

# Taxation on corporations and incentives to defer payment of tax; implication for corporate tax policy

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## Abstract

This paper takes advantage of the tax planning approach of Scholes and Wolfson (1992) and clarifies the implication of the tax deferral in the corporate tax policy. If corporations accumulate profits internally, it would lead to the inefficient use of capital. The actual tax laws of many countries deal with this problem. But in Japan, this issue is not well compensated by the tax law. To clarify the behavior of tax payers in Japan, the government should disclose the tax return information so that empirical research would be the basis of sound tax policy and economic growth.

**Keywords:** Corporate tax, accumulated earnings tax, tax deferral, double-taxation, tax policy

## 1. Introduction

Corporate taxation is important issue in the policy of public finance and taxation. Many countries lower the tax rate for corporations to promote economic growth. For example, OECD (2008) recommends Japan to lower tax rates in this regard. Although OECD (2008) analyzes the tax law in Japan, they do not consider the certain issue in the corporate taxation in their policy recommendation. This paper takes advantage of the tax planning approach of Scholes and Wolfson (1992) and clarifies the implication of the tax deferral in the corporate tax policy. In this paper, we analyze how tax rules affect the decision making of tax payers. It sheds lights on the issue which is ignored in the ordinary econometric analysis. The policy issue in this paper is indispensable not only for Japan but also for the countries with lower growth and aging economies.

## 2. Return analysis with tax planning approach and “double taxation”

To analyze the function of corporate tax, we take advantage of the tax planning approach. Following Scholes and Wolfson (1992), we start with the return analysis with and without the corporate tax.

If a person does her business as a sole proprietor, she makes a return of  $R$  over investment of \$1, with individual income tax rate of  $T_p$  and investment period of  $n$ . Then the return after tax is

$$[1 + R(1 - T_p)]^n \quad (1)$$

If a person incorporates her business and the government does not impose the corporate tax and imposes only the individual income tax, then we have an issue of tax deferral. Assume the capital gain tax is  $T_g$ . If the corporation accumulates profits for  $n$  period and the owner sells the shares of the corporation, the return after tax is

$$(1 + R)^n - T_g \{(1 + R)^n - 1\} = (1 + R)^n (1 - T_g) + T_g \quad (2)$$

Without the corporate tax, the owner may defer the tax payment while the corporation accumulates profits for  $n$  period. Thus, the owner may achieve the higher returns with incorporated business in this environment. In order to avoid the deferral of individual income tax, governments in most countries impose corporate tax.

If corporate tax is levied and the corporate tax rate is  $T_c$ , then the return after tax is

$$\begin{aligned} [1 + R(1 - T_c)]^n - T_g \{[1 + R(1 - T_c)]^n - 1\} \\ = [1 + R(1 - T_c)]^n (1 - T_g) + T_g \end{aligned} \quad (3)$$

If the corporation is taxed on their income, it is not always to be beneficial for owners to incorporate their business. Whether expression (1) provides greater after-tax rates of return than does the expression (3) depends on four factors; 1) the individual ordinary income tax rate  $T_p$ , 2) the corporate tax rate  $T_c$ , 3) the capital gain tax rate  $T_g$ , 4) the length of investment horizon. (Scholes and Wolfson [1992])

Specifically, if the corporate tax rate  $T_c$  is smaller than the individual ordinary tax rate  $T_p$  and the capital gain tax rate  $T_g = 0$ , then the investing through the corporation dominates the investing as a sole proprietor.

If the corporate tax rate  $T_c$  is smaller than the individual ordinary tax rate  $T_p$  and the capital gain tax rate is positive, then the ranking of organizational form is ambiguous. The preferred choice depends on the parameters.

Depending on the parameters, that person has incentives to incorporate her business to receive the higher returns. That would encourage the taxpayers to take the risk in a corporate entrepreneurship.

