A paper prepared for the

Un document préparé pour le

Economic Council of Canada

Conseil économique du Canada

P.O. Box 527
Ottawa, Ontario
K1P 5V6

C.P. 527
Ottawa (Ontario)
K1P 5V6

[redacted]

The **Economic Council of Canada** was established in 1963 by Act of Parliament. The Council is a crown corporation consisting of a Chairman, two Directors and not more than twenty-five Members appointed by the Governor in Council.

The Council is an independent advisory body with broad terms of reference to study, advise and report on a very wide range of matters relating to Canada's economic development. The Council is empowered to conduct studies and inquiries on its own initiative, or if directed to do so by the Minister, and to report on these activities. The Council is required to publish annually a review of medium- and long-term economic prospects and problems. In addition it may publish such other studies and reports as it sees fit.

The Chairman is the Chief Executive Officer of the Council and has supervision over and direction of the work and staff of the Council. The expenses of the Council are paid out of money appropriated by Parliament for the purpose.

The Council as a corporate body bears final responsibility for the *Annual Review*, and for certain other reports which are clearly designated as *Council Reports*. The Council also publishes *Research Studies, Discussion Papers* and *Conference Proceedings* which are clearly attributed to individual authors rather than the Council as a whole. While the Council establishes general policy regarding such studies, it is the Chairman of the Council who bears final responsibility for the decision to publish authored research studies, discussion papers and conference proceedings under the imprint of the Council. The Chairman, in reaching a judgment on the competence and relevance of each author-attributed study or paper, is advised by the two Directors. In addition, for *authored Research Studies* the Chairman and the two Directors weigh the views of expert outside readers who report in confidence on the quality of the work. Publication of an author-attributed study or paper signifies that it is deemed a competent treatment worthy of public consideration, but does not imply endorsement of conclusions or recommendations by either the Chairman or Council members.

Établi en 1963 par une Loi du Parlement, le **Conseil économique du Canada** est une corporation de la Couronne composée d'un président, de deux directeurs et d'au plus vingt-cinq autres membres, qui sont nommés par le gouverneur en conseil.

Le Conseil est un organisme consultatif indépendant dont le mandat lui enjoint de faire des études, donner des avis et dresser des rapports concernant une grande variété de questions rattachées au développement économique du Canada. Le Conseil est autorisé à entreprendre des études et des enquêtes, de sa propre initiative ou à la demande du Ministre, et à faire rapport de ses activités. Chaque année, il doit préparer et faire publier un exposé sur les perspectives et les problèmes économiques à long et à moyen termes. Il peut aussi faire publier les études et les rapports dont la publication lui semble opportune.

Le président est le directeur général du Conseil; il en surveille les travaux et en dirige le personnel. Les montants requis pour acquitter les dépenses du Conseil sont prélevés sur les crédits que le Parlement vote à cette fin.

En tant que personne morale, le Conseil assume l'entière responsabilité des *Exposés annuels*, ainsi que de certains autres rapports qui sont clairement désignés comme étant des *Rapports du Conseil*. Figurent également au nombre des publications du Conseil, les *Études*, *Documents* et *Comptes rendus de colloques*, qui sont explicitement *attribués à des auteurs particuliers* plutôt qu'au Conseil lui-même. Celui-ci établit une politique générale touchant ces textes, mais c'est au président qu'il incombe de prendre la décision finale de faire publier, sous les auspices du Conseil économique du Canada, les ouvrages à nom d'auteur tels que les études, documents et rapports de colloques. Pour se prononcer sur la qualité, l'exactitude et l'objectivité d'une étude ou d'un document attribué à son auteur, le président est conseillé par les deux directeurs. De plus, dans le cas des *études à nom d'auteur*, le président et les deux directeurs sollicitent l'avis de lecteurs extérieurs spécialisés, qui font un rapport confidentiel sur la qualité de ces ouvrages. Le fait de publier une étude ou un document à nom d'auteur ne signifie pas que le président ou les membres du Conseil souscrivent aux conclusions ou recommandations contenues dans l'ouvrage, mais plutôt que l'analyse est jugée d'une qualité suffisante pour être portée à l'attention du public.

DISCUSSION PAPER NO. 304

The Interjurisdictional Allocation of Income and the Unitary Taxation Debate

by D.J.S. Brean and
R. M. Bird

The findings of this Discussion Paper are the personal responsibility of the authors and, as such, have not been endorsed by the members of the Economic Council of Canada.

Discussion Papers are working documents made available by the Council, in limited number and in the language of preparation, to interested individuals for the benefit of their professional comments.

La série "Documents" contient des documents de travail dont le Conseil fait une diffusion restreinte, dans leur version d'origine, en vue de susciter des commentaires de la part de spécialistes.

ISSN-0225-8013

May 1986

Résumé

Le présent document analyse le débat qui a eu lieu récemment au sujet d'un régime d'impôt unitaire aux États-Unis, et examine les répercussions qu'il aurait au Canada. Il souligne l'impossibilité de régler la question de la répartition fiscale entre les diverses compétences concurrentes, particulièrement dans le cas des sociétés multinationales, et examine les mérites relatifs d'une "formule" (comme le système unitaire d'imposition) ainsi que la méthode traditionnelle "de la comptabilité distincte" que propose le traité modèle de l'OCDE en matière fiscale. Les auteurs examinent la possibilité de la déclaration de prix "inexacts" pour les biens qui font l'objet de transferts. Cette préoccupation a motivé plusieurs intervenants au débat, bien que nous croyons que cette considération est moins fondamentale que les questions conceptuelles qui étaient en jeu dans leurs discussions.

Les auteurs concluent qu'il serait possible de trouver, en principe, beaucoup plus d'arguments en faveur de l'approche unitaire qu'on veut bien le reconnaître. De plus, en pratique, les différences d'exigences sur le plan de l'information, comparées à celles qu'impose la comptabilité distincte, seraient probablement moindres qu'on l'a souvent prétendu. Néanmoins, étant donné l'intérêt supérieur du Canada dans un système reconnu de règles visant les investissements internationaux, nous

concluons également que, pour le moment, le Canada n'a aucune raison de s'écarter des pratiques traditionnelles pour s'orienter vers une approche unitaire ou autre formule. D'autre part, rien ne justifie non plus les Canadiens d'intervenir aussi activement qu'il l'ont fait, pour le compte de certaines entreprises canadiennes, dans le débat politique américain sur l'idée d'un système unitaire d'imposition.

Somme toute, comme l'indiquent les discussions entre le gouvernement central et les États américains - et, antérieurement, entre le gouvernement fédéral et les provinces au Canada - aucune solution vraiment efficace ou équitable aux problèmes que pose la répartition des revenus entre les diverses compétences semble possible en l'absence d'une autorité mondiale, reconnue partout, en matière de fiscalité. Puisqu'un tel organisme non seulement n'existe pas, mais n'existera très probablement jamais, le principal rôle du Canada sur la scène internationale doit être de continuer à travailler à l'établissement de compromis à peu près satisfaisants et stables avec ses principaux partenaires commerciaux, quoiqu'il soit bien improbable que ces compromis concordent parfaitement avec n'importe quel principe théorique particulier. L'approche unitaire n'aura, pour l'heure, probablement aucun rôle important à jouer dans ce processus. Par ailleurs, à long terme, tout effort en ce sens serait plus efficace qu'une continuation de l'utilisation de la méthode de la comptabilité distincte, généralement insuffisante dans sa conception, mais pourtant largement acceptée.

Abstract

This paper reviews the recent debate on unitary taxation in the United States and considers some of the implications for Canada of the issues raised therein. The discussion emphasizes the intractable nature of the interjurisdictional allocation question, particularly with respect to multinational enterprises, and considers the relative merit of a "formula" approach (such as unitary taxation) and the traditional "separate accounting" approach embodied in the OECD model tax treaty. The concern with the possibility of "improper" transfer pricing that has motivated many participants in this debate is also discussed, although we argue that it is less fundamental than the basic conceptual issues at stake in this discussion.

The paper concludes that there is much more to be said for the unitary approach in principle than is usually recognized. Moreover, in practice the differences in informational requirements as between that approach and separate accounting are also likely to be less than has often been claimed. Nevertheless, in view of Canada's overriding interest in a stable and agreed set of international investment rules, we also conclude that there is at present no reason for Canada to move away from traditional practices towards a unitary or formula approach. On the other hand, there is little reason either for Canada to intervene as

actively in the American political debate on unitary taxation on behalf of particular Canadian firms as it has done.

In the end, as the federal-state discussions in both the U.S., and, in earlier years, Canada, suggest, no fully efficient or equitable solution to the inherent problems in the inter-jurisdictional allocation of income seems feasible in the absense of a world taxing authority whose authority is exclusively accepted everywhere. Since such a body not only does not exist but is also most unlikely ever to exist, Canada's major concern in the international arena must continue to be to work out roughly satisfactory and stable compromises with its major trading partners -- unlikely though it is that such compromises will accord neatly with any particular theoretical principle. The unitary approach is unlikely to have much, if any, role to play in this process for the time being. In the long run, however, a move in this direction may nevertheless make more sense than putting even more strain on the generally conceptually inappropriate, albeit widely accepted, separate accounting approach.

CONTENTS

1. Introduction

In recent years, there has been a good deal of discussion, particularly in the United States, of the pros and cons of a method of taxing multinational firms commonly referred to as "unitary taxation". The aim of the present paper is to review this recent American discussion, and in particular to set out the basic issues with respect to the interjurisdictional allocation of income that lie at the heart of the discussion. Against this background, the paper then considers the implications for Canada of the on-going debate on this method of coping with some of the serious problems posed for political jurisdictions when they attempt to tax economic entities whose activities extend well beyond their reach. Although the principal focus in this discussion is on the taxation by Canada of the activities of foreign firms in Canada (and the taxation by other countries of Canadian firms abroad), some of the discussion can be extended to the provincial taxation of such firms, as well as to provincial taxation of firms operating interprovincially although not internationally.

The paper consists of four principal sections. The next section introduces the issues that have led to the recent interest by some jurisdictions in unitary taxation as a possible replacement for the conventional "separate accounting" approach now generally used, at least in the international sphere, as a basis for determining the interjurisdictional allocation of the tax base for purposes of corporate income taxation.

The third section of the paper then summarizes the on-going debate within the United States, with special attention to the evolving American position with respect to the international application of the unitary approach to taxing the income of foreign and domestic multinational enterprises.

The fourth section takes a quite different approach to the unitary tax debate by setting out a simple analytical structure that depicts the allocative effects of unitary taxation in a moderately rigorous fashion. The principal conclusion reached is, unsurprisingly, that jurisdictions that adopt unitary taxation in order to increase their effective taxation on multijurisdictional firms are likely to see their tax base diminish unless all other jurisdictions simultaneously adopt similar rules.

The final section then steps back from the minutiae of the recent American debate and the simplified world of analysis and returns to the basic issues of interjurisdictional income allocation in a federal and, especially, an international context with special attention to the implications for Canada of the unitary tax debate. As critics have said, state tax administrators may have turned to the worldwide unitary approach primarily to increase their revenues from multinational firms. Tax administrators themselves have usually stressed the ease with which such firms can, through various transfer pricing mechanisms, reduce their taxes almost at will. In an important sense, however, the most significant point at issue in this debate is the inability of conventional tax-accounting systems to allocate tax inter-jurisdictionally in accordance with the distribution of such presumably relevant economic measures of activity as production and value added. A major "pro-unitary" premise is that the conventional "arm's length" pricing standard, for example, is fundamentally flawed because it is inconsistent with the economic reality of the operations of related groups, particularly in the international context.

Much of the recent discussion in the United States, however, like earlier discussions of related matters in the O.E.C.D. and the U.N., suggests that tax administrators and practicioners in most industrialized countries take what may perhaps be called a "Churchillian" view of (inter-jurisdictional) separate accounting: the system is indeed flawed, but it is less flawed than any practical alternative system.

It is far from clear that this conclusion is correct, however, since alternative systems have not yet really been explored in depth.[1] Indeed, perhaps the most important outcome of the unitary debate in the international forum may be to stimulate more interest in, and research in, the feasibility and implications of various formula-based allocation systems as alternative ways of cracking the intractable nut of devising an efficient, equitable, and feasible method of allocating tax bases (and revenues) among jurisdictions.

In essence, adoption of the unitary approach by any one jurisdiction constitutes a unilateral approach to the problem. And, as with many unilateral moves in an increasingly interdependent world, this initiative fits awkwardly at best within the existing system of international income taxation - irrespective of any imperfections that may exist in that system. Alternatively, problems of international fiscal coordination and harmonization may perhaps be better resolved by negotiation and consultative processes between/among the countries involved, either bilaterally or multilaterally. Although past discussions along these lines have produced the present virtual consensus that separate accounting is the right way to go, it is by no means clear that this conclusion is inevitable. As in the case of the form of "nondiscrimination" embedded in most tax treaties, it may well turn out to be the case that the current codification of conventional wisdom on this matter does not stand up very well to close examination.[2] Such at least is the conclusion suggested by the analysis of the present paper.

The problems giving rise to the unitary approach are very real, and will not go away even if - as seems likely - the recent wave of interest in unitary taxation as such subsides. While no definitive answer to the difficult problem of taxing multinationals is yet in sight, the real lesson of the unitary tax debate for Canada is thus perhaps that we, like others, should keep on looking for some better way to deal with these problems than we now have.

2. The Interjurisdictional Allocation of Income

Businesses as a rule can be expected to arrange their affairs so as to maximize their after-tax profits. One way to do this is to minimize the taxes they pay on any given level of pre-tax income. Businesses operating in two or more taxing jurisdictions have more opportunity to minimize taxes than do firms operating in only one jurisdiction. Perfectly legitimate financial manoeuvres, as well as what is sometimes euphemistically called "creative accounting" (particularly with regard to cost allocation, transfer pricing, and the use of tax havens), for example, are facets of global tax minimization which create major problems for tax administrators in every jurisdiction. Profit-maximizing businesses will always behave like this, albeit generally within the legitimate bounds set by law - or at least within its fuzzy margins. The difficult problems of determining the tax base and allocating it appropriately between jurisdictions must therefore be resolved through means which do not depend on an extraordinary degree of goodwill or compliance from taxpayers. These problems are inevitably particularly difficult with respect to multinational enterprises in view of the greater scope for taxpayer games and the greater difficulty tax authorities encounter in reaching outside their national boundaries.

Such problems are inherent in the differential span of political jurisdictions and economic enterprises. Their importance is greatly exacerbated in many cases, however, by the unfortunate fact that there is often no clear, objective economic basis for the allocation of revenues and costs to the particular units that comprise parts of a multijurisdictional enterprise. Joint products and nonmarketed intermediate goods, for example, involve costs which typically cannot be defined with certainty even within a single firm. Technology and management services, for instance, are intangible factors that may be applied to one division of the firm without detracting from their value elsewhere. Nor can the financial costs incurred by closely-related businesses easily be labelled as costs of particular units or divisions. These problems are particularly important with respect to multinational firms, which are inherently at a disadvantage compared to local firms in each national market unless they have some offsetting internal advantages as a result of being under common control. Indeed, in the absence of such "intangible assets" that can be exploited by multinational enterprises, it would be hard to understand their existence at all, let alone their dominance in important fields.[3]

Since the essence of a multinational enterprise in an important sense is its ability to achieve higher revenues or lower costs from its different divisions/units/plants/subsidiaries as a whole as opposed to operations under separate management on an arm's length basis, to some extent the allocation of profits within a multinational enterprise is inherently arbitrary: such businesses are, as a rule, "unitary" in character. Moreover, as noted above, the allocation of costs and revenues reported by a tax-planning firm must be expected to push against the constraints imposed on global profit maximization by tax policies and such other relevant nonproduction factors as exchange rate risk and capital-export restrictions which are determined largely by the international allocation of accounting profits. The aim of global tax planning, after all, is to minimize global tax!

When business plays the international tax game as best it can to its advantage, the countries involved in this global contest do not, as a rule, lose evenly. For their own reasons, for example, multinational enterprises often arrive at internal allocations of cost and revenue that, as well as favouring themselves, favour one tax jurisdiction at the expense of another. Much the same is true when there are multiple taxing jurisdictions below the national level, as is the case in such federal countries as the United States and Canada. The jurisdictional division of effective tax bases may thus be governed as much in practice by the self-interested decisions of firms as by the jurisdictional rules adopted - unilaterally, bilaterally, or multilaterally - by supposedly autonomous taxing jurisdictions.

These jurisdictional rules have developed quite differently with respect to the division of tax base among jurisdictions within nations than between nations, for a number of reasons. Since the recent discussion of unitary taxation in the United States in a sense represents the outcome of extending a system developed for allocating tax base among states to the international arena, it will be useful before proceeding further to describe and compare these "within-nation" and "between-nation" systems briefly.

The International Rules of the Game

With respect to international income taxation, while there are obviously no international laws limiting the taxing jurisdiction of a country, over time most countries have come to claim the right to tax all income "sourced" to them, whether accruing to their residents or not. In addition, some countries, including most important capital-exporting countries, claim the right to tax all income accruing to their residents, no matter where it arises.[4] These approaches obviously require precise definitions of "source" and "residence", respectively, and different countries have developed different, sometimes conflicting, rules on these matters. There is general agreement, for example, that for a taxable nexus to be established under the source principle, there must be a "permanent establishment" of some sort in the taxing jurisdiction.[5] Similarly, under the residence principle, while most countries regard a corporation as resident in the country in which it is incorporated - and hence do not tax the profits of a subsidiary until they are repatriated to the parent company - others apply a "seat of management" test which allows them (in principle) to tax subsidiary profits as they arise. Source countries, of course, often tax profits both as they arise <u>and</u>, through withholding taxes, when they are repatriated.

