Taxation of Capital in a Globalized Setting*

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Tax rules which are optimal in a closed-economy setting might well be sub-optimal in the presence of internationally mobile capital. Monitoring problems as well as tax competition are expected to cause difficulties with which tax authorities collect revenue from capital income. Consumption-based taxes will likely play an increasingly important role in the tax structure of a small open economy. In certain cases, local investment incentives may not be as effective in luring foreign capital as in increasing domestic investment because of the factors related to double taxation of international income. Multinationals might have a strong incentive to locate technology related activities in a tax-minimizing manner, at least at the margin.

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As world economies and financial markets continue to be globalized, taxes will play an increasingly important role in affecting price incentives related to the flow of capital. Since the capital stock is a major ingredient of economic growth, the implications of globalization for tax policy toward domestic capital formation have become a major policy concern in recent years. The optimal tax treatment of capital income should be affected by the extent to which investors respond to given tax rules. Tax rules which are optimal in a closed-economy setting may likely be sub-optimal in the presence of internationally mobile capital. Once international capital mobility is recognized, some traditional propositions about capital taxation have to be modified and existing tax policies need to be re-evaluated.

In a closed economy, savings are invested domestically. Thus, savings incentives and investment incentives are treated as alternative ways of enhancing domestic capital formation. In an open economy, however, individuals can easily invest in financial assets issued in other countries. In this setting, a tax on savings and a tax on investment have different implications for domestic capital accumulation. Part of increased saving due to any new savings incentives may flow into investment opportunities abroad. On the other hand, domestic investment incentives can induce both domestic and inward foreign investment to increase. Inbound foreign capital flows can take the form of either direct investment or portfolio investment. Unlike portfolio investment capital, foreign direct investment (FDI) can bring advanced technology and management skills into the host country.

This paper examines some of the major issues related to the taxation of internationally mobile capital. Due to the existence of overlapping tax jurisdictions, certain foreign source incomes are subject to both home-country and host-country taxation. The efforts by countries to relieve double taxation of foreign source income are often incomplete and asymmetric across income types. In addition, globalization of financial markets has a strong implication for the enforcement of taxes on capital income. Portfolio investors increasingly derive their income from investments made in other countries. These investors may likely evade the home country's tax by under-reporting their foreign source income. Multinationals can avoid taxes on income from FDI by shifting their worldwide income from a high tax country to a low tax country. As taxation of capital income is made difficult by international capital mobility, the structure of taxation is likely to shift away from a comprehensive income tax toward consumption-based taxation in many countries.

Multinational investment is an important vehicle through which capital and technology can be transferred internationally. FDI typically receives different treatment in the tax laws than portfolio investment in a given country. While tax incentives for FDI capital have been widely discussed, tax rules related to the technology-related activities of multinationals have received relatively little attention in the literature. In the process of minimizing taxable profits worldwide, however, multinationals are likely to have strong incentives to determine the location of Research and Development (R&D) and other technology-related activities in a strategic manner, at least marginally.

The organization of the paper is as follows: the second section summarizes basic tax rules related to foreign investment; the third section discusses the implications of international capital flows for the structure of taxation; the fifth section deals with tax issues related to investment and technology transfer by multinationals; and a brief conclusion follows in the final section.

DOUBLE TAXATION CONVENTIONS

Income from international investment is subject to several layers of taxation. Host governments typically impose corporate taxes on income earned within their jurisdictions regardless of the ownership of capital (the source principle). Many countries subject foreign source income to home-country personal income taxation (the residence principle). In certain cases, corporate surtaxes are imposed by the home government. Countries also impose withholding taxes on investment income repatriated abroad.

Due to such overlapping tax jurisdictions, certain foreign source incomes are subject to both home-country and host-country taxation. Double taxation of foreign source income should be a deterrent to international investment due to the implied high effective tax rates. In order to avoid double taxation of international investment income and encourage free flows of capital, countries typically provide some kind of tax relief on foreign source income. The exact nature and extent of double-taxation relief differ across countries and types of income.¹

Some countries exempt foreign source income from their domestic taxation. In this case, the only taxes charged for foreign source income are the income and withholding taxes imposed by the host government. Only a few countries (e.g. the Netherlands) adopt this 'territorial' system under which there is no residence-based taxation of foreign source income.² As a result of bilateral tax treaties, however, this exemption method is more prevalent in practice than implied by the tax statutes of each country. A pair of countries can agree to exempt from domestic taxation their residents' income earned in the other country.

