The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments

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Abstract

This paper examines minimum taxes on dividends which form of the imputation systems in France, Germany, Italy and the United Kingdom. The aim of these imputation systems is to at least partial integrate corporate and personal taxes which arise on income generated in the corporate sector. Under such systems, part of the corporate tax is imputed to the shareholder – that is also treated as being part of the shareholders' tax liability. Hence the shareholder receives a tax credit to set against the personal income tax due on the receipt of a dividend.

However, certain forms of corporate income are not taxed – or are taxed at a rate lower than the full corporation tax rate. In this case, when the income is distributed, the tax credit received by the shareholder may not be matched by tax paid at the corporate level. This problem is overcome in a number of ways. For some types of corporate income, France, Germany and Italy charge an explicit minimum tax – known usually as an equalization tax (the *précompte* in France). However, other forms of income can be paid to shareholders without liability to the minimum tax; in these cases the shareholder generally does not receive the tax credit. The United Kingdom does not have an explicit tax, but its imputation system has much the same effect.

The paper describes the imputation systems in each country in some detail, paying particular attention to the minimum tax. The impact of the imputation systems tends to vary across both the source of the income, whether fully taxed or not fully taxed; whether domestic or foreign source income – and across the identity of the shareholder – depending on the tax rate and whether he or she is a resident or non-resident. An Appendix gives a simplified summary of the impact of the imputation systems in the four countries, showing how the net income of a number of different types of shareholders would vary depending on the original source of the income.

The paper also briefly addresses a number of economic issues: it examines the likely impact of the minimum tax on the investment and financing decisions of companies, and outlines how the impact of the imputation system depends on the minimum tax. Finally, it also briefly raises the issue of alternative forms of taxation of corporate source income.

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1. Introduction

This paper examines the European experience with minimum taxes on dividends, as part of the imputation system for the integration of corporate and personal taxes in France, Germany, Italy and the United Kingdom. The first three countries use an explicit minimum tax – known usually as an equalization tax (the *précompte* in France). The United Kingdom does not have an explicit tax, but its imputation system has much the same effect.

The paper is in four parts. Section 2 briefly summarizes the main features of the imputation systems in the four countries, and Section 3 describes them in more detail, following a common framework for each country. The impact of the imputation systems tends to vary across both the source of the income – whether fully taxed or not fully taxed; whether domestic or foreign-source income – and across the identity of the shareholder – depending on the tax rate and whether he or she is a resident or non-resident. The Appendix, therefore, attempts to give a simplified summary of the impact of the imputation systems in the four countries, showing how the net income of a number of different types of shareholders would vary depending on the original source of the income.

Section 4 addresses a number of questions. First, it examines the role of the minimum tax and briefly considers alternatives. It then addresses a number of economic issues, especially relating the impact of the minimum tax to the investment and financing decisions of companies, and outlining how the impact of the imputation system depends on the minimum tax. Finally, it briefly raises the issue of alternative forms of taxation of corporate-source income.

2. General Description of Imputation Systems in Each Country

There are very close similarities in the imputation systems of France, Germany, Italy and the United Kingdom. Yet there are significant differences in their operation.

France, Germany and Italy operate systems that are close to being full imputation systems – that is the corporate and personal tax systems are, in effect, fully integrated.[1] Tax paid at the corporate level is credited to the individual shareholder as a prepayment of his personal income tax. The United Kingdom has a partial imputation system, where only part of the corporation tax charge can be used as a credit against income tax.

In general, in all four countries, each unit of cash dividend received by the shareholder is taxable under income tax. However, the shareholder receives a tax credit, which fully or partially offsets the tax charged at the corporate level. The income tax liability of the shareholder is based on the sum of the cash dividend and the tax credit. However, the tax credit is also available to reduce

[1] France currently has a 10% surtax on corporation tax, which does not form part of the imputation system; strictly, therefore, it has a partial imputation system.

the final income tax liability. In some cases, where the rate of dividend tax credit exceeds the marginal personal income tax rate, this can imply that the shareholder receives a rebate for, in effect, overpaying the income tax due on the dividend.

For example, in France the corporation tax rate is 33 1/3 percent. Of pre-tax profits of 100, this leaves 66 2/3 for distribution as a cash dividend to the shareholder.[2] If the entire sum is distributed, the shareholder also receives a tax credit of 50 percent of the cash dividend – i.e. 33 1/3. This is equivalent to 33 1/3 percent of the "grossed-up" dividend of 100. The shareholder is liable to tax on the grossed-up dividend of 100 at his or her personal income tax rate. However, the tax credit of 33 1/3 can be used to offset this personal tax liability – in effect, the shareholder is deemed to have already paid personal income tax at a rate of 33 1/3 percent. A shareholder with a marginal income tax rate of, say, 40 percent would be liable to pay 6 2/3 in income tax, which added to the tax credit covers the entire income tax liability of 40. A shareholder with a marginal income tax rate of 20 percent would receive an income tax rebate of 13 1/3. However, in all four countries, there are restrictions on the occasions when a rebate is paid.

The main differences in the operation of the imputation system between countries arise in the tax treatment at the corporate level. Here, while the four systems are broadly similar, the United Kingdom again stands out, this time in its treatment of profits that have not borne the full rate of corporation tax. In general, all four countries have mechanisms in place to prevent shareholders from claiming a dividend tax credit when at least an equivalent amount of tax has not been paid at the corporate level. France, Italy and Germany achieve this by levying an equalization tax on distributions out of profits that have not borne the full rate of corporation tax. For example, distributions of profits that have not been taxed at all at the corporate level are liable to an equalization tax at the corporation tax rate (on the grossed-up dividend).[3] In the hands of the shareholder, there is then no need to distinguish between the original source of the dividends. The United Kingdom has a similar system, but it operates in relation to the amount of corporation tax paid, rather than the source of profits.

All four countries also operate alternative methods of dealing with corporate profits that have not borne tax at the corporate level. For various forms of dividends, France and Germany permit dividend payments out of untaxed corporate income for which the shareholder is not entitled to a dividend tax credit. Since the shareholder does not receive the tax credits, there is no need for a corresponding tax charge at the corporate level. In this case the "double" taxation of corporate source income is avoided by the absence of tax at the corporate level. Germany introduced the scheme for all tax-exempt foreign-source income in 1994, and France operates such a scheme for international holding companies. Italy and the United Kingdom have similar schemes under which there is no tax charge at the corporate level on a distribution. However, in these cases, tax-paying shareholders continue to receive a dividend tax credit, but tax-exempt shareholders cannot claim a refund. Italy operates the scheme for dividends subject to the European Union Parent/Subsidiary Directive, which prohibits withholding taxes on the payment of dividends from wholly owned subsidiaries to their parents within the EU; and in 1994, the United Kingdom

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[2] Ignoring the 10% surtax.
[3] In Italy, the equalization tax is levied at a rate of only 36%, rather than the corporate tax rate of 37%.

introduced a similar scheme for dividends known as foreign income dividends (FIDs). In principle, these are more straightforward systems than charging an equalization tax that is then offset against personal income tax. However, since in all four countries, the system operates in tandem with the normal imputation system, it is necessary to identify which dividends receive tax credits and which do not.

We now turn to a more detailed description of the systems in each of the four countries considered. The Appendix presents a summary, in a simplified framework of the main elements of each system that identifies the tax treatment of different forms of activity and different shareholders. For each country, the Appendix, therefore, shows the net income deriving to different shareholders of 100 units of pre-domestic tax profit, derived from different sources. Simplifications have to made in any such exercise; these are recorded in notes to the tables.

3. More Detailed Descriptions of Imputation Systems in Each Country

This section describes in more detail how the imputation systems in each of the four countries operates. We take each country in turn.

