate\(^{20}\).

Muirreles et al. (2011) suggest TtE for risky assets, TEE for deposits, and EET for pension savings. TEE is reasonable for deposits because they do not yield excess return. EET is appropriate for pension savings since the invested assets are not clear and the relationship between contributions and benefits is uncertain. Since housing is a kind of risky asset, TtE is suitable for savings in the form of housing. If EET is applied to housing, it leads to significant negative income tax as housing prices are deducted from annual incomes.

In Japan, since both risk-free and risky savings are from taxed income and returns are also taxed, savings are taxed under TTE. The Nippon Individual Savings Account (NISA) was introduced in 2014. Since only a single tax is levied on NISA at the time of savings, this tax is considered as TEE. However, this tax is an exception. It must be noted that the public pension premium is deducted at the time of savings, tax on profits is frozen, and many pension benefits are also tax-exempt. Thus, many aspects of public pension are not taxed at all (EEE). Regarding housing, since owned housing is bought using taxed income and the imputed rent is not taxed, owner-occupied housing is taxed under TEE. Rental housing is taxed under TTE because rental income is taxed. Thus, the taxing methods differ depending on the kind of savings. There is a room for non-distortionary taxation for asset choice.

Furthermore, tax on savings should not only be neutral, but also drive individuals to be more risk-taking. Capital gains tax is associated with individuals’ risk-taking behavior. Suppose individuals are risk-averse. If symmetric capital gains tax exists, the ratio of risky assets in the portfolio increases with the capital gains tax rate (Domer and Musgrave, 1944). This is because capital gains tax has a kind of insurance effect—the government shares the investment risk with individuals through the capital gains tax. In contrast, if capital gains tax is asymmetric in that the effective tax rate on capital gains is higher than that on capital losses, individuals own a lower proportion of risky assets (Stiglitz, 1969). The Japanese capital gains tax is asymmetric because capital gains are taxed separately and capital losses can only be offset by capital gains. The tax system does not promote risky investment by individuals. In Japan, unified taxation on capital income was introduced in 2009 and profit/loss among dividends, capital gains, and capital losses for listed companies has become permitted. In 2016, the range of permissible items will be expanded to include specified government bonds. If interest rates on deposits were to be added to these items in the future, capital gains tax will be close to symmetric, thereby encouraging risky investments. Although reduction in capital income tax has been implemented as a measure to stimulate risky investment in the past, the focus should be more on the usefulness of constructing a symmetric capital gains tax system.

\(^{20}\) Note that if the rate of return is below normal, TtE and TTE are equivalent.
V. Dual Income Tax

Finally, we consider the Dual Income Tax (DIT) as a means of income tax reform in Japan. DIT is considered as a realistic tax in an open economy and several DIT reforms are proposed in European countries (for example, Genser and Reutter, 2007; Keuschnigg and Dietz, 2008; Jacobs, 2013.). In this section, we review the features and problems of Nordic DIT to obtain suggestions for future Japanese tax reforms.

1. Nordic Dual Income Tax

Nordic DIT combines a progressive tax rate on labor income with a low flat rate on capital income. DIT was introduced in the early 1990s in the Nordic countries as it became difficult to implement capital income tax under income tax systems because of tax avoidance and high capital mobility across countries.

According to Cnossen (2000), pure DIT has seven features. Under DIT, the entire income is divided into labor income and capital income (including corporate income) and the marginal labor income tax rate in the first bracket is set equal to the capital income tax rate in order to prevent tax avoidance. These two features are the fundamental elements of the DIT.

