The Allocation of Profits and the OECD Approach to Business Restructuring

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ABSTRACT

The allocation of the profits of multi-national groups between their member companies for tax purposes has important impacts on both the corporate tax revenues of the countries in which these groups operate and the taxes paid by the groups. The current international tax system allocates these profits using separate accounting, based on the ‘arm’s length principle’. However, this approach has been criticised at both a practical level and a conceptual level, and many of these criticisms have been highlighted by recent trends in business restructuring. In this context, the purpose of this paper is to analyse the economic consequences of the arm’s length principle and to illustrate the issues raised in this analysis with elements of the OECD approach to the transfer-pricing aspects of business restructuring. The paper argues that the arm’s length principle achieves a reasonably fair allocation of tax base between countries and approximates the important efficiency principle of ownership neutrality, especially now that most OECD countries use the exemption method to relieve international double taxation. However, in the absence of tax harmonisation, it does not ensure that capital is allocated efficiently between countries and can lead to distortion of both acquisition decisions and the relationships between members of multi-national groups. The main difficulties with the arm’s length principle arise in the context of intangible property and intra-group services, issues that arise commonly in the restructuring of multi-national companies. Particular problems that arise in restructuring are the compensation of subsidiaries for lost profit opportunities and the treatment of risk. The paper concludes that, while the arm’s length principle is far from perfect, many of its difficulties would also arise in some form under formulary apportionment (the most widely supported alternative). It is only more radical reforms of international corporate taxation that can solve these problems, but they would fundamentally alter the allocation of tax bases between countries.

Keywords: International tax, Arm’s length principle, Corporate tax, Transfer pricing, Business restructuring

JEL Codes: H21, H22, H25, H87

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1. Introduction

The allocation of the profits of multi-national groups between their member companies for tax purposes has important impacts on both the corporate tax revenues of the countries in which these groups operate and the taxes paid by the groups. The current international tax system allocates these profits using separate accounting, based on the 'arm's length principle'. However, this approach has been criticised at both a practical level and a conceptual level, and many of these criticisms have become particularly apparent in the OECD's recent work on business restructuring (OECD 2008a).[2]

The practical criticisms are based on the compliance costs of firms and the risk of 'double taxation', as well as on the risks of tax avoidance, while the conceptual criticisms consist of questioning the logic of taxing a group as if it were a collection of independent companies. After all, groups presumably exist because the synergies between the member companies produce total profits that are greater than those that would be made if the companies really were independent. In that case, how is it possible to come to a conclusion as to the country in which these profits arise? What is more, how is it possible to use the arm's length principle to value those transactions between group members that would never arise if they were independent companies?

In this context, the purpose of this paper is to analyse the economic consequences of the way in which the OECD Model Tax Convention (OECD, 2008b, henceforth 'the OECD Model') allocates profits between companies within a multi-national group for the purposes of taxing corporate profits – the arm's length principle – and to illustrate the issues raised in this analysis with elements of the OECD approach to the transfer-pricing aspects of business restructuring.

The arm's length principle involves the separate accounting of profits in each member (legal entity) of the group. Such separate accounting necessarily involves the recording and valuation of goods, services and intangibles that each member of the group provides to each other member, in addition to transactions external to the group. The arm's length principle is so-called because it requires the recording and valuation of the intra-group

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[1] An earlier version of this paper was presented at the ETPF/IFS conference on Tax Policy in an Uncertain World on 22 March 2010. I am grateful for the helpful comments received from participants at the conference. All remaining errors are mine.

[2] Public comments on the approach taken by the OECD are available at: http://www.oecd.org/document/25/0,3343,en_2649_33753_42155737_1_1_1_1,00.html and details of its consultation with business are available at: http://www.oecd.org/document/21/0,3343,en_2649_33753_43033621_1_1_1_1,00.html

transactions to be undertaken as if the members of the group were independent companies – at 'arm's length' – rather than members of a group. Thus the OECD Model allows tax authorities to adjust the valuation of these transactions if they have not been valued on an arm's length basis, and the OECD provides guidance on these adjustments in its Transfer Pricing Guidelines (OECD, 2009). In addition, the OECD Model allows tax authorities to re-characterise financing arrangements between group members if they are judged to be arrangements that would not be entered into between independent companies. For example, part of a loan agreement between two members of a group could be re-characterised as an equity investment if it were judged to exceed the amount of a loan that would be freely provided by one unrelated party to another, taking account of the financial structure and risk profile of the recipient company, a situation often referred to as 'thin capitalisation'.