Most countries assert the right to tax the income of their residents regardless of where the income is earned. Under this more conventional 'residence' system, foreign source income is subject to home country taxation, but a credit or deduction is allowed for taxes paid to the host government.³ In practice, no country allows an unlimited foreign tax credit. The foreign tax credit is typically limited to the home country tax liability on the foreign source income. Investors whose potentially creditable foreign taxes exceed the actual credit limit are said to be in an 'excess credit' position.⁴ Thus, foreign tax credit limitations are likely to be binding when a firm invests in a high tax country. If the foreign taxes paid are less than the limitation on credits, a firm is said to be in a 'deficit credit' or 'full credit' position.

When a multinational invests in several foreign countries, it is normally allowed to pool the income repatriated from all of these countries, and credit against the domestic taxes due on this income any corporate and withholding taxes paid abroad on this income. In doing so, it can use excess credits from operations in one country to reduce any domestic taxes due on operations in another country. If, in total, its credits are sufficient to wipe out its domestic tax liabilities on its worldwide foreign operations, then there are no domestic corporate taxes. In this case, its final net income is the same as in the territorial case.

¹ The approaches used to avoid double taxation of foreign source income have been well documented in the literature.

² This section highlights some basic aspects of double taxation conventions that will be referred to in later sections.

³ France exempts 95 percent of foreign source dividends from home country taxation.

⁴ Countries with the territorial system tend to tax passive foreign source income (that is, most portfolio incomes) on a residence basis.

⁵ In some countries, these excess credits may be carried backward or forward (two and five years respectively in the U.S.).

In addition to providing foreign tax credits, residence system countries typically allow their firms to defer the home country tax on certain types of foreign source income until the income is repatriated. In general, active business income belongs to this category. Income from passive investment (dividends and interest, for example) is typically taxed on an accrual basis. Most countries do not allow tax deferral for foreign branch income. Tax deferral can be an important source of tax benefits since it may lower the effective tax rate on foreign investment under certain circumstances.

THE IMPLICATIONS OF CAPITAL MOBILITY FOR DOMESTIC TAX STRUCTURE

Efficient Taxation of Capital in an Open Economy

In a closed economy, savings are invested domestically. Thus, savings incentives and investment incentives are treated as alternative ways of enhancing domestic capital formation. In an open economy, however, individuals can easily invest in financial assets issued in other countries. In this setting, a tax on savings and a tax on investment have different implications for domestic capital accumulation and tax incidence. If capital is mobile across national borders, a tax on capital will be shifted to immobile factors such as labour in the form of a lower rate of return. Capital bears the statutory tax burden but their before-tax rate of return should rise enough to maintain the after-tax rate of return at the same level as before.

In a country which adopts the 'residence principle' with respect to tax on foreign source income earned by its residents, a tax on capital income may effectively reduce the after-tax rate on savings. That is, as long as individuals face the same tax rate on their capital income, regardless of where the physical capital is located, the tax can be borne by these investors without creating any distortions. This result is called 'capital export neutrality.'

In practice, however, such neutrality can hardly be held since tax authorities cannot easily monitor the income that their residents earn on their investments abroad. In general, taxes on individual investors are primarily enforced either by requiring financial intermediaries to report directly to the government the income earned by domestic residents, or by withholding at the source. However, when residents invest abroad through foreign financial intermediaries, these intermediaries cannot be required to withhold taxes for another government or report information to another government. Since the government has little ability to detect evasion in these circumstances, investors have little incentive to pay domestic taxes on such income.

Investing in foreign assets through foreign financial intermediaries does involve costs, so not all taxes on domestic saving will be avoided. For some investors, the costs associated with shifting their portfolio capital exceed the benefit of avoiding domestic taxes. However, the investors who evade taxes on domestic savings tend to be those with a large volume of capital. In this case, revenues on capital income are collected mostly from investors with relatively low income. On equity grounds, this kind of tax is not appealing.

One response to such pressure of capital flight is to impose capital controls. Until recently,

many countries have used some form of capital controls to regulate the international flow of portfolio investment. In general, countries with high pressure from capital flight are not likely to have high tax rates on portfolio investment income. These countries also have a large incentive to impose capital controls. Once capital controls are in place, tax rates may go up. In certain cases, tax rates themselves can be endogenous, responding to the pressure from foreign portfolio investment.⁵ Even the timing of changes in tax policy and capital controls can be coordinated in a way to minimize distortions during the transition. If a country wants to relax existing capital controls, it may well consider proper tax changes as well, since capital flows will become more sensitive to tax distortions in the absence of capital controls.

