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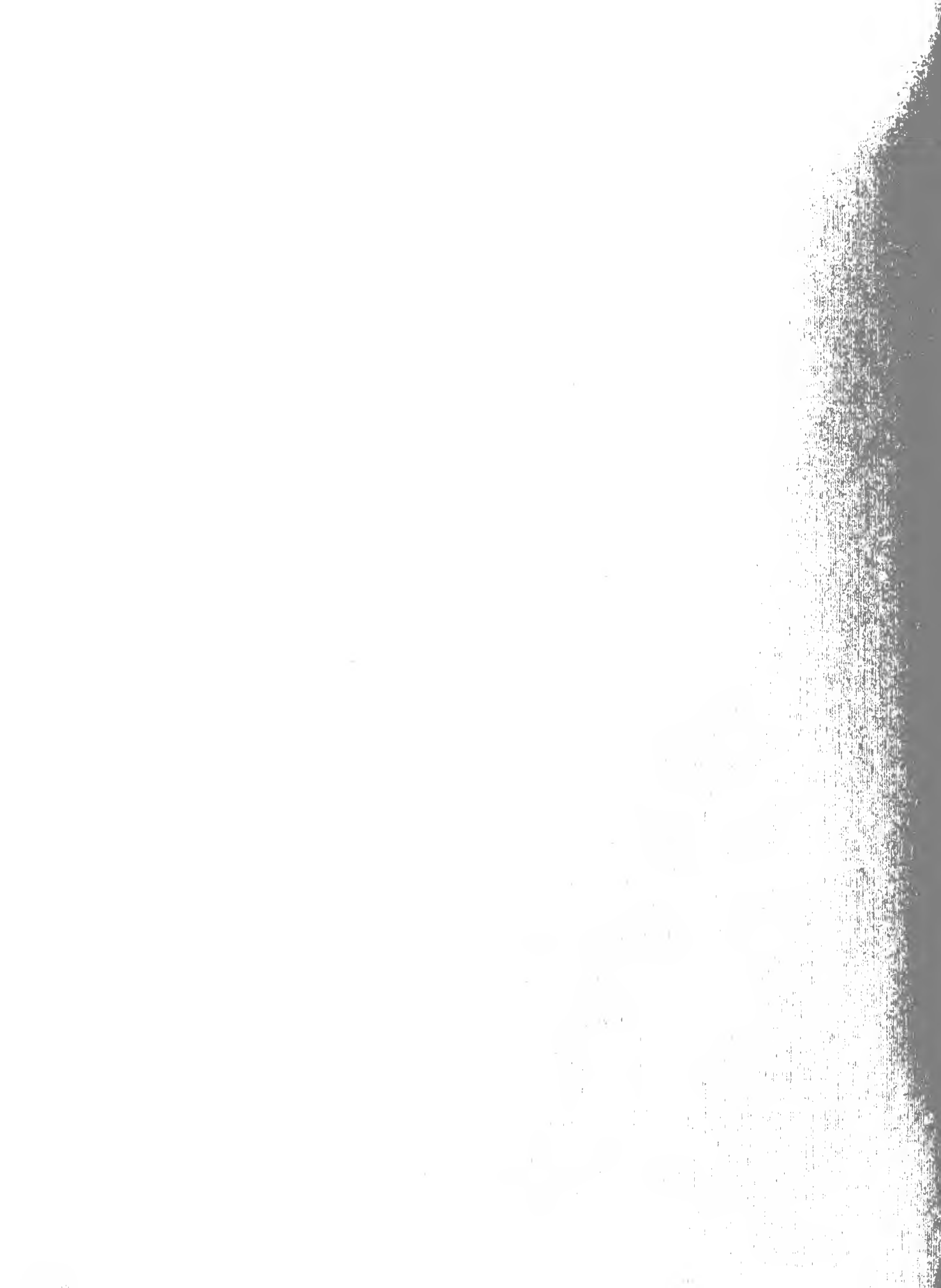