In practice, these adjustments are normally only relevant to transactions between group members in different countries (except in countries where there is sub-national variation in corporate tax rates) and, in fact, it is only to such international transactions that the OECD Model applies. This is because the shifting of profits between group members within a country is unlikely to have any effect on taxes paid, partly because the same corporate tax rate usually applies to all group members in one country and partly because most countries allow some form of group tax relief that allows the losses of one group member to be offset against profits of another group member in the same country. Thus, separate accounting can be seen as a way of dividing up the profits of a multi-national group between the countries in which it operates.

As mentioned above, this separate accounting of each member of a group as if it were an independent company has been criticised on a number of grounds, including the compliance burden that it places on multi-national groups and the opportunities that it can provide to multi-national groups to reduce their overall tax burden by shifting profits from countries with higher tax rates to those with lower tax rates.[3] These concerns have led to some calls for a move away from separate accounting to one of the following alternatives:

- Consolidated accounting of multi-national groups, combined with the allocation of the group profits between countries for tax purposes on the basis of a formula ('formulary apportionment').[4]

- Consolidated accounting of multi-national groups, combined with taxation of the group profits only in the hands of the ultimate shareholders of the parent company ('shareholder taxation').[5]

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[3] The powers of tax authorities outlined above are designed to minimise the opportunities for such profit-shifting.

[4] A proposal to use formulary apportionment on a worldwide basis is made by Avi-Yonah and Clausing (2007).

- The taxation of the profits of multi-national groups in the countries where their products are sold (‘destination taxation’).[6]

Of these three alternatives, it is formulary apportionment that has received most attention from policy-makers, and it is under active consideration within the European Union. It is also applied between sub-national governments in the United States (where there is variation of corporate tax rates across the country). The other two are argued by academic economists to have superior efficiency properties but have yet to receive significant support from policy-makers, perhaps because they involve a much larger change from the current arrangements and would result in a considerable redistribution of tax base between countries.

Each of these alternatives has potential difficulties of its own, and it is beyond the scope of this paper to undertake a full comparison of these alternatives with the current separate accounting approach. Instead, the more modest aim of the paper is to analyse separate accounting, identifying both its rationale and its shortcomings, and to illustrate them in the context of business restructuring. The analysis will sometimes involve a comparison with certain aspects of the alternatives listed above, but this will not be a full evaluation of their relative merits.

Following this introduction, section 2 discusses the logic behind the separate accounting approach. The paper then turns in section 3 to some of the difficulties of the approach, with particular attention to intangibles and intra-group services – two issues that are particularly prominent in the discussions of the OECD approach to business restructuring. Section 4 then draws on the preceding sections to look more closely at some of the issues involved in business restructuring. Finally, section 5 summarises the conclusions of the analysis.

2. The reasons for separate accounting

The OECD Model can be seen as having two main objectives:

- The avoidance of ‘double taxation’.
- A ‘fair’ distribution of taxing rights between countries.

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[5] The theoretical efficiency advantages of this tax are explained by Auerbach, Devereux and Simpson (2010), who also express the view that the administrative difficulties with the tax would make it impossible to apply in its pure form.

[6] The advantages of this approach to corporate taxation are also explained by Auerbach, Devereux and Simpson (2010). They are more positive about its administrative feasibility than they are for shareholder taxation but still note considerable transition problems, especially if the change is combined with a move to cash-flow taxation (the option that they prefer).