The Implications for the Structure of Taxation

Globalization and the resulting mobility of capital imply that taxation of capital income will not likely survive over time, due to the evasion pressure mentioned above.⁶ In addition, globalization and international capital mobility can induce fierce tax competition among countries which attempt to attract more foreign capital. However, tax competition is associated with the possibility of less revenue for some governments.

As taxes on income face increasingly severe enforcement problems, and tax competition is likely to lead to fewer resources for government spending, there has been an active debate about replacing income-based taxes with consumption-based taxes.⁷ Over time, value-added taxes have come to play an increasingly important role in the tax systems in many countries. In theory, a consumption tax and a labour income tax should be equivalent over the course of an individual's lifetime since the present value of a person's expenditures becomes equal to that of his consumption ignoring bequests. Given the enforcement problems of the income tax system both at the personal and corporate level, tax authorities may find it easier to tax an individual's spending on goods and services.

Notice, however, that consumption taxes are not immune from evasion pressure. When individuals had little information about the tax systems in neighbouring countries and cross-border shopping was regulated, there could exist large tax differentials on consumption.

⁵ Little is known about the relations among taxes, capital controls and international capital flows. Past studies in this area were mostly concerned with the response to a given government policy. However, there have been discernable correlations between the change of capital controls and that of related tax policy in many industrial countries during the 1980s. A number of European Union (EU) countries have gradually eliminated capital controls in the past decade in an effort to meet the goal of a free market. During the same period, many countries have also reformed their tax systems, especially those provisions concerning international capital flows. See Gordon and Jun (1993) for a detailed discussion of this issue.

⁶ Evasion of a tax on capital income can take place at the corporate level as well. Specifically, transfer prices for the transactions between related companies can be manipulated to reduce taxes. Transfer pricing has long been a major policy concern for tax authorities. By manipulating the prices used for goods and services traded between the parent and its subsidiaries, a multinational can shift income among its related parties in such a way as to reduce taxes. In general, multinationals will shift taxable earnings to a low tax country and generate tax-deductible expenses in a high tax country. Further complications can occur when a multinational establishes a conduit subsidiary in a third country through which it can funnel funds to and from subsidiaries located in other countries. In this case, the parent for the ultimate beneficial owner is not located in the same country as the investor (the conduit subsidiary).

⁷ It has also been noted that taxes on labour income can also be avoided. Individuals can have compensation in the forms other than salaries such as qualified stock options. When an individual receives his/her compensation in forms of stock option, he/she will not report this as a part of his/her taxable income.

However, as fiscal borders are more open and exchange of information becomes more facilitated, consumption itself can be mobile across national borders. In this case, there arises the problem of monitoring consumption by domestic residents. It is, nonetheless, much more difficult for consumption to move partly because mobility by individuals is still very limited relative to capital and partly because consumption includes non-tradables, heavyweight and large volume goods. Therefore, to the extent that consumption tax is less vulnerable to evasion, the structure of taxation is likely to be shifted toward a consumption-based one over time in many countries.⁸

TAX INCENTIVES FOR MULTINATIONAL INVESTMENT AND RESEARCH AND DEVELOPMENT

Domestic Investment Incentives for Inward Foreign Capital

Contrary to popular belief, domestic investment incentives may not be effective in luring foreign capital in certain cases.⁹ This is mainly because there exists the possibility that the effective tax rate on outgoing FDI can be determined by home country taxes. In general, generous depreciation allowances and investment tax credits will induce both domestic and inbound foreign investment to increase by lowering the effective taxation of investment income earned in the country. An increase in domestic investments by domestic and foreign firms may be made at the expense of investments that would have happened elsewhere. However, this "substitution effect" of taxation with respect to international location of investment is often misstated in the literature and policy debates.

The common notion of tax-induced location choice is based on the comparison of the after-tax rates of return in different places: i.e., $r(1-t)$ and $r^*(1-t^*)$, where r and t are the rates of return and the effective tax rate on investment in the home country, and r^* and t^* are the corresponding variables in a foreign country. Thus, the argument goes, given the pretax rates of return, the statutory tax rates and investment incentives each country will determine its attractiveness as an investment location for international investors.

The main flaw with such conventional wisdom is its failure to recognize the additional layers of taxation which may be imposed upon FDI as discussed earlier. When choosing an investment place between the home country and a foreign country, for example, a multinational will compare $r(1-t)$ with $r^*(1-t^{hi})$ rather than $r(1-t^*)$, where t^{hi} denotes the effective tax rate on FDI. As discussed earlier, t^{hi} is determined by the home country tax treatment of foreign source income as well as host country taxes. Even under the territorial system, in which the home country does not tax foreign source income, t^{hi} can differ from t^* due to the withholding tax.