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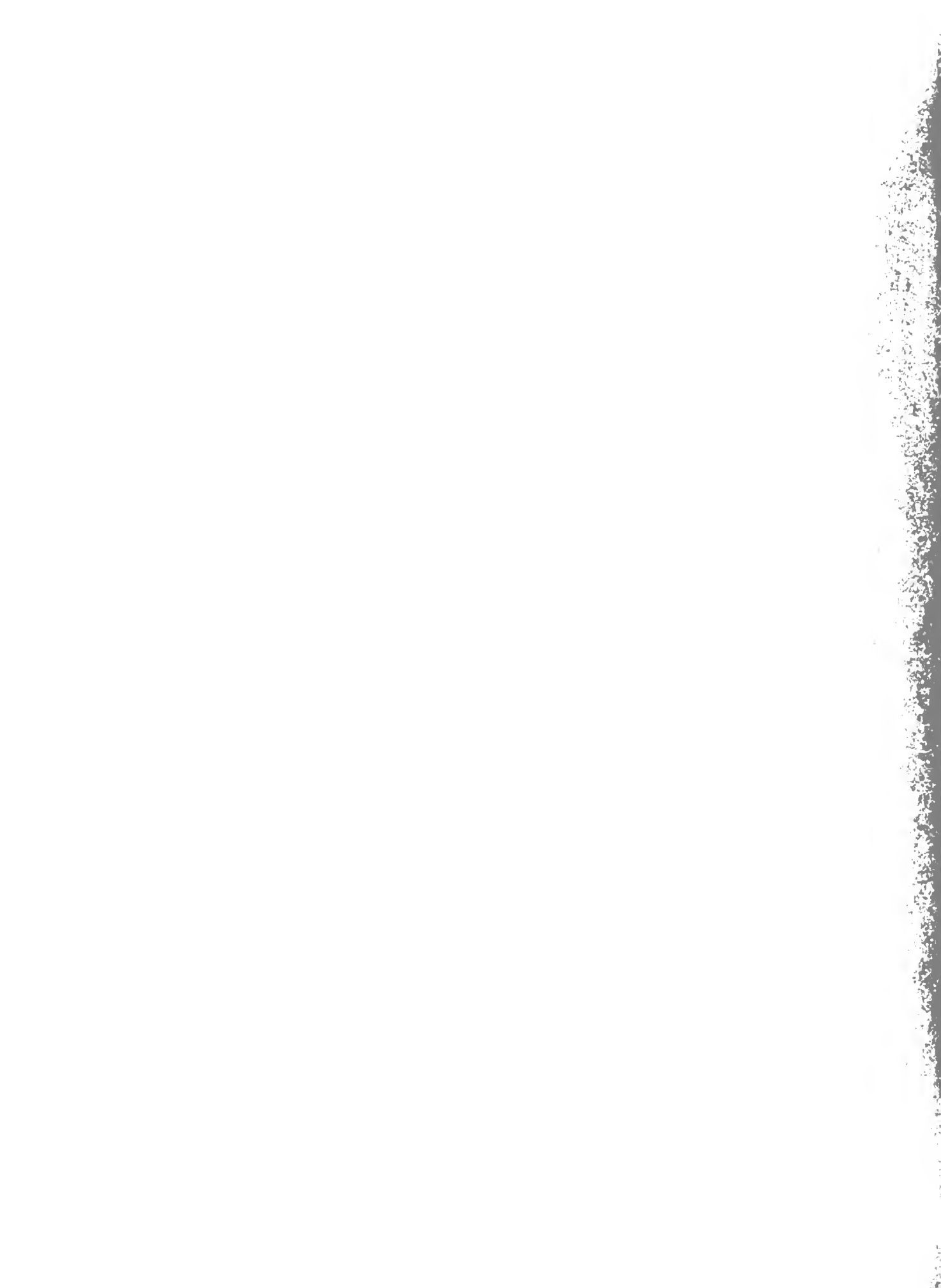
# **BEBR**