But we might have other scenario in this setting. A person might set up a corporation to save taxes in the existing business. In this case, the tax revenue would be lower for the government but taxpayers do not take more risk to start business. If this kind of behavior prevails in the economy, lowering corporate tax rates might not promote growth.

U.S. tax code has a special provision which prevents the tax abuse of 'incorporated portfolio.' The provision is called Personal Holding Company Tax. If corporate tax rates are lower than individual rates, an individual has an incentive to organize a corporation to hold investment assets so that interest and dividends would be taxed at the lower rates. The provision penalizes the accumulating profits originating from passive sources such as dividends, interest, royalties and rents for family-owned firms. Thus, with this provision, lower corporate tax encourages the true entrepreneurship rather than tax savings with the corporate entity.

Above-mentioned return analysis assumes the sale of shares after accumulating profits in the

corporation. Next, we analyze the rates of return if the profits are distributed through dividends following Kaneda (2009) but in a different setting.

If the corporation retains earnings of \$1 and put \$1 into the investment project which provides return of  $R_i$  over \$1 investment. The tax rate for dividend income and corporate income is  $T_p$  and  $T_c$  respectively. Corporate tax is levied on income from investment. When dividends are distributed, the tax rate on dividends is applied. Thus, the rate of return is

$$[1 + R_i(1 - T_c)]^m(1 - T_p) \quad (4)$$

If the dividends of \$1 are paid out of corporation at first, then distributions are taxed as dividend income and the after-tax-amount is invested in the outside project which provides rate of return of  $R_o$ . Then the income from the outside project is subject to individual income tax of  $T_p$ . Then the rate of return is

$$(1 - T_p)[1 + R_o(1 - T_p)]^m \quad (5)$$

If  $T_c$  is lower than  $T_p$ , the owner of the corporation might be indifferent between expression (3) and expression (4) even under the condition that  $R_i$  (rate of inside investment)  $<$   $R_o$  (rate of outside investment). In this tax system of “double-taxation,” we would have the less efficient use of capital.

Friedman (1962) points out, “This tax structure encourages retention of corporate earnings. Even if the return that can be earned internally is appreciably less than the return that the stockholder himself could earn by investing the funds externally, it may pay to invest internally because of the tax saving.” Friedman (1962) seems to assume that the profits would be retained indefinitely. If we assume that the corporation retains the profits indefinitely, we replace return  $R$  by  $R_i$  in the expression (3) and it is.

$$[1 + R_i(1 - T_c)]^n(1 - T_g) + T_g \quad (6)$$

In this case, the difference in rate of return between two cases might be larger.

These incentives are results of “double-taxation.” If the corporation distributes its profits as dividends, it pays dividends from after-tax profits and dividends are also taxed at individual level. If investors try to avoid paying taxes at all costs, this problem might be severer than the above-mentioned models imply. For example, Scholes and Wolfson (1992) emphasize that the tax planner should maximize their returns rather than minimize their taxes. This description might imply that tax payers defer the tax payment on corporate distribution while sacrificing their returns.

In many countries, the tax code has some provisions to mitigate the effect of the “double-taxation.”

Kaneda (2009) analyzes the tax system of fifteen countries examining the professional tax guides of CCH.

One option to mitigate the effect of this “double-taxation” is the imputation system<sup>1)</sup>. In this system, shareholders are taxed on dividends, but they may deduct from individual tax due their share of corporate tax. Double taxation is mitigated in this regard and the incentive of shareholders to retain earnings in corporations is reduced.

1) The analysis of tax system is based on Kaneda (2009).

There are other options to mitigate double taxation. Dividend exclusion is other option. Corporate tax is levied on the corporate profits but dividends are not taxed at individual level. There is no “double taxation” in this scheme.

Kaneda (2009) summarizes the tax system of several countries with respect to double taxation in Table 1.