⁸ In the United States, there has been an active debate about replacing income taxes with consumption taxes in recent years. In countries where consumption is not heavily taxed as in the United States, such a replacement may be feasible in terms of tax capacity. However, in countries where consumption taxes have already been a major source of revenue, a major change in the tax structure will be less likely. See Tanzi (1996).

⁹ There has been a growing number of studies analysing the tax effects on multinational incentives. See Giovannini, Hubbard, and Slemrod (1993), for example.

As for a multinational firm from a residence system country with a high statutory corporate tax rate (t), a change in investment incentives in a low tax host country (t^*) may not affect the firm's foreign investment in that country since the effective tax rate on foreign direct investment would remain the same (t) as long as this firm remains in a deficit credit position (i.e., t is larger than t^* plus any withholding taxes).

As noted above, the effective tax rate on foreign source income (t^{eff}) is influenced by the tax systems in both the firm's home and host countries. Under the territorial approach, the effective tax rate reflects only the host country tax payments. If the host country's effective corporate tax rate and the withholding tax rate on dividends are denoted by t^* and w^* , respectively, then the effective tax rate on repatriated dividends equal $(t^* + (1-t^*)w^*)$.¹⁰

Under the residence approach with the foreign tax credit, the total amount of credits and, accordingly, the effective tax rate on foreign source income will be determined by the relative magnitude of foreign and domestic taxes on the income: i.e., $(t^* + (1-t^*)w^*)$ versus t , where t is the home country tax rate. If the firm is in a deficit credit position ($t^* + (1-t^*)w^* < t$), it receives full credits for foreign taxes (deficit credit position). As a result, the effective tax rate becomes the home country tax rate (t). If the firm is in an excess credit position ($t^* + (1-t^*)w^* > t$), the amount of foreign tax credits are limited to the home tax (t) and the effective tax rate reflects the foreign taxes paid ($t^* + (1-t^*)w^*$).

If withholding taxes are ignored,¹¹ the credit status (and the resulting effective tax rate) is determined by the relative magnitude of the home and host country tax rates, t and t^* . Due to various local investment incentives in the host country, t^* is generally lower than the statutory tax rate unless the adverse effects of inflation are very large. On the other hand, home country investment incentives are typically not extended to capital invested abroad¹² and, therefore, t is approximately equal to the home country statutory corporate rate.

Thus, for those firms whose effective tax rates on FDI are determined by the home country tax rates, an additional tax break in the host country might not represent an investment incentive unless there is a provision in which the home government specifically acknowledges such tax holidays. This tax-sparing practice is often stipulated in a bilateral tax treaty.¹³ In this case, local investment incentives may turn out to be a useful means of luring foreign capital.

In certain cases, the choice of financing sources for investment can affect the effective tax rate on FDI and, thus, the effectiveness of local investment incentives. Suppose that a subsidiary draws transfers from its parent company to finance its marginal investment. If the subsidiary is in a deficit credit position (i.e., $t > t^*$ ignoring the withholding tax), the firm can lower the effective tax rate on foreign source income to the extent that it can defer home tax payments which are higher than foreign taxes on the same income. In the presence of tax deferrals, the effective tax rate can be expressed as a weighted average of t and t^* with weights

¹⁰ The analytical part here focuses on dividend repatriation. Other forms of repatriation include interest, royalties, and service fees.

¹¹ In many cases, the withholding tax rate on corporate equity investment is lowered to about 10 percent by bilateral tax treaties.

¹² In other words, the home country defines taxable foreign-source income based on some approximation to economic income.

¹³ The United States does not recognize tax-sparing practices on the ground that they violated the capital-export neutrality.

being the dividend payout ratio (denoted by d), $(1-d)t^* + DT$.

If the subsidiary becomes mature enough to cover its marginal investment expenditures by retaining its earnings ($d=0$ at the margin), the deferral benefits will increase to the point where the effective tax rate on foreign investment is t^* . As far as taxes are concerned, therefore, reinvested subsidiary earnings represent a preferred way of financing foreign investment. The host country will generally prefer a high retention practice by foreign firms since it implies more capital accumulation and productive activities in the country. In this case, moreover, local tax holidays can be an effective means of increasing foreign investment.