3.1 France

3.1.1 Basic Operation of the System

In principle, France operates a full imputation system. The corporation tax rate is 33 1/3 percent. Shareholders of French companies receive a tax credit – the *avoir fiscal* – on dividends received of 50 percent of the net dividend, equivalent to 33 1/3 percent of the grossed-up dividend. Currently, however, France charges a 10 percent surtax, which raises the effective corporation tax rate to over 36 percent; this implies that the system is one of partial, rather than full, imputation. In general, dividends paid out of income that has not borne French corporation tax are subject to an equalization tax at the level of the company – the *précompte* – which is equal to the tax credit received by shareholders. Individual resident shareholders offset the *avoir fiscal* against income tax due on the grossed-up dividend.

3.1.2 Equalization tax

3.1.2.1 When Equalization Tax is Levied

Various forms of income derived by French companies are tax-privileged. For domestic income, this is due to factors such as accelerated depreciation; provision for tax-free reserves; long-term capital gains; tax holidays; and tax credits. In addition, dividends received from non-resident companies are exempt from French corporation tax if the company claims the affiliation privilege – which is available mainly if the company holds at least 10 percent of the subsidiary.

Dividends paid by French companies out of income that has not borne full French corporation tax is liable to the *précompte*. The *précompte* is also charged on dividends paid out of fully taxed profits that have been retained for more than five years. The rate at which the *précompte* is charged depends on the tax paid on the relevant income: the principle is that the *précompte* should

raise the rate of tax to 33 1/3 percent; in cases of exempt income, such as dividends from foreign subsidiaries, this implies that the *précompte* is charged at 33 1/3 percent. For income which has borne some corporation tax, the level of the *précompte* is lower.

Accounting records of French companies are required to segregate income that is liable to the full rate of corporation tax from other income; this latter income is liable to the *précompte* on distribution. However, since the level of tax under the *précompte* depends on how much tax an item of profit has already borne, it is necessary to keep detailed accounting records of different forms of profit and their tax treatment.

There are three important forms of profit for which France levies the *précompte*. The first is long-term capital gains, which are currently taxed at 19 percent, provided they are retained in a special reserve. Distributions from the reserve are, in effect, subject to an equalization tax of 14 1/3 percent – the difference between the corporate tax rate of 33 1/3 percent and the tax already paid of 19 percent. The second form of profit is that earned by foreign branches of French companies. This form of profit is generally exempt from French corporation tax, which implies that distributions out of this profit are liable to the *précompte* at 33 1/3 percent. However, under double tax treaties, any foreign branch profits tax can be credited against the *précompte*. Essentially the same procedure is applied to profits derived from subsidiaries (French and foreign) that are exempt from French corporation tax under the affiliation privilege. Again the *précompte* is levied at 33 1/3 percent, but, under double-tax treaties, the foreign tax credit (described below) is available.

3.1.2.2 Treatment of Foreign Source Income

France does not offer a tax credit for underlying foreign taxes – such a corporation tax – paid on foreign-source income. However, it offers a direct foreign tax credit to resident companies with respect to the following taxes levied by its treaty partners: withholding taxes on dividends; interest and royalties; and branch-profits tax. Where the company does not claim the *affiliation privilege*, the French company must include foreign-source income into taxable profits, to be liable to corporation tax. In so doing, France operates a deduction system for underlying foreign taxes, but a credit system for withholding taxes.

As noted above, where the company claims the *affiliation privilege*, the foreign-source income is exempt from corporation tax. The direct tax credit for foreign withholding taxes cannot be set against corporation tax. However, it can be set against the *précompte* and against French withholding taxes on dividends paid to non-resident shareholders.

In either case, shareholders still receive the *avoir fiscal*. However, since the corporate level tax – whether corporation tax or the *précompte* – is net of the credit for foreign withholding taxes, it is possible that the French dividend tax credit available to shareholders exceeds the French tax levied at the corporate level. In this case, the rate of total tax levied by France on foreign-source income is less than the personal income tax rate: in effect, the foreign tax credit is passed to individual shareholders. In fact, it is possible for the total tax levied by France to be negative: where the shareholder is a tax-exempt individual, for example, the dividend tax credit is refunded – where this exceeds the total corporate level tax collected, it effectively constitutes a partial refund of the

foreign withholding tax or branch-profits tax. Whether or not a refund is paid, this system implies that the withholding tax charged by the foreign country does not affect the post-tax income of the ultimate shareholder.

3.1.2.3 Stacking Rules

In order to minimize liability to the *précompte*, there is clearly an incentive for French companies to pay dividends out of fully taxed profits before drawing on other profits. The system permits companies to do this. Dividends are deemed to be paid from profits in the following order: (i) profits of the preceding accounting year subject to the full corporation tax rate; (ii) fully taxed profits of the previous four accounting years, in any order (although FIFO is generally most advantageous); (iii) profits which have not been fully taxed under the French corporation tax, in any order at the discretion of the taxpayer. However, parent companies may redistribute dividends received from their subsidiaries in any order.

3.1.2.4 Exceptions to General Practice

France operates an international holding company regime, which may apply where two thirds of the French parent company's fixed assets consists of holdings in non-resident companies, two thirds of profit is generated from that source; and the parent qualifies for the *affiliation privilege*. In this case, the *précompte* is not charged on distributions made by the parent, but dividend tax credits are not available to shareholders. However, foreign tax credits associated with the income received are passed on to shareholders. There are also other circumstances in which France does not levy the *précompte*: for example, where members of a French group file a consolidated tax return, and where certain profits are subject to domestic incentives.

3.1.2.5 Other Issues

Bonus shares are not treated as a dividend payment for tax purposes. They are generally not taxable and do not receive the *avoir fiscal*.

3.1.3 Treatment of Shareholders

The *précompte* is only applied on dividends distributed to shareholders entitled to dividend tax credits and those resident in non-treaty countries.

3.1.3.1 Resident Shareholders

Resident individual shareholders subject to income tax (at rates ranging from zero to 58.6 percent) pay income tax on the grossed-up dividend, offset by the *avoir fiscal*. Individuals with marginal income tax rates less than 33 1/3 percent receive a refund on the excess of the *avoir fiscal* over their tax liability.

The treatment of dividends received by resident corporate shareholders depends on whether the *affiliation privilege* is available. Where it is available, the dividends received are not taxable under corporation tax. The *avoir fiscal* cannot be used to set against corporation tax on other sources of profit. However, it can be set against any *précompte* that may be due on redistribution of the

income. Where the *affiliation privilege* is not available, the grossed-up dividend is included in taxable profit, and the *avoir fiscal* can be used as a credit against corporation tax. Any excess credit after this is lost – it cannot be carried forward or backward, not passed on to shareholders. Companies can elect whether to make use of the *affiliation privilege*. The tax-minimizing choice depends on the size of taxable profit (including the dividend), and the opportunity for paying dividends out of taxed profit (and therefore not having to pay the *précompte*).

In general, tax exempt entities that are not liable to tax on dividend receipts also are not entitled to receive the *avoir fiscal*. Hence, they do not receive a refund equivalent to the *avoir fiscal*. However, pension funds are entitled to the *avoir fiscal*, despite the fact that they do not pay tax on dividends distributed by French companies. Where the *avoir fiscal* exceeds the pension fund's corporation tax liability, the excess is refunded.

3.1.3.2 Non-resident Shareholders

Dividends distributed by French companies to non-resident shareholders are generally subject to a 25 percent withholding tax.