The first objective needs some clarification as there are two possible forms of double taxation. The first, sometimes referred to as ‘economic double taxation’, arises when profits are subjected to corporate tax as they are earned and then subjected to personal taxes as they are distributed to individual shareholders. The second, which one might refer to as ‘international double taxation’, arises when the same income (for our purposes, corporate profits) is subject to the same or equivalent tax (for our purposes, corporate income tax) in two different countries. The OECD Model is only concerned with the avoidance of international double taxation and has nothing to say about economic double taxation.

The economic reason for wanting to avoid international double taxation (as far as corporate tax is concerned) is that such double taxation would discourage foreign direct investment (FDI), and thus reduce the efficiency of resource allocation in the world economy. A non-economic, but not contradictory, reason for wanting to avoid double taxation is that it would be unfair to tax businesses more heavily simply because their activities are spread over more than one country.

These reasons are generally accepted as being very persuasive. However, it is worth noting that international double taxation would also be avoided (at least in principle)[7] by the alternative allocation systems mentioned in the section 1. Also, the avoidance of double taxation does not imply that corporate taxes do not distort the quantity and geographic distribution of FDI. Indeed, there is substantial evidence that corporate tax considerations have a significant effect on FDI decisions by multinational groups.[8]

Turning to the distribution of taxing rights between countries, the OECD Model gives primary taxing rights for corporate tax to the country in which each group member is established. As different people can have differing views of what constitutes fairness, there is unlikely to ever be complete agreement as to what constitutes a fair allocation of taxing rights. However, the fact that all OECD countries have agreed to the use of separate accounting as a basis for their tax treaties, and that this has been accepted by a growing number of non-OECD countries, suggests that it is seen at least as a fair (or at least acceptable) compromise between the views of most of the major countries in the world. The question is: Why might this be seen as fair?

One way of attempting to answer this question is to look at the consequences of the acquisition of a previously independent company by a multi-national group that is based in a different country. Let us think of firm A in country 1 that is acquired by group B that is headquartered in country 2, and assume initially that there is no change to firm A apart from its ownership. In this case, under separate accounting the tax authorities in country 1 would receive the same amount of corporate tax revenue after the acquisition as before. This seems

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[7] The extent to which double taxation is avoided in practice by separate accounting is discussed in section 3.

[8] A good survey of the empirical literature on this topic is provided by De Mooij and Ederveen (2003).

fair to country 1 as the amount of economic activity in the country has not changed. It contrasts with the situation under formulary apportionment, where the tax revenue received by country 1 would change unless firm A had the same ratio between its profits and its value of the apportionment formula[9] as the rest of group B. Such changes in tax revenue would seem unfair to the countries that lost revenue as the pattern of economic activity across countries had not changed.

However, it should be noted that country 2 could benefit from an increase in tax revenue if it operated the credit system for relieving international double taxation and its effective tax rate on firm A was higher than that of country 1.[10] This might appear unfair, as there had been no increase in economic activity in country 2, but at least this increase in tax revenue is not at the expense of any other country. Of course, there would be no gain to country 2 if – as is now the case for almost all OECD countries – country 2 applied the exemption method of relieving international double taxation.

It is obvious that this example can also apply in reverse, provided that country 2 applied the exemption method. In other words, if firm A was originally part of group B but was then sold-off and became an independent company without any changes, no change in any country's tax revenues would result under separate accounting. But changes in tax revenue could be expected to result from the sell off under a system of formulary apportionment.

Before carrying this analysis of fairness any further, it is interesting to note that the concept of fairness used in this example - that change of ownership without other changes should not alter country tax revenues – is related to an aspect of economic efficiency provided that all relevant countries apply the exemption method. This is because, if the acquisition results in no change of tax revenue, it also means no changes in tax payments by firm A and the original members of group B. In other words, under separate accounting, there is no tax advantage or disadvantage to either a purchase or a sell-off of a subsidiary without other changes. This means that these decisions would be based on its fundamental economic attractions rather than tax considerations, and so the attractiveness of an acquisition or disposal to a multi-national group is independent of the parent company of the group. This is the concept of ownership neutrality that was introduced by Desai and Hines (2003).[11]

However, as with the avoidance of international double taxation, this is not to say that taxes have no effect on the acquisition of subsidiaries by multi-national groups. If the group had to decide between the acquisitions of alternative firms in different countries, it is the after-tax

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[9] One way of looking at this condition is that it requires that firm A is exactly as 'good' at making profits as the rest of group B.