While some generally accepted international rules have developed with respect to most of these matters, particularly among the more developed countries, as codified in the OECD model treaty, there is still obviously a lot of room in principle for divergence among different countries in the attribution of profits to one jurisdiction or another, with the result that the same profits may easily be taxed more than once. To alleviate this potential problem of "double taxation" two basic methods - the credit and exemption systems - are generally employed.[6] The exemption system simply exempts income earned abroad by residents - that is, it amounts to applying the source principle - while the credit system, which is consistent with the residence principle, subjects such income to domestic taxes but allows an offsetting credit for foreign taxes (usually both for any withholding taxes and for the original foreign corporation tax). The credit system in principle thus subjects all investment income, no matter in what jurisdiction it arises, to the same (residence) tax rate, while the exemption system subjects such income only to the tax in the source country.[7]

Once a basic principle of international income taxation has been established, the rules for nexus determined, and a method for coordinating (in some sense) different national systems adopted, it still remains to determine the tax base attributable to any particular country. As a rule, most countries require corporate net income for tax purposes to be calculated in accordance with "generally accepted accounting and commercial principles", except where those principles have been modified by specific statutory provisions. In Canada, for example, intrafirm charges made against the income of Canadian subsidiary (or parent) companies by non-resident divisions of multinational corporations are generally allowed. If such deductions are questioned, however, the onus is on the Canadian division to demonstrate that the charges are reasonable for Canadian tax purposes and do not constitute indirect allocations of profit arising from Canadian operations.

The generally accepted method for the international allocation of both income and expenses among jurisdictions focuses on the characteristics and nature of specific transactions between presumably distinct economic entities, each of which reports its taxable corporate income on a separate accounting basis. No conscious effort is made under this approach to allocate the overall profits of any multinational enterprise among the separate jurisdictions in which it operates - although of course such an allocation in effect results from the application of different rules to different classes of income and expenses.[8] The most basic rule applied for this purpose is what is usually called the "arm's length approach", which in essence views intragroup transactions against the standard of arrangements which would have been made between unrelated parties and adjusts the reported results as necessary to meet this "market" norm.

Like most countries, Canada has various legal provisions intended to deal with the so-called "transfer pricing" problem that arises when reported results deviate from this norm.[9] The relevant Canadian statutes are the Income Tax Act, the Customs Act, and the Anti-Dumping Act. The latter two pertain to goods imported into Canada from a related company abroad, while the Income Tax Act covers both import and export transactions, as well as payments for services in either direction. The "arm's-length" theme is common to these acts, as reflected in such stipulations as that a transfer price "be reasonable in the circumstances" (Income Tax Act, section 69 (2)) or in keeping with "fair market value" (Customs Act, section 36).[10] Deviations from what is deemed "reasonable" and "fair" may be disallowed when computing the tax liability or the entire expenditure may, in principle, be disallowed.

Management fees and intracorporate lending are the intangible intrafirm transfers that probably provide the greatest potential for international profit-shifting. The legal restrictions in this area most affecting Canada are likely those initiated by United States tax authorities. Current U.S. tax law governing management services delivered abroad, for example, requires that foreign subsidiaries be charged a fee covering the direct expenses incurred by the parent and a share of indirect expenses (plus a mark-up of 10 per cent or more), which bears an appropriate relation to the profit margin on direct sales. The usual point of reference (the *Eli Lilly* rule) is that transfer prices must be such that gross margins from domestic operations of U.S. firms are at least as great as gross margins from foreign operations.

To enforce this rule, the U.S. Internal Revenue Code, Section 482, authorizes the IRS to allocate revenue or expenses among related companies if it considers it necessary to do so to protect the U.S. tax base. Section 482, while comprehensive, is remarkably succinct for an income tax provision. It consists of only one sentence:

> In any case of two or more organizations, trades, or businesses (whether or not incorporated, whether or not organized in the United States, and whether or not affiliated) owned or

> controlled directly or indirectly by the same interests, the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among such organizations, trades, or businesses, if he determines that such distribution, apportionment, or allocation is necessary in order to prevent evasion of taxes or clearly to reflect the income of any such organizations, trades, or businesses.

In Canada, the focus has perhaps been less on protecting the domestic tax base than on maintaining that base - including any beneficial effects that may fortuitously arise from the transfer pricing decisions of multinational corporations. For example, deductions for management services received from foreign parents are restricted to the actual reimbursement of expenses: that is, imputations are not allowed. Moreover, if such imputations are made, they are subject to a 25 per cent withholding tax in their entirety (Income Tax Act, section 212 (1)). An element of double taxation may thus exist with respect to management services delivered to U.S.-controlled subsidiaries operating in Canada.

Lending between the divisions of a multinational corporation permits minimizing corporate income tax by shifting interest deductions from low-tax to high-tax jurisdictions. Such maneuvers have the same effect as transfer pricing on the international allocation of revenue.[11] To curtail the potential adverse impact of such strategies on fiscal revenue, explicit restrictions on the financial structure of foreign subsidiaries have been introduced by many countries. For instance, Canada's "thin capitalization" rule disallows interest deductions if indebtedness to the parent exceeds 75 per cent of total subsidiary finance (Income Tax Act, section 18 (4)).

Despite the sometimes aggressive tone of such rules, however, the large number of options open to "international tax planners" invariably gives the edge to the multinational corporation. Indeed, so far as tax administration in the international setting is concerned, there is

> ...serious difficulty in even determining when income shifting via intracorporate transactions is taking place, even more difficulty in convincing the Courts that it is taking place, and almost insuperable difficulty in showing that it is illegal, as long as the amounts involved are modest....Nor, given the availability of financial intermediaries (in tax havens) as substitutes for the parent company, does there appear to be very much that could be done to stop it without interfering with perfectly proper transactions.[12]

Regardless of the amount of corporate revenue, expenses, and tax liabilities actually diverted through transfer pricing and similar devices, the key point that emerges from any consideration of the current international rules of the tax-planning game is that the advantage lies with the multinational enterprise. Not only do such firms straddle jurisdictional boundaries and hence inherently have a broader scope of operation than any one tax administration, but they are also inevitably the major - often the only - source of information such administrations have on what is really going on. In these circumstances, it is not surprising that some jurisdictions have felt that the integrity of their tax systems was threatened in terms of their capacity to raise revenue.

Moreover, as emphasized earlier, quite apart from the effects, intended or not, of transfer pricing and similar maneuvers on the tax base of particular countries, there are serious conceptual and practical problems in attempting to allocate the profits of multinationals (in whole or, through the application of different rules, in part) among different national jurisdictions. The very raison d'être of such firms is that the whole is different from (and greater than) the sum of its parts: tax practices that ignore this reality are not likely to score well in terms of either efficiency, equity, or feasibility.

Allocating Profits Within Federal States

Similar problems to those discussed above arise within federal states such as the United States or Canada in which subnational units levy independent profits taxes. In some respects, these problems are likely to be less serious. There is, for example, less likely to be a presumption that a multijurisdictional enterprise is truly "unitary" in character in the sense defined earlier.[13] Similarly,not only is there more likely to be effective exchange of information among tax administrators in different jurisdictions than in the international context but there is also an overriding national tax authority that can to some extent be relied upon both to police the accuracy of the information provided by the firm and to share this information with subnational jurisdictions. For these reasons, the inherent arbitrariness and conceptual fragility of the conventional "separate accounting" approach to the taxation of multijurisdictional corporate groups are likely to be much less serious problems than with respect to the international arena. Of course, to the extent multinational firms are subject to subnational taxes the problems spill over to the subnational context as well, as we shall see.

On the whole, however, in view of the obvious greater ease and reliability of the separate accounting method in the subnational sphere, it is surprising that for the most part a quite different approach to that used internationally is used to allocate income and expenses among jurisdictions within federal states.[14] As it developed over the years in Canada, for example, where the allocation system bears some resemblance to that used internationally - taxable nexus, for instance, is established by means of the "permanent establishment" concept - on the whole the basic approach followed is to determine taxable Canadian profit in accordance with federal rules and then to allocate it among the provinces in accordance with a formula based 50 per cent on sales and 50 per cent on wages.[15] The number and organization of the operating units or divisions a particular multijurisdictional enterprise may have is thus irrelevant so long as it is defined as a single taxable entity for federal tax purposes. Since federal law generally follows the separate accounting approach, this means that separately incorporated units, whether they operate domestically or internationally, are treated as separate units for provincial tax purposes also.[16] Moreover, even if some international income of a corporation is subject to tax for federal purposes, it is usually in effect subject to provincial tax only on its Canadian income.[17]

Although separate accounting was originally supposed to be the basic rule for allocating profits among provinces wherever applicable, over time it became less and less important until it finally disappeared completely. As the then Assistant Deputy Minister of Finance in charge of taxation put it: "The separate accounts rule was dropped because so few companies were using it and it was an administrative headache. Besides, it detracted from the uniformity of the general rule."[18] While over the years there have been a number of minor changes in the allocating formula and in some aspects of the corporate tax base in certain provinces, on the whole Canada has held firmly to a uniform formula allocation system for the last 25 years.

While matters have hardly been either so uniform or so stable in the much more complex and turbulent subnational corporate tax system in the United States, on whole the outcome has been similar in that the corporate profits tax base is generally allocated among the states according to a formula, and not according to the reliance on separate accounting that characterizes the international sphere. Although different states apply different formulas and there are many other differences among state corporate income tax systems, there appears to be almost universal agreement that the administrative and theoretical difficulties of applying separate accounting at the state level are such as to render this approach to the interjurisdictional allocation of corporate income quite inappropriate.[19]

General agreement on the formula apportionment approach to allocating income, however, by no means signifies general agreement either on the formula to be applied or on the base to which it is to be applied. While most states use a three-factor formula based upon property, payroll, and sales, for instance, both the measurement of these factors and the weights attached to them vary considerably from state to state. This is by no means a trivial issue, since, as a number of recent papers have clearly demonstrated, variations in these formulas may significantly affect both the incidence and the effects of state corporate income taxes.[20] More important in the present context, however, is the wide variation among states in their approaches to determining the tax base to which any formula is to be applied. In particular, recent years have seen the rise - and, to a considerable extent, the fall - of a system called "worldwide unitary combination" or, for short, "unitary taxation."

In fact, at least five different methods of combining the income of nominally separate firms existed in 1984, as follows:[21]

(1) worldwide combination (6 states);

(2) domestic worldwide combination, for U.S. parents only (5 states);

(3) domestic combination, under which income is combined for U.S. incorporated affiliates only (10 states, two together with the "water's edge" approach and one with nexus);

(4) "water's edge" combination, under which U.S. source income is combined for all affiliates (1 state); and

(5) nexus combination, applied only to those affiliated firms deriving income from sources within the state or divided within the state (13 states).

In addition, 10 states did not employ any system of combination at all - and 5 did not have a corporate income tax. Nevertheless the balance of this paper focuses primarily on the world-wide combination approach both because it has been the focus of the recent discussion and because it raises most clearly the basic interjurisdictional allocation issues.

All these combination or unitary methods contrast sharply with conventional separate accounting rules for appropriating corporate income among jurisdictions.[22] Separate accounting implicitly adheres to a kind of "water's edge" rule, under which individual jurisdictions do not look beyond their respective boundaries - their water's edge - in calculating corporate income. In applying this method, "foreign" corporations, even if closely affiliated, are essentially treated as unrelated parties, and domestic source income is measured as if all "offshore" dealings reflect arm's length transactions between separate entities. Such an approach, as already noted, does not provide a generally satisfactory division of income of an integrated business among various distinct tax jurisdictions. Moreover, it ignores the potential effects of arbitrary cost-allocation methods and sets the stage for abuse of transfer pricing. As a replacement for the conventional separate accounting approach, the unitary approach thus has some obvious attractions for tax administrators.

In its most extreme version, this approach is simple. Income from any one corporation taxed on a worldwide unitary basis is assumed to be derived from its entire network of division/subsidiaries/affiliates with the share of worldwide combined income attributable to the particular jurisdiction being calculated by a formula based on such standard apportionment factors as local sales as a fraction of consolidated sales and/or similar ratios for property and payroll.

The underlying rationale of this approach is that the affiliated entities constitute a "unitary" business, the profits of which arise from the operations of the business as a whole. It is therefore misleading to characterize the income of such a business as being derived from a set of geographically distinct sources, although in principle the system is supposed to tax a corporation proportionately to the amount of business it does within a jurisdiction and not on income properly apportionable outside the jurisdiction.[23] Indeed, if a business is less profitable outside the state imposing unitary taxation, this approach may actually reduce its taxes.[24]

Several states in the United States have been particularly ardent proponents of unitary taxation in recent years, with California leading the pack. Indeed, as already noted, in one form or another some version of the unitary approach has long been a feature of U.S. state corporation tax systems.[25] The international controversy of recent years, however, has arisen from the much more recent cast of the tax net by some states beyond U.S. national borders. In July 1984, for example, when the "unitary movement" was at its height, ten states included in the base of their apportionment formula the income of foreign corporations that are considered part of the unitary business carried on by the domestic corporations in the particular state.[26] The adoption of this "worldwide" unitary approach to defining state corporate tax liability moved the issue squarely into the international fiscal forum.

As already noted, the unitary approach has in its favour the fact that it recognizes income as the fungible product of a set of integrated income-producing factors under common control, regardless of location. The apportionment of the tax base, once it has been determined, is based in some fashion on the geographic distribution of property and activities that are presumed to contribute to the integrated income-producing process. Because it relies on direct measures of the share of select income-producing factors located in the taxing jurisdiction, which can be quantified on a relatively objective basis, such formula apportionment avoids the detailed inquiry into particular transactions characteristic of arm's length separate accounting and curtails the freedom of firms to move accounting profits around to minimize taxes. The appeal of the unitary approach to tax administrators is obvious.

On the other hand, formula apportionment can introduce significant distortion to the division of the tax base, especially if the productivity of factors differs substantially among the various jurisdictions involved. Differences in wage scales and in property costs are often cited as examples of disparities that cause apportionment formulae to be distortive. Moreover, greater accounting demands are put on multinational firms, and their freedom to move profits around for tax minimization is greatly curtailed. The distaste of most multinational businesses for the unitary approach is thus equally obvious.

The unitary question has thus, unsurprisingly, generated heated debate within the United States, as detailed in the next section, although federal-state political considerations have so far tended to overshadow all others. The central political issue is whether individual state governments have the right to tax on the unitary basis in the light of the potential extraterritoriality which could violate the interstate commerce clauses of the

Constitution and trespass on the federal mandate to maintain national uniformity in international commerce.[27] Recently the U.S. Supreme Court affirmed states' rights in a landmark decision upholding California's unitary method of taxing multinationals following a challenge from Container Corporation of America, a unit of Mobil Corporation. The implications of this decision are discussed further in the next section.

Individual nations have not as yet taken steps to introduce the unitary method of taxing foreign-source income, although the subject has recently been discussed in forums of tax administrators from developing countries.[28] The present "international rules of the game" as set out, for example, by the OECD, are all premised on separate accounting.[29] Nevertheless the unitary approach taken by some U.S. states has recently become a major international issue.[30] The matter has also arisen in negotiation of bilateral tax treaties. Unfortunately, the treaty mechanism has not as yet been able to resolve satisfactorily the international dimension of this problem. For example, despite a carefully worded clause in the draft of the U.S.-U.K. income tax treaty that would have prohibited application of the unitary method by a state to a U.K. parent corporation and its related foreign subsidiaries, the clause had not previously been discussed with the states and did not appear in the final version of the treaty.[31] The result has been continued acrimony, as epitomized most recently by a retaliatory amendment in the 1985 U.K. Finance Act which would empower the government to deprive U.S. firms of the dividend tax credit (ACT refund) granted by the U.S.-U.K. treaty when such firms are subject to state unitary taxes.[32] This explicit threat to violate the treaty is a clear indication of the importance attached to this issue by some important foreign governments, as discussed more fully in the next section.

3. The Unitary Tax Debate in the United States

The variety and complexity of subnational tax systems in the United States far exceeds that in Canada and is only rivalled by that in Switzerland. In 1984, for example, 45 of the 50 states (plus the District of Columbia) had corporate income taxes, with rates varying from 1 per cent to 12 per cent. Sixteen of these states had some degree of progressivity in their corporate rate schedules, usually one or two "small business" steps but in some cases up to 10 brackets. Ten states did not use the federal income tax base even as a starting point for their taxes. Six states (including two of those ten) allowed federal income taxes to be deducted from the tax base. Even in those states in which their corporate taxes are related to the federal tax, there are frequently important deviations. Fifteen states, for example, do not allow the Accelerated Cost Recovery System, a fast depreciation system adopted for federal purposes in 1981. Many and sundry variations exist in other states in terms of surtaxes, alternative tax bases, minimum taxes, additional taxes on business, and so on.[33]

One recent careful study of interstate differences in the level of business taxation estimated that taxes paid by manufacturing in 1977 ranged from a low of 2.1 per cent of net business income in Louisiana and 2.7 per cent in Mississippi to highs of 28.3 per cent in Delaware and 20.3 per cent in Michigan. The national average was 8.3 per cent.[34] The variation was similar with respect to taxes on all business. This study also found a clear regional pattern in state business taxation, with New England being a relatively high tax area and the Southeast a relatively low tax area. This finding was largely supported by another recent study which found that state tax revenues in part depended on the tax rates of neighbouring jurisdictions (Hewett and Stephenson, 1983).