However, the *avoir fiscal* is partially extended to portfolio shareholders resident in approximately 30 percent of countries with which France has a double-tax treaty. This generally has the effect of reducing the withholding tax to 15 percent of grossed-up dividends. A similar arrangement for direct shareholders applies only for direct investment from Italy, where France levies a 5 percent withholding tax on dividends, and Italian shareholders receive half of the *avoir fiscal*. For dividends paid to other non-resident shareholders, any *précompte* actually paid, net of any withholding tax, is refunded to the shareholder. Under the European Union Parent/Subsidiary Directive, withholding taxes on dividends paid to parent companies in other members states of the European Union are prohibited.[4]

3.2 Germany

3.2.1 Basic Operation of the System

At the national level, Germany operates a full imputation system. The operation of this system is complicated by a split-rate corporation tax system, with a tax rate of 45 percent for retained earnings and 30 percent for distributed profits. Some income also bears a lower rate of corporation tax, as described below.

Distributions out of profit that has not borne the full rate of corporation tax is treated in one of two ways. Foreign source income that has not borne German corporation tax may be distributed to shareholders without the payment of any equalization tax; shareholders do not receive a dividend tax credit on this form of dividends. Distributions from other income that has not borne the full rate of corporation tax are generally liable to an equalization tax, which has the effect of

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[4] However, this exemption is denied to EU parents entitled to the *avoir fiscal*. In practice, this applies only to Italian parents.

raising the effective corporation tax rate on the income to 30 percent. A rebate is paid to the company on distributions from income that has borne the corporation tax at 45 percent.

In addition to the corporation tax, German municipalities levy a trade tax (the *Gewerbesteuer*), which varies from 12 percent to 20 percent of taxable income. This tax does not form part of the imputation system.

3.2.2 Equalization Tax

3.2.2.1 When Equalization Tax is Levied

In determining whether the equalization tax is paid on a distribution, the German system allocates all profit to one of three broad categories, listed below. Income is cumulated over time into each of the categories, and cumulated undistributed income in each category (other than EK 30) is recorded, and is available for distribution. The main categories are as follows:[5]

EK 45 – profits taxed at the retained earnings rate

EK 30 – profits taxed at the rate for distributions

EK 0 – exempt profits, subdivided into:

- EK 01 – foreign profits exempt from German corporation tax
- EK 02 – domestic profits exempt from German corporation tax
- EK 03 – profits of years before 1977 (when the imputation system was introduced)
- EK 04 – capital contributions of shareholders

Allocating profits between these categories is straightforward in principle, although the computations may be less straightforward. The principle is simply that any profits allocated to a category must be net of tax levied at the relevant rate. If an item of profit is taxed at some intermediate rate, the profit will be allocated to more than one category. An example is given below for the case of foreign-source income.

Taxation of dividends at the corporate level depends on the category of income from which the dividend is deemed to have been paid:

EK 45: German companies receive a refund at a rate of 15/55 of distributions from this category. This has the effect of reducing the rate of corporate tax borne by the distributions to 30 percent. There is no time limit for dividend payments from this category in order to qualify for the refund. The cumulative total of undistributed profits is reduced by 55 units for every 70 units distributed.

[5] There are other categories that reflect profits taxed under previous tax systems: these include profits taxed at 50% and 36% (the tax rates prior to 1994). The requirement that distributed profits have borne tax at 30% implies that the adjustment on distribution depends on the tax rate at the time the profits were earned. This clearly complicates the operation of the tax system.

EK 30: There are no tax consequences at the corporate level.

EK 01: No equalization tax is levied on distributions from this category. Unlike all of the other categories, however, distributions from this category do not give rise to a dividend tax credit at the shareholder level.

EK 02 and EK 03: The equalization tax is levied at a rate of 30/70 of the distribution. The cumulative total of undistributed profits is reduced by 100 units for every 70 units distributed.

EK 04: Distributions from this category are considered to be a return on capital, and hence are not liable to tax in the hands of the company or the shareholder.

3.2.2.2 Treatment of Foreign-Source Income

In principle, Germany taxes the foreign-source income of German resident companies. It offers both a direct and indirect tax credit against foreign taxes. The tax credits are on a source-by-source basis. Excess credits cannot be carried forward or backward. The indirect tax credit can be used as a credit against the foreign tax paid by second-tier foreign subsidiaries. However, under many double-tax treaties, Germany exempts foreign-source income from foreign subsidiaries and permanent establishments.

Foreign-source income that is exempt from German tax is included in category EK 01. However, the categorization of foreign source income that is subject to German corporation tax is much more complex. In effect, the income is divided between EK 45, EK 30 and EK 01, depending on how much German corporation tax is paid. The aim of the categorization is that the dividend tax credit in the hands of the shareholder should reflect the German tax paid at the corporate level.

For example, suppose that a German company received foreign-source income of 100 units on which it had paid foreign tax of 10 units. German corporation tax would be 45 percent of 100, less 10 tax credits – i.e. 35. In allocating this income to the alternative categories, the tax liability is divided by the income net of foreign tax, i.e. 90. Thus 27 of the tax liability (i.e. 30 percent of 90) is deemed to have been imposed at a tax rate of 30 percent. The remaining 8 of tax liability is deemed to have been due to the additional tax rate of 15 percent – bringing the total charge on part of the income to 45 percent. The complex part of the computation is to determine exactly what part of the net-of-German tax income of 55 has been taxed at 30 percent and what part at 45 percent; this determines the contributions to the categories EK 45 and EK 30. In this example, the tax liability of 8, which is due to the additional 15 percent tax, implies that the gross income subject to this tax rate is 8 divided by 0.15, i.e. 53.33. This is the gross income which is added to EK 45. In practice, however, the categories are based on net income. After tax at 45 percent, this implies that the net income credited to EK 45 is 55 percent of 55.33 – i.e. 29.33. This leaves the remainder of the net income – 55 less 29.33 = 25.67 to be allocated to EK 30. A similar procedure is used to allocate foreign-source income between EK 30 and EK 01, where the effective German tax rate is less than 30 percent.

3.2.2.3 Stacking Rules

The rules for the order in which the different categories of profit are deemed to be used for distributions are favourable to the taxpayer. In essence, profits that have borne the highest rate of underlying German corporation tax are deemed to be distributed first. Under current tax rates, this implies that profits from EK 45 are used first.[6] When that is exhausted, profits from EK 30 are used. When taxed profits have been exhausted, exempt profits are used in ascending category order, i.e. first EK 01, then EK 02, and so on. These rules clearly maximize the refund paid by the authorities on distributions of profits taxed at more than 30 percent, and minimize payment of the equalization tax – which applies only to categories of EK 02 and higher.

There is no limit to the length of time that profits may be left undistributed in each category – in effect, this is an unlimited carry-back provision, in that current dividends can be set against taxable profit arising at any time in the past. However, there is, in effect, no carry-forward provision for the equalization tax. That is, if equalization tax is paid on a distribution from, say, EK 02, there is no provision for it to be subsequently set against profits in, say EK 45, arising in a later period.

3.2.3 Treatment of Shareholders

In principle, only German resident shareholders receive the dividend tax credit. All dividends are also subject to a 25 percent withholding tax, for which resident shareholders also receive a tax credit. Shareholders not entitled to receive the dividend tax credit are generally entitled to a refund of any equalization tax paid by the company; however, this only applies to distributions from EK 02 and above.

3.2.3.1 Resident Shareholders

Resident shareholders pay income tax on dividend income, grossed-up by the dividend tax credit and the withholding tax, for which they receive credit. Any excess credits are refunded to shareholders. Resident shareholders do not receive the dividend tax credit for distributions from exempt foreign-source income (EK 01).

Resident corporate shareholders are treated in the same way as individual shareholders: grossed-up dividends are included in taxable income and taxed at 45 percent, although this would be reduced to 30 percent if the dividends were redistributed. The 45 percent tax rate applies even to income which was paid out of exempt categories, apart from dividends paid out of exempt foreign-source income, which is also exempt in the hands of the company that receives the dividend.

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[6] In fact, companies may have undistributed profits in category EK 50 that have borne tax at 50%; this is used before EK 45.