[10] This benefit to country 2 would be reduced if group B could benefit from deferral of taxation in country 2.

[11] The advantages of the different types of neutrality related to foreign direct investment are analysed in Griffith, Hines and Sørensen (2010).

return on the investment that will determine the choice, and that will be determined partly by the taxes in those countries.

Moreover, as Devereux (2008) emphasises, although the Desai and Hines concept of capital ownership neutrality involves one aspect tax neutrality, there is a broader concept of ‘market neutrality’ that requires that taxes to not distort competition between firms, bearing in mind that companies may produce goods in one country with the intention of exporting and thus competing with firms producing in other countries.

In order for corporate tax to have no effect on the allocation of capital across countries and the patterns of both company ownership and international trade, full harmonisation is required (or else a more fundamental reform of the taxation of companies).

So far, this analysis of the decisions to buy or sell subsidiaries has been based on the assumption that the subsidiary does not change any of its functions or activities. Unless the multi-national group has simply acquired the subsidiary because it is already part of their supply chain and they want to ensure its continued supplies, this ‘no change’ assumption seems quite unlikely to be satisfied, especially during a period when multi-national groups are undertaking significant restructurings. So, it is worth considering the consequences of changes to the activities and functions of the new subsidiary.

The simplest change is to imagine changing the output levels of the various products produced by firm A. Imagine that this is an output increase that results in an increase in the profits of firm A. Under separate accounting, this would increase the tax revenue of country 1. This increase in tax revenue would be just the same as if the firm had increased its profits without being a member of group B. Again, this seems fair, and it is unlikely that formulary apportionment would have produced the same effect. However, there is no reason to believe that the output changes that resulted in the increase in profits of firm A are efficient from a global perspective. It is possible that there is another firm in group B in a country with a higher corporate tax rate that could have produced this output increase at smaller cost, but that this is not an attractive proposition for the group because the resulting profits would have been taxed at a higher rate. Note that efficiency in this sense would also not be achieved by formulary apportionment.[12] When corporate tax rates differ, it is only shareholder taxation or destination taxation that achieves this efficiency.

A more complex case would arise if the group were restructured, for example by the centralisation of some function such as payments or marketing to a country other than

[12] It is not possible to say, in general, which of separate accounting and formulary apportionment would have been more efficient. This is because the differences in effective tax rates between countries under formulary apportionment depend not only on the factors that determine them under separate accounting (the details of the tax law and the profitability of the investment) but also on the way the apportionment formula allocates profits between members of multi-national groups – something that is hard to either measure or model as it depends not only on the characteristics of the investment in one country but on the characteristics of all other members of the group.

country 1. Under arm's length, depending on the circumstances, this could either increase or reduce the profits of firm A. It could be increased if the centralised service were cheaper because of group-wide economies of scale. Or it could be reduced if the cost of the centralised service included a profit element that had previously accrued to firm A.

If the profits of firm A increased, so would the tax revenue of country 1 because it now receives a share of the profits from group synergies. On the other hand, if the profits fell, so also would the tax revenue of country 1 because of the transfer of a profitable activity out of its jurisdiction. It is arguable that both of these possible outcomes would be fair to country 1, on the basis that the same tax revenue change would have occurred if firm A had remained independent and contracted out this function. However, if it had lost revenue, the tax authorities of country 1 might wish to argue that this would have been most unlikely to have happened if firm A had remained independent.

It is this point – that members of multi-national groups often undertake transactions or restructurings that are unusual for independent firms – that raises many of the difficulties that arise in the application of separate accounting. These difficulties are addressed in the next section.

A further way in which the relations between members of multi-national groups can be different from those between in independent firms is in the pricing of their transactions, even if corporate taxes were harmonised (so that there would be no tax advantage to following different pricing strategies). Halperin and Srinidhi (1991) and Harris and Sansing (1998) develop models in which – in the absence of taxes - trade between group members will take place at different prices from those between the group and independent companies. The reason for the difference is that the intra-group price allows group members to co-ordinate more fully in order to exploit their joint market power. When differential corporate tax rates are then introduced into these models, together with arm's length transfer pricing regulations, the intra-group price is distorted. This distortion, in turn, leads to a reduction in group profits and to a distortion in the choice of whether to acquire independent companies with which the group trades.