As noted later, interstate tax competition (especially for foreign investment) has constituted an important element in the recent unitary tax debate in the United States. In view of the diversity and range of the existing state taxation of business, it is not surprising that such tax competition has long been a concern in the United States. Despite the increasing recourse by many states in recent years to various types of industrial tax incentives, however, there has been surprisingly little research on the effects of interstate tax competition on business location.[35] The subject has been extensively examined in the metropolitan context, however, with the general conclusion being that tax differentials are at most of very secondary importance in business location choice (Wasylenko, 1981). Similarly, a recent study by the Advisory Commission on Intergovernmental Relations concluded:

> ...state-local tax differentials, as they influence interregional development, do not currently constitute a problem for our federal system. In support of this conclusion, it is noted (a) that the facts about the movement of firms support the view that state-local tax differentials are of limited importance in interregional decisions of industrial location; (b) that current federal and state income tax policy works automatically in the direction of lessening state-local tax differentials and the intended effects of tax and fiscal concessions; and (c) that powerful forces that have been at work for decades underlie much of the continuing interregional redistribution of people, capital and jobs.
>
> The Commission further concludes that tax competition between neighbouring states has not yet become a serious problem for our federal system ... even in those situations where high-tax states appear to be losing industry to their low tax neighbours, there are usually other reinforcing factors that contribute to the decision to move or to expand elsewhere. There is also evidence that the high-tax states ... are now taking action to restore their competitive position.[36]

This lengthy quotation has been reproduced here because it also points out two important devices reducing the significance of interstate fiscal differentials, such as those arising from unitary taxation.

The first is what may be called the "least common denominator" factor. High-tax states that find (or think) their tax policies are hurting their competitive position can always correct them. There is no need for either federal action or formal interstate cooperation to level these "tall poppies". The chill wind of competition in an open economy will achieve this result quite adequately.[37] To some extent, the same conclusion may be drawn in an international context as well.

Equally important in the preceding quotation is the importance of the deductibility of most state and local taxes for federal income tax purposes as a powerful tax coordinating device. The function of deductibility in moderating tax competition is well-recognized.[38] In principle, there are of course a number of other ways in which taxes could be co-ordinated, both vertically - between state and federal governments, for example - and horizontally - among states. Even when tax structures are as different as within the United States, administration may be co-ordinated to some extent through devices such as the intergovernmental agreements to exchange information which are widespread in the United States.

In reality, however, horizontal tax coordination is not well developed in the United States, although some progress has been made in dealing with the taxation of interstate business income.[39] Many states now adhere to the main provisions of the 1957 Uniform Division of Income for Tax Purposes Act (UDITPA), for instance, and a number have gone further and adopted the Multistate Tax Compact, under which a Multistate Tax Commission has been created to develop uniform regulations for taxing interstate business. Nevertheless, these efforts have had only very limited success to date, and it seems fair to characterize the present state taxation of corporations as at best a mess - as illustrated most recently by the furore over unitary taxation.

The importance to be attached to the remaining differentials in state taxation depends in part, as indicated earlier, on the effects that they have on business investment decisions - effects which do not appear to be overwhelmingly important. Moreover, as McLure (1981) has demonstrated, in the long run any differential in corporate taxes is likely to be borne by relatively immobile local workers and landowners. With respect to a central issue in the unitary tax debate, for example, he concludes that "...states that attempt to increase revenues through worldwide combination...cannot get a totally free ride by exporting the greater tax burden to nonresidents".[40] For a small state (like a small country), factor mobility means that taxes placed on a mobile factor like corporate capital will be largely shifted to immobile domestic factors of production.

Despite such presumably ameliorating factors, however, some have drawn the conclusion that the only feasible solution to such problems is for the states to get out of the corporate tax field completely. It seems as unlikely, however, that this recommendation will be heeded as it does that the equally common recommendation that the federal government should also cease and desist from taxing corporations will be.[41] Diverse state taxes may be a nuisance to business; they are certainly costlier to administer than a more uniform system; and they may produce various undesirable allocative and distributional effects. But none of these problems seems sufficient in the U.S. context to warrant drastic interference with state taxing powers, and no such interference seems likely to occur: such at least is the conclusion which seems to emerge from the debate on unitary taxation summarized in the rest of this section. Both multinational businesses operating in the United States and the home countries of such multinationals are therefore going to have to continue to live with diverse state tax structures, and in all likelihood with at least some vestige of unitary taxation, for some time to come.

Unitary Taxation Since the Container Decision

The history and development of unitary taxation at the state level in the United States has been set out extensively many times and in many places in recent years.[42] Rather than repeat this history at length here, we shall instead focus on the two most recent important developments - the "Container Decision" of the U.S. Supreme Court in 1983 and the report of the Working Group on Unitary Taxation in 1984 - with particular attention to their international implications.

In the *Container* case, the U.S. Supreme Court squarely confronted the (U.S.) constitutionality of worldwide unitary taxation following a challenge of California's apportionment formula.[43] The Court upheld the states' power to apply the unitary business principle worldwide to multinational corporate groups and thus to include foreign business income in their formula apportionment of the unitary income. The Supreme Court did not, however, have to deal in this case with the application of the unitary tax approach to a foreign parent. In fact, the Court took some pains to make it explicit that it was not deciding the issue of whether the application of the unitary approach to a foreign-based corporate group was appropriate. Moreover, it interpreted the failure of the federal government to file a brief in the case as evidence that the federal government did not think there were any foreign policy implications to the case (Smith, 1984).

Nevertheless, the decision in *Container* immediately set off a flurry of international protest. As summarized by a prominent Canadian international tax accountant:

> The concern of foreign (that is, non-U.S.) multinationals and their governments centred on the inclusion of foreign parents and affiliates in a unitary business income apportionment. Governments of major trading partners, including Canada, member countries of the European Economic Community, and Japan, filed objections to worldwide unitary tax; the Netherlands threatened indefinite postponement of its treaty negotiation with the United States; the United Kingdom considered retaliatory changes to the taxation of U.S. firms doing business in that jurisdiction; and foreign-based multinationals are suggesting withdrawal from or modification of business operations in the offending states.
>
> There are appeals pending in the U.S. courts in which the constitutionality of the unitary tax approach to foreign-based groups may be tested. Cases involving EMI, Shell, and Alcan, however, have been prevented for procedural reasons from obtaining any accelerated adjudication of the foreign parent issue. In each case, a subsidiary in the United States has been assessed for tax on a worldwide unitary basis and is protesting by suit in the state courts. The foreign parents have sought a decision on the constitutional issues in the federal courts, and in each case it has been held that they lack standing. The practical result is that it may take years of further litigation in the state courts before an appropriate appeal involving a foreign multinational can find its way back to the Supreme Court. In the meantime, foreign corporations with subsidiaries or operations in the United States are faced with large uncertainties and possibly substantial tax and administrative costs.[44]

The official Canadian reaction to the trends culminating in the Container decision is nicely distilled in the final paragraph of the Note of Understanding drafted at the time of signing of the new Canada-U.S. Tax Treaty, as follows:

> It is the position of Canada that the so-called "unitary apportionment" method used by certain states of the United States to allocate income to United States offices or subsidiaries of Canadian companies results in inequitable taxation and imposes excessive administrative burdens on Canadian companies doing business in those states. Under that method the profit of a Canadian company on its United States business is not determined on the basis of arm's-length relations but is derived from a formula taking account of the income of the Canadian company and its worldwide subsidiaries as well as the assets, payroll and sales of all such companies.

> For a Canadian multinational company with many subsidiaries in different countries to have to submit its books and records for all of these companies to a state of the United States imposes a costly burden. It is understood that the Senate of the United States has not consented to any limitation on the taxing jurisdiction of the states by a treaty and that a provision which would have restricted the use of unitary apportionment in the case of United Kingdom corporations was recently rejected by the Senate. Canada continues to be concerned about this issue as it affects Canadian multinationals. If an acceptable provision on this subject can be devised, the United States agrees to reopen discussions with Canada on this subject.[45]

Worldwide Unitary Taxation Working Group

The international ramifications of worldwide unitary taxation at the state level, including importantly the prospect of serious damage to international investment and trade, forced the U.S. Administration to take the issue seriously. Acting with practical thrust and political parry - appearing to be decisive for foreign governments and business interests, yet being cautious not to compromise states' rights - President Reagan therefore appointed the Worldwide Unitary Taxation Working Group early in 1983. The Working Group represented most relevant constituencies; it included the governors of the then "unitary states" of Illinois, California, and Utah, legislators from several other unitary states, the executive officers of several major U.S. multinational corporations, and several federal officials in addition to the Secretary of the Treasury, who acted as Chairman.[46]

The Working Group was "charged with producing recommendations ... that will be conducive to harmonious international economic relations, while also respecting the fiscal rights and privileges of the individual states."[47] Some practitioners promptly labelled this task "An Impossible Dream" (Miller and

Dunlop, 1984). Indeed, the preliminary report of the Working Group in May 1984, although it cleared up a number of issues, was notable for its lack of consensus on a few key points and for the intransigence in both camps. The final report issued in August 1984 consisted of a Chairman's Report, followed by Supplemental Reports from both business and state members, a format which had to be adopted in light of the group's failure to secure all members' agreement on the wording of the report.[48]

Although the Reagan administration may have felt some constraint in dealing with this question both because Ronald Reagan had been Governor of California at the time its unitary taxation system was extended in the mid-1970s and because of its general commitment to states' rights, the Working Group was not originally limited in any way in its approach to the problem. At the insistence of the states, however, it decided that "...it would attempt a voluntary solution and that the threat of federal legislation would be removed from the table, except as a last resort."[49] In a sense, the Working Group therefore became an end-run instead of a frontal attack on the problem, particularly its international aspects. Chairman Donald Regan's covering letter to the final report, however, made it plain that the international dimension remained to the forefront as far as the federal government was concerned:

> "If states enact legislation based on the three principles agreed upon by the Working Group, the United States will be able to speak with one voice in dealing with its foreign trading partners, and the irritant to international commercial relations will have been eliminated."[50]

The international dimensions, which had also been highlighted by numerous representations by foreign governments to the Working Group, were summed up by the Undersecretary of State for Economic Affairs, Allen Wallis, as follows:[51]

1. The unitary tax method imposes an onerous administrative burden, particularly for foreign-based multinationals.[52]

2. The unitary tax method leads inevitably to extraterritorial and double taxation.

3. The unitary tax method is contrary to international practice.[53]

4. Use of the unitary tax method by the states of the United States encourages the developing countries to adopt the unitary method.

5. The unitary tax method discourages investment in those states that apply unitary taxation. It also discourages investment in the United States generally since any state may adopt the tax method.

Special emphasis was put by Mr. Wallis on the last of these points - which has indeed clearly turned out to be the Achilles' heel of unitary taxation in the United States. Largely for fear of losing foreign investment, several states have subsequently repealed or banned worldwide combination - Florida in December 1984, Indiana and Arizona in April 1985, and Colorado in June 1985, for example, and almost every other "worldwide" state - even California - has been actively considering legislation to the same end.[54] The market, it appears, acting through such guises as Sony Corporation, may in the end bring about a result that the federal government has not so far felt able to achieve on its own.

In any event, the three principles proposed by the Working Group as guidelines for state legislatures with respect to the taxation of multijurisdictional enterprises are:

<u>One</u>: "Water's-edge" unitary combination for both U.S. and foreign based corporations.

<u>Two</u>: Increased federal administrative assistance and cooperation with the states to promote full taxpayer disclosure and accountability.

Three: Competitive balance for U.S. multinationals, foreign multinationals, and purely domestic businesses.

The first of these principles addresses some of the most serious reservations of both industry and some international tax administrators regarding the unitary approach. Worldwide combination in effect disregards the conventional separate accounting approach used for international tax purposes, provisions of international tax treaties, accepted norms in taxation of international investment and trade, and the complex problems of foreign currency translations. Moreover, since worldwide unitary taxation treats the entire income of a group of related corporations as being earned in proportion to the factors included in the allocation formula, the resulting determination of income subject to state taxes can be both arbitrary and inappropriate - certainly in the eyes of those who accept separate accounting as the more appropriate standard. These problems are clearly all reduced when only U.S. source income is made the basis for applying an apportionment formula. The first principle is thus reassuring to multinationals opposing worldwide unitary taxation, a group which had been somewhat shaken by the Container decision.

Whereas Principle One thus calms the waters beyond the country's edge, Principle Two in a sense calms the waters at home. Principle Two explicitly recognizes the potential administrative difficulties of states dealing with multijurisdictional businesses. The Working Group's intention was to persuade the states to retreat voluntarily from the unitary approach in exchange for more reliable and comprehensive information about individual multinationals, those with parents in the United States, as well as foreign-based companies with U.S. subsidiaries or affiliates. Such information would include transfer pricing practices and income splitting between divisions of multinationals.

To this end, the Internal Revenue Service was to undertake to share information with those states that do not use the worldwide unitary method of taxation. Draft legislation was released in July 1985 but was immediately criticized by business as both requiring too much information and for not dealing adequately with the problem of foreign source dividends (on which see below).[55]

Principle Three is, so to speak, American apple pie. "Competitive balance" for U.S. and foreign multinationals and domestic businesses essentially means "national treatment" and "capital-export neutrality" as enshrined in most U.S. tax treaties.[56] The objectives of this approach are to ensure, first, that domestic industry is not at a disadvantage vis-a-vis foreign firms and, second, that domestic firms with foreign interests are not discriminated against because of their offshore investments. The Working Group made no specific recommendations as to how "competitive balance" was to be achieved in the context of particular states, however, which was probably just as well since any attempt to elaborate on this point would probably have split it even further.

The Problem of Foreign-Source Dividends

This point is exemplified by the issue which led to the greatest polarization of the Working Group, namely the treatment of foreign-source dividends. So serious was the split that in the end the Working Group could not arrive at a consensus recommendation with respect to the appropriate state taxation of dividends received by a U.S. corporation from a foreign subsidiary. This issue has continued to be the central point of contention in the on-going U.S. discussion.[57]

Under the worldwide unitary method, dividends between companies included in the "unitary" group - including dividends from abroad - are viewed as mere intracorporate financial flows and are thus, so to speak, cancelled out, just as they would be in a consolidated financial statement. With the water's-edge version of unitary combination proposed by the Working Group, however, the aggregate income to be apportioned by formula excludes, by definition, the income underlying any foreign-source dividends received. The proper treatment of the dividends themselves, however, is a gray area in the application of unitary taxation: the underlying ambiguity is whether for state tax purposes dividends are to be considered income of the recipient as well as of the issuer. Efforts to resolve the issue in the Working Group did not advance beyond articulation of the respective positions.

The state representatives on the Working Group, for example, argued that states have, and should retain, the right to tax dividends paid to U.S. multinationals by their foreign subsidiaries, for three main reasons:[58]

1. Dividends paid by foreign corporations to any other state taxpayer, whether individual or unaffiliated business, are potentially subject to state income tax. Exempting foreign source dividends from state taxation when they are paid to a U.S. parent corporation, but not when they are paid to other taxpayers, would be unfair discrimination. This discrimination would be unfair and it would favour foreign investment and be detrimental to the U.S. economy.[59]

2. Foreign source dividends are an integral part of the water's edge income of U.S.-based multinational corporations. The federal government recognizes this fact by including them in the U.S. tax base for all taxpayers.[60] Expenses incurred by the U.S. parent company for capital, management, research and development, and the like generate income from foreign subsidiaries as well as domestic ones. Since these expenses are deductible for state tax purposes, the foreign source dividend income generated by those expenses should be taxable.

3. Dividends, particularly in the foreign context, are often surrogates for interest, royalties, management fees, and reductions of the cost of goods sold. Thus, to accurately measure income and prevent accounting manipulations to avoid taxation, they should be treated in the same way for tax purposes.

The business representatives on the Working Group disagreed completely with these views and contended that dividends were not a proper subject of state taxation. The three main points supporting their position all point to the additional complexity and potential distortion that would result if foreign-source income were to be subject to state taxation in addition to foreign taxes and U.S. federal taxes:[61]

1. Foreign source dividends are not effectively part of the federal tax base for all taxpayers. While foreign source dividend income is included in a U.S. corporation's taxable income, federal law allows a credit against U.S. tax for foreign taxes imposed on both the dividends and the underlying corporate income out of which the dividends are paid. Frequently, dividends paid by a foreign corporation bear a foreign tax in excess of the combined federal and state rates in the United States. In this case, to alleviate double taxation, no federal income tax is imposed on the foreign dividend income. An unreasonable tax burden results if the states do not follow federal practice and exempt these dividends.

2. Both federal and many state laws distinguish between dividends paid to a corporation (the issue before the Working Group) and dividends which are paid to an individual shareholder. To prevent income that is not paid as dividends to individual shareholders from being subject to multiple levels of corporate taxation, both federal and many state laws allow a generous deduction for dividends received by one U.S. corporation from another. This policy is followed because the operating income out of which the dividends are paid is already subject to federal and state tax when earned by the dividend-paying corporation. In contrast, subjecting foreign source dividends to state taxation when received by a U.S. corporation would result in multiple corporate taxation of income that remains in corporate form and has not been paid to individual shareholders. The income out of which the dividends are paid has been taxed in the foreign jurisdiction and the dividends usually have borne a withholding tax levied at source by the foreign jurisdiction.[62]

3. Foreign source dividends should not be considered surrogates for interest, royalties, or management fees, since the latter items are generally tax deductible in the foreign jurisdictions and subject to low foreign withholding taxes. Foreign source dividends, on the other hand, are distributions of earnings generated abroad, which have generally been taxed at rates comparable to the U.S. statutory rate. Therefore, foreign source dividends should not be treated the same as other categories of foreign source income.[63]

In short, the business representatives in the Working Group emphasized the importance of maintaining the accepted allocation of the multijurisdictional tax base and of avoiding the imposition of an additional layer of taxation without a framework to maintain neutrality. State taxation of foreign dividends in their view discriminates against and interferes with international investment and places U.S. business at a competitive disadvantage in the international economy.[64] This position perhaps receives some support to the extent that the real reason for state interest in this issue has been simply to obtain more revenue. California, for example, reportedly stands to lose approximately $500 million annually - about 12 per cent of state revenue - if the foreign dividends received by U.S. multinationals (mainly petroleum companies) are excluded from the apportionment formula.[65]

Conclusion

The Working Group on Unitary Taxation undoubtedly served a useful purpose in clearing up a number of lesser issues and in spelling out the key issues of the unitary debate. The various options the Group proposed as policy alternatives, none of which was acceptable to all sides, reflect the size of the gap between the general corporate desire to retain separate accounting for income and the desire of some key states to retain worldwide unitary combination. The Working Group tried to bridge this gap largely by recommending improved accountability through a "domestic disclosure sheet" as a trade-off for accepting a "water's edge" limitation. This emphasis on generating and disseminating more complete information recognized the states' position that unitary taxation has a key role to play in fiscal defence: given their vantage point, their limited administrative resources, and their general inability to enforce arm's-length pricing, states are especially vulnerable to erosion of their tax base through manipulative transfer pricing and similar manoeuvres. It did not, however, recognize the apparently strong logical case for the worldwide unitary method in the case of truly "unitary" businesses - let alone the view of states such as California that commonly-owned firms should be assumed to be unitary unless shown to the contrary.[66]

On the whole, foreign-based multinationals should be the most pleased with the report of the Working Group because of its explicit commitment to the "water's-edge" approach. The Working Group undoubtedly reduced the likelihood that more states will seriously contemplate worldwide combination and hence represented an important shift in attitude since Container. The long arm of the states will not, it appears, reach to foreign parents' operations - although that of California (and a few other states) still does! Foreign multinationals (and governments) do not care about the dividend question: their concern is solely with eliminating worldwide combination. U.S.-based multinationals are much less happy, however, largely because of the important ambiguity on foreign-source dividends: in fact, some of their spokesmen have alleged that adoption of the "water's edge" approach alone without exempting such dividends will substantially worsen their international competitive position.[67] Indeed, many U.S. multinationals might well prefer the unitary method to separate accounting with foreign-source dividends being subject to tax.