Exempt entities, including charitable organizations and pension funds, are in general not entitled to receive the dividend tax credit or a credit for the 25 percent withholding tax.[7] In this case, the withholding tax forms an additional layer of tax in what is, in effect, a classical system.

3.2.3.2 Non-resident Shareholders

Non-resident shareholders are not entitled to receive the dividend tax credit or any credit for the withholding tax. However, the rate of the withholding tax is reduced under most double-tax treaties to 15 percent or less. Following the EU Parent/Subsidiary Directive, the rate of withholding tax on distributions to parent companies within the EU is reduced to zero from July 1, 1996.

It is worth noting that the system of taxing distributions from exempt foreign-source income changed in 1994. Until then, such distributions were liable to pay the equalization tax. Non-resident shareholders could, in principle, claim a refund for the equalization tax. However, this was not available if the income had passed through more than one German company (since it would no longer be included in EK 01). The difficulties in the refund procedure were influential in the 1994 reforms, which resulted in the current system.

3.3 Italy

3.3.1 Basic Operation of the System

Until 1995, Italy operated a full imputation system at the national level, with a corporation tax rate of 36 percent and a dividend tax credit available to shareholders at a rate of 36 percent of the grossed-up dividend. However, in 1995, the corporation tax rate was raised to 37 percent, without any increase in the rate of dividend tax credit. In general, dividends paid out of income that has not borne the full rate of Italian corporation tax is liable to an equalization tax on distribution.

Companies resident in Italy are also liable to local taxes (at a rate of 16.2 percent): since 1992, these have not been deductible from corporation tax. Local taxes do not form part of the imputation system.

3.3.2 Equalization Tax

3.3.2.1 When Equalization Tax is Levied

Various forms of income are not subject to Italian corporation tax at the full rate. For example, income arising in certain areas of Southern Italy is exempt; and there are incentives for the creation of new employment, reinvested income and a lower tax rate for certain newly listed companies. Foreign-source income is taxed in one of four ways, as described in the next section.

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[7] Some exempt entities may receive a partial or complete refund of the withholding tax. Exempt entities can also claim a refund of equalization tax on distributions from pre-1977 profits (before the imputation system was introduced).

Italian companies must allocate their profits into different reserves. There are two main reserves, which, in turn, include income taxed at the full Italian corporation tax rate, and income that has not borne Italian corporation tax.[8] Profits that have borne a corporation tax rate less than the full rate are divided between the two categories – part of it is deemed to have been fully taxed, and part is deemed to have been tax-exempt.

Income distributed from the reserve which has borne the full corporation tax rate can be distributed without further charge. Distributions from the tax-exempt reserve are liable to the equalization tax at a rate of 36/64 of the distribution, equivalent to a rate of 36 percent on the grossed-up dividend. In principle, this system ensures that any dividends that receive a dividend tax credit have borne the Italian corporation tax at the full rate.[9]

One complication to this rule is a "non-utilized exemption" or *franchigia*, which arises because of the interaction of local tax and corporation tax, and the non-deductibility of other expenses. Out of 100 units of pre-tax income, the corporation tax liability is 37 and the local tax liability is an additional 16.2. Under the imputation system, it is possible to distribute cash dividends of 64 (i.e. 100 less 36 – the rate of tax credit) without incurring an equalization tax. This is made possible in the Italian system by, in effect, crediting the 16.2 of local tax and the additional unit of corporate tax to a fully taxed reserve, from which distributions can be made without incurring equalization tax, and which can be carried forward indefinitely.

3.3.2.2 Treatment of Foreign-Source Income

As noted above, foreign-source income can be treated in one of four ways. First, if the Italian company owns less than 20 percent of the voting rights of the foreign company, income is taxed at the full Italian tax rate, with a direct for foreign withholding taxes paid. If the Italian company owns 20 percent or more of the foreign company, it can claim an *affiliation privilege*, which means that only 40 percent of the foreign-source income is liable to Italian corporation tax; in this case, only 40 percent of the foreign taxes are available as a credit.[10] Third, the *affiliation privilege* is not available for income deemed to have arisen in a privileged tax regime. Fourth, for dividends subject to the EU Parent/Subsidiary Directive, only 5 percent of income from EU subsidiaries is liable to Italian corporation tax.

Foreign-source income that is subject to Italian corporation tax is deemed to have been fully taxed, and can therefore be redistributed without any liability to the equalization tax. This is despite the fact that Italy offers a credit for foreign taxes paid. So it is possible for the effective Italian corporation tax charge on such income to be zero, and for the shareholder to receive a dividend tax credit, without any Italian corporate tax being paid. In these circumstances, Italy is, in effect, refunding foreign taxes paid, up to a rate of 36 percent.

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[8] There are other categories, the main one being income derived before the introduction of equalization tax in 1983.

[9] Lower rates of equalization tax are imposed on profits benefiting from certain regional incentives. In addition, a lower rate of 15% is charged on pre-1983 profits (the equalization tax was introduced in 1983).

[10] Although, following a recent court case, this point is now under dispute.

The 60 percent of foreign-source income that is exempt under the *affiliation privilege* rules is, however, included in the tax-exempt reserve; redistributions from this income are therefore subject to the equalization tax. Income derived from the EU, which is subject to 95 percent exemption, is not liable to the equalization tax: but on redistribution refunds are not available to shareholders who face a lower rate of income tax than 36 percent. However, Italy does offer the dividend tax credit to tax-paying shareholders: in such cases, the dividend tax credit is, in effect, a credit for underlying foreign taxes (which may be charged at a rate lower than 36 percent); although Italy does not make a refund, in effect, it permits a lower rate of income tax.

3.3.2.3 Stacking Rules

As in other countries, the rules for determining the order in which profits are distributed is favourable to the taxpayer. Distributions are first deemed to be made from fully taxed reserves. Any excess is deemed to be drawn first from EU-source dividends, then from the pre-1983 reserves (which bears a lower rate of equalization tax), and finally from tax exempt sources that incur the full equalization tax.

In essence, this implies that there is an unlimited carry-back provision, in that current dividends can be franked by taxed profits from any preceding period. However, there is no carry-forward provision permitting the equalization tax to be set against subsequent fully taxed profits. This can reduce the benefits of special incentives under the Italian corporation tax: any incentive that temporarily reduces the corporation tax liability, but which triggers the equalization tax may, in effect, be negated.

3.3.3 Treatment of Shareholders

In principle, only resident shareholders are entitled to the dividend tax credit; however, partial credit is available under some double-tax treaties. A withholding tax is imposed on dividend payments at a rate depending on the identity of the shareholder.

3.3.3.1 Resident Shareholders

Resident shareholders are taxed on the grossed-up income, receiving both the dividend tax credit under the imputation system and a credit for a 10 percent withholding tax on the dividend payment. The dividend tax credit can be set against the tax liability arising from the dividend; if the tax credit exceeds the personal income tax liability on the dividend receipt, it can be set against the tax liability arising from other income, carried forward, or refunded. However, as noted above, tax credits on dividends received from EU sources cannot lead to a refund – also they cannot be carried forward. Dividends from EU and non-EU sources must therefore be recorded separately; refunds arising from the rate of the imputation tax credit exceeding the marginal personal income tax rate are available only on the latter. Further, the order in which dividends from the two sources can be used for the purposes of computing a refund is the least

advantageous to the tax payer: that is, excess credits are computed first for EU-source dividends and only then for non-EU-source dividends.[11]

Dividends form part of the taxable income of Italian companies, but they can use the dividend tax credit to reduce the corporation tax liability to (almost) zero.[12] Companies are also entitled to a refund where there is an excess dividend tax credit (unless, like the situation for personal shareholders, the dividends are derived from EU-source income).

Dividend tax credits are only available where dividends form part of the taxable income of the shareholder. This is not true of tax-exempt entities, who therefore cannot claim the dividend tax credit. They also receive no refund of the dividend withholding tax.