Keuschnigg and Devereux (2009) obtain similar results from a model in which intra-group transfer prices are set in order to allow the subsidiary to increase profits and so obtain loans on better terms. However, they go further than the earlier papers and show not only that the group's profits are reduced by the application of the arm's length principle but also that world welfare is reduced.

These results illustrate cases in which the arm's length principle reduces efficiency and allows differences in corporate tax rates to influence acquisition decisions, violating capital ownership neutrality. Each of these results depends on the existence of some market imperfection that a multi-national group can deal with more effectively than independent firms. As market imperfections are widespread, the results should be taken seriously. However, each model produces its own optimal set of transfer-pricing rules and so these results do not lead to a systematic alternative to the arm's length price that could be used in the separate accounting system. What they do show is that the arm's length price is not perfect, even in principle, and so they strengthen the case for considering alternatives to separate accounting. It also shows that the arm's length principle does not exactly achieve ownership neutrality.

Before proceeding, we can summarise the rationale for the separate accounting approach as follows:

- It avoids (at least in principle) international double taxation and so does not unduly inhibit cross-border investment.
- It provides a fair (or at least acceptable) distribution of tax revenues across countries, although this could be questioned in the cases of certain types of business restructuring.
- When combined with the exemption method of relieving international double taxation, it approximates ownership neutrality.

However, these efficiency advantages are limited. In particular, it does not ensure efficient allocation of investment and output across countries when corporate tax rates differ. Also, it can distort the choice of whether to acquire subsidiaries.

It is also worth noting that the example of re-structuring, discussed above, shows that there is no real obstacle in practice to the taxation of the extra profits that arise from synergies within multi-national groups. Despite the conceptual difficulty of taxing such groups on the basis that they are independent entities, it does not prevent the extra profits from being taxed by the countries in which the groups operate. It is only the question of which countries receive the additional tax base that might cause problems.

3. The difficulties with separate accounting

As mentioned in section 1, the criticisms of separate accounting focus on the incentives that multi-national groups have to move profits from countries with relatively high rates of corporate tax to those with relatively low rates. [13] For the tax authorities, the difficulties are identifying the cases in which the transactions are not at arm's length and then making the necessary adjustments. For the multi-nationals, the problems are two-fold:

- The compliance costs of producing the documentation needed to show that transactions are at arm's length, and

[13] Empirical evidence of profit shifting, to complement the anecdotes of tax officials, is provided by Huizinga and Leven (2008).

- The international double taxation that can occur when tax authorities in different countries make inconsistent adjustments.[14]

These difficulties can be reduced by the use of advance pricing agreements and rulings, in which the multi-national knows in advance how particular transactions will be treated by the tax authorities.

In addition, these difficulties are relatively minor when the transactions between the group members are similar to transactions that are taking place between unrelated parties. This is particularly true when the goods and services that are being traded between the group members are also traded between unrelated firms, so that the ‘uncontrolled’ prices can be used as the prices for intra-group transactions. Even when identical goods and services are not available as ‘comparables’, it is still often possible to adjust the uncontrolled prices to reflect the differences and arrive at a reasonable transfer price.

The difficulties become more serious when the transactions within the multi-national group have no close comparators. This can arise in two different circumstances:

- When some of the transactions are of a type that are never undertaken between unrelated firms, and
- When some of the transactions involve goods, services or intangibles that are substantially different from anything that is traded between unrelated firms.

Considering first the transactions that are never undertaken between unrelated firms, it is useful to consider an example that has been studied recently by the OECD: stock options.[15] At the time when stock options were widely used as a form of incentive remuneration, some multi-national groups awarded options on the shares of the parent company to employees in subsidiaries. This led to the question of what was an appropriate price for the subsidiary to pay to the parent for these options.