For a time at least the efforts of the Working Group definitely lessened the likelihood for federal preemptive legislation which would have raised difficult political questions about state-federal relations. While the Group was meeting, political pressure was undoubtedly eased somewhat. Moreover, at the same time, foreign multinationals made their views known in ways that counted. Sony, for example, announced that a unitary tax which covered their non-U.S. profits was unacceptable and that they would not consider establishing any operations in a state with such policies. The leading Japanese business group, Keidanren, similarly said that "unitary taxation is the single most serious deterrent to new investment by Japanese enterprises in some states of the United States".[68]

Aided and abetted by such real-world pressures, the federal tactics of biding time, raising the level of debate, and assuring federal cooperation in the information process seem to have worked to a considerable extent. In combination, these factors have effectively encouraged states to reconsider unitary taxation. For example, Florida, quick to move to the unitary system following the Container decision, was equally quick to repeal it following the Report of the Working Group (and in light of indications that business investment had fallen in the state). Indiana, in a show of blatant bargaining, promised Sony that the state's worldwide unitary tax would be repealed in exchange for a commitment from Sony to build a $15-to-$20 million dollar factor in the state. Like Colorado, Oregon repealed its worldwide unitary tax - and then offered itself as an attractive alternative to neighbouring California. Massachusetts was taken out of the game when its Supreme Court ruled that the State Tax Commissioner had no legislative authority to require Polaroid to pay state income tax on a worldwide unitary basis.

In California, however, which from the outset has been the focal point of the debate, although a number of bills have been introduced to modify the state's approach to worldwide unitary tax, none has yet been passed. California has fought harder than the rest, perhaps because the state has more revenue to lose. The debate continues with strong arguments from all sides.[69] Recently, largely as a result of California's failure to resolve the unitary issue, the United Kingdom approved an amendment to the Finance Act which permits retaliation against American companies by refusing to refund Advance Corporation Tax on dividends from British affiliates.[70] Apparently in response to this measure, on November 8, 1985, President Reagan instructed the Secretary of the Treasury to initiate federal legislation to permit state taxation of multinationals "only on income derived from the territory of the United States".[71] The U.K. then issued the following statement:

> In recognition of what they regard as a major step forward, the Government are prepared to defer initiating action under Section 54 of this year's Finance Act for the present, on the understanding that legislation to resolve the unitary tax issue will be introduced before the end of the year and that it will fully take account of the criticisms expressed of the water's edge concept, and that it will be passed into law and take effect by 31 December 1986.[72]

The weapon of international fiscal retaliation has thus been sheathed, at least momentarily, pending federal legislative action. The legislation introduced in December, 1985 prohibits state use of the worldwide unitary method unless taxpayers failed to comply with the requirement to file a "full disclosure-spreadsheet" report. It also restricts states from taxing more than 15% of foreign dividends. Since such action to restrict state taxation policy will in all likelihood prove difficult or impossible to get through Congress in a congressional election year, however, we have no means heard the last of this matter in either the international or the federal-state arenas.

Whatever happens on this front or in California, it seems clear that unitary taxation in the United States has retreated a long way from the high water mark reached in the Container decision of mid-1983. The unitary controversy may thus continue to diminish in sound and fury in the immediate future in the United States. The basic distrust of the conventional approach to multinational taxation revealed by many states in the course of this debate will not go away so readily, however, largely because it is well-founded, as is discussed further below.

4. The Basic Analytics of Unitary Taxation

The basic analytic structure required to explore the economic decisions of multinational enterprise may be reduced to the case of a firm operating in two countries - for example, a parent firm in Country One and a wholly-owned subsidiary in Country Two. This simple specification does not preclude intrafirm trade or joint productive processes, but to the extent that intrafirm trade in intermediate goods and services does take place, it is assumed that prices are not manipulated to avoid tax. As emphasized earlier, in reality unitary taxation is to some extent a reaction to what tax administrators suspect to be the failure of separate accounting to achieve a "correct" international allocation of the tax base.[73] International misallocation of costs and revenues - and hence misallocation of the tax base - may stem not only from arbitrary transfer pricing of intermediate goods and services, however, but also from the allocation of deductions for joint costs for which there is no objective basis to assign them to the specific locations in which goods are produced or sold.

The conventional transfer pricing strategy under separate accounting is to overprice intrafirm exports from and underprice intrafirm imports to the low-tax country, and vice versa for the high-tax country. Under a uniformly applied unitary tax system, however, a dollar of tax base that one jurisdiction might lose via (separate accounting) transfer pricing would in effect be recaptured since the combined profits of both firms would be allocated between the two jurisdictions of such readily identifiable criteria as the wage bill, capital stock and/or sales. It is thus only of secondary importance in the analysis of unitary taxation to model manipulative transfer pricing explicitly.

There is, however, an important common element between the following analysis of unitary taxation and earlier expositions of the effects of transfer pricing in that both focus on the implications of international tax arrangements for allocative decisions of multinational enterprise. For example, Eden (1978), integrating and extending earlier micro-economic analyses by Horst (1971) and Copithorne (1971), demonstrates that when transfer prices are constrained by government regulation, both total corporate output and sales and their allocation between jurisdictions are affected by tariffs and international tax differentials because, through their impact on cost and revenue functions, transfer prices alter the "shadow price" (the marginal effect on combined after-tax profit) of intra-firm exports. Similarly, as shown in this section, formula apportionment and unitary taxation create "shadow values" assignable to marginal units of production in specific tax jurisdictions and hence affect the interjurisdictional allocation decisions of multinationals.

In addition, however, an important consideration in the following analysis that has received less attention in previous discussion concerns technological interdependencies and joint costs and the manner in which formula apportionment of such costs affects the production decisions of multinationals.[74] Such formula apportionment is in fact already used to some extent to resolve difficult international tax problems - for example, in the U.S. Internal Revenue Code's rules pertaining to fungible items such as interest.[75] In part, the emphasis on the formula allocation of joint costs in this section also reflects our view that the refinement of such approaches rather than their unrealistic simplification and generalization - as with worldwide unitary combination - perhaps offers a more reasonable path to reform in the complex area of international income allocation.[76]

In the simplest case, examined first in the following analysis, operations in each location are completely independent and taxation is imposed on a separate accounting basis on the profit earned in each country. This provides a base case in terms of which the influence of alternative international tax arrangements may be identified. The problem is then complicated by the introduction of a joint-cost allocation formula for the interjurisdictional assignment of tax deductions. Finally, unitary taxation is approximated by applying a factor, similar to the joint-cost allocation factor, to worldwide combined income, thus taxing a share of worldwide combined income at the domestic rate of the country imposing a unitary system.[77] The analysis also considers briefly the effects of alternative forms of foreign tax relief.[78]

The principal purpose of the following analysis is to determine the allocative effects induced by unitary taxation. Such effects are indicated by the marginal net revenue (MNR_i) of each division. If MNR_i with taxes is positive, then the output (X_i) of the i^{th} division is less than that which would result in the absence of taxes; if MNR_i is negative, then divisional output exceeds the level associated with MNR_i equal to zero. To avoid misunderstanding, it is important to note that the base case in the absence of tax effects is <u>not</u> necessarily allocatively efficient in the sense that that term is generally used in economics. Indeed, since, as emphasized earlier, multinational enterprise is inevitably characterized by market power, the mere existence of such firms would appear to imply allocative inefficiency in the sense of less than socially efficient output and the generation of economic profits.

Several comments must be made on this issue. First, the unfortunate dual use of the term "efficiency" has tended to put factions at cross purposes within the debate on transfer pricing. For example, when Eden (1985) and Diewert (1985) refer to "efficient transfer prices", they mean - as did Hirshliefer (1956) and Arrow (1964) - the optimal Lagrange multiplier for the "intermediate good" constraint in the after-tax profit maximization problem for a firm with multiplant/multimarket operations. The perspective taken is that of the corporation. On the other hand, the traditional welfare economics concern for "efficient" allocation of resources takes a broader social perspective. Static efficiency in this sense is achieved only if markets are strictly competitive for both inputs and outputs with no externalities. The inherently non-competitive structure of multinational enterprise, and the role of their "internal markets" (Rugman 1981), thus appears automatically to preclude allocative efficiency in this sense.[79]

Secondly, both of these approaches to efficiency ignore distributional considerations.[80] Policies intended to deal with transfer pricing manipulation and unitary taxation, for example, are concerned primarily with distributional rather than efficiency objectives, as has been stressed earlier. The aim is to seek a "fair" or "proper" interjurisdictional allocation of the tax base regardless of how the marketplace operates. In this sense, it should clearly be understood that the findings of the present section that the unitary approach is likely to "distort" allocative decisions of multinational enterprise need not be given much weight. On the other hand, the complementary conclusion that the unilateral application of unitary taxation may lead to a loss of tax base may indeed weigh heavily in the minds of jurisdictions contemplating this alternative approach to the intractable problem of interjurisdictional income allocation.

These important caveats to one side, it is clear that because of its market power a multinational enterprise will have some scope to price discriminate according to the specific demand structures in its relevant markets. Thus prices are not assumed to be equal in the two countries analyzed. Moreover, international differences in factor costs and production techniques mean that cost functions need not be identical in the countries involved and indeed probably are not. And, finally, neither nominal tax rates nor the structure of corporate taxation are not necessarily the same in the countries involved.

The Simplest Case

The fundamental allocation problem facing a corporation with production and sales in two countries where the two operations are completely independent and taxation is imposed on a separate accounting basis in both countries takes the following form:

$$\Pi_i = [P_i(X_i)X_i - C_i(X_i)X_i][1 - t_i] \; ; \quad i = 1,2 \tag{1}$$

$$\text{maximize} \quad \Pi = \Pi_1(1 - t_1) + \Pi_2(1 - t_2) \tag{2}$$

Π_i is after-tax-profit in Country i ; X_i is the level of production; $P_i(X_i)$ and $C_i(X_i)$ are revenue and cost functions respectively; and t_i is the corporate tax rate in Country i . Assuming the standard features of revenue and cost functions (i.e., the functions are twice differentiable) and that the enterprise's aim is to maximize consolidated after-tax profit, the solution to this problem, expressed in terms of profit maximizing levels of X_1 and X_2 , is given by the first order conditions for production in each country:

$$d\Pi_i/dX_i = [P_i'(X_i)X_i + P_i(X_i) - C_i'(X_i)X_i - C_i(X_i)][1 - t_i] = 0; \; i=1,2 \qquad (3)$$

Since, as shown in equation (2), consolidated after-tax profit is simply the sum of Π_1 and Π_2 , $d\Pi_1/dX_1$ must equal $d\Pi_2/dX_2$, and both must equal zero. In other words, additional profit from either set of operations contributes directly to consolidated profit and, at maximum consolidated profit, no further profit can be extracted from either X_1 or X_2 .

Equation (3) incorporates the standard requirement that marginal revenue equals marginal cost at the efficient production level (from the point of view of the firm) and shows explicitly that at the optimal, profit maximizing level of production of X_i the marginal net revenue of X_i is zero. For convenience, this result may be abbreviated to:

$$\frac{\partial \Pi}{\partial X_i} = MNR_i(1-t_i) = 0 \; ; \quad i = 1,2 \qquad (4)$$

That is, the "marginal net revenue" of X_i after tax equals zero through adjustments of X_i regardless of the tax rate, t_i . In summary, with separate accounting appropriately applied to separate enterprises, profit-maximizing production decisions are determined independently in each jurisdiction in terms of their respective revenue and cost functions. Different tax rates in the two jurisdictions may of course adversely affect these decisions from the point of view of social efficiency in the allocation of resources (unless offset by a system of full crediting in Country One for taxes paid currently in Country Two) but the firm's profit-maximizing decision, given these tax rates, is determined independently, as shown.

The strict independence of the production decisions of operating divisions of a corporation, especially a multinational corporation, as assumed up to this point section, is exceptional. Indeed, as emphasized earlier, in an important sense the very essence of multinational enterprise is an integrated network of functions involving, for example, production, finance, and/or marketing, with some degree of central administration and control (Caves, 1971). Costs incurred in one location thus provide inputs or service essential to production in another. Such costs are joint in the sense that they cannot be assigned specifically to one set of operations or another. Research and development expenses, management services, and the interest costs of corporate borrowing, for example, illustrate costs which are not allocable with respect to sites of production. Nonetheless, the decision as to where such costs are reported for tax purposes is obviously relevant for the corporation, since a deduction is more valuable - it provides a larger tax saving - if taken in the higher tax jurisdiction.

Within any one tax jurisdiction, of course, the allocation of joint costs among divisions is not important for either aggregate tax collections or after-tax corporate income, since any costs <u>not</u> allocated to division B end up in the income statement as a cost of division A. If the same rate of tax is applied to the income of A and B - as is presumably the general case for divisions within one tax jurisdiction - no tax incentive exists for strategic inter-divisional allocation of deductions.[81] At the international level, however, significant tax differentials often exist, thus creating incentives for tax planning through the interjurisdictional allocation of deductions.

For a firm with operations in two tax jurisdictions, the problem when fixed joint costs are introduced - call them F - is essentially the same as shown in Equations (1) to (3), with the addition of a term, $-F(1 - t_i)$ to

Equation 1 to take account of the after-tax cost of F. The impact on profit depends upon whether the deduction is declared in Country One or Two. Unless otherwise constrained, a profit-maximizing multinational corporation would obviously choose to take the entire F deduction in the higher tax jurisdiction. Note that this is not a question of illicitly manipulating transfer prices since, by definition, there is no clear basis for allocating these costs between the jurisdiction. That is, in this respect at least the firm is truly "unitary" so that any separate accounting regime for tax purposes is fundamentally inappropriate - as well as lending itself to such "manipulation".

The international allocation of joint costs thus enters the consolidated profit maximization problem, but it does not, in the present simple specification, affect the firm's allocative problem with respect to deciding upon levels of production of X_1 and X_2. The reason, of course, is that since joint costs do not enter divisional production costs or revenues at the margin, the first order conditions for after-tax profit maximizing production (Equation 3) are invariant to joint costs. Note however, that if t_1 is greater than t_2, and the multinational arbitrarily assigns a dollar of joint costs to the low-tax country, its consolidated after-tax profit is diminished by $\$1(t_1-t_2)$, even though no change in production levels occurs, because the marginal net revenues in both countries are unaffected. International tax planning thus influences consolidated after-tax income even though it has no bearing on levels of production.

As noted earlier, multinational enterprises typically earn "quasi-rents", the sine qua non of which is a degree of market power which permits price to exceed marginal costs. Under the prevailing separate accounting approach to international tax base allocation, the international division of such quasi-rents is determined through intracorporate transfer prices - but, given the nature of the rents, such prices must be largely arbitrary (Quirin 1985). One difficulty in representing this problem analytically arises from the fact that quasi-rents differ from "pure" economic rents. As is well known, a tax on pure economic rent does not affect allocative decisions. Quasi-rents, however, are the payoff to such non-marketed assets as protected technology, patents, industrial processes, marketing system, and specific managerial expertise, which are the essence of multinational enterprise. The prospect of earning quasi-rents is the economic incentive for creating and maintaining the assets required to generate them. Taxing such rents therefore must be expected to affect these investment decisions.

In short, the basic problem is that multinational enterprises would not survive without quasi-rents, yet quasi-rents are not assignable to location-specific units of output in any obvious, non-arbitrary fashion. Since quasi-rents stem from the combination of the specific non-marketed intangible assets of the multinational enterprise and some jurisdictionally-specific resource such as a particular input (e.g., a natural resource, or a market for a product), there is no allocatively correct solution in terms of economic efficiency to the problem of how to allocate such rents among different taxing jurisdictions. Moreover, how such rents are divided is not by any means solely a distributional issue - though it is probably mainly such an issue - because taxing such rents influences investment and location decisions.