**FACULTY WORKING  
PAPER NO. 1205**

**The Choice Between A Value Added  
Tax and A Retail Sales Tax**

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November, 1985

The Choice Between A Value Added  
Tax and A Retail Sales Tax

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## Abstract

The two acceptable forms of sales tax are the retail sales tax and the value added tax. In principle, the only difference between them is the application of the tax solely at the retail level with the former, the spreading out of the impact of the tax throughout production and distribution with the latter. In practice, there are typically substantial differences in coverage, although these are not necessary consequences of the differences in the two forms of tax. The primary advantage of the value added tax is somewhat greater ability to enforce the tax effectively, although the difference is not nearly as great as is often claimed. The retail tax is basically simpler. In terms of structure, cascading can more easily be avoided with the value added tax, although cascading of the retail taxes could be greatly reduced. There is no inherent advantage of the value added tax in terms of breadth of coverage except in facilitating the taxation of services by lessening cascading. Other differences claimed between the two types of taxes are not at all inherent in the particular forms.

In the Canadian context, use of the value added tax to replace the manufacturers sales tax probably has some net advantage over the retail tax in terms of intergovernmental relations and the ability to gain substantial Federal revenue. But the advantage is much less than often claimed.

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## THE CHOICE BETWEEN A VALUE ADDED TAX AND A RETAIL SALES TAX

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Lengthy experience in a number of countries, including Canada, Switzerland, Australia, and New Zealand, provide conclusive evidence that any sales tax that stops short of the retail level is basically unsatisfactory and a subject of endless controversy. As is well known, the basic difficulties center around the inevitable tendency of firms to push various activities beyond the point of impact of the tax, the inability to treat different distribution systems equally for tax purposes, the inability to tax imports and domestic goods equally, and the higher tax rate necessary for a given revenue. In Australia and New Zealand, the difficulties have been accentuated by the provision of numerous exemptions and multiple rates.<sup>1</sup> In the developing countries, it is not operationally feasible to extend a sales tax through the retail level, although the same problems with pre-retail taxes are encountered in these countries as well, but in the industrialized countries the retail sector can be included. The question remains: should the tax apply solely at the retail level in the form of a retail sales tax (RST), or should it take the form of a value added tax (VAT) in the pattern of the European Common Market countries and most Latin American countries?<sup>2</sup> The type of VAT universally used takes the tax-credit form, and most are of the consumption type.

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1. John F. Due, "The Wholesale Sales Tax in Australia and New Zealand," Canadian Tax Journal, Vol. 31 (March-April 1983), pp. 207-27.

2. For earlier discussions, see Carl S. Shoup, "Factors Bearing on an Assumed Choice Between a Federal Retail Sales Tax and a Federal Value Added Tax," and John F. Due, "The Case for the Use of the Retail Form of Sales Tax in Preference to the Value Added Tax," in R. A. Musgrave, ed., Broad Based Taxes: New Options and Sources (Baltimore: Johns Hopkins Press, 1983); Sijbren Cnossen, "What Kind of Sales Tax? Critique of a Government Discussion Paper," Canadian Tax Journal, Vol. 23 (Nov-Dec. 1975), pp. 505-19, and "Sales Taxation: An International Perspective," in John G. Head, ed. Taxation Issues of the 1980s, (Sydney: Australian Tax Research Foundation, 1982), pp. 311-38.

The Identity of Retail Sales Taxes and Value Added Taxes in Principle

As is by now well known, a retail tax and a VAT, with the same coverage and rate, will yield the same revenue and produce the same pattern of distribution of burden--assuming complete forward shifting of each tax. The retail selling price of every commodity and service is equal to the sum of the values added in production and distribution--and all value added must show up in the retail selling price. The basic difference between the RST and VAT relates to impact: the entire sum of the RST is collected from the firms selling at retail--the final sellers or providers of services--whereas the value added tax spreads the impact throughout the production and distribution systems. Thus the operational aspects of the two levies differ substantially.

Furthermore, in practice, the typical RST does differ in coverage from the typical VAT. The coverage of the retail taxes is substantially less broad, primarily because most services are excluded and because, particularly in Canada, numerous exemptions are provided. The difference is one of degree; almost all value added taxes have exemptions, and a few jurisdictions in the United States do apply their sales taxes to most services and grant few exemptions. But these are the exceptions. The other major difference is that the retail sales taxes apply to a range of inputs used in production, in some jurisdictions industrial machinery and equipment, and in most, motor vehicles, miscellaneous supplies and equipment and building materials. Thus there is substantial cascading--application of the tax to various elements that enter into the costs and thus prices of the finished products as well as to the full prices of the latter. The value added taxes typically avoid virtually all cascading. A basic issue in this regard is: are these differences inherent in the two forms of taxes, or a product of different circumstances under which the taxes developed?

Relative Operational Advantages of the Two Taxes

There are significant operational advantages of each form; the supporters of each, and particularly those of the value added tax, have tended to exaggerate the advantages compared to the other form.