At first sight, this question might seem to raise a fundamental flaw in the separate accounting approach. After all, no firm would offer its employees options on the stock of an unrelated firm as an incentive. This was, therefore, a transaction that would never take place between unrelated firms. So, how could it possibly be valued as if it had taken place between unrelated firms?

[14] The OECD model contains provisions on a Mutual Agreement Procedure and, more recently, on Arbitration in an attempt to reduce problems of international double taxation.

[15] See OECD (2006).

The answer is that this is not a flaw in the separate accounting approach. The basis of the approach is not that firms in a group behave in the same way as if they were independent. The basis is that, whatever transactions the group make should be valued at arm's length. From that point of view, one can value the transfer of stock options between members of a group at fair market value. If options in the parent company's shares are traded on the financial markets, this can be the basis of the valuation. If not, a standard option pricing model could be use to value the transfer.

The cases in which transactions that are only undertaken between group members cause difficulties is where there is no standard of valuation – a situation that arises when the goods, services or intangibles are substantially different from anything traded between unrelated firms. In other words, the first circumstance is only a serious difficulty if it also involves the second. So, it is to the second circumstance that we now turn.

Perhaps the clearest examples of the second circumstance arise in looking at intangibles. For example, a patent on a newly discovered drug is almost impossible to value until its clinical effectiveness has been established. If the discovery were made in one group member but the patent was sold or licensed to another group member at an early stage, it is hard to find any comparable against which it could be valued. It may also be hard to estimate the arm's length royalty payments for the patent's use by other members of the group, as some types of intellectual property are rarely licensed to independent companies (partly because of fears about protecting the patent).

Auerbach, Devereux and Simpson (2010) raise two additional problems with patents. First, at a practical level, allocating the contributions of different subsidiaries to a patent can be difficult, even the patent can be accurately valued. This can happen if the group has research laboratories in different subsidiaries in different countries that collaborate in research, and risk capital is provided yet another subsidiary in a different country. Second, at a conceptual level, if a group holds a series of patents that are inter-related, the value of one patent may depend on the existence of others. Should the valuation of each patent, perhaps produced by different subsidiaries, be made on the assumption that the other patents do exist or that they do not? The values may be very sensitive to the answer to this question.

Similar difficulties, but perhaps not so great, can arise in intra-group services, especially if they are services that are unique to the group (such as the provision of strategic advice from one group member to another, which may have a unique quality) and/or rarely take place between unrelated companies (such as group marketing activities).

From the business point of view, these difficulties can lead to business uncertainty (over the size of the tax implications of certain transactions), high compliance costs and the risk of double taxation (when different tax authorities use different valuations). From the tax authorities' point of view, these difficulties raise the risk of tax avoidance because it is difficult to obtain the evidence necessary to make a price adjustment.

This discussion shows that, in addition to advantages, the arm's length principle does encounter serious difficulties, especially in the valuation of transactions that rarely take place between unrelated parties or if they are unique to the group. Such transactions usually involve services or intangibles. Transactions involving tangible goods are usually less difficult to value.

Finally, it is worth noting that the difficulties in applying the arm's length principle to intangible property also apply to formulary apportionment. If the property is hard to value, it is difficult to include it in the apportionment formula. However, any formula that does not include it runs the serious risk of generating substantial tax-motivated acquisitions because the conditions for ownership neutrality are violated. This can be illustrated by considering a multi-national group that generates substantial profits from intangibles and operates mainly in countries that are not regarded as 'low tax'. This group would gain a substantial tax advantage from acquiring companies in lower tax countries that use few or no intangibles, and are therefore less profitable in relation to the factors entering the apportionment formula. This is because part of the profits from the intangibles would then be apportioned to the lower tax country, reducing the group's tax liability.

As a result of the tax saving from such acquisitions, they might still take place even if the target firm would lose efficiency as a result of the takeover. In other words, formulary apportionment could produce substantial inefficiency.