International tax differentials automatically create differentials in the after-tax values of <u>all</u> units of revenue and cost, depending upon where they are received or incurred - or at least on where they are <u>reported</u> for tax purposes to be received or incurred. Apart from their effect on the allocation of <u>bona fide</u> non-allocable joint costs, such differentials thus create an incentive to design intra-firm transfer prices to minimize global tax, subject to given levels of output. The obvious strategy is to report revenues in the low-tax jurisdiction while assigning costs to the high-tax jurisdiction. Horst (1971) and Copithorne (1971) present fundamentally similar solutions to this problem, with profit-maximizing transfer prices depending essentially on the tariff rates in the two countries relative to the corporate tax differential.[82]

Up to this point, no mention has been made of constraints on the international allocation of costs or on the setting of intrafirm transfer prices. In the absence of such constraints, the strategy of a multinational enterprise in regard to international tax planning has been shown to be independent of production decisions. Tax-planning decisions have thus been assumed to be subject to - as opposed to being jointly determined with - production decisions. The following sections remove this unrealistic assumption of independent production and cost allocation decisions. As shown earlier, in reality tax rules limit the extent to which costs and revenues can be allocated between tax jurisdictions. In principle, such rules are apparently intended to ensure that net income is allocated among jurisdictions in a manner which roughly corresponds to the observable interjurisdictional allocation of output and/or inputs. To the extent that this is the case, the allocation of production then affects global tax liability, and changes in the allocation of production will entail specifiable corporate costs (benefits) in the form of increases (decreases) in the global tax bill. Multinational firms will in these circumstances explicitly take account of how marginal changes in production affect the taxes they pay, and the structure of international tax interaction will have allocative consequences.

Formula Allocation

As shown above, a multinational enterprise subject to conventional separate accounting typically has several degrees of freedom to allocate both costs and revenues as part of international tax planning. By shifting deductions to the high-tax jurisdiction, including deductions of costs for which in principle there is no relevant economic basis for a particular interjurisdictional allocation, the multinational corporation can reduce its total tax bill. Both the total amount of taxes collected and its distribution among jurisdictions are obviously affected, with the distributional consequences being generally biased against the high-tax jurisdiction (Gordon and Wilson, 1984). The obvious potential threat to national fiscal sovereignty has prompted various measures to protect the integrity of national tax bases.[83]

One such measure is to allocate worldwide combined income in line with a formula relating such income to the relative magnitudes of one or more observable characteristics of the various divisions of a corporation, such as the relative volume of sales, capital invested or labour employed. Unitary taxation is, of course, perhaps the most developed form of this approach to the interjurisdictional division of the corporate tax base.

The following discussion uses a simplified, stylized allocation formula to explore the effects of such a scheme on the investment and production decisions of a firm operating in two tax jurisdictions. Initially, only joint fixed costs (F) are thus allocated; later, the allocation of net income as a whole is considered. Although the allocation rule used in this illustration has a certain intuitive appeal - it is simple and appears "reasonable" - as will be seen, it nonetheless introduces potential allocative distortions in

The general form of such an allocative formula is:

$$w_i = A_i / \sum_{i=1}^{n} A_i \tag{5}$$

where w_i is a weight, A_i is some presumably verifiable measure (e.g., units of production) in division i; and n divisions (subsidiaries) share the benefits of the joint or non-appropriable input.

As before, the problem for the firm is to maximize consolidated after-tax income. The share of joint cost that may be deducted for tax purposes is assumed to be "w" for Country One and "Φ" for Country Two. The home country, Country One (like the United States) is assumed to tax the worldwide income of its resident corporations on a separate accounting basis, allowing full and current credit for foreign taxes paid. Since Country One allows a deduction of wF at home, a deduction of $(1-w)F$ is presumed to be allowed by Country One in the calculation of its tax on foreign-source income and in the calculation of the foreign tax credit. Country Two, which has a similar separate accounting system, is assumed to have its own joint cost allocation formula (Φ), which is not necessarily identical to the allocation formula used by Country One.

The combined after-tax income of the firm is then comprised of five distinct components:

$$\begin{aligned} \Pi = {} & P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F \\ & - t_1[P_1X_1 - C_1X_1 - wF] \\ & - t_2[P_2X_2 - C_2X_2 - \phi F] \\ & - t_1[P_2X_2 - C_2X_2 - (1-w)F] \\ & + t_2[P_2X_2 - C_2X_2 - (1-w)F] \end{aligned} \tag{5}$$

that is, after-tax profits equal the combined pre-tax income less Country One tax on Country One income, Country Two tax on Country Two income, and Country One tax on Country Two income, plus the foreign tax credit allowed in Country One.[84]

The first-order conditions for efficient production in each location are:

$$\frac{\partial \Pi}{\partial X_1} = MNR_1[1 - t_1] + t_2F\left[\frac{\partial w}{X_1} + \frac{\partial \phi}{X_1}\right] = 0 \qquad (7)$$

$$\frac{\partial \Pi}{\partial X_2} = MNR_2[1 - t_1] + t_2F\left[\frac{\partial w}{X_2} + \frac{\partial \phi}{X_2}\right] = 0 \qquad (8)$$

By assumption, $\partial w/\partial X_1$ and $\partial \phi/\partial X_2$ are positive while $\partial w/\partial X_2$ and $\partial \phi/\partial X_1$ are negative. Thus if $\partial w/\partial X_i = |\partial \phi/\partial X_i|$, no allocative distortion arises. This condition is met if the Country Two allocation formula is the mirror image of the Country One formula. For example, if $w = X_1/(X_1 + X_2)$ and $\phi = X_2/(X_1 + X_2)$, then $\partial w/\partial X_1 = - \partial \phi/\partial X_1$, the sum of the two is zero, and there are no allocative effects from the use of allocative formulae.[85] If the allocation formulae of the two countries are not mirror images, however, $\partial w/\partial X_i$ plus $\partial \phi/\partial X_i$ is unlikely to equal zero. For the purpose of the following analysis, it is assumed that w is more sensitive than ϕ to changes in X_1 and X_2, so that $\partial w/\partial X_1$ exceeds $|\partial w/\partial X_1|$, and $|\partial w/\partial X_2|$ exceeds $\partial w/\partial X_2$. Consequently, MNR_1 is negative and MNR_2 is positive, that is, production is higher in Country One and lower in Country Two than would otherwise be the case.

Potential allocative effects also result from the mechanism for determining the foreign tax credit, because an additional unit of X_1 causes the deduction permitted for joint costs in Country Two to decrease. Both

Country One tax on Country Two income and the foreign tax credit thus increase (via $\partial w/\partial X_1$), with offsetting effects on combined after-tax income. However, since, by assumption, $\partial w/\partial X_1$ exceeds $| \partial \phi/\partial X_1 |$, at the margin of X_1 the increase in foreign tax credits will exceed the increase in foreign taxes actually paid. If such credits are in fact useful to the corporation, that is, if it currently has a deficit of foreign tax credits, then the tax saving equals $t_2F(\partial w/\partial X_1 + \partial \phi/\partial X_1)$. MNR_1 is negative, reflecting the extra production induced by the "shadow value" of combined tax saved at the margin of X_1. On the other hand, if excess foreign tax credits are generated at the margin, no tax savings are created and MNR_1 is zero.[86]

With respect to production decisions involving X_2, second-order effects may again be significant. An additional unit of X_2 shifts a unit of the F-deduction to Country Two. The marginal effect on taxes of this increase in this deduction in the calculation of the foreign tax credit will, in the assumed circumstances, however, be less than the marginal increase in Country Two taxes actually paid, so that there will be an effective loss of foreign tax credit. Consequently, less X_2 will be produced than would be the case in the absence of the distortion due to joint cost allocation formulae.

Thus the interaction of two "separate accounting" tax systems dealing with the problem of joint costs through formula allocation creates no violation of capital-export neutrality - that is, it is allocatively efficient - if the residence country allows full and current credit for foreign taxes paid <u>and</u> if a uniform, "mirror image" joint cost allocation formula is used by both countries. If the second condition is violated, however, there will be allocative consequences, as shown above.[87] Even if the first condition is violated and the foreign tax credit system does not act in such a way as to achieve allocative efficiency, so long as the second condition is satisfied, the allocative decision of the firm will not be altered and "efficiency" in that sense will be satisfied.

Finally, it is relevant to consider the case in which foreign taxes are deducted, not credited, in determining the combined tax on foreign source income. The maximand takes the form:

$$\begin{aligned}\Pi &= P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F \\ &\quad - t_1[P_1X_1 - C_1X_1 - wF] \\ &\quad - t_2[P_2X_2 - C_2X_2 - \phi F] \\ &\quad - t_1[P_2X_2 - C_2X_2 - (1-w)F - t_2(P_2X_2 - C_2X_2 - \phi F)]\end{aligned}$$

The last term is Country One tax on foreign source income assuming Country One imputes a joint cost deduction of $(1-w)F$ in its determination of the "base" amount of foreign source income. Further, all foreign taxes paid are assumed to be deductible and thus ϕ enters the calculation of the deduction for Country Two taxes paid. The first-order conditions for combined after-tax profit maximizing production of X_1 and X_2 in light of these rules are:

$$\frac{\partial\Pi}{\partial X_1} = MNR_1[1-t_1] + t_2(1-t_1)F\frac{\partial\phi}{\partial X_1} = 0$$

$$\frac{\partial\Pi}{\partial X_1} = MNR_2[1-t_1-t_2(1-t_1)] + t_2(1-t_1)F\frac{\partial\phi}{\partial X_2} = 0$$

It is useful to note that $\partial\Pi/\partial w = 0$ and $\partial\Pi/\partial\phi = t_2(1-t_1)F$. Since w enters the calculation of the Country One tax liability and $(1-w)$ is the share of joint costs imputed by Country One in the calculation of its tax on Country Two earnings, changes in w have no strategic role in international corporate tax planning. The combined value of the joint cost deduction is $F(1-t_1)$ regardless of where the deduction is claimed. However, a decrease in ϕ increases Country Two taxes actually paid while <u>not</u> affecting the imputed Country Two income which is based on w. In essence, a change in ϕ precipitated by a change in X_1 affects the effective rate of tax (net of the deduction) imposed by Country One on foreign source income. Thus if $\partial\phi/\partial X_1$ is negative, an increase in X_1 increases the taxation of foreign source income. Consequently, MNR_1 is positive and production of X_1 is less than it would be in the absence of the tax effect. With respect to X_2, since $\partial\phi/\partial X_2$ is positive *a priori*, MNR_2 is negative; the marginal unit of X_2 brings with it a marginal reduction in combined tax payable due to the reallocation of the joint cost deduction. These results do not depend on the relative size of t_1 and t_2.

Unitary Taxation

The taxation by one country of worldwide combined income may be analyzed, as in the previous examples, in the context of a firm with operations in two countries. One country - Country One - taxes a fraction (γ) of worldwide income at a rate t_1; Country Two uses separate accounting to tax income earned within its jurisdiction. As before, Country Two allows the deduction of a share of joint fixed costs equal to ϕ; Country One is presumed, in the cases in which it provides relief for foreign taxes, to allow the deduction of $(1-\gamma)$ of such costs. Country One is assumed to be the home country of a firm with a subsidiary operation in Country Two. The allocative effects of a unitary taxation regime in Country One are assessed under the alternative arrangements of no foreign tax relief, deduction of foreign taxes paid, and credit for foreign taxes paid.

The corporate maximands under these three scenarios are:

(a) No Foreign Tax Relief:

$$\begin{aligned}\Pi = \; & P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F \\ & - \gamma t_1[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F] \\ & - t_2[P_2X_2 - C_2X_2 - \phi F]\end{aligned} \tag{9}$$

(b) Deduction of Foreign Taxes:

$$\begin{aligned}\Pi = \; & P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F \\ & - \gamma t_1[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F - t_2\{P_2X_2 - C_2X_2 - (1 - \gamma)F\}] \\ & - t_2[P_2X_2 - C_2X_2 - \phi F]\end{aligned} \tag{10}$$

(c) Foreign Tax Credit

$$\begin{aligned}\Pi = \; & P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F \\ & - \gamma t[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F] \\ & - t_2[P_2X_2 - C_2X_2 - \phi F] \\ & + t_2[P_2X_2 - C_2X_2 - (1 - \gamma)F]\end{aligned} \tag{11}$$

When no relief is provided for foreign taxes (Equation 9), then

$$\begin{aligned}\frac{\partial \Pi}{\partial X_1} = \; & MNR_1[1 - \gamma t_1] - t[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F]\frac{\partial \gamma}{\partial X_1} \\ & + t_2F\frac{\partial \phi}{\partial X_1} = 0\end{aligned} \tag{12}$$

and

$$\begin{aligned}\frac{\partial \Pi}{\partial X_2} = \; & MNR_2[1 - \gamma t_1 - t_2] - t_1[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F]\frac{\partial \gamma}{\partial X_2} \\ & + t_2F\frac{\partial \phi}{\partial X_2} = 0\end{aligned} \tag{13}$$

MNR_1 is unambiguously positive in this case. A marginal unit of X_1 increases the share of combined income that Country One includes in its tax base, thus in effect increasing the rate at which combined income is taxed. Since this negative impact on after-tax combined profit occurs at the margin of X_1, less X_1 will be produced than would be the case if that effect were absent. The third term in $\partial\Pi/\partial X_1$ (that is, $t_2F\ \partial\phi/\partial X_1$) compounds this effect to the extent that Country Two reduces the share of joint costs allowed to be deducted in Country Two. Similarly, MNR_2 is unambiguously negative. In general, then, unitary taxation with no provision for foreign tax relief introduces a wedge between MNR_1 and MNR_2. Less production takes place in the "unitary country" and more takes place in the "separate accounting" country than if the wedge was not present.

If Country One allows a foreign tax credit, as in Equation 11, however, then:

$$\frac{\partial\Pi}{\partial X_i} = MNR_2[1-\gamma t_1] - t_1[P_1X_1 + P_2X_2 - C_1X_1 - C_2X_2 - F]\frac{\partial\gamma}{\partial X_i} + t_2F\frac{\partial\gamma}{\partial X_i} + t_2F\frac{\partial\phi}{\partial X_i} = 0 \qquad (14)$$

If $\partial\gamma/\partial X_i$ and $\partial\phi/\partial X_i$ are assumed to be "mirror images", that is, to be equal but with opposite signs, the third and fourth terms of $\partial\Pi/\partial X_i$ sum to zero, and the allocative effects of unitary taxation with foreign credit are identical to the primary effect in the situation of no foreign tax relief.[88] As in that case, MNR_1 is unambiguously positive simply because at the margin of X_1 an incremental tax liability is created with respect to <u>combined</u> income, not just for the marginal net revenue of X_1. The effect at the margin of X_2 is similar but of opposite sign. The introduction of a foreign tax credit thus does not eliminate the allocative effects that exist without foreign tax relief. As in that case, less production takes place in the "unitary country", while more takes place in the "separate accounting" country than if the wedge was not present.

Finally, if Country One allows a deduction for foreign taxes paid (Equation 10), the allocative effects observed at the margins of X_1 and X_2 are again qualitatively similar to the foreign tax credit, but quantitatively smaller. The reason is simply that the impact of a deduction on a tax liability is invariably smaller than the effect of a tax credit. The first order conditions in the deduction case are:

$$\frac{\partial\Pi}{\partial X_1} = MNR_1[1-\gamma t_1] - t[(P_1X_1-C_1X_1)+(1-t_2)(P_2X_2-C_2X_2)-(1-t_2)F]\frac{\partial\gamma}{X_1} + t_2F\frac{\partial\phi}{\partial X_1} = 0 \quad (15)$$

$$\frac{\partial\Pi}{\partial X_2} = MNR_2[1-t_2-\gamma t_1)] - t_1[(P_1X_1-C_1X_1)+(1-t_2)(P_2X_2-C_2X_2)-(1-t_2)F]\frac{\partial\gamma}{\partial X_2} + t_2F\frac{\partial\gamma}{\partial X_2} = 0 \quad (16)$$

Once again, the interaction of unitary taxation and separate accounting taxation, where taxes paid in the latter are deducted in the former, results in the insertion of a tax-wedge between (pre-tax) net marginal returns in the two countries and in a decrease in production in the unitary jurisdiction.

Much the same conclusion emerges if Country Two is assumed to have a unitary system, while Country One maintains separate accounting, that is, the unitary country will again tend to lose. If both countries adopt the unitary approach, the analysis in the preceding section comes into play, that is, so long as the formulas used in the two countries are mirror images of each other, and the home country allows full (and current) crediting of taxes paid in the host country, there will be no allocative effects. As soon as either of these conditions is violated, however, the multijurisdictional enterprise will alter its production decisions in response to different effective tax rates, whether the differences arise from nominal rates, from different formula deductions, or from the formula appropriation of combined income.[89]

Conclusion

The principal point that emerges from the simple analysis presented in this section is that the introduction of a unitary tax regime in one country is likely, over time, to reduce the tax base on that country. The more complex analysis in Gordon and Wilson (1984) of a related problem also leads to much the same conclusion: any form of formula apportionment is likely to alter in complicated ways the incentives faced by firms, with the general result being a loss to "high tax" jurisdictions.[90] The result may be to induce these jurisdictions to lower their tax rates (or adjust their formulas), thus presumably benefiting multijurisdictional enterprises. Alternatively, the result may be to induce jurisdictions to maintain their collective revenues by coalescing on a more uniform tax structure. As Musgrave (1985, p. 23) has recently argued in the context of capital taxation in the European Economic Community, for example, "...attention should now be given to the implementation of uniform source rules including the possibility of formula apportionment of profits." In her view, which is generally congruent with that taken here, the central issue in the interaction of corporate tax systems is the interjurisdictional allocation of tax bases. From this perspective, the most important virtue of a uniform source-based corporate tax system on a formula basis is that it achieves an allocation that is likely to be considered both equitable - since it gives primacy to the entitlement of source countries to income related to activities within their borders - and efficient - since uniform effective rates ensure locational neutrality.[91] The analysis in the present section essentially underlines and supports this second conclusion.