The third feature is that there are two methods of setting the tax base—tax labor income and capital income separately or tax the two forms of income jointly at a low flat rate with additional progressive tax only on labor income. Sweden and Finland have implemented the former system and Norway the latter. In Norway, the first bracket income is calculated as the sum of labor income, interest, dividends, and imputed rent, among others, minus personal exemptions, interest paid, capital losses, and other expenses. The first bracket income is taxed at 28 percent and additional progressive rates are applied to labor income above that income level. In Sweden and Finland, labor income and capital income are taxed separately and in the case of negative capital income, the amount of capital income multiplied by capital income tax rate is credited against positive labor income. In Sweden, while the offset rate is equal to the capital income tax rate of 30 percent, it is at a lower 21 percent for negative capital income above 100 thousand Sweden krona.

The next two features pertain to avoidance of double taxation on dividends and capital gains using methods like full imputation systems. Double taxation on capital gains implies that retained earnings are taxed once at the corporate level and then at the individual level by taxing capital gains reflecting retained earnings. In Norway, the full imputation system has been used to avoid double taxation on dividends. For capital gains, the RISK method was used until 2005. In this method, the retained profits are proportionately allocated to each shareholder and the shareholders are allowed to add the allocation to the basis value of their shares for the purpose of calculating capital gains tax burden. Only if the sales value of the

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21 Since capital income tax rates have declined after the introduction of DIT in both the countries, tax avoidance using mortgage interest payments has decreased.
shares surpasses the basis value, the capital gains are taxed because capital gains above retained earnings occur. In Norway, although SIT has replaced the full imputation system and RISK method since 2006, double taxation has been avoided under SIT as well.

The sixth feature is that there is a withholding tax or source tax on interest paid, royalties, or other capital income at the corporate level. With the withholding tax, the pure DIT’s tax base is equivalent to that of the CBIT. However, no Nordic country actually levies such a withholding tax.

The last feature is that an income splitting method is used for calculating labor income and capital income of sole proprietorships and closely held companies. It is not easy to draw a line between labor income and capital income because arbitrary classification of income is possible in these forms of businesses. The owners have incentives to receive low-taxed incomes. To prevent tax avoidance, DIT requires owners to follow set calculation methods for splitting their incomes. In general, capital income is calculated as capital stock multiplied by the imputed interest rate and labor income tax is obtained by subtracting the capital income from the overall income. In Norway, the income-splitting model was applied to sole proprietorships and closely held companies with active owners until 2005. Active owners are those who own more than two-thirds of the shares or dividends. However, the income-splitting model did not work because active owners became negative owners by manipulating their ownership ratio in closely held companies. In fact, the ratio of companies following the income-splitting model had declined from 55 percent in 1992 to 32 percent in 2000 (Sorensen, 2005). Considering this, the income-splitting model for closed held companies was abolished in 2006.

Under SIT, owners in closely held companies are equally taxed regardless of the kind of income. The SIT rate is 28 percent (equal to the corporate income tax rate) and the total tax rate on excess profits from equity investment at the corporate and individual level is 48 percent \((0.28+(1-0.28)*0.28=0.4816)\). Since this is set equal to the maximum labor income tax rate, excess profits from equity investment are treated in the same manner as labor income for tax purposes (Table 4). Under SIT, the incentives for showing labor income as capital income are eliminated.

<table>
<thead>
<tr>
<th>Table 4 Tax Rate on Capital Income and Labor income under SIT</th>
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<td>----------------</td>
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<tr>
<td>Corporate Level</td>
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<tr>
<td>Individual Level</td>
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<tr>
<td>Sum</td>
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</tbody>
</table>

(*) Tax on excess profits only

Moreover, the RRA is deducted from the SIT tax base. The RRA is calculated as share prices multiplied by the risk-free rate. The unused RRA is added to the step-up base at the beginning of the following year. Consequently, double taxation on dividends and capital gains is avoided. Thus, under Norway’s DIT, since 2006, a one-time tax is levied on normal profits from equity investment by setting normal corporate income tax at the corporate level and SIT at the individual level. The introduction of ACE at the corporate level changes this system to the consumption tax system proposed by Mirrlees et al. (2011).