4. Business restructuring

The purpose of this section is to illustrate the issues discussed above with some of the issues raised in the OECD work on business restructuring. OECD (2008a) states that the types of business restructuring that have taken place in recent years have often involved the following:

- Conversion of full-fledged distributors into limited-risk distributors or commissionaires for a related party that may operate as a principal;
- Conversion of full-fledged manufacturers into contract-manufacturers or toll-manufacturers for a related party that may operate as a principal;
- Rationalisation and/or specialisation of operations (manufacturing sites and / or processes, research and development activities, sales, services);
- Transfers of intangible property rights to a central entity (*e.g.* a so-called "IP company") within the group.

These types of restructuring raise a number of issues, of which three will be considered here:

- The OECD requirement that the restructuring should be at arm's length, in the sense that subsidiaries suffer no more from the restructuring than they would if they were independent enterprises.
- The valuation of intangibles.
- The remuneration for risk bearing.

All three of these issues come out clearly as key points in the OECD discussion draft, and also have provoked some controversy in the consultation process. This section makes no attempt to decide the controversies. It simply uses them to illustrate some of the difficulties with the separate accounting approach.

In dealing with these issues, as with their transfer pricing work as a whole, the OECD's aim is to avoid constructing tax obstacles that would hinder efficiency-enhancing business restructuring while allowing tax authorities to prevent abusive arrangements that reduce taxes and serve no efficiency purpose.

The first issue is fundamentally to do with the question of whether the multi-national group should be viewed as a single entity (as argued by some critics of separate accounting) or whether it should be seen as a set of independent companies. The OECD position is that the restructuring should be viewed as an arm's length process, so that no subsidiary should be treated any worse than it would be if it were an independent company. For example, if the restructuring involved the removal of significant profit-making opportunities from a subsidiary, it should receive as much compensation as it would if it were an independent company. The business representatives who object to this view accept the arm's length principle for valuing transactions between group members but do not accept that this should apply to a transfer of functions. They argue that a restructuring should be acceptable to the tax authorities if it makes 'business sense'[16] for the group as a whole, even if some members of the group suffer more than they would if they were independent companies.

The second issue is related to the first, in that one set of intangibles that is particularly hard to value is the contracts between group members that may be regarded as broken during a business restructuring. For example, a subsidiary that sells its products to other members of the group may have this role removed from it as part of the restructuring. The question then arises as to whether the subsidiary in entitled to compensation for breach of the supply contract (an item of intangible property) and, if so, how much that compensation should be. The OECD approach involves initially looking at the formal contracts between the parties to examine whether compensation would be due on an arm's length basis. However, the approach also recognises that there could be agreements between members of the group that are not formalised in contracts and that, therefore, it is important to look at the conduct of the

[16] This is often taken to mean that the restructuring is not motivated by tax considerations.

group members to deduce the nature of such informal agreements (which would be less likely to exist between unrelated parties). The criticism of this approach is that it involves too much subjectivity on the part of the tax authorities, and so leads to business uncertainty and the risk of double taxation (as different tax authorities may take different views).

Even when it is accepted that there is a contract that has been broken and compensation must be paid, there still remains the difficulty of deciding the value of the compensation. This is difficult because it involves estimating the loss of profits that arise from the breach of contract, which in turn depends on what alternatives the subsidiary has to develop other profitable functions. This is quite difficult for the subsidiary to value, but much more so for the tax authorities. So, again, the issue of uncertainty and subjectivity arises.

The final issue, the remuneration of risk bearing, is one related to the valuation of intra-group services and is fundamental to the OECD approach to business restructuring and, indeed, to the OECD's arm's length principle as a whole. The OECD view is that the allocation of risk within a group is one of the factors that influence the distribution of profits between subsidiaries as it is an important intra-group service. This, in turn, is based on the view that – for independent companies – the riskier their operations, the higher their profits have to be in order to compensate their shareholders for the risk.[17] The implication of this view is that, if a restructuring of a multi-national group involves the reallocation of risks between group members, this should be reflected in the arm's length profitability of the various group members. The mechanism by which this is achieved is by adjusting the prices applied to transactions if the allocation of the risks related to it is changed.