3.3.3.2 Non-resident Shareholders

In general, non-resident shareholders cannot claim the benefit of the dividend tax credit. Also, Italy charges a high rate of withholding tax on the payment of dividends abroad – 32.4 percent – although this is reduced by up to two thirds (i.e. 10.8 percent) if recipient shareholders demonstrate payment of a final tax to their country of residence. Where, under treaty, the withholding tax rate is less than 10.8 percent, no further reduction is permitted. In accordance with the EU Parent/Subsidiary Directive, withholding taxes are not levied on payments of dividends to parent companies in other EU countries.

Some credit is given to non-resident shareholders under some double-tax treaties. The dividend tax credit is available to shareholders in France and the United Kingdom, although only half the credit is available to companies holding a 10 percent interest in the distributing Italian company. A refund of any equalization tax is also available for shareholders resident in France, Germany and the Netherlands.[13]

3.4 United Kingdom

3.4.1 Basic Operation of the System

The United Kingdom operates a partial imputation system, with a corporation tax rate of 33 percent and a rate of dividend tax credit of 20 percent (of grossed-up dividends). The mechanism of operating the system differs from the other three countries considered. In effect, the United Kingdom charges a dividend withholding tax (known as *Advance Corporation Tax* (ACT), which might more accurately be called *Advance Income Tax*). The ACT acts as a prepayment of the income tax of the shareholder – who pays tax on the grossed-up dividend and

[11] A category of savings shares was introduced in 1974, where the dividend withholding tax – currently 12.5% – is the final tax. Dividend tax credits are not available for dividends paid on such shares. These dividends are also exempt from the equalization tax.

[12] "Almost" because the rate of the dividend tax credit is 36%, whereas the full corporation tax rate is 37%.

[13] French shareholders cannot claim both the dividend tax credit and the refund of equalization tax. Where they cannot claim a full dividend tax credit they can instead claim a refund of the equalization tax – this applies to French parents who are specifically denied half the dividend tax credit.

receives a tax credit corresponding to the ACT paid.[14] Tax-exempt resident shareholders – whether individuals or other legal entities – receive a refund of the ACT. In general – although subject to certain conditions – the ACT can also be set against the distributing company's corporation tax liability. ACT not set off against the corporation tax liability is known as *surplus* ACT or *unrelieved* ACT.

In 1994 the UK introduced a special scheme for distributions from foreign-source income, known as *Foreign Income Dividends* (FIDs). This scheme was introduced largely as a result of pressure from U.K.-based multinational companies that rely on high levels of foreign-source income. Since this income is, in general, not available to offset the payment of the ACT, such companies frequently had high levels of surplus ACT. To avoid this problem, the FID scheme permits a refund of ACT at the corporate level, but also prohibits refunds of the dividend tax credit at the personal income tax level. Thus, it is not comparable to the German system, in which there is no equalization tax and no dividend tax credit; rather, like the Italian treatment of EU-source dividends, shareholders who are not exempt from paying income tax continue to receive the tax credit.

3.4.2 Equalization Tax

3.4.2.1 When equalization tax is levied

The U.K. imputation system differs from those in the other three countries, in that there is no special equalization tax that applies to dividends paid out of income that has not been fully taxed. However, a broadly similar effect is created by charging tax – ACT – on *all* dividend distributions (net of dividends received), which is therefore in effect a withholding tax on dividends. The rate is 20 percent on the grossed-up dividend, or 20/80 (i.e. 25 percent) of the cash dividend. In general, the ACT can be credited against corporation tax paid. To be fully offset, ACT of 20 units requires 100 units of taxable profit. Thus, the corporation tax liability on the 100 units of 33 is reduced to a *mainstream corporation tax* liability of 13, after offsetting the ACT. If the ACT is fully offset, the total tax paid by the company is 33 – the same as if ACT had not been charged at all.[15] In this case, dividends are, in effect, paid out of current taxable profits (since the ACT charge is no greater than 20 percent of taxable profit).

However, there are occasions when the ACT cannot be fully offset against the corporation tax liability of the current year. (This was especially true before 1984, when tax allowances were particularly generous, implying that many companies had negative taxable profits). Suppose, for example, that current taxable profits were only 60 units: the full corporation tax charge would be approximately 20. If a cash dividend of 80 units were paid, then the ACT would also be 20. Yet the maximum amount of ACT that could be offset is 20 percent of 60, i.e. 12. In this case, there would be a total tax charge of 28, consisting of ACT of 20, and a mainstream corporation tax

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[14] This might be seen as a controversial view. In terms of overall tax liabilities, it clearly does not matter whether the ACT is labelled as a prepayment of income tax or a minimum tax on dividends. But since it applies to dividends, it is clearly *not* a minimum tax on profits.
[15] There is a timing difference: the ACT is charged quarterly on dividends paid in each quarter. ACT payments are accumulated and offset against the annual corporation tax liability (due nine months after the accounting year end).

liability of 8; this implies s*urplus* ACT of 8. In practice, surplus ACT can be set against taxable profits in any of the preceding six years (on a LIFO basis) and can be carried forward indefinitely to set against future taxable profits.

In effect, surplus ACT plays the same role as the equalization tax in the other countries considered. However, (apart from the FID scheme discussed below) there is no need within the U.K. system to record separately different sources of profit and the rates of tax that have been paid.

3.4.2.2 Treatment of Foreign-Source Income

The United Kingdom taxes worldwide income, but offers both a direct and indirect tax credit for foreign taxes paid. Credits are available only on an item-by-item basis – so that excess credits from one source cannot be used to reduce corporation tax on income from another source.

For dividends paid out of foreign-source income that are not declared as FIDs, the ACT liability cannot be offset against domestic source taxable income. Instead, a separate limitation applies to set the ACT against foreign-source income. ACT set against each slice of foreign income is limited to the lesser of ACT which would be levied if foreign income were distributed and the corporation tax liability with respect to such income after deducting foreign tax relief. Dividends distributed from foreign-source income that are not declared as FIDs give rise to dividend tax credits in the hands of shareholders in the same way as other dividends.

However, from 1994, U.K. companies have been allowed to elect whether to treat dividend payments as FIDs. FIDs must be matched to foreign-source income, and records of such income and the use made of them must therefore be kept. To be declared FIDs, dividends may only be matched with foreign-source income from the current accounting year or the previous year.[16] ACT is also payable on net FIDs paid (i.e. FIDs paid less FIDs received); any excess ACT credit on FIDs received can be carried forward to set against future FID payments. Any surplus ACT arising from the payment of FIDs can be repaid to the company or set against any corporation tax liability. In effect, this means that FIDs are not liable to surplus ACT, which is equivalent to being exempt an equalization tax.

3.4.2.3 Stacking Rules

The U.K. imputation system does not, in general, require complex rules to determine the order in which profits are distributed. This is because the amount of ACT which can be set against corporation tax is determined primarily through the size of the corporation tax liability, rather than the form of profits. However, there are implicit stacking rules: for example, dividends received from other U.K. companies are netted out in determining the ACT liability; and ACT cannot be offset against profits made more than six years previously.

In addition, under the FID scheme, FIDs may be distributed before other dividends.

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[16] They may also be matched with the foreign income of 51% U.K. subsidiaries.

3.4.2.4 Exceptions to General Practice

A timing relief is given to international headquarter companies with respect to ACT due on net FIDs paid. In this case, the ACT is not levied on a quarterly basis, but on an accounting year basis.

3.4.2.5 Other issues

The United Kingdom has a "small companies" rate of corporation tax, equal to the basic rate of income tax (24 percent for 1996-97), which is charged on companies with profits of less than £300,000. The tax rate increases gradually up to 33 percent, as profits increase to £1.5 m. This does not affect the imputation system, except to the extent to which it is closer to a full imputation system for companies with low profits. That is, an additional £100 of taxable profit is still required to offset fully £80 of cash dividends. In this case, however, the ACT of £20 can be offset against only £24 of corporation tax liability, leaving a mainstream corporation tax liability of only £4.