Nonetheless, foreign firms often repatriate income to their parents despite the implied tax penalty. This is because foreign operations are generally perceived to be riskier than domestic operations. Among various types of risks associated with foreign investments, most typical are political risks and exchange risks. Political risks include the possibility of expropriation. A host country with a huge amount of foreigners' claims on domestic capital might find the benefits from expropriation to exceed its costs. Unstable and unpredictable policy regimes can also be interpreted as political risks. In addition, frequent and unanticipated changes in exchange rates may pose a risk to the domestic currency value of foreign source income. In the face of such risks, foreign firms would prefer to use local sources of fund in an effort to hedge risks.

Taxes and the Location of Multinational Research and Development

Technology promotes economic growth by increasing the productivity potential of factors of production. As world economies are becoming increasingly globalized, the transfer of technology across countries emerges as an important policy concern related to economic growth. Multinational investment is an important vehicle through which advanced foreign technologies can be transferred to a host country.¹⁴

There are several reasons that a multinational has R&D undertaken by its foreign subsidiaries. Locating R&D in foreign markets can bring R&D, production and marketing personnel together to ensure more efficient foreign operations, especially development and adaptation processes. Location-related factors such as the availability, quality and cost of R&D inputs (both human and material) and technology policies of the local government may also be important determinants of R&D location.¹⁵

One issue that has received relatively little attention on this subject is how financial considerations can influence R&D decisions and technology-related remittances. Most existing studies ignore this aspect of R&D decisions, but such financial considerations in fact loom large for many mature foreign operations at least at the margin. Most countries treat technology-related activities favorably in the tax laws. Royalties and license fees as well as R&D

¹⁴ Technology transfer through FDI typically takes two forms: first, the subsidiary itself can undertake R&D in the host country; and second, the subsidiary can import the technology developed elsewhere by its parent or other related companies. In general, the former is perceived to be a preferable form of technology transfer.

¹⁵ Foreign affiliates can sometimes play the role of 'licensing posts' to monitor and obtain technologies in foreign markets, and transfer them back to the home parents.

expenses are typically deductible from corporate taxable income. As part of tax-saving strategies, multinationals can change their behaviour regarding the location of R&D and intrafirm royalties.

Multinational R&D may be lured to a particular location with generous technology-related incentives. In the United States, the 1981 Economic Recovery Tax Act created several new incentives for industrial R&D, the most important of which was a tax credit for increases in spending on R&D.¹⁶ The presence of such incentives certainly plays a significant role in allocating R&D activities among countries.

In addition, an important tax-minimizing strategy at the margin for a multinational is to shift taxable income to low-tax countries and to shift tax-exempt expenses, such as interest and R&D expenses, to high-tax countries. For a given amount of deduction, a higher tax rate means greater tax relief. Since the U.S. Tax Reform Act in 1986 reduced the corporate rate (46 percent to 34 percent), for example, multinational firms will have fewer incentives to generate deductible expenses in the United States. The magnitude of such tax effects is an empirical question.¹⁷

CONCLUSION

A country's economic growth is ultimately determined by the accumulation of productive resources and the efficiency with which the existing stock of resources is utilized. The latter is typically affected by the level of technology as well as various institutional and political elements. While globalization may influence each of these factors of growth to some extent, its implications appear to be most significant for capital accumulation and technological development. This paper has reviewed some of the implications of international capital mobility for the ways taxes affect domestic capital formation and international technology transfer.

Monitoring problems as well as factor mobility are expected to cause difficulties with which tax authorities collect revenue from capital income. It has been suggested that consumption-based taxes will gradually replace income taxes in many small open economies. Tax competition for international capital will pose another problem with respect to securing tax revenue. While a lower tax rate might result in higher revenue in some cases, most countries will likely end up with lower revenue by competitively providing tax benefits to internationally mobile capital.

It has also been noted that in certain cases, local investment incentives may not be effective in luring foreign capital because of the factors related to double taxation of international income. In order to avoid wasting tax benefits, therefore, tax authority should be cautious in designing the incentive structure. One suggestion is to apply alternative rates depending on the nationality of foreign investors. It is also noteworthy that multinationals might have

¹⁶ The introduction of such technology-related incentives was largely influenced by the sagging productivity growth over the past several decades in the United States.

¹⁷ In an effort to counter this type of tax-saving scheme, the United States, for example, is using an allocation formula, which is similar to the one used for determining the state and local profit share, for deductible expenses. Nonetheless, this type of tax arbitrage is still available and popular among multinationals with operations under different tax jurisdictions.

strong incentives to locate tax-deductible R&D and other technology-related expenses in a tax-minimizing manner, at least at the margin. In this case, however, tax authority should distinguish between real activities and accounting manipulation.

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