Countries with dividend exclusion regime are Argentina, Hong Kong and Singapore. Countries with imputation system regime are Australia, Canada and New Zealand. In Canada and Hong Kong, corporate rates are higher than individual rates and there is little incentive to incorporate business to take advantage of lower rates. In France, maximum individual rate is 40% but aggregate taxable income is divided by family quotient which reflects the family situation. Then tax payable on the result is computed and then multiplied by family quotient. In this way, tax payable is calculated in favor of larger family and effective tax rates for a family with a couple and children are lower. In China, there is neither imputation system nor dividend exclusion but the GDP growth rates are close to double digits and it is more likely for many firms to be in short of capital to grow their business.

Some countries have neither dividend exclusion nor imputation system but accumulated earnings tax. This tax provision is designed to prevent the deferral of tax payment with earnings retained in the corporations. If one corporation accumulates the earnings beyond certain level, the surtax may apply to that corporation. In this way, the corporations have disincentives to retain purely for tax avoidance purposes. In the Japanese tax code, accumulated earnings tax is applicable to family-owned companies which are defined as a company, over 50% of whose shares are owned directly or indirectly by one shareholder.

Table 1 shows that there are five countries that have the provisions of accumulated earnings tax. Those countries are Ireland, Philippine, Singapore, United States and Japan. But after the Japanese tax reform of 2007, small and mid-sized enterprises whose equity capital is ¥100 million or less are not subject to this special surtax of Accumulated Earnings Tax. In Japan, there is no provision to prevent the deferral of corporate distributions for the tax avoidance purposes for small and mid-sized enterprises at this moment. Similarly, in Germany, Italy and U.K., there are incentives to defer tax payment for the distribution of corporate profits and there may be some need to mitigate the tax abuse to achieve efficient use of the capitals.

The issue of “double taxation” and accumulated earnings tax is important in the tax policy. Accumulating excessive earnings beyond business needs defers tax payment. It provides tax savings to the tax payers without making capital investments and hiring employees for business activities. If funding is tight in financial crisis or recession, corporations might use the government lending facilities or credit guarantee rather than accumulating excessive earnings. It would improve the efficient use of capital and promote growth in the economy as a whole. The tax policy should consider this issue not only in Japan but in the aging economies in general.

### 3. Econometric analysis and the issue of corporate governance

OECD (2008) recommends Japan to lower corporate tax while broadening the tax base to promote economic growth. But it does not point out the problem of accumulating excessive earnings in the small and mid-sized corporations.

OECD (2008) cites the analysis of Uemura and Maekawa (2000). They show that cut in corporate tax and enterprise tax rates resulted in an increase in business investment. But their analysis is based on the data of listed firms. Shackelford and Shevlin (2001) imply that public firms exhibit less aggressive tax behavior because of higher non-tax costs arising from capital market pressure or agency costs<sup>2)</sup>. As previously mentioned, small and mid-sized companies may save taxes without taking risks in the real business. They do not have to take risks to be penalized by the tax authorities, because the application of accumulated earnings tax in Japan is based on bright-line test. It would not be appropriate for policy makers to extend the empirical results of listed firms to private firms under the current tax system.

The corporate governance of both public and private firm is important to promote growth. It is related to the decision making how the economic resources are allocated. The corporations make decisions about new products, new factories and dividend payments and acquisition of other firms to maximize the shareholders' value under the sound corporate governance.

Private companies face the issue of corporate governance too. But they might have incentives to accumulate earnings beyond economic needs depending on the non-tax costs of internal control, public disclosure and reputation. To make tax collection, the government would be the uninvited stakeholder of private companies. With implementing the accumulated earnings tax and other tax provision to mitigate the effect of "double-taxation", the government would be able to make private firms to distribute the economic resources to the shareholders. Distributed resources may be invested in new business and/or capital investment or may be used to hire employees. It would increase the efficiency of capital use in the whole economy. This might be the extended version of the corporate governance. The issue is significant not only for Japan but for all countries which have the issue of efficient capital use.