5. Implications for Canada

Section 2 noted that there was a real problem in allocating the income of multijurisdictional enterprises for tax purposes and that in principle the "unitary" approach appeared to offer some promise in dealing with this problem. Section 3 then reviewed the recent rise and fall of the unitary approach to the taxation of multinationals in the United States and concluded that its future appeared limited there. Finally, Section 4 argued that even in theory the unitary approach was not likely to prove a winner for any one taxing jurisdiction. Has the bubble of unitary taxation thus been completely burst? Is there nothing to be learned or no useful implications for Canada in any of this? This final section attempts to pull together a few concluding reflections drawn from the earlier discussion.

The bottom line as we see it is that for most multinational corporations separate accounting is conceptually wrong since if it were not for unallocable intangible joint assets, multinationals would not exist (Caves, 1982). In addition, separate accounting provides leeway for global tax minimization through transfer pricing and cost allocation maneuvering (Lessard 1979, Kopits 1978). Taxing jurisdictions therefore need a set of clear, enforceable rules to deal with the resulting difficulties (Oldman, 1984b).

The current international reliance on separate accounting requires a considerable amount of international co-operation and information if it is to work correctly (Robertson, 1983; Gordon, 1984), even neglecting the important fact that it simply cannot do so in the case of a truly unitary business (McLure, 1984c). It is by no means clear that the additional compliance burden of the unitary approach, so often stressed by its opponents (e.g., Harris 1985, Milton 1984) would be excessive. If, as suggested in section 4, for example, origin sales were to be used as the basis for international formula allocation, such data are not that hard to come by (Peterson, 1984). Any such formula will of course always be arbitrary to some extent - but then so is separate accounting, for the reasons noted earlier (Phillips, 1984).

As noted in Section 4, unitary taxation may often have some undesirable allocative effects (Gordon and Wilson, 1984; Break, 1984; Mieszkowski and Morgan, 1984). But this does not necessarily make the approach undesirable, since its major purpose is the distributive one of allocating tax base among jurisdictions in some reasonable relation to activities (Musgrave, 1984a). Moreover, in practice imperfectly operating taxes levied on a separate accounting basis will also have allocative effects which may be equally undesirable from some perspectives (McLure, 1980, 1981). In the international tax arena, where almost any conceivably practicable set of different national tax systems will in any case produce some allocative distortions (Sato and Bird, 1975), allocative efficiency is in any case a secondary issue (Helleiner, 1985). The choice of rules for allocating international tax bases to different jurisdictions will continue to be determined more by concepts of "fairness" and by the reality of differing degrees of national political and economic power vis-a-vis other nations and multinational firms than by concern for efficiency.

The most important single point to be derived from this discussion is that we are as yet a long way from knowing how best to deal with the inherent problems of taxing multijurisdictional firms. The increased economic integration of the world in recent decades, combined with the pressing need of most jurisdictions for revenues, has exacerbated this problem. Most "unitary" states in the U.S. no doubt adopted the unitary method primarily to obtain revenue, especially after the taxpayer "revolt" of the mid-1970s made it more difficult to raise taxes on residents and the "new federalism" policy of President Carter (continued and accentuated by President Reagan) slowed the flow of federal funds to state and local governments. The temptation for some hard-pressed developing nations - deeply in debt to foreigners, in many cases pushed by the same foreigners to raise taxes, and usually in a politically precarious position - to follow this same path, for much the same reasons, must be strong indeed, though it appears none has as yet made the leap.[92]

Yet there is much more to the unitary debate than simply a scramble for more revenue on the part of various grasping governments. It is not the need for revenue that has led such scholars as Gordon (1984) and Rugman and Douglas (1984) in Canada and Oldman (1984a) and McLure (1984c) in the United States or such important official agencies as the U.S. General Accounting Office (1982) to speak relatively favorably of some aspects of the unitary approach in the international context. Similarly, as discussed at length in Section 2, it is not for revenue reasons alone that subnational governments levying corporate income taxes universally use some form of formula apportionment system rather than a strict separate accounting approach.[93] Indeed, many national governments already in effect use similar arbitrary rules to allocate such important expense items as interest with respect to foreign-source income.[94]

As stressed throughout this paper, two important realities of the contemporary world underlie the manifest support in principle for "unitary" taxation in the sense of combined worldwide reporting and in practice for the formula apportionment of income (however determined) and expenses. The first, stressed by Rugman and Douglas (1984) in the Canadian context, is "...the fact that a MNE [multinational enterprise], though consisting of a number of separate units, operates as a single entity, using internal markets to avoid inherent imperfections in the open market".[95] Where a nominally separate firm is in fact part of a corporate group, any direct allocation of profits to the different firms becomes totally arbitrary: "the dividing lines between legal entities ... [become] mere silhouettes."[96] From this perspective, it simply does not make sense to pretend that, for example, IBM Canada or Ford Canada is a separate and independent entity operating at arm's length in all respects from sililarly-named (not to mention controlled) firms elsewhere.

Even more important in shaping fiscal practice has been the fact that separate national (let alone subnational) governments are not in a position to monitor adequately the intragroup transactions characteristic of multinational enterprises. This point has been especially emphasized in the Canadian context by Gordon (1984). Even the U.S. experience with sections 482 (transfer pricing) and 861 (income allocation) has been far from satisfactory, as has been extensively documented in recent official reports[97] - and the U.S. has both had more experience with and devotes more resources to the taxation of multinationals than any other country. Tax administrators everywhere suspect with good reason, as a German official recently said, "...that certain group structures offer a gamut of options that are almost seductively conducive to abuse and too good to pass by."[98] The point of this comment is certainly not that all multinational firms are tax cheats: on the contrary, in many countries they are undoubtedly among the most honest of all taxpayers. The point is rather that any of them could be cheating, and no one in authority is really in a position to tell whether they are or are not.[99]

It is of course easy to point out complexities and problems with the unitary approach, as the many opponents of the California system have certainly done with a vengeance! However, there are at least as many, and equally difficult, problems in the international context with the conventionally-accepted separate accounting approach. Indeed, to a large extent the problems in both cases are essentially the same, arising as they do from the basic difference between the geographic spans of economic enterprises and political jurisdictions. Within a nation, these problems may be overcome - as they have been in Canada - by common agreement on the arbitrary apportionment of an agreed base (which may itself also be arbitrarily determined). Between nations, the major agreement that has been reached has so far been, in effect, to ignore many of these problems and thus to pretend that the world is different than it is. While the accepted international approach has the considerable political advantage of (apparently) not requiring formal agreement on the division of the tax base, it is not clear that this state of affairs will long endure.[100]

Indeed, if it has served no other purpose, the recent unitary debate has at least brought out clearly the fragile and fundamentally unsatisfactory compromises that lie at the foundations of the presently-accepted system of taxing international income. The veil of separate incorporation, the mysteries of multi-currency accounting, the shield of deferral - all these are in a sense pierced by the insight that, to paraphrase Gertrude Stein, in a real and fundamental sense "a business is a business is a business". The admitted difficulty of defining a "unitary business" in precise terms - as set out carefully in McLure (1984c), for example - does not in any way affect this truth. The question is, what can be done about it in practical terms.

The almost Pavlovian reaction of most tax professionals and multinational firms in defense of the accepted separate accounting approach is perhaps understandable. But it is also obviously unsatisfactory, as is suggested by the observed fact that no country appears to use this approach with respect to allocating income among separate internal jurisdictions. Everyone understands in some vague sense with respect to multijurisdictional enterprises within a country that it is justifiably "fair" to allocate some profit to the province in which the product is sold and some to that in which it is made. What the recent unitary debate in the international context has brought into sharp focus is that the implicit division of the international tax base arising under the present rules seems often less likely to pass this basic test of fairness.[101] One answer to this problem may well lie in some extension to the international sphere of some version of the unitary apportionment approach, as a number of writers have recently argued.[102]

The unitary debate has thus by no means gone away. Even within the United States, the unitary tax issue remains current and important, as Section 3 indicated. As of mid-1985, for example, 12 states had 'unitary' legislation of one sort or another at various stages of legislative discussion - admittedly, often outlawing this approach![103] As this last remark perhaps suggests, the states have shown themselves increasingly aware of the potentially detrimental effect on business "climate" of tax measures seen to be aimed at multinationals. Even California in effect promised some kind of "unitary tax reform" in 1985 in order to remove a perceived deterrent to new business,[104] no doubt spurred on by the well-publicized efforts of such west coast neighbours as Oregon and Washington to poach California business.[105] Whatever the outcome, almost every state these days is thinking through the issues. At one extreme are the reflections of the State Tax Commissioner of Virginia, who recently said:

> We looked at the equations, and it was plain that revenues in Virginia are driven, not by corporate profits or the corporate income tax, but by Virginia personal income and jobs - Virginia employment. Therefore, we made the strategic decision that corporations in Virginia should be viewed

> primarily as creating jobs and not taxes as the fundamental framework of the business climate we sought to have in Virginia.[106]

Virginia does not "combine" in any way. Another possible outcome of the current reform effort in some unitary states may be a system of "domestic combination" of the sort introduced in Illinois, under which only those affiliates incorporated in the United States are combined for purposes of apportionment - and in which foreign-source dividends are basically exempted.

Similar forces are of course at work in the international sphere as well, where the game of threat and counter-threat has been actively pursued in the last few years by participants ranging from Japanese businessmen to Her Majesty's Government in London. In the end, the combination of international and domestic political pressure - "voice", to use Hirschman's well-known terminology - and the real or threatened use of its economic counterpart - "exit" - will doubtless suffice to dampen the subnational unitary fires in the United States or at least to keep the flames from scorching major multinational firms severely.

Success in this respect should not, however, let anyone concerned with international tax issues rest easy. As pointed out earlier, while the real problems of taxing multinationals may not in practice be dealt with well by the unitary approach, they are also not dealt with well in practice by separate accounting. In this, as in other areas of international taxation, it appears that the overriding concern with putting an agreed set of rules in place - perhaps reflecting the long-dominant influence of lawyers in this field? - has resulted in outcomes that are not really satisfactory to many of the players.

For example, the developing countries may at some point collectively urge the creation of an international body to study the possible usefulness of adopting a uniform unitary approach.[107] Oldman (1984b) has suggested that the essential ingredients of such an approach might include (1) an agreed, simplified, broad definition of income, (2) an agreed concept of "unitary business", (3) an agreed minimal jurisdictional requirement (such as the permanent establishment rule applied within Canada), (4) an agreed method of foreign currency translation, and (5) the creation of a method of dispute resolution.[108] As even a brief consideration of this list should indicate, any full solution to this problem is doubtless years away. Indeed, it seems unlikely that every country could ever possibly be brought to agree on these matters in all respects.

Nevertheless, in the long run the development of international links between tax administrations - whether through bilateral or multilateral treaties, or a set of unilaterally-applied agreed principles, or even an international agency (Intertax?) - to match the links already existing among firms is essential unless the weaker countries are willing to continue to accept whatever largesse the conscience of the international firms operating within their boundaries chooses to bestow upon them in the form of taxes. Even within sophisticated countries such as Canada, tax officials have been increasingly troubled by their inability to obtain the full picture with respect to international transactions and their consequent feeling that, for some taxpayers at least, the extent to which they pay taxes in Canada has become largely a voluntary act. Perhaps the only answer to these difficult problems, however unsatisfactory it may be, lies in the sort of tortuous, endless negotiation that has in the past characterized such international debating forums as the Tokyo Round and the Law of the Sea.

Whatever the future may hold in this respect, Canadian attitudes to the process should presumably be shaped by our long-term interest in a stable, fair division of the international tax base and not solely by the perceived increased taxes that might be suffered by this or that Canadian-based multinational as a result of a particular change in the international rules of the fiscal game. In this, as in other areas, Canada's interests are best served by fostering co-operative rather than confrontational policies whenever possible, even at the expense of some short-run economic pain.[109]

To sum up, viewed from one perspective the debate on unitary taxation has simply been another flash in the ever-heated pan of American fiscal federalism, with its international spillovers attributable solely to the great economic weight of the U.S. in the world. From another and, in our view, more significant perspective, the unitary debate has brought to the forefront the increasingly unsatisfactory state of the international tax world, whether seen from the perspective of the developing countries or from Canada. Instead of sighing with relief as the fires die down in the U.S., tax experts are better advised to begin to consider more seriously the need to develop a better, more acceptable, more transparent internationally accepted structure for taxing multinationals than that which now exists. The degree of international agreement needed for progress in this direction may seem unrealistically great, but the alternatives for increasingly outflanked national (and subnational) tax administrations in this age of financial and technological interdependence seem so bleak that something will have to be done someday. In the end, we think that what is done will contain a considerably larger component of the unitary and formula apportionment approach than the current state of professional thought appears to suggest.

Notes

* Faculty of Management Studies and Department of Economics, University of Toronto. The authors are grateful to R.D. Brown, C.E. McLure, Jr., David Sewell and two anonymous referees for extensive and helpful comments on earlier drafts of this paper.

1. See Musgrave (1972) and Musgrave and Musgrave (1972) for extensive discussions of alternative jurisdictional rules and tax base division.
2. For a critique of the nondiscrimination rule, see Sato and Bird (1975).
3. See, for example, the detailed discussion of the theory of multinational enterprises (and supporting empirical evidence) in Caves (1982), chap. 1.
4. This account is based largely on Sato and Bird (1975), pp. 395-406.
5. This is not strictly true with respect to certain special industries such as transportation, but these detailed matters cannot be pursued here.
6. See OECD (1977) for the latest version of the "model" tax treaty; see also United Nations (1980) for an extension to developing countries.
7. The former condition is usually called "capital-export neutrality" and the latter "capital import neutrality".
8. Numerous examples of such rules may be found in OECD (1977) and U.N. (1980). For an excellent discussion of this whole area, see Surrey (1978).
9. See Peat Marwick Mitchell (1979) and "Transfer Price Rules" (1979) for extensive discussion of legislation in Canada and elsewhere. For a summary that also considers the economic relevance of transfer pricing, see Mathewson and Quirin (1979). Much of the material in this and the next six paragraphs is taken almost verbatim from Brean (1984), chap. 8.

10. The adoption of a new set of GATT rules on valuation for customs purposes will not, in all likelihood, change the significance of such rules much, if at all.

11. Since the multinational's consolidated financial structure is the major determinant of relevant financial risk, subsidiary financial structure can, as a rule, readily be arranged in the light of such factors as taxation, exchange risks, and convenience for repatriating earnings (Brean, 1985).

12. Mathewson and Quirin (1979), p. 76.

13. The most careful exposition of this term is undoubtedly McLure (1984c).

14. It should be noted here that the actual rules adopted bear little, if any relation to those that might be prescribed in accord with the dictates of normative economics: see, for example, McLure (1983a) who makes it crystal clear that subnational jurisdictions should not tax corporate profits at all on efficiency grounds and that, if they must do so, they should do so as uniformly as possible. Such advice may be economically sound, but it "solves" the problem by assuming it away, which is not usually a viable option in a federal system.

15. The only detailed account of the evolution and working of the Canadian system is Smith (1976); see also Benson (1969), pp. 18-24, and La Forest (1981), chap. 5.

16. In this connection it is perhaps worth noting that there has long been pressure from many companies in effect to recognize the "unitary" nature of their activities by allowing the consolidation of subsidiary losses. Indeed, a system of group reporting for this purpose was recently put forth for discussion by the Department of Finance (Wilson, 1985). It is a bit hard to square this pragmatic recognition of the reality of

integrated business life with the adamant position in favour of the "accuracy" of separate accounting sometimes heard from the same firms (and tax practitioners). A similar clash of "principle" and pocketbook reality has occurred in the United States, where some of the strongest advocates of 'separate accounting" have emerged as fierce defenders of the "overall' rather than "per country" limitation with respect to the foreign tax credit.

17. Although this result is clearly similar in principle to the "water's edge" concept described below, it is obtained not by apportioning only "Canadian" income (as determined by the separate accounting approach) but rather by applying the total "provincial factor" - that is, the sum of the ratios of sales and wages in those provinces with permanent establishments - to total taxable income including any world wide income subject to Canadian tax (Smith, 1976, pp. 551-53).

18. A.K. Eaton, as paraphrased by Smith (1976), p. 560.

19. See, for example, the discussion in the Willis Committee report (Special Subcommittee, 1964) of 1964 as reproduced in Oldman and Schoettle (1974), pp. 536-62.

20. See McLure (1980, 1981) and Gordon and Wilson (1984).

21. In many cases, these systems were used on a selective or permissive basis. In practice, however, despite the widespread existence of various combination methods, most companies appeared to be subject to some form of separate accounting according to Arthur Young (1985).

22. This paragraph and some parts of the following argument are taken almost verbatim from Brean (1984), chap. 8.

23. For much more complete examination of the unitary approach, see Hellerstein (1975) and especially McLure (1984a).

24. See also note 16 above.

25. Miller (1984), for example, traces California practice in some respects back to 1875, although 1936 is a more generally accepted date for the initiation of the unitary method with respect to corporate income taxes.

26. The states were Alaska, California, Colorado, Florida, Idaho, Massachusetts, Montana, New Hampshire, North Dakota, and Utah. This count is based on information in Committee on State Taxation, State Tax Report No. 179, July 20, 1984, Supplement B. Three other sources cited in this publication reported 11, 10, and 10 unitary states respectively - but not the same ones in all cases! As discussed later, the situation has in any case changed considerably over the last year.

27. The specific U.S. legal issues are discussed at length by a number of authors in McLure (1984a).

28. See, for example, Oldman (1984b) and Jacob (1984); for a much less sanguine view, see Kopits and Muten (1984).

29. See especially OECD (1979) as well as the references in note 6 above.

30. Reportedly, for example, the first issue raised by the Japanese Minister of Finance in a recent discussion with the U.S. Secretary of the Treasury was the unitary tax ("The Unitary Tax Mess", 1985).

31. See Advisory Commission (1983), p. 1.

32. See Committee on State Taxation, State Tax Report No. 189, May 15, 1985, No. 191, July 12, 1985; and No. 194, October 31, 1985.