Advantages of VAT. One of the strongest advantages claimed for VAT is the greater ease of enforcement and thus less danger of evasion, based on the assumption that a retail sales tax is difficult to enforce.

This is the primary reason why New Zealand opted for the value added tax in the 1984-86 proposal: " . . . . . a retail sales tax is a less secure form of revenue and prone to evasion, which is hard to detect, at anything above a quite low rate."<sup>1</sup> In the recent discussions in New Zealand, 7% is often used as the figure above which a retail tax cannot be effectively enforced, though there is no conclusive evidence of this.<sup>2</sup> Norway, in changing from the retail tax to the value added tax in 1970, likewise made the change primarily for the same reason, though probably also influenced by the shift to VAT in the Common Market countries.

There are two principal bases for this argument. First, a large portion of the total VAT revenue--half or more--will be collected at preretail levels; firms on the average are larger, with better records, and in many countries less prone to evasion. If the retail tax is evaded, all tax revenue on the transaction is lost; with the VAT, only the portion on the retail margin (unless the retailer manages to get credit for tax paid on purchases of goods but does not report tax on its sales). If the entire

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1. New Zealand Treasury, Goods and Services Tax, 8 November 1984, p. 12.

2. Iceland has used rates of over 20 percent; the Zimbabwe rate now exceeds 15 percent, and the South African rate is 12 percent.

tax is on the retailer, it is argued that much greater incentive is provided for the retailer to seek to evade--in contrast to the situation with VAT.

The Asprey Commission in Australia proposed replacement of the wholesale sales tax by a VAT primarily on the basis of this argument.<sup>1</sup>

The other element in the enforcement argument is the easier cross-checking provided by VAT, because an obvious audit trail is provided by the tax credit approach. Tax reported as paid to its supplier by one firm should show up in tax paid the government by the supplier. Similar checks can be and are made with the retail sales taxes; in the case of doubt about the accuracy of the reported sales by a firm, check can be made upon the sales to the firm by the suppliers and markups applied to ascertain the firm's approximate sales volume. With neither tax are such checks made extensively because of the time and expense involved; the only difference between the two is that the audit trail may appear somewhat more obvious with VAT. Along the same lines, it is argued that firms have little incentive to evade payment of tax on purchases because they in turn receive credit for the tax against the tax due on their sales. But this reasoning only applies to sales between registered firms.

The defenders of VAT frequently claim too much about superiority in enforcement. It is argued that a VAT is self-policing, because of the tax credit feature. This is of course simple nonsense, as European experience has demonstrated.<sup>2</sup> The buyer and seller may both have incentive to evade the tax. False invoices are issued by suppliers showing tax collected from the customer when it is not actually collected, for example. This type of behavior can be checked by audit--but audit is frequently not by any means

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1. Australia, Taxation Review Committee (K. Asprey, Chairman) Full Report. Canberra: Australian Government Printing Service, 1975.

2. H. J. Aaron, The Value Added Tax: Lessons from Europe (Washington: Brookings, 1981).

complete. Furthermore, the self-policing argument cannot apply to sales to final consumers.

Advantages of the Retail Tax. The operational advantages of VAT are significant, even if less so than the supporters claim. But the concept of a retail sales tax is much simpler; the VAT is not seriously complicated to operate--but the basic concept is more difficult to understand, especially by small businesses. Furthermore, firms in most of Canada (and the United States) are familiar with the retail sales tax; they are not familiar with VAT. This is not at all a conclusive argument against VAT--but it is relevant.

The number of registered firms will be somewhat less with the retail sales tax--assuming comparable overall coverage of the tax--but not nearly as much as might be anticipated, only about 10 percent less according to a United States Treasury estimate.<sup>2</sup> There are far more retailers than there are manufacturing and wholesale firms. Furthermore, many manufacturers and wholesalers are registered as they make some retail sales, and even if they do not, they usually must have a registration number to be able to buy materials and goods for resale tax free.