To get a clear picture how the tax payers behave in the tax policy change, it is essential to make the relevant information available to the academic researchers. As far as the authors are concerned, the Japanese government does not provide the tax data including the tax return data to the academic researchers as in the United States. This is one of the reasons why we do not have extensive empirical research in the tax area with respect to private firms in Japan. Providing the tax return information with disclosure protection would improve the research in this area and provide the sound basis for Japanese tax policy.

#### 4. Concluding remarks

We analyze the effect of tax deferral with the tax planning approach of Scholes and Wolfson (1992). We showed that firms may save taxes while accumulating profits internally. But these behaviors would lead to the inefficient use of capital. The actual tax laws of many countries deal with this problem with various tax provisions. But in Japan and some other countries, this issue is not well compensated by the tax law. Thus, the effect of lowering corporate tax rates is not well documented in the existing literature. In order to have the better picture, the Japanese government should disclose the tax return information with disclosure protection to the academic researchers. The information disclosure would lead to the

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2) Chen et al. (2010) argue that family owner of public firms would be less tax aggressive because of non-tax costs such as the potential price discount and reputation damage.

extensive empirical literature in this area and it provides the basis for the sound tax policy in Japan.

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Table 1 Related tax system in sample countries

| Country     | Corporate rate | Individual rate             | Dividend                          | Accumulated earnings tax |
|-------------|----------------|-----------------------------|-----------------------------------|--------------------------|
| Argentina   | 35%            | 9%-35%                      | Dividend Exclusion                | None                     |
| Australia   | 30%            | 15%-45%                     | Imputation System                 | None (*1)                |
| Canada      | 38%            | 15%-29%                     | Imputation System                 | None                     |
| China       | 25% (*2)       | 5%-35%<br>(business income) | taxed at 20%                      | None                     |
| France      | 33.33%         | 0%-40% (*3)                 | Dividend Deduction                | None                     |
| Germany     | 29.875% (*4)   | 0%-45%                      | 50% tax-exempt                    | None                     |
| Hong Kong   | 16.50%         | 16% (*5)                    | Dividend Exclusion                | None                     |
| Ireland     | 12.50% (*6)    | 20-41%                      | Taxation on Aggregate income      | Exist (*7)               |
| Italy       | 27.5%          | 23%-43%                     | 12.5% withheld (*8)               | None                     |
| New Zealand | 30%            | 12.5%-39%                   | Imputation System                 | None                     |
| Philippine  | 35%            | 5%-32%                      | taxed at 10%                      | Exist (+10%)             |
| Singapore   | 18%            | 0%-20%                      | Tax-exempt (*9)                   | Exist (rarely applied)   |
| U.K.        | 21%-28%        | 20%-40%                     | Taxation on Aggregate income      | None (*10)               |
| U.S.        | 15-35%         | 10-35% (*11)                | Taxation on Aggregate income      | Exist                    |
| Japan       | 22, 30%        | 5-40%                       | Taxation on Aggregate income(*12) | Exist                    |

Note

\*1 Abolished with introduction of imputation.

\*2 Lower rates are applicable to thin profit, high and new technology enterprises.

\*3 Divided by family quotient. Tax payable multiplied by family quotient.

\*4 Corporate income tax rates and local trade tax combined.

\*5 Lower of standard rate 16% and progressive rates 2-17%.

\*6 Special tax rate for developers of residential property is 20%.

\*7 Concerning family-owned companies, accumulated non-trading income is subject to additional 20% tax.

\*8 Dividends received by a resident individual from a qualifying participation are taxable at 40%.

\*9 Imputation system until 2002. (Five-year transition period.)

\*10 No lower bracket for close investment holding company.

\*11 For single individuals.

\*12 Deduction for dividends

(Kaneda made table summarizing information of CCH(2006) and CCH(2008).)

#Table 1 is from Kaneda (2009).