33. See Advisory Commission (1984). Portions of this introduction are taken almost verbatim from Bird (forthcoming).

34. These figures include not only corporate income taxes but the business share of local property taxes and payroll taxes, severance, insurance premiums, transfer and utility taxes and other business fees: see Wheaton (1983).

35. In 1978, for example, 28 states had some type of corporate tax incentives compared to 21 in 1970 and only 11 in 1966: see Advisory Commission (1981).

36. Advisory Commission (1981), p. 4.

37. A similar point has been made in the Canadian context by Belanger (1982) and Bird (1984) - and is shown analytically in Section 4 below as well as in Gordon and Wilson (1984).

38. See, for example, Due (1977) and Goode (1976).

39. For an extensive, albeit somewhat out-of-date, discussion, see Special Subcommittee (1964); a more up-to-date account is McLure (1983a).

40. McLure (1981), p. 405. He extends this conclusion with special emphasis to attempts to tax dividends out of foreign-source income, noting that such taxes will be shifted to residents in the taxing state or owners of immobile factors located in the state.

41. The case against state corporate taxes is set out, for example, in McLure (1983a); the usual arguments against federal corporate taxes are critically reviewed in Bird (1980). See also note 14 above.

42. A partial listing of recent publications of this subject includes McLure (1983b, 1983c, 1984a, 1984b), Hellerstein (1975), Madere and Smith (1982), Smith (1984), Heising (1984), Hreha and Seago (1983), Brown (1984), Miller and Dunlap (1984), Milton (1984), Frenkel (1984), Brown, Leegstren, and Looran (1985), Arthur Young (1984), Buresh and Weinstein (1982), Morgan (1985), Tannewald (1984), Kaplan (1984), and General Accounting Office (1981, 1982).

43. Heising (1984) and Hreha and Seago (1983) outline the facts and law of the Container case. It suffices to note here that Container, a paperboard packaging manufacturer, is a Delaware corporation head-

quartered in Illinois and doing business in California and elsewhere. During the years under examination, Container controlled 20 foreign subsidiaries incorporated in 4 Latin American and 4 European countries. California imposes a corporate franchise tax geared to income. The state tax liability is determined by a three-factor formula (payroll, property, and sales) applied to income earned both inside and outside the state. In calculating the total unapportioned taxable income of its unitary business, Container included its own corporate net earnings as derived from its U.S. federal tax return, but did not include any income of its foreign subsidiaries. Container deducted, as authorized under state law, all dividend income, nonbusiness interest income, and gains on sales of assets not related to unitary business. Likewise, in its calculation of the percentage of income that was apportionable to California under the three-factor formula, Container omitted all of its foreign subsidiaries' payroll, property, and sales. The net effect of forcing Container to treat its overseas subsidiaries as part of its unitary business was to increase its California tax liability for each of the three years in question: although the percentage of income apportionable to California was lower, the increase in total income subject to apportionment more than offset the decrease in the apportionment factor.

44. Brown (1984), pp. 554-55. See also the formal notes from the EEC, the U.K., France, and Canada reproduced in ACIR (1983), pp. 10-17.

45. This quotation is from a letter of 26 September 1980 by the Hon. Alan MacEachen, then Minister of Finance, to the Governor General, notifying him of the signing of the tax convention (see <u>The New Canada-U.S. Tax Treaty</u> (1984), p. 79; also ACIR (1983), pp. 16-17). When the treaty was finally ratified in 1984, official intergovernmental notes were exchanged

expressing Canada's concern along the same lines. The United States committed itself to reopen discussions should an "acceptable position" on this subject be devised.

46. Illinois subsequently renounced the unitary approach.

47. Final Report (1984), Chairman's Report, p. 4.

48. For a positive assessment of the achievements of the Working Group, see McLure (1984b).

49. Letter of October 11, 1985, from Charles E. McLure, Jr., who served as Staff Director of the Working Group.

50. Final Report (1984), Chairman's Report, p. iii.

51. Ibid., Supplement, Statement by Allen Wallis, pp. 1-3. Mr. Wallis also noted explicitly that all of these criticisms were "sound" (p. 1). In our view, however, the second point is only correct if one presumes that separate accounting is "correct" - a conclusion we dispute - while the first is, as we shall see, more arguable than seems generally to be recognized. The last three points are, however, indeed sound, as shown in detail in the present paper.

52. This aspect is also stressed in Arthur Young (1984) and Buresh and Weinstein (1982), as well as in the Canadian statement quoted at note 45 above.

53. Although the OECD Model Tax Convention was specifically cited in this respect, as noted earlier, even the U.N. model tax convention between developed and developing countries, which is generally less respectful of the wishes of the industrial countries, is based on the separate accounting approach. See OECD (1977) and United Nations (1980).

54. See Committee on State Taxation, State Tax Report, various issues.

55. Ibid., State Tax Report No. 191, July 12, 1985, pp. 1-2; and "U.S. May Ease Taxes" (1985).

56. See also text at note 7 above; for a fuller discussion of these concepts, see Brean (1984), Chapter 2.

57. Another important contentious issue concerns the so-called "80/20 corporations (U.S.-based corporations operating primarily abroad); this matter is not further discussed here, however.

58. These points are quoted from Final Report (1984), Chairman's Report, p. 36: the order of the paragraphs has been changed (and several additional points omitted).

59. Interestingly, in the "state-approved" version of this report included in ibid., Supplementary Report pp. 9-10, the words "potentially subject to state income tax" are replaced by "are subject to income tax in the majority of states". According to Committee on State Taxation, State Tax Report No. 190, June 24, 1985, Supplement B, in fact foreign-source dividends are totally exempt in 12 states and substantially exempt in another 12 - that is in a bit more than half the 45 states with corporate taxes. In five states, such dividends are allocated to commercial domicile and in nine states they are apportioned like other income. The remaining seven states are those that still had worldwide unitary combination as of that date - Alaska, California, Idaho, Montana, New Hampshire, North Dakota, and Utah. (Compare the list a year before, as given in note 26 above.)

60. As the business representatives to the Working Group implicitly emphasized (see quotation below), it is noteworthy that the states are careful not to mention that the federal government also provides a credit for foreign taxes.

61. The following points are taken from <u>Final Report</u> (1984), Chairman's Report, pp. 37-38. As before, the order of the paragraphs has been changed (and several additional points omitted).

62. The version of this point in <u>Final Report</u> (1984) "State-Approved" Report, pp. 11-12, includes an additional (third) sentence, as follows: "Generally speaking, these dividends are only subject to full taxation when they are received by the individual investor."

63. Interestingly, in the "state-approved" version of this report, this point does not appear at all in the section headed "business position" (pp. 11-12).

64. This aspect is heavily stressed in the supplementary statement by the business representatives included in the Supplementary Report. An additional argument made by business (e.g., <u>Final Report</u> (1984), p. 38) is that state corporate taxes, being based on the source principle, cannot properly be applied to income such as dividends from abroad that is not "sourced" in the State. The state answer to this (<u>ibid.</u>, p. 36) is, as expected, that since such dividends are generated by expenditures on R and D, management, and so on, that are deductible for state tax purposes, the income should be taxable. As this point should make clear, the issue here is <u>not</u> the source principle but whether the business is "unitary".

65. See "Unitary Method Working Group" (1984).

66. See Miller (1984) for a detailed explanation and defence of California practice. McLure (1984c), on the contrary, suggests that the rule should be separate accounting even for commonly-owned firms unless there are substantial "shared expenses, economies of scale or scope, intra-group transactions, vertical integration, or other economic interdependencies"

(p. 107). Both McLure's careful discussion of these various factors and consideration of the generally-accepted arguments for the existence of multinational firms in the first place - as set out briefly earlier in the present paper - however, would appear to suggest that California has it in some sense "right". In the international sphere, with even more reason than in the national sphere, it would seem best to presume that commonly-owned businesses are "unitary" in the absence of evidence to the contrary. Whether this advice can feasibly be implemented is, of course, a different matter, as is discussed further below.

67. This point is made strongly in Committee on State Taxation, "Comprehensive Water's Edge" (1984).

68. Quoted by Allen Wallis in Final Report (1984) Statement, p. 3.

69. See, for example, the summary of the July legislative debates in Committee on State Taxation, State Tax Report No. 191, July 12, 1985, pp. 2-4.

70. See ibid., p. 1.

71. Ibid., No. 195, November 19, 1985, p. 1. In July, the Treasury had released the draft "full disclosure-spreadsheet" called for the Working Group - to be met by protests from business that they only agreed to this provided the foreign-source dividends question was satisfactorily resolved (ibid., No. 191, July 12, 1985, p. 1). In August, the Treasury announced it was deferring consideration of federal "water's-edge" legislation because of the progress that had been made (ibid., No. 192, August 23, 1985, p. 1). In September, the California legislature adjourned without changing the unitary system (ibid., No. 193, September 18, 1985), p. 1. In October, President Reagan and Prime Minister Thatcher reportedly conferred about the matter (ibid., No. 194, October

31, 1985). In November, the Secretary was told to draft the legislation mentioned in the text and in December 1985, the legislation was introduced in Congress (Ibid, No. 196, December 19, 1985).

72. Ibid., No. 195, November 19, 1985, p. 2.

73. As mentioned in Section 1 and also in note 64 above, and it is important not to confuse this matter with the choice of the source or residence approaches to taxation. The problem of interjurisdictional allocation clearly arises under both source and residence principles and both may be equally well (or ill) served by separate accounting or some combination approach.

74. For simplicity, this section focuses only on the "extreme" unitary position of worldwide unitary combination and assumes that the same apportionment formula is used in all jurisdictions employing the unitary method. Clearly, to the extent formulas differ, all the complications set out in Gordon and Wilson (1984) will ensue, but these problems are in a sense not central to the unitary issue as such.

75. See the discussion of these rules with respect to interest in McIntyre (1981), especially pp. 805-09, and also in 'Multinational Corporations' (1976).

76. This position is actually not that far from that expressed in Surrey (1978). Although Surrey is commonly considered to have been a prime mover in the widespread adoption of the arm's length standard, it is clear that he was very aware of the problems of implementing this standard and the need to work out acceptable and practical rules, probably including formulas of various sorts, to deal with the numerous and intractable intra-group allocation problems found in the real world.

77. As noted above, obviously many variant formulas could be applied both to particular deductions and to combined profits, but these complications would add nothing to the central points made here.

78. See the text at note 7 for a brief discussion of the credit and exemption systems. In addition, as Musgrave (1969) shows in detail, the deduction system - while it achieves neither capital-export nor capital-import neutrality - does achieve a particular form of equity in the sense that an equal amount of domestic tax is thereby imposed on a given amount of net income received in a country regardless of its source. In contrast, the credit method achieves equity in the sense that the same amount of total tax is imposed on a given amount of income. (Incidentally, the parallel to the concepts of "narrow" and "broad" equity set out in Boadway and Flatters (1982) is obvious and deserves more exploration than it can receive here.)

79. The fact that multinationals thrive and flourish is in a sense just another indication of the need to replace the prevalent concept of static allocative efficiency as a standard by a more realistic and dynamic concept, perhaps along Schumpeterian or "evolutionary" lines: but it would obviously take us too far afield to pursue this theme further here.

80. As Helleiner (1985) puts it, since the major real-world issues are distributional, both "efficiency" approaches fundamentally miss the point. In his words (p. 241): "World output maxmization is...by no means the only sensible objective to which theoretical analysis should be directed."

81. Actually, there may well be substantial differences in the tax rates facing different affiliates of a company even within one jurisdiction, as the recent flurry of literature on effective tax rates (Boadway, 1985) clearly demonstrates, but this refinement is ignored here.

82. More elaborate operational models have since been developed in the business and accounting literature, for example, by Nieckels (1976) and Elam and Henaidy (1979). Lessard (1979) and the papers in Rugman and Eden (1985) present various views of the allocative and fiscal implications of the transfer pricing problem.

83. The economic literature, which has focused largely on the allocative effects of differential tax rates, has usually concluded that uniform tax structures would be allocatively most efficient. An additional implication of this literature, as noted earlier, is that unconstrained market forces will tend, through investment adjustments, to induce such uniformity to some extent - although in the case of "quasi-rent-driven" multinationals such adjustment may take a fair amount of time. In the real world, however, countries faced with such pressures seem more likely initially to defend their tax base by attempting to constrain multinational decisions in ways such as those described here. These measures doubtless can best be understood in distributive terms and hence fit awkwardly into conventional analysis. Nevertheless, it is perhaps worth underlining that in any case no single jurisdiction can be expected to be motivated by considerations of "world efficiency"; indeed, so long as there is no world government, it is unlikely that anyone will be so motivated.

84. Note that the cost allocation rule applied is the Country One rule so that the tax creditable may not be the same as the tax payable. This point is discussed further below.

85. This is, of course, simply a variant of the usual result that uniform tax systems do not disturb location decisions at the margin. (Incidentally, it is assumed here, as throughout this paper, that corporate taxes are

not benefit taxes, that is, that they are not offset by benefits from public expenditures accruing to the firm.)

86. This outcome is particularly likely when, as in the United States, the country has an "overall" rather than a "per-country" limitation on foreign tax credits. For further discussion of the importance of foreign-tax credit "deficits" and "surpluses" in U.S.-Canadian tax relations, see Deutsch and Jenkins (1982).

87. Although the problem has been discussed here with respect to a formula based entirely on "origin sales" (or production), any other basis will yield similar results - and in any case any feasible formula basis is likely to be related in some way to production.

88. If the cost allocation terms are <u>not</u> mirror images, then (as shown in the previous section) there is an additional allocative effect.

89. It should perhaps be noted that in the real world, no country has an allocatively efficient foreign tax credit system in the sense used here, that is, one which credits all taxes levied in the host country as they are imposed. The general rule is not to tax income in the home country, or to give credit for host-country taxes, until the income is repatriated. Such deferral means, in effect, that the operation of the usual crediting system favours production abroad compared to production at home and is thus not capital-export neutral.

90. Like us, Gordon and Wilson (1984) focus on the equilibrium behavior of individual firms under formula apportionment. In particular, they explicitly model production decisions and factor markets. They do not, however, explore formulas based on the single factor 'production' (sales at origin) that we have used, in part because their emphasis is on U.S. state corporate taxes whereas ours is on the international aspects where

the production basis seems more relevant. For the same reason, they also do not consider the foreign tax credit case emphasized in the text. Finally, they do not explicitly consider the unallocable costs that lie at the heart of the multinational tax problem.

91. All of this discussion of course becomes much more complicated if one allows for the possibility of different degrees of personal-corporate tax integration in different jurisdictions: for extensive discussion, see Sato and Bird (1975).

92. See the quotation from the U.S. Undersecretary of State for Economic Affairs at note 51 above.

93. In addition to the references in Section 2 to U.S. and Canadian practice, see also Jacob (1964) on West Germany, where the so-called "trade tax" (Gewerbesteuer), which is based on profits and capital invested, is apportioned among municipalities largely on the basis of a uniform formula based on payroll.

94. Jacob (1984) describes a number of formula apportionment systems already existing in the international area, e.g., the U.S. rules on interest deductibility (pp. 16-17) and alternative approaches available under German and Italian law (pp. 17-20).

95. Rugman and Douglas (1984), p. 22. As already noted, McLure (1984c) provides the most careful exposition of this point.

96. Jacob (1984), p. 36. Examples of such interdependencies mentioned earlier are shared costs of management and R and D or economies of scale or scope obtained through horizontal or vertical integration.

97. See, for example, General Accounting Office (1982) and Gordon (1981).

98. Jacob (1984), p. 36.

99. As Rugman and Eden (1985), p. 9, note, somewhat sweepingly: "The MNE itself regards international tax rate differentials and exchange controls imposed by nation states as exogenous market imperfections to which transfer pricing is a legitimate internal response. On the other hand, nation states view the power to manipulate transfer prices as a method of evading legal obligations, thus eroding national sovereignty". The present authors can attest to the validity of both these statements in at least some cases, based on their experience over the years with a variety of firms and governments.

100. The word "apparently" has been inserted in parentheses in this sentence because of course the existing rules <u>do</u> divide the tax base in a particular fashion, which is not always one that makes sense even if all taxpayers are scrupulously honest: for further discussion from a different perspective (with respect to "nondiscrimination") which leads to the same conclusion, see Sato and Bird (1975).

101. As, indeed, was emphasized by Musgrave and Musgrave (1972) some years ago and recently recently restated clearly by Musgrave (1984a, 1984b, and 1985).

102. See, for example, Oldman (1984a and 1984b), Jacob (1984), Rugman and Douglas (1984), and General Accounting Office (1981).

103. In addition, legislation related to this issue has been passed recently in Arizona, Colorado, Indiana, and Utah (Committee on State Taxation, <u>State Tax Report</u> No. 190, June 20, 1985, Supplement A).

104. See, for example, text of special advertising section placed by Government of California in <u>Business Week</u> in late 1984. This move doubtless responded in part to such pressure groups as the California Business Council - which has also urged that exemption of dividends must

be part of any reform to avoid "penalizing" domestic vs. foreign multinationals. (See California Business Council (n.d.).)

105. As noted earlier, the California legislature in fact did not live up to this promise, thus spurring British retaliation and the recent federal declaration of intent to draft federal legislation.

106. Quoted in Frankel (1984), p. 6. See also the similar remark quoted in Shefrin and Fulton (1984).

107. Even Kopits and Muten (1984), who are on the whole quite negative towards the unitary method in the international context, partly on administrative and partly on efficiency grounds, stress the need for extensive co-operation to make separate accounting work and recognize that, if such cooperation is not forthcoming, countries - like states in the U.S. - will almost certainly move toward some formula apportionment method. The views of the two commentators on this paper are also worth noting: Oldman (1984a) says that separate accounting does not - and probably cannot - work well and Musgrave (1984b) says neither approach may work too well in practice but separate accounting is simply conceptually wrong in many cases. She also notes that efficiency is really not a very important issue in this context (see also discussion at note 80 above).