While the number of firms will not differ greatly, the tasks of the individual firms will. Under RST, a firm must keep records only of gross, exempt, and taxable sales; with a VAT, each firm must also keep a record of tax paid on purchases. Thus a manufacturing firm, under a retail tax, must merely report its small element of retail sales and ensure that its registration number is quoted on purchases of materials and other conditionally exempt goods. With VAT, the firm must apply tax to all its sales, keep records of the amounts, record the tax paid on purchases (or the figure of taxable purchases) and pay the difference. This is not an insuperable task--but it is not negligible. In Australia, although the Asprey Commission had

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1. U.S. Treasury, Tax Reform for Fairness, Simplicity and Economic Growth, Vol. 3 (Washington: U.S. Treasury 1984), p. 32.

recommended VAT, the government rejected it in favor of the retail sales tax, on the grounds of the vast amount of paperwork that would result from VAT, a fear greatly exaggerated.

Apart from the paperwork issue there are two other operational problems with the VAT that are largely avoided by the retail sales tax. The first is the need with VAT to allocate inputs between the production of taxable and exempt goods and services--assuming that there are exemptions, as, rightly or wrongly, there are almost certain to be. A firm can take credit for tax paid on inputs for production of taxable or zero rated commodities such as exports, but not for exempt goods. This allocation problem is a serious nuisance under any circumstances, but it is particularly troublesome with purchases such as computers used in the production of both taxable and exempt goods.

A second problem is that of the need for massive refunds, primarily on export transactions. Universally, under a VAT, export transactions are zero rated; thus all taxes accumulated in their prices on purchased inputs to produce them are refunded at export. For example, tax will apply to steel when sold to fabricators; when the fabricators sell the steel for export, they are entitled to a credit for the tax paid on the inputs. But if most of their business is exporting, they will have little tax liability, and thus a refund must be paid. Handling of refunds is always somewhat complex, and if nothing more, the source of substantial nuisance work.

Another problem arises from the breaking of the daisy chain of the VAT by exemption of certain activities--a problem which the RST avoids. If certain types of activity are excluded from the registration requirement for operational or other reasons, the purchasers from these firms cannot receive credit for tax paid on their purchases against tax due on their sales, as they do not pay any, even though tax has entered into costs and prices at earlier stages.



When the commodities are sold by the firms purchasing from them, tax applies in full, without credit for tax that had applied prior to the exempted activity. Take for example, farmers. While a few governments register them as taxpaying firms under VAT, and New Zealand proposed to do so, most do not. Therefore tax paid by farmers on purchases of inputs do not become a credit against tax due on sales of the farm products by purchasers from farmers. Thus, unless some arbitrary formula is used reflecting an estimate of the typical tax element in farm product prices, as some European countries do, it becomes necessary to zero rate major farm inputs--feed, seed, fertilizer, farm machinery. But this type of exclusion is foreign to the general structure of a VAT--whereas it is a common element in the typical RST. Similar problems arise with small firms if they are excluded from the registration requirement.

#### Optimal Coverage of the Tax

The other general issue in the selection of the optimal form of sales tax relates to coverage of the tax. Optimality in coverage of a sales tax, if it is to be a truly general consumption tax, requires that all consumption expenditures on goods and services be taxed, and that there be no cascading; the tax applies only to the final selling prices with no net burden on any inputs. If the former requirement is not met, the tax is not truly a general consumption levy and produces discrimination and excess burden; if the latter is not met, the tax will not be uniform on all consumer spending, and will create distortions in production and distribution methods and organization.

Cascading. It is now generally agreed that cascading can be avoided more effectively with a VAT than with an RST. With the latter, sales of

various inputs are made tax free upon presentation by the buyer of a certificate or the equivalent indicating use for specified business purposes. To prevent abuse through purchasing tax free for consumption use, audit is necessary, and this requires checking both the seller and the buyer. This can be done and is done to some extent under a retail sales tax. But it is slow and expensive. By contrast, under VAT, all sales to businesses and consumers are subject to tax. Check on the business buyer is needed to ensure that the purchases on which the tax is taken as a credit against tax due on sales are actually used for business purposes. But only the purchaser need be audited, not the supplier. Furthermore, the supplier does not have to distinguish between sales made for business and nonbusiness use. The difference between the two forms of sales tax is not as great as some persons argue, but there appears to be some net advantage for VAT. Avoidance of cascading was the major reason Sweden switched from a retail tax to a value added tax, and this consideration has influenced other countries as well--including France, the originator of use of the value added tax in 1954-55.

It should be noted that with a retail tax firms could be allowed to make all purchases tax free and account for tax themselves on taxable purchases, as many states do with certain large firms such as public utilities or manufacturers, and West Virginia does with most all firms. But most governments are reluctant to do so, fearing substantial loss of revenue in view of their very limited audit coverage.