Stated in this way, the approach is just standard transfer pricing. However, as risk bearing is an intra-group service, it is arguable that it is normal to apply a mark-up on the cost of bearing risk. In that case, the reallocation of a risk away from a subsidiary could reduce its profits by more than the reduction in the risk premium demanded by its shareholders. In that case, by the logic of the discussion of the second issue, there is a potential case for compensating the subsidiary for this profit loss. It is this point that is controversial, with several commentators arguing against such compensation by claiming that:

- risk is not always remunerated, and/or
- there is no clear relationship between risks and profits, and/or
- there is a distinction between risk bearing and risk management, and that it is the risk management that is the real service that needs to be remunerated.

[17] This view has a strong basis in economic theory, although the details are a bit more subtle. In particular, the compensation that shareholders require for holding increased risk depends on the correlation of this risk with other risks that they bear. It is standard to use the riskiness of the stock market average as a measure of these other risks, and so the size of the required compensation is greater when the correlation of the risk with the stock market risk is higher.

These examples show how consideration of business restructuring involves both the basic principle of separate accounting and some of its practical difficulties. The complexities involved also indicate the considerable administrative and compliance costs of applying the arm's length principle to business restructuring.

One important point to note is that none of these difficulties would arise under formulary apportionment as payments between members of a group are removed in the process of group consolidation. However, the issue of risk and the importance of it in the OECD approach to transfer pricing suggest a possible flaw in formulary apportionment. In principle, if it is a driver of profitability, a fair formula for apportionment should include risk along with assets, payroll and sales. Yet nobody has suggested including it in any discussion of what the formula should include. This is understandable, as risk is very hard to measure, but it does suggest that, as in the case of intangible property discussed in the previous section, formulary apportionment could lead to tax-motivated acquisitions (of companies with lower levels of risk in lower-taxed countries), with all the efficiency costs that this could entail.

5. Conclusions

This paper has argued that the arm's length principle in the context of separate accounting achieves a reasonably fair allocation of tax base between countries, in terms of the way that tax revenues are affected by cross-border investments. It also promotes the efficiency principle of ownership neutrality, especially now that most OECD countries use the exemption method to relieve international double taxation. It has also shown that, despite the conceptual difficulty of taxing such groups on the basis that they are independent entities, it does not prevent the extra profits from being taxed by the countries in which the groups operate.

However, this does not imply that separate accounting is remotely perfect. From the point of view of economic efficiency, the concern is that it does not ensure that capital is allocated efficiently between countries in the absence of tax harmonisation. It can also distort the relationship between members of multi-national groups and acquisition/disposal decisions.

The paper has also shown that there are major practical problems with implementing the arm's length principle, which increase administrative and compliance costs as well as generating business uncertainty. These arguably reduce the efficiency of the economy. The main difficulties arise in the context of intangible property and intra-group services, issues that arise commonly in the restructuring of multi-national companies. Particular problems that arise in restructuring are the compensation of subsidiaries for lost profit opportunities and the treatment of risk.

In order to place these difficulties in perspective, it is important to briefly consider whether the alternatives to separate accounting deal with these problems any better. It is often argued that formulary apportionment would remove many of the practical problems of transfer pricing because intra-group payments are netted out in the process of consolidation. However, it should be noted that the problems of valuation of intangible assets could arise in calculating the apportionment formula, and that the alternative of omitting intangible assets from the formula could seriously distort acquisition decisions. Also, while it avoids the difficulties of valuing risk bearing, the exclusion of risk bearing from the apportionment formula could also distort acquisitions.

Of course, it may well be that the seriousness of these problems are not as great as those of separate accounting and so the overall balance of the argument is far from clear. Nonetheless, the practical problems become more important with larger trade volumes within multi-national groups, suggesting that formulary apportionment is more likely to be appropriate within groups of countries that have established a single market.

Both separate accounting and formulary apportionment result in an inefficient allocation of investment across countries in the absence of tax harmonisation, and may also distort acquisition and disposal decisions. It is only more radical reforms of international corporate taxation – shareholder taxation and destination taxation - that can solve these problems, but they would fundamentally alter the allocation of tax bases between countries and so would be difficult to agree at the international level.

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