108. On the last point, see also the proposal in Shoup (1985) for dispute resolution with respect to transfer pricing. The parallel between the two proposals emphasizes a central point made throughout the present paper, namely, that <u>any</u> method of taxing multinationals gives rise to similar problems.

109. For extended development of this theme, see Bird and Brean (1985), esp. pp. 409-16.

References

Advisory Commission on Intergovernmental Relations. Regional Growth: Interstate Tax Competition (Washington, 1981).

Advisory Commission on Intergovernmental Relations. State Taxation of Multinational Corporations (Washington, D.C., 1983).

Advisory Commission on Intergovernmental Relations. Significant Features of Fiscal Federalism, 1982-83 Edition (Washington, 1984).

"Arizona Here We Come", The Economist, Sept. 21, 1985, pp. 80, 83.

Arrow, K.J. "Control in Large Organizations", Management Science, 10 (1964), 397-408.

Arthur Young "The Unitary Tax: The Corporate View", Journal of State Taxation, 3 (Winter 1984), 289-302.

Belanger, Gerard, "Dans un systeme federal le gouverment central doit-il essayer d'imposer l'harmonisation fiscale?" L'Actualite Economique (December 1982), 493-512.

Benson, Hon. E.J. The Taxing Powers and the Constitution of Canada (Ottawa, 1969).

Bird, Richard M. Taxing Corporations (Montreal: Institute for Research on Public Policy, 1980).

Bird, Richard M. "Tax Harmonization and Federal Finance: A Perspective on Recent Candian Discussion", Canadian Public Policy, 10 (1984), 253-66.

Bird, Richard M. Federal Finance in Comparative Perspective (Toronto: Canadian Tax Foundation, forthcoming).

Bird, Richard M. and D.J.S. Brean, "Canada/U.S. Tax Relations: Issues and Perspectives", in Deborah Fretz, Robert Stern, and John Whalley, eds., Canada/United States Trade and Investment Issues (Toronto: Ontario Economic Council, 1985), pp. 391-425.

Boadway, Robin, "The Theory and Measurement of Effective Tax Rates". (Paper presented to John Deutsch Roundtable on Economic Policy, Ottawa, November 1985).

Boadway, Robin and Frank Flatters. Equalization in a Federal State (Ottawa: Supply and Services, 1982).

Break, George F., "Comments", in McLure, The State Corporation Income Tax, pp. 82-94.

Brean, D.J.S. International Aspects of Taxation: The Canadian Perspective (Toronto: Canadian Tax Foundation, 1984).

Brean, D.J.S., "Financial Dimensions of Transfer Pricing" in Rugman and Eden, Multinationals and Transfer Pricing, (1985), pp. 149-64.

Brown, Robert D., "Canada-U.S. Tax Issues: The Tax Treaty, Unitary Taxation and the Future", Canadian Tax Journal, 32 (May-June 1984), 547-71.

Brown, Robert D., R.G. Leegstren and L.J. Looran, "Unitary Tax: At the Crossroads?", Journal of State Taxation, 3 (Winter 1985), 237-53.

Buresh, J.F. and M.S. Weinstein, "Combined Reporting: The Approach and Its Problems", Journal of State Taxation, 1 (Spring 1982), 5-15.

California Business Council. Unitary Tax Reform (Sacramento, n.d.).

Carlson, George, "State Taxation of Corporate Income from Foreign Sources", in Essays in International Taxation: 1976 (Washington, D.C.: Department of the Treasury, 1976), pp. 231-300.

Carlson, George N. and Harvey Galper, "Water's Edge versus Worldwide Unitary Combination", in McLure, The State Corporation Income Tax, pp. 1-40.

Caves, Richard E., "International Corporations: The Industrial Economics of Foreign Investment", Economica, 38 (1971), 1-27.

Caves, Richard E. Multinational Enterprise and Economic Analysis (Cambridge: Cambridge University Press, 1982).

Committee on State Taxation. State Tax Report, various issues.

Committee on State Taxation, "'Comprehensive Water's Edge' - A Cure Worse than the Disease!" (mimeo.: Washington, October 10, 1984).

Copithorne, Lawrence W., "International Corporate Tranfer Prices and Government Policy", Canadian Journal of Economics, 4 (August, 1971), 324-41.

Desin, Allan N., "Comments", in McLure, The State Corporation Income Tax, pp. 214-76.

Deutsch, Antal and G.P. Jenkins, "Tax Incentives, Revenue Transfers, and the Taxation of Income from Foreign Investment", in W.R. Thirsk and John Whalley, eds., Tax Policy Options in the 1980s (Toronto: Canadian Tax Foundation, 1982), pp. 217-47.

Due, John F., "Personal Deductions" in: Joseph A. Pechman, ed., Comprehensive Income Taxation (Washington: Brookings Institution, 1977).

Diewart, W.E., "Transfer Pricing and Economic Efficiency", in Rugman and Eden, eds., pp. 47-81.

Eden, Lorraine, "Vertically Integrated Multinationals: A Micro-Economic Analysis", Canadian Journal of Economics, 11 (1978), 534-46.

Eden, Lorraine, "The Microeconomics of Transfer Pricing", in Rugman and Eden, eds., pp. 13-46.

Elam, R. and Henaidy, H., "Transfer Pricing for the Multinational Enterprise", International Journal of Accounting (Spring, 1980), 49-65.

Final Report of the Worldwide Unitary Taxation Working Group (Washington, Office of the Secretary, Department of the Treasury, 1984).

Frankel, Paul H., "A Worldwide Unitary Tax: Easy Money or an Economic Dead End?", Legislative Policy, Jan.-Feb. 1984, pp. 3-8.

General Accounting Office. IRS Could Better Protect U.S. Tax Interests in Determining the Income of Multinational Corporations (Washington, 1981).

General Accounting Office. Key Issues Affecting State Taxation of Multijurisdictional Corporate Income Need Resolving (Washington, 1982).

"Global Profits Slip Away from the States", Business Week, Sept. 16, 1985, p. 116.

Goode, Richard. The Individual Income Tax (rev. ed.; Washington: Brookings Institution, 1976).

Gordon, Myron J., The Taxation of Canadian Subsidiaries of Foreign Corporations, Occasional Paper No. 3, Canadian Institute for Economic Policy, 1984.

Gordon, Richard A. Tax Havens and Their Use by United States Taxpayers (Washington: Internal Revenue Service, 1981).

Gordon, Roger and John D. Wilson, "An Examination of Multijurisdictional Corporate Income Taxation Under Formula Apportionment", National Bureau of Economic Research Working Paper Number 1369, June 1984.

Harris, Edwin C., "Intercompany Cross Border Transactions: A Growing Concern for Revenue Canada", CA Magazine, 1985.

Helleiner, G.K., "Comments on Efficiency, Equity and Transfer Pricing in LDCs", in Rugman and Eden, eds., pp. 240-44.

Hellerstein, Jerome R., "The Unitary Business Principle and Multicorporate Enterprises: An Examination of the Major Controversies", The Tax Executive, 27 (July 1975), 313-29.

Heising, Riccarda, "Container Corp. of America v. Franchise Tax Board: The Constitutionality of State Power to Tax Multinational Corporations", Law and Policy in International Business, 16 (1984), 299-324.

Hewett, Roger S., and Susan C. Stephenson, "State Tax Revenues Under Competition", National Tax Journal, 36 (March 1983), 95-101.

Hirshleifer, Jack, "On the Economics of Transfer Pricing", Journal of Business, 29 (1956), 172-84.

Horst, Thomas, "Theory of the Multinational Firm: Optimal Behaviour Under Differing Tariff and Tax Rates", Journal of Political Economy, 79 (September/October, 1971), 1059-72.

Hreha, Karen, and W.E. Seago, "Domestic and Foreign Aspects of the Container Decision", Journal of State Taxation, 2 (Summer 1983), 101-13.

Jacob, Friedhelm, "Unitary Approaches in International Taxation", International Monetary Fund, Fiscal Affairs Department DM/84/19, March 7, 1984.

Kaplan, Philip T., "The Unitary Tax Debate, the United States Supreme Court, and Some Plain English", Journal of Corporate Taxation, 10 (Winter 1984), 283-300.

Kopits, George F., "Taxation and Multinational Firm Behavior", IMF Staff Papers, 23 (November 1976).

Kopits, George, and Leif Muten, "The Relevance of the Unitary Approach for Developing Countries", in McLure, The State Corporation Income Tax, pp. 269-80.

La Forest, Gerard V. The Allocation of Taxing Power Under the Canadian Constitution (2nd ed.; Toronto: Canadian Tax Foundation, 1981).

Le Pan, Nicholas D., "Comments", in McLure, The State Corporation Income Tax, pp. 247-49.

Lessard, Donald R., "Transfer Prices, Taxes, and Financial Markets: Implications of International Financial Transfers Within the Multinational Corporation", in Hawkins, R.G. (ed.), Research in

International Business and Finance: The Economic Effects of Multinational Corporations (Greenwich, Conn.: JAI Press Inc., 1979).

Madere, Glen L., and Craig T. Smith, "State Taxation of Multijurisdictional Enterprises: Overview for 1982", The Tax Executive, 34 (Jan. 1982), 115-35.

Mathewson, G.F., and G.D. Quirin. Fiscal Transfer Pricing in Multinational Corporations (Toronto: University of Toronto Press, 1979).

McIntyre, Michael J., "An Inquiry into the Special Status of Interest Payments", Duke Law Journal, 5 (1981), 765-810.

McLure, Charles E., Jr., "The State Corporation Income Tax: Lambs in Wolves' Clothing," in Henry J. Aaron and Michael J. Boskin, eds., The Economics of Taxation (Washington, D.C.: The Brookings Institution, 1980), pp. 327-46.

McLure, Charles E., Jr., "The Elusive Incidence of the Corporate Income Tax: The State Case", Public Finance Quarterly, 9 (October 1981), 395-413.

McLure, Charles E., Jr., "Assignment of Corporate Income Taxes in a Federal System", in Charles E. McLure, Jr., ed., Tax Assignment in Federal Countries (Canberra: Centre for Research on Federal Financial Relations, The Australian National University, 1983), pp. 101-24. (1983a)

McLure, Charles E., Jr., "Operational Interdependence is not the Appropriate 'Bright Line Test' of a Unitary Business - At Least, Not Now", Tax Notes, Jan. 10, 1983, pp. 107-10. (1983b)

McLure, Charles E., Jr., "The Basic Operational Interdependence Test of a Unitary Business: A Rejoinder", Tax Notes, Oct. 10, 1983, pp. 91-100. (1983c)

McLure, Charles E., Jr., ed. The State Corporation Income Tax: Issues in Worldwide Unitary Combination (Palo Alto: Hoover Institution Press, 1984). (1984a)

McLure, Charles E., Jr., "Unitary Taxation: The Working Group's Contribution", Tax Notes, August 27, 1984, pp. 879-83. (1984b)

McLure, Charles E., Jr., "Defining a Unitary Business: An Economist's View", in McLure, The State Corporation Income Tax, pp. 89-124. (1984c)

Mieszkowski, Peter and John Morgan, "The National Effects of Differential State Corporate Income Taxes on Multistate Corporations", in McLure, The State Corporation Income Tax, pp. 253-63.

Miller, Benjamin F., "Worldwide Unitary Combination: The California Practice" in McLure, The State Corporation Income Tax, pp. 132-66.

Miller, Martin, and W.M. Dunlap, "Unitary Tax Working Group - An Impossible Dream," Journal of State Taxation, 3 (Summer 1984), 85-90.

Milton, David R., "Worldwide Unitary Taxation: A Kaleidoscope of Inconsistencies and Double Taxation", Journal of State Taxation, 3 (Spring 1984), 15-24.

Morgan, Vivien, "Unitary Tax Update", Canadian Tax Journal, 33 (March-April 1985), 352-59.

"Multinational Corporations and Income Allocations under Section 482 of the Internal Revenue Code", Harvard Law Review, 89 (April 1976), 1202-38.

Musgrave, Peggy B. United States Taxation of Foreign Investment Income: Issues and Arguments (Cambridge, Mass.: Harvard Law School International Tax Program, 1969).

Musgrave, Peggy B., "International Tax Base Division and the Multinational Corporation", Public Finance, 25 (Nov. 1972), 394-411.

Musgrave, Peggy B., "Principles for Dividing the State Corporate Tax Base", in McLure, The State Corporation Income Tax, pp. 228-46. (1984a)

Musgrave, Peggy B., "Comments", in McLure, The State Corporation Income Tax, pp. 281-85. (1984b)

Musgrave, Peggy B., "Interjurisdictional Coordination of Taxes on Capital Income" (Paper presented to the International Seminar on Public Economics, Rotterdam, 1985.

Musgrave, R.A. and P.B. Musgrave, "Inter-Nation Equity" in: R.M. Bird and J.G. Head, eds., Modern Fiscal Issues (Toronto: University of Toronto Press, 1972), pp. 63-85.

Nieckels, Lars. Transfer Pricing in Multinational Firms (Ottawa: Supply and Services, 1982).

Nunns, James R., "Comments", in McLure, The State Corporation Income Tax, pp. 220-27.

Oldman, Oliver, "Comments", in McLure, The State Corporation Income Tax, pp. 286-87. (1984a)

Oldman, Oliver, "The Unitary Method and the Less Developed Countries" (Notes for a Talk at Association of African Tax Administrators, Gabarone, Botswana, March 15, 1984). (1984b)

Oldman, Oliver and F.P. Schoettle. State and Local Taxes and Finance (Mineola, New York: Foundation Press, 1974).

Organisation for Economic Co-operation and Development. Transfer Pricing and Multinational Enterprises (Paris, 1979).

Organisation for Economic Co-operation and Development. Model Double Taxation Convention on Income and on Capital (Paris, 1977).

Peat, Marwick, Mitchell and Company. Taxation of Intercompany Transactions in Selected Countries in Europe and USA (Deventer: Kluiver, 1979).

Peterson, James S., "International Intercompany Pricing", Report of 31st Tax Conference (Toronto: Canadian Tax Foundation, 1980).

Phillips, Almarin, "Comments", in McLure, The State Corporation Income Tax, pp. 125-26.

Quirin, G. David, "Fiscal Transfer Pricing: Accounting for Reality" in Rugman and Eden, Multinationals and Transfer Pricing, pp. 132-48.

"Reagan Proposes Law to Bar Unitary Taxes", The Globe and Mail (Toronto), November 9, 1985, p. B8.

"Retaliation Against U.S. Unitary Tax", Financial Times, World Tax Report.

Robertson, John R., "A Revenue Canada Perspective on International Taxation: Transfer Pricing and Related Issues", in Canadian Tax Foundation; 1982 Conference Report (Toronto, 1983), pp. 773-98.

Rugman, Alan M. Inside the Multinationals: The Economics of Internal Markets (London: Croom Helm, 1981).

Rugman, Alan, and Sheila Douglas, "How to Tax Multinationals", Policy Options, 5 (Nov. 1984), 19-22.

Rugman, Alan, and Lorraine Eden, eds. Multinationals and Transfer Pricing (London: Croom Helm, 1985).

Sato, Mitsuo and Richard M. Bird, "International Aspects of the Taxation of Corporations and Shareholders", International Monetary Fund Staff Papers, 22 (July 1975), 384-455.

Sheffrin, Steven M. and Jack Fulcher, "Alternative Divisions of the Tax Base: How Much is at Stake?", in McLure, The State Corporation Income tax, pp. 192-213.

Shoup, Carl S., "International Arbitration of Transfer Pricing Disputes Under Income Taxation" in Rugman and Eden, Multinationals and Transfer Pricing, pp. 291-309.

Smith, E.H., "Allocation to Provinces of the Taxable Income of Corporations: How the Federal-Provincial Allocation Rules Evolved", Canadian Tax Journal, 24 (Sept.-Oct. 1976), 545-71.

Smith, Stuart A., "The Role of the Federal Government in the Application of the Unitary System Worldwide", in New York University, Proceedings of the Second Annual Institute on State and Local Taxation and Conference on Property Taxation, edited by Steven S. Goldberg (New York: Mathew Bender, 1984), pp. 7-1 to 7-22.

Special Subcommittee on State Taxation of Interstate Commerce, House Committee on the Judiciary. State Taxation of Interstate Commerce (3 vols.; Washington: Government Printing Office, 1964).

Surrey, Stanley S., "Reflections on the Allocation of Income and Expenses Among National Tax Jurisdictions", Law and Policy in International Business, 10 (1978), 409-60.

Tannenwald, Robert, "The Pros and Cons of Worldwide Unitary Taxation', New England Economic Review, July/August 1984, pp. 17-28.

The New Canada-U.S. Tax Treaty with Technical Explanations (Toronto: CCH Canadian Limited, 1984).

"The Unitary Tax Mess Lands in Reagan's Lap", Business Week, November 25, 1985, p. 56.

"Transfer Price Rules on the Sale of Tangible Goods Between Multinational Companies", Tax Management Forum, April 1980.

"Unitary Method Working Group Agrees to Disagree", Tax Notes, May 7, 1984, pp. 571-72.

United Nations, Department of International Economic and Social Affairs. United Nations Model Double Taxation Convention Between Developed and Developing Countries (New York, 1980).

"U.S. May Ease Taxes on Multinational Firms", The Globe and Mail (Toronto), July 11, 1985, p. B2.

Wasylenko, Michael J., "The Location of Firms: The Role of Taxes and Fiscal Incentives", in: Roy W. Bahl, ed., Urban Government Finance: Emerging Trends (Sage Publishing, 1981), pp. 155-90.

Wheaton, William C., "Interstate Differences in the Level of Business Taxation", National Tax Journal, 36 (March 1983), 95-101.

Wilson, Hon. Michael H. A Corporate Loss Transfer System for Canada (Ottawa: Department of Finance, 1985).