Perhaps the major difference between the two forms of tax on the issue of cascading is not what is feasible but what the precedent is. As noted the countries using VAT typically, but not universally, allow credit for tax paid by registered firms on all inputs (the main exceptions are in South America). By contrast, the retail sales tax users--including the states

and provinces and Iceland, have made no serious attempt to exclude business inputs and thus to avoid cascading. Because of the problems of doing so completely most jurisdictions have limited the exclusion to sales for resale, materials and parts physically incorporated into the final products, and in some instances fuel and industrial machinery, and farm feed, seed, and fertilizer. Otherwise inputs are taxed, with no serious attempt to exclude them. In fact many jurisdictions do not accept the principle that inputs should be excluded from tax, partly because it is politically unattractive to shift tax burden to individual consumers from business firms--even though such a shift is essential for optimality in production.

Scope of Coverage. The other attribute of structure in which the VAT is claimed to have an advantage is in breadth of coverage. VAT functions best if there are no exemptions or zero rated transactions (except exports). Exemptions are more difficult to implement operationally with VAT, since the exemption almost of necessity must be carried through all levels of production and distribution, with consequent problems of record keeping and separation of inputs and tax on them between production of taxable and exempt goods. Thus exemptions are easier with the retail tax--but this in turn encourages exemptions, to the detriment of optimality of the tax. Exemptions breed other exemptions, under what may be called the termite principle. With VAT, governments have been less inclined to provide exemptions; VAT is more widely accepted as a general consumption tax. But there is little fundamental difference between the two taxes on this score. The main difference has been in practice. Retail taxes can be applied to all goods and services as well as can a VAT, with some exceptions. Most retail sales taxes were not so designed. They originated as taxes on commodities, and few have been extended to services beyond transient housing--hotels and motels. But they

can be--as experience in New Mexico, Hawaii and South Dakota have demonstrated.

In the field of taxation of services, however, VAT offers one advantage: the greater ease of avoiding cascading. Many services are rendered for both production and consumption purposes, and thus under the usual structure of the retail sales taxes, there is no means for excluding from tax those which are inputs in business activity; there is no "sale for resale." The only feasible method of exclusion is to allow registered purchasers to make all purchases of services tax free and account for tax on those acquired for taxable purposes. This is **not impossible, but** has not been tried.

Thus the difference between the two forms of tax in terms of coverage is by no means basic to the type of tax; it is a product of a different development of the two forms over the years. It may be easier in Canada to attain broad coverage with a VAT--given the nature of the usual provincial retail sales tax.

With both forms of tax, there are several areas in which ideal coverage is difficult to attain. The first is financial institutions, the issues of taxing them being so controversial that the EEC countries exempt them. There are two problems. These institutions provide a number of services for which they do not charge--as for example, free checking. But the more basic issue is the question of whether the payment of nonbusiness interest is a consumption expenditure. If it is so regarded, all interest charges by financial institutions would justifiably be made taxable under VAT, those to nonregistered entities under a retail sales tax. Interest on loans made by individuals of course would not be reached, and there would be some economic distortion. This would not matter with VAT on loans to

registered firms because of the tax credit feature, and this type of loan to individuals is not very significant. The treatment of insurance companies is even more complicated under either tax.

The second area is housing. It is not desirable to tax rental housing if owner-occupied housing is free of tax, but the latter cannot be taxed operationally and would encounter serious political objection. Even the former is not easy because there are many small landlords not regularly engaged in business. Construction or sale of new housing can be taxed--but this does not reach existing housing. The problems are similar with VAT and RST.

Thirdly, the treatment of farmers is troublesome. To register all farmers under VAT or RST materially increases the number of registered firms, many of them small. While a few European countries register all farmers and New Zealand proposes to, most countries quite justifiably are not willing to do so. Under a retail sales tax, farmers are not registered unless they are regularly selling at retail. The usual practice is to exempt major farm inputs, although some are taxed and thus some cascading results. With VAT, exemption of major inputs is contrary to the general structure of a VAT, and some cascading would be inevitable, even with the technique used by a few European countries of allowing registered purchasers of farm products to assume that a certain percent of the purchase price represents cumulated tax.