3.4.3 Treatment of Shareholders

3.4.3.1 Resident Shareholders

Resident individual shareholders are liable to income tax on grossed-up dividend receipts at their marginal income tax rates. The ACT paid by the company is, in effect, a dividend tax credit that offsets the income tax liability. Tax-exempt shareholders, whether individuals or some other form of entity are entitled to a refund of the tax credit. The only exception to this rule is for dividends classified as FIDs: tax-paying shareholders are treated in the same way as for other dividends (that is, they are taxed on the grossed-up dividend and are deemed to have paid tax at the ACT rate), but no rebates are paid to tax-exempt shareholders.

Corporate shareholders use the tax credit to frank their own dividend payments: thus, ACT is levied only on *net* dividends paid. If dividends received exceed dividends paid, then the ACT not used can be carried forward to set against future dividend payments. In addition, where the company has a tax loss, it can instead set the excess ACT against its current loss and claim a refund. FIDs are exempt from corporation tax, but also cannot be used to frank dividend payments.

3.4.3.2 Non-resident Shareholders

The United Kingdom has extended the dividend tax credit to non-resident shareholders under a number of double tax treaties. The full tax credit is usually only available on portfolio investment, and sometimes only to individual shareholders. However, a common arrangement is that direct investors receive half of the dividend tax credit, but must pay a withholding tax of 5 percent of the grossed-up dividend.

4. The Economic Impact of Minimum Taxes on Dividends

There is a large economic literature on the impact of taxes on capital income on the behaviour of economic agents. In particular, the impact of corporation tax on the investment and financial decisions of firms has been examined in numerous theoretical and empirical studies (for a recent survey of this literature, see Mintz (1995)). Within this literature, a reasonable amount of attention has been paid to the impact of imputation systems and other forms of integration of corporate and personal taxes. However, the impact of minimum taxes on dividends – the equalization taxes discussed above – has not figured very prominently in the economic literature; although there have been several studies, referred to below.

This section briefly explores three aspects of minimum taxes and integration systems more generally. First, it examines the role played by the minimum taxes within the imputation systems considered in the previous section. In particular, we discuss the issue of how vital a minimum tax is to the working of these systems. Second, we set out very briefly a theoretical analysis of integration systems and the role played by minimum taxes in affecting economic behaviour. Third, the role of integration systems is itself questioned: what benefits are there from implementing tax relief on dividend payments as opposed to some other form of tax system?

4.1 The Role of Minimum Taxes on Imputation Systems

The usual argument in favour of some form of integration of corporate and personal taxes on capital income is derived from one possible "ideal" form of taxation: the comprehensive income tax. The idea of a comprehensive income tax is that all income accruing to any individual should be combined and taxed at the same rate (or at least on a single schedule of rates). One advantage of such a tax is that there will be no discrimination between different forms of capital income: different forms of saving will be taxed at the same rate. On the other hand, since capital income is taxed, the net of tax rate of return to saving will be lower. This is likely to induce a lower rate of saving. Whether this is suboptimal for the economy as a whole from the viewpoint of economic efficiency, however, depends on the remainder of the tax system – for example, how labour income is taxed. We return to this discussion below.

However, if the aim is comprehensive income taxation, then there are many practical problems. One important problem is how to deal with profits arising in a corporation, which strictly belong to the owners or shareholders of the corporation. It is generally considered infeasible to tax an individual shareholder on his or her share of the corporation's profits; apart from the difficulty of assessing the level of profit (for shareholders, for example, who constantly turn over their shareholdings), there is also a problem of liquidity; that is, individual shareholders may have to sell their assets to comply with the tax liability.

To avoid this, most countries operate a separate tax on corporate profits. If the rate of corporation tax is roughly the same as the personal tax rate, then in the absence of personal taxes on income derived from the corporate sector, the tax system may be close to a comprehensive income tax. However, if personal taxes are levied on dividend receipts and capital gains on shares, there will be a "double taxation" of corporate-source income. The imputation systems described above avoid this double taxation by offering a dividend tax credit which, in effect, reimburses the

shareholder for at least part of the tax paid at the corporate level. A full imputation system is then consistent with the comprehensive income tax, at least for distributed earnings: the total tax liability depends on the shareholder's personal income tax rate. Retained earnings are taxed at the corporate rate, although this may be adjusted when the earnings are eventually distributed.

There is a role for a minimum tax in an imputation system because shareholders receive a tax credit representing tax paid at the corporate level. But some corporate income is not fully taxed at the corporate level. If it were distributed to shareholders with an associated dividend tax credit, then shareholders would receive a credit that was in excess of taxes already paid. That would imply that the rate of tax charged would be less than their personal income tax rate. For zero-rated shareholders, there may be a negative amount of tax paid – the government would be subsidizing the activity. An examination of the Appendix reveals that there are several cases in the countries examined where this can occur.

The minimum tax is designed to avoid this. In its simplest form, it merely ensures that dividends that carry a tax credit are paid out of income that has been fully taxed at the corporate level. There are many items of corporate income that may not be fully taxed – for example, capital gains. However, the most important is foreign-source income, which countries typically either exempt from corporation tax or include in taxable income but give a credit for foreign taxes paid on the underlying income. One method of ensuring that the *domestic* rate of tax on such income (net of foreign tax) is equal to the shareholder's income tax rate, is to charge a minimum tax on the redistribution of the income by the domestic company – referred to as an equalization tax in the previous section. The shareholder can then claim credit for this tax against his personal income tax liability.

However, a more straightforward way of achieving the same result is the system that Germany instituted in 1994: no minimum tax is levied, but the shareholder does not receive a dividend tax credit. In the German case, there is no corporate-level tax, but shareholders are liable to personal income tax on the redistributed income. In principle, this is a simpler system: rather than levying an equalization tax and refunding it to shareholders, neither of these taxable events occurs.

The important point of principle is that the minimum tax itself is *not* a fundamental requirement of a system of integrating corporate and personal taxes, even one that aims to mirror as closely as possible a comprehensive income tax.[17] It is true that the German system works only for income that has paid no tax at the corporate level. Under the U.K. system, for example, foreign source income may well face a residual U.K. corporate tax charge. On redistribution of the income, a comprehensive income tax would require the shareholder to be given credit for the amount of U.K. tax paid. But in the absence of a system that identified the rate of corporate-level tax paid on each part of the dividend payment, some adjustment must be made at the corporate level. One such adjustment would be imposing a minimum tax sufficient to raise the corporate-level tax to the full rate. However, there are other means of achieving the same outcome. The U.K. system does so by not permitting a refund of ACT against corporation tax. The German system would divide the taxed profit into two parts, allocating one part to a fully taxed reserve and the

[17] Whether the German system of taxing foreign-source income should be referred to as an *imputation* system is perhaps questionable.

remainder to a tax-exempt reserve. In principle, the latter could be distributed without a minimum tax and without a dividend tax credit.

4.2 Integration Systems and Minimum Taxes in Economic Theory

There is a considerable body of literature, dating back at least to King (1977), which investigates the role of integration systems on economic behaviour, primarily of corporations. The main types of behaviour investigated are investment, the type of finance used for investment and dividend policy. However, there is also work on, for example, the impact of tax on merger activity. There is not space in this paper to adequately summarize this literature. Instead of attempting to do this, this section simply gives a flavour of some of the more important issues.

One important and well-known result in the theoretical literature is that the cost of capital of investment financed by retained earnings – and hence probably such investment itself – is not affected by the taxation of dividends. The reason for this is straightforward. When an additional unit of profit is retained within the company, the shareholder, in effect, gives up a net income of $1-d$ units, where d is his personal income tax rate on dividends (adjusted for any dividend tax credit). When a return – at a rate of return of, say r – is made on the investment and distributed to the shareholder, the shareholder receives a net return of $r(1-d)$. On an investment of $1-d$, the rate of return earned by the shareholder is therefore simply r: The dividend tax is irrelevant.