Some of the features of DIT in Finland and Sweden are different from those in Norway. First, currently, the corporate income tax rate is not necessarily equal to the capital income tax rate. In Finland, the two tax rates were equal at the time of introduction of tax reforms in 1993. By 2004, the capital income tax rate along with the corporate income tax rate was raised to 29 percent. However, as international tax competition became more severe and vertical equity was required to be secured at the same time, the corporate income tax rate was reduced while the capital income tax rate was raised. As of January 2014, the corporate tax rate is 20 percent while the capital income tax rate is 32 percent (30 percent for assets below 40 thousand euros). In Sweden, both the corporate tax rate and the capital income tax rate were set at 30 percent during the 1991 tax reforms. While the capital income tax rate of 30 percent has been maintained, the corporate income tax rate was intermittently reduced to 26.3 percent in 2009 and to 22 percent in 2013. Thus, the gap between the corporate income tax rate and capital income tax rate in Finland and Sweden has expanded in recent years.

Second, profit/loss offset to prevent tax avoidance is quite limited in Finland. Interest income is separately taxed and capital gains can be offset only by capital losses. The carry-forward of capital losses is permitted, but offsetting capital losses with dividends is not allowed. Moreover, the deduction ratio for mortgage interest payments was 100.

The RRA is imputed return equal to the normal return.
Moreover, the RRA\textsuperscript{22} is deducted from the SIT tax base. The RRA is calculated as share prices multiplied by the risk-free rate. The unused RRA is added to the step-up base at the beginning of the following year. Consequently, double taxation on dividends and capital gains is avoided. Thus, under Norway’s DIT, since 2006, a one-time tax is levied on normal profits from equity investment by setting normal corporate income tax at the corporate level and SIT at the individual level. The introduction of ACE at the corporate level changes this system to the consumption tax system proposed by Mirrlees et al. (2011).

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Second, profit/loss offset is quite limited to prevent tax avoidance in Finland. Interest income is separately taxed and capital gains can be offset only by capital losses. The carry-forward of capital losses is permitted, but offsetting capital losses with dividends is not allowed. Moreover, the deduction ratio for mortgage interest payments was 100 percent until 2012, but was decreased to 85 percent in 2013 and 75 percent in 2014.

Third, the treatment of double taxation on dividends and capital gains differ in Finland and Sweden. In Sweden, the classical system has traditionally been implemented, and there is no special treatment for double taxation on dividends and capital gains. Although the decline in the capital income tax rate due to the introduction of DIT alleviated double taxation, it has not been entirely eliminated. In Finland, the full imputation system was used for dividend taxation at the individual level until 2004. However, in response to the EU proposal of eliminating full imputation, it was replaced by 70 percent dividend tax at the individual level (for listed companies) in 2005. No measures against double taxation on capital gains were taken in Finland.

2. Equity Arguments on DIT

DIT is a tax system in which a progressive labor income tax rate is maintained and the capital income tax rate is set at a low level to address international capital flows, thus

\textsuperscript{22} The RRA is imputed return equal to the normal return.
deviating from traditional income tax. A flipside of DIT’s efficiency is that it focuses less on vertical equity as compared to the income tax. In fact, income disparity among individuals has widened after the introduction of DIT in the early 1990s in the Nordic countries (OECD, 2011).

To address income inequality, each Nordic country has introduced its own measures to maintain a balance between efficiency and equity under DIT. The 2006 tax reforms in Norway involved not only a reduction in the top tax rate on labor income but also a tax cut on imputed rents of homeowners and an increase in wealth tax. Thus, vertical inequality decreased as a result of these tax reforms (Thoresen et al., 2011). Wealth taxes in Sweden and Finland were eliminated in 2006 and 2007, respectively; however, as noted above, an increase in the capital income tax rate was used to address income inequality. Currently, in both the countries, the corporate income tax rate is about 20 percent and the capital income tax rate is about 30 percent. If the corporate income tax rate is set below the capital income tax rate, there is an incentive for corporates to accumulate funds. However, it seems that securing some degree of equity is preferred to the shortcomings of loose DIT in Finland and Sweden.