Finally, and of less concern, is the tax treatment of second hand goods. If VAT applies, is any credit to be allowed for the tax originally paid when the good was previously purchased? With a retail sales tax, is the tax to apply to the full price--as it usually does? There is no simple optimal

answer with either tax, in part because of lack of knowledge of the extent to which the selling prices reflect tax previously applied.

### Intergovernmental Aspects

In a Federal country, a major consideration affecting the choice between the two forms of sales tax is that of intergovernmental relations. There are both operational and political aspects to this question. If the Federal government were to levy a value added tax in the situation in which the provinces continue to use retail sales taxes, all business firms would be confronted with two different types of sales taxes, as are manufacturers currently. This is obviously a nuisance and source of expense to business firms and of unnecessary enforcement costs. A Federal retail tax piggybacked onto the provincial taxes is impossible in light of the variations in the provincial levies. If the provinces were willing to piggyback their retail taxes on the Federal and to adapt their structures to the Federal (not necessarily with uniform rates), this system could function satisfactorily. The issue is: would they do so? With a value added tax, which must be at the Federal level so long as the tax credit method is used, the provinces likewise could piggyback their own VATs. But the net effect would be to increase the relative amounts of sales tax received by the provinces in which manufacturing is concentrated. Or, the provinces could piggyback only on to the retail transactions--but this would create a variety of complications.

The basic political issue is: What would be the relative overall reaction of the provinces to Federal use of VAT or RST? Use of the value added tax would involve less obvious intervention into a major tax field of the provinces. A decade ago, when the general issue was being considered, some of the provinces feared that the provinces would be blamed for additional tax if a Federal levy, either at or through the retail level, were imposed.

### Separate Quotation of Tax and Shifting

Some of the debate over the merits of the two forms of tax **has** assumed that while the retail tax would be quoted separately from the prices of the goods, a value added tax would be concealed in the prices to final consumers. Whether this concealment is an advantage or disadvantage depends upon the philosophy accepted about public awareness of tax burdens. But a value added tax is not necessarily concealed in prices, and a retail sales tax is not necessarily quoted separately.<sup>1</sup> With VAT, the tax must be quoted separately on sales to registered firms under the usual tax credit approach; it is therefore simpler to have the tax quoted separately on all sales, so that sellers do not have to distinguish between sales to registered firms and those to individual consumers.

A related issue is that of completeness of forward shifting--the assumption typically made. It is likely that with either form of tax there will be some deviation from exact shifting, although in the typical imperfect market, requiring separate quotation of tax will likely increase the extent of exact shifting by encouraging uniformity of action among the competing firms. Under VAT, shifting must take place at a greater number of steps in the production and distribution system, and thus there is probably somewhat less assurance of exact shifting, but there is less cascading.

### The Money Machine Argument

A major objection to VAT, on the part of persons who wish to curtail growth in public spending, is that a VAT is in effect a money machine--that it can in practice yield far more additional revenue than a retail sales tax. The argument is that a retail tax, concentrated at the retail level

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1. Because of some cascading in the usual retail sales tax, not all the tax is clearly revealed to the purchaser of the final product, **even though the tax is quoted separately.**

and typically visible to the consumer, will encounter greater resistance than a VAT, collected at various stages in production and distribution, and, commonly, hidden from the consumer.

As noted, a VAT can be made as visible to the public as an RST. The remainder of the money machine argument is debatable, on the basis of comparison between the two forms of tax, but it is rather widely accepted.

### Conclusion

In general both the VAT and the RST are acceptable forms of sales tax, whereas the manufacturing, wholesale, and turnover taxes are not. There is actually not a great deal of difference between VAT and RST in terms of relative merits, so long as the structure can be established independently of existing tax structures--especially the provincial retail taxes. Various countries have followed different routes in moving from their unsatisfactory sales taxes. The government of New Zealand opted for a value added tax, to become effective October 1, 1986; the Australian government, in the same period, selected the retail form of tax, overriding the report of the tax reform committee which had proposed VAT. Ultimately in the summer of 1985 Australia abandoned its plans for a retail tax, primarily because of strong objection in the governing Labor party to the distributional effects, an issue unrelated to the choice between VAT and the retail tax. The Swiss government twice selected the value added tax to replace its present wholesale sales tax (a portion of which is collected at retail), but the voters rejected the proposal.