The same is not true of investment financed by new equity, however. Here the net cost to the shareholder is one unit, not $1-d$ units; hence, the rate of return is $r(1-d)$, and the dividend tax does matter. Under an imputation system, the rate of dividend tax, d, can be divided into two parts. For every unit of dividend paid, the shareholder can gross it up at the dividend tax credit rate – say c – before being taxed at his personal income tax rate – say m. In this case, his net income, $1-d$ is equal to $(1-m)/(1-c)$. Clearly, as the rate of imputation credit, c, increases, the net rate of return of investment financed by new equity also rises.

These results have been analysed in the presence of the minimum tax as operated by the U.K. tax system by Mayer (1986), Keen and Schiantarelli (1991) and Devereux, Keen and Schiantarelli (1994). One important conclusion is that the simple result of the irrelevance of dividend taxation for investment financed by retained earnings may no longer hold. The reason is again straightforward: it is that the effective rate of tax on dividend payments may change over time: in this case, the impact on the net cost to the shareholder may be different from the impact on the net benefit. The same result would hold under most of the other systems discussed at length in this paper.

Consider just one possibility from the United Kingdom, for example: that the company fully offsets all of its ACT against corporation tax in the year in which the investment is made, but subsequently cannot do so (i.e. it has surplus ACT). In this case, the net cost to the shareholder of the unit of investment financed by retained earnings is $(1-m)/(1-c)$. However, if the firm is subsequently in a permanent surplus ACT position, then in effect the shareholder cannot benefit from the dividend tax credit, since that simply offsets the additional minimum tax (surplus ACT) that the firm must pay. In this case, the net return to the shareholder is $r(1-m)$, which represents a

rate of return on the initial investment of *r(1-c)*, rather than *r*. If the tax positions were reversed, the net rate of return would exceed *r*.

The minimum tax can also affect the dividend payout decision. One apparently obvious effect is an effect on the relative benefit to the shareholder of receiving a dividend relative to a capital gain (achieved by an increase in the share value, since less is distributed). If paying an extra unit of dividend incurs an additional tax liability then it becomes relatively less attractive compared with retained earnings. The impact of this effect on behaviour is, however, controversial. If the profit must eventually be distributed then the shareholder's valuation of the retention should reflect the eventual dividend payment. But in that case it should reflect the tax that must eventually be paid on the dividend. Also, if the tax rate on the dividend is not expected to change, then it is argued that the dividend tax should have no impact on the pay-out decision.

This argument has parallels with the argument that the dividend tax does not affect the cost of capital for investment financed by retained earnings. And the impact of the minimum tax is similar. As long as there are periods where the minimum tax is levied, and other periods in which it is not levied, then it can affect the allocation of dividend payments over time. In effect, companies facing a minimum tax liability would delay dividends until a later period in which there was no such liability. This effect has been found in an examination of U.K. companies moving in and out of periods of surplus ACT (Bond, Chennells and Devereux, 1996).

The impact of integration systems has also been examined in an international context. One important issue here is the extent to which an integration system can affect domestic investment, as opposed to outward foreign direct investment (FDI). Boadway and Bruce (1992) argue that an integration system would not affect domestic investment, even for investment financed by new equity. Their argument depends on identifying the marginal shareholder of the company – one who is just indifferent between owning and not owning the share. It is the marginal shareholder who, in effect, determines the value of the companies' shares.

Consider the introduction of an imputation system of the form described in the previous section, where the dividend tax credit is received only by residents. The dividend tax credit would increase the rate of return on investment in the company for domestic residents, but would not affect the rate of return for non-residents. However, if a non-resident is the marginal shareholder, then the company will perceive that the required rate of return on its investment has not changed. It may be the case that domestic shareholders wish to invest more in the company. But if the company used these additional funds to invest domestically, it would drive down the rate of return, which in turn would drive away non-resident investors. The company is therefore likely instead to use the additional funds to invest abroad at the "world" interest rate, which is unaffected by the additional investment. In this case, the impact of introducing the imputation system is to increase domestic savings, which are then channelled into outward FDI, with no effect on domestic investment.

Of course, this is a highly simplified model of the real world, and it is possible to examine other assumptions regarding the identity of the marginal investor and the nature of the integration system (see Devereux and Freeman, 1995). Changing the assumptions gives a wider understanding of some of the likely impacts of introducing an imputation system. However, the basic point is important – that the diversity across the treatment of different forms of income and

different types of shareholders evidenced in the four tables in the Appendix is likely to have real economic effects. Some types of activity are likely to be favoured over others – and the choice between domestic investment and outward FDI is likely to be important. Also, some types of shareholders are likely to be favoured over others – with repercussions, for example, on the size of inward foreign investment, both portfolio and direct.

4.3 Are Integration Systems Optimal?

One final issue is whether the comprehensive income tax principle is the most appropriate model for taxing capital income. As already mentioned, taxing the return to saving is likely to reduce the level of saving. However, this might be offset by beneficial effects elsewhere in the tax system and the economy. A more persuasive argument against the comprehensive income tax principle is probably the practicality of administration. That is, it is virtually impossible to administer a full comprehensive income tax. Allocating corporate profits to shareholders is only one problem in such a system. More fundamental problems arise in taxing the increase in the value of other assets owned by the taxpayer – for example, a house, a Rembrandt, and most difficult of all, his human capital. A comprehensive income tax requires, in principle, that all of these assets are valued in each period and that tax is charged on the increase in their value. Not only is valuation extremely difficult, if not impossible, it is quite possible that the taxpayer will not have liquid assets available to pay the tax charge.

The other main "ideal" form of tax system is one based on consumption. Under such a tax, the return to saving would not be taxed. There are several ways in such a system could be administered – see, for example Meade (1978) and Economic Council of Canada (1987). In the context of corporation tax, the most well-known way of implementing a consumption tax is a cash flow tax. The idea is simple: all cash flows, positive and negative, are taxed at the same rate. In effect, the government becomes a sleeping partner in the company, contributing a proportion of all expenses, but taking a share of all profits. Under this system, the normal rate of return on investment is not taxed; this is consistent with the return to saving being untaxed. However, any profit over and above the normal return – known as the economic rent or supernormal profit – is taxed. One advantage of this type of tax is that investment and financing decisions of the company are unaffected by tax. The cash-flow tax would not be integrated with the personal tax system, so all the considerations of a minimum tax would be swept away.

An alternative method of achieving the same result, but without the government contributing so much up front for investment projects is the ACE (Allowance for Corporate Equity) system, proposed by the Institute for Fiscal Studies Capital Taxes Group (1991), analysed by Devereux and Freeman (1991) and Bond and Devereux (1995), and based on work by Boadway and Bruce (1984). Essentially, this permits an allowance for equity-financed investment comparable to interest deductibility, which is available for debt finance. It too would not be integrated with the personal tax system, and so again, minimum taxes are unnecessary.

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Appendix

Illustrative Examples of the Impact of Imputation Systems in the Four Countries

1. France

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before French Tax[1]

	Source of Income			
Ultimate shareholder	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10%[2]	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10%[2]
Domestic individual: tax rate 40%	60	60	66⅔[3]	66⅔[3]
Domestic individual: tax rate zero	100	100	111[4]	111[4]
Tax-exempt entity	66⅔	66⅔	74[5]	74[5]
Non-resident from treaty country[6]	56⅔	56⅔	63	63

[1] The French 10% surtax is excluded from this table.
[2] Assume that the company claims the benefit of the *affiliation privilege*.
[3] As in the next line, except that the shareholder must pay income tax at 40% on the grossed-up dividend of 111.
[4] The net income to the shareholder is D/(1-c) where D is the cash dividend and c is the rate of tax credit.
The equalization tax charge (E) is net of credit for the withholding tax (W) of 11 (10% of 111).
E+D = 100; E = cD/(1-c) - W. So D=111(1-c) and the net income is 111.
France effectively rebates the foreign withholding tax.
[5] As the previous line, except that the shareholder cannot claim the dividend tax credit. The net income is therefore equal to the cash dividend, D.
[6] Assume a 15% withholding tax on the payment of dividends to the non-resident.