Despite widening income disparity in the Nordic countries, this inequality is relatively lesser as compared to the other OECD countries. In Sweden, the change in social security-related spending significantly affected income inequality and DIT is not considered to be the key factor affecting income inequality (OECD, 2011). In Finland, the increase in the capital incomes of the rich is regarded as the main factor responsible for increased income inequality, and some argue that it is related to the introduction of DIT (Riihelä, Sullstrom, and Tuomala, 2010). However, others argue that the real problem of Finnish DIT is the imputed interest rate that is set much higher than the market interest rate. This is not an inherent problem of DIT but a technical issue pertaining to the DIT design.

In Japan, the corporate income tax rate is 35 percent and the tax rate on dividends and capital gains is 20 percent. The relative sizes of the corporate income tax rate and the capital income tax rate in Japan is the opposite of those in Finland and Sweden. Rather, the relationship between these two tax rates is close to the U.S. Tax Panel’s (2005) proposal of 30 percent tax rate on corporate income and 15 percent tax rate on dividends and capital gains. Considering the relative sizes of the tax rates on corporate income and individual capital income, the Japanese tax system has a weaker redistributive function than Finland and Sweden.

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23 Palme (2006) also noted that the various policies implemented after the 1990s have led to no particular change in Sweden’s redistributive policies.

24 Capital income = the imputed interest rate * net assets.

25 The actual tax system in the U.S. resembles that in Japan. In the U.S., the tax rate on dividends and capital gains has been reduced significantly since 2003 in order to avoid double taxation.
3. **Towards Japanese DIT**

The experience in the Nordic countries suggests a pragmatic approach to the reality of globally mobile capital. In an open economy, it is difficult to tax mobile capital in the source principle (Gordon, 1986). Therefore, it might be a good idea to reduce the corporate income tax rate dramatically and maintain the capital income tax rate at a higher level in order to achieve redistributive objectives. Since Japan has a higher corporate income tax rate and a lower capital income tax rate as compared to other developed countries, a possible tax reform can involve aligning these two tax rates. Since there is no profit/loss offset of labor income and capital income in Japan, there is little room for tax avoidance using negative capital income tax for debt as seen in the Nordic countries. Regarding Japanese DIT, we should maintain the advantages of our tax system, undertake reforms to create a balance between the corporate income tax rate and the capital income tax rate, and widen the scope of uniform taxation on capital income.

VI. **Conclusions**

We briefly reviewed several aspects of individual income tax and highlight some important points in this regard. First, the basic role of individual income tax is to maintain vertical equality by maintaining the progressivity of the tax system and alleviating the regressivity of VAT while giving work incentives to people, especially women and elderly workers. To this end, as proposed by the U.S. Tax Panel (2005), the tax base should be broadened by eliminating several deductions and tax incentives for various purposes should be given in the form of tax credit. Considering the suggestion provided by previous research that giving work incentives to low-income earners is useful for improving labor supply, it is essential to consider policies like EITC that have already shown to stimulate labor supply in foreign countries.

Regarding capital income tax, it needs to be determined whether one-time taxation on capital income should be implemented at the corporate or individual level. The whole tax system, including the corporate income tax base, should be considered with respect to issues such as tax base setting, the relationship between corporate income tax and individuals’ capital income tax, equity criteria, and neutral taxation on savings. Given that source-based taxation on capital is difficult in an open economy, a pragmatic approach such as DIT is a strong option for Japanese tax reform. Although the DIT is not perfect in terms of several neutralities and equity, it is essential to develop a pragmatic combination that addresses globally mobile capital and secures a certain level of equality. Fortunately, there is a room for making the current Japanese tax system more efficient and fairer through tax reforms toward DIT.
References


Office.