In the Canadian context, there is probably some net advantage to the value added tax for a relatively high rate Federal levy, primarily because of the greater feasibility of avoiding cascading, which hampers exports and is objectionable in other ways. There is also the possibility of attaining

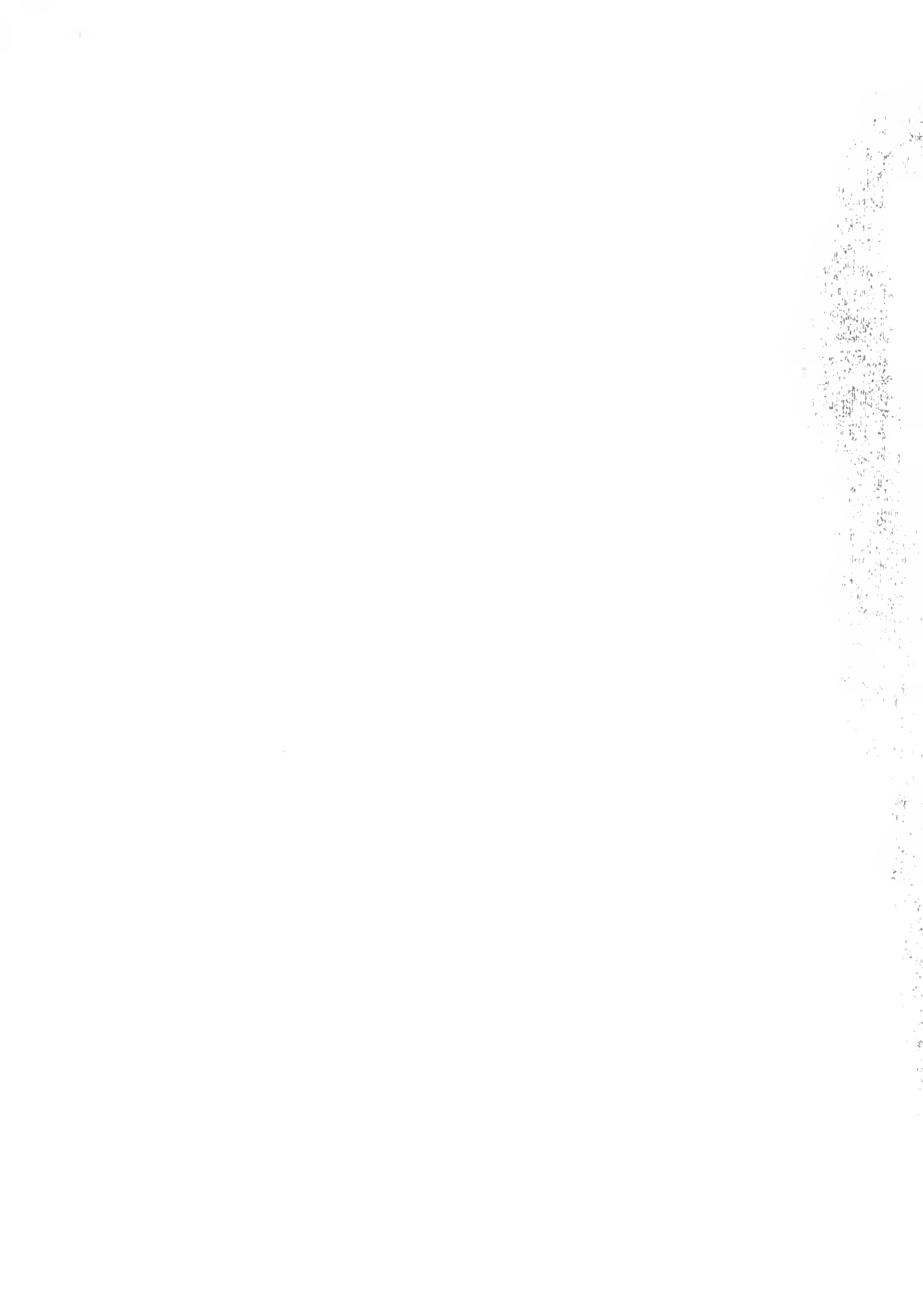


broader coverage, for practical rather than fundamental reasons. Both types of tax will work; both encounter much the same problems. And many of the arguments made with respect to relative merits of each have in fact no validity.

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