2. Germany

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before German Tax

	Source of Income			
Ultimate shareholder	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10%[1]	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10%[1]
Domestic individual: tax rate 40%	60	60	60	60
Domestic individual: tax rate zero	100	100	100	100
Tax exempt entity	45[2]	45	75[3]	75[3]
Non-resident from treaty country[4]	55	55	85	85

[1] Assume that the foreign-source income is exempt from the German corporation tax.
[2] The cash dividend distributed is 70: a withholding tax at 25% of the grossed-up dividend is charged. Neither the dividend tax credit nor the withholding tax can generally be claimed by tax-exempt entities.
[3] In this case, equalization tax is not paid, so the cash dividend is 100, less the 25% withholding tax.
[4] Assuming a 15% withholding tax on the payment of dividends to the non-resident.

3. Italy

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before Italian Tax

	Source of Income			
Ultimate shareholder	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10% [1]	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10%[1]
Domestic individual: tax rate 40%	44[2]	60[3]	74[4]	62
Domestic individual: tax rate zero	73[5]	100	123[6]	104[7]
Tax-exempt entity	29[8]	38[9]	48[10]	40[11]
Non-resident from treaty country[12]	42	56	70	59

[1] Assume that company claims the *affiliation privilege*, so that 60% of the foreign-source income is exempt from the Italian corporation tax; the remaining 40% is taxed and receives a tax credit of up to 40% of the foreign taxes paid.
[2] Assuming that the cash dividend is 100 less 37 corporation tax less 16.2 local tax. The cash dividend is grossed up by the tax credit at 36% and taxed at the personal tax rate.
[3] Assuming that there is no local tax charge: equalization tax at rate 36% is levied, which is also credited to the shareholder as a dividend tax credit.
[4] As the following line, but with the grossed-up dividend taxed at 40% in the hands of the shareholder.
[5] As footnote 2, except that there is no income tax liability and the shareholder claims a refund for the dividend tax credit. The dividend tax credit is available only at 36%; profits are taxes at 37%.
[6] 40% of the foreign-source income is in principle taxable, but the credit for foreign tax eliminates any corporation tax. Distributions from the 40 are not liable to equalization tax, but the shareholder receives the dividend tax credit, so that the shareholder receives 62.5 post-tax. The remaining 60% is exempt from the corporation tax, but is liable to equalization tax on redistribution. This is worth 60 to the shareholder post-tax.
[7] The corporation tax charge is 37% of 40% of the pre-withholding tax distribution of 111.11, less a credit for 40% of the withholding tax of 11.11, implying that corporation tax is 12. This implies that a cash dividend of 28 can be distributed, which is worth 43.75 with the dividend tax credit. Adding the 60 of income-exempt corporation tax gives a total of 103.75.
[8] As footnote 2, except that a withholding tax at 25% of the grossed-up dividend (25% of 73.125 i.e. 18.28) is charged. Neither the dividend tax credit nor the withholding tax can generally be claimed by tax-exempt entities. The net income is therefore the cash dividend less the withholding tax.
[9] As footnote 8, except that assume that there is no local tax.
[10] As footnote 6, except that the tax exempt entity does not receive the dividend tax credit and must pay the withholding tax. The two parts of the cash dividend are 40 and 38.4 respectively. The withholding tax is 25% of the grossed up dividend of 122.5 i.e. 30.625. Net income is therefore 47.775.
[11] A combination of the rules in footnotes 7 and 10.
[12] Assume that the non-resident receives the net dividend, with no dividend tax credit, and faces a 10.8% withholding tax on the net dividend.

4. United Kingdom

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before U.K. Tax

Ultimate shareholder	Source of Income			
	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10%[1]	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10%[2]
Domestic individual: tax rate 40%	50[3]	50	75[4]	58[5]
Domestic individual: tax rate zero	84[6]	84	100[7]	96[8]
Tax-exempt entity[9]	100	100	100	96
Non-resident from treaty country[10]	71[11]	71	100[12]	82[13]

[1] Assume that the redistributed dividend is treated as a FID.
[2] Assume that the redistributed dividend is not treated as a FID.
[3] As footnote 6, except that the shareholder pays income tax at 40% on the grossed-up dividend of 83.75, yielding a net income of 50.25.
[4] As footnote 7, except the net dividend of 100 is grossed up to 125, leaving the net income of a 40% income tax payer of 75.
[5] As footnote 8, except the net income of the shareholder after income tax is 60% of 96.25, yielding 57.75.
[6] 100 units of profit incur 33 units of corporation tax. Distributing a net dividend of the remainder - 67 - incurs ACT of 16.75, and hence the grossed-up dividend is 83.75. This is the net income of the tax exempt shareholder.
[7] Given the foreign tax paid, there is no residual U.K. corporation tax liability. Assuming the income is redistributed as a FID, and that the ACT paid is refunded to the company, the company can pay a net dividend of 100; this represents the final net income of all tax-exempt shareholders.
[8] In this case, the U.K. corporation tax charge is 33% of 100, less a tax credit of 10, i.e. 23. This leaves 77 as a net dividend payment. Assuming that this is not distributed as a FID, this implies an ACT charge of 19.25, which is offset against corporation tax to leave a mainstream corporation tax charge of 3.75. The gross dividend is 96.25, which is the net income of tax-exempt shareholders.
[9] The U.K. tax system does not distinguish zero-rated individual shareholders and tax-exempt entities. Hence, this row is identical to the row above.
[10] Assume a direct investor, who receives half the dividend tax credit, but pays a 5% withholding tax on the grossed-up dividend.
[11] As footnote 6, except that the non-resident shareholder receives a half tax credit of 10% of the grossed-up dividend (8.375), but must pay a withholding tax of 5% of the grossed-up dividend (4.1875), so that the net income (before foreign tax) is 71.1875.
[12] Assuming that the non-resident shareholder faces no U.K. tax liability on the dividend, the net income is simply the net dividend: no withholding tax is levied, and the shareholder is not entitled to a dividend tax credit.
[13] As in footnote 11, except that the net dividend is now 77, rather than 67. The net income of the shareholder after adding the half dividend tax credit and subtracting the withholding tax is 81.8125.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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Toronto, Ontario

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Stewart McKelvey Stirling Scales
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Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

Distribution Centre
Department of Finance
300 Laurier Avenue West
Ottawa, Ontario K1A 0G5
Telephone: (613) 995-2855
Facsimile: (613) 996-0518

They are also available on the Internet at http://www.fin.gc.ca/

Technical Committee on Business Taxation
Completed Research Studies

☐ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and *David Sandler* (University of Western Ontario)

☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)

☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)

☐ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)

☑ **WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)

☐ **WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
Andrew Lyon (University of Maryland)

☐ **WORKING PAPER 96-7**
The Economic Effects of Dividend Taxation
Ken McKenzie (University of Calgary)
Aileen Thompson (Carleton University)

☐ **WORKING PAPER 96-8**
Capital Tax Issues
Peter McQuillan and *Cal Cochrane* (KPMG Toronto)

☐ **WORKING PAPER 96-9**
Compliance Issues: Small Business and the Corporate Income Tax System
Robert Plamondon (Ottawa)

☐ **WORKING PAPER 96-10**
Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)

☐ **WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)

☐ **WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)