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A Comparison of Alternative Tax Bases

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## **Abstract**

The revenue, efficiency, equity and operating costs properties of alternative tax bases or taxable sums are compared and contrasted. Initially the assessment is made for generic, comprehensive tax bases on income and consumption flows, wealth stocks, and on transactions. On the criteria of efficiency and equity, there are unresolved conceptual and empirical arguments in choosing between income, consumption and wealth tax bases, but general revenue raising transaction taxes are inferior. In practice, including in current Australia, the different tax bases are far from comprehensive because of the many exemptions and deductions. On all good tax design criteria, the case is made to broaden the tax bases for income, the GST, payroll and land taxes; special purpose transaction taxes to counter market failures should be redesigned; and conveyance duties and other stamp duties should be removed.

## **1. Introduction**

Australia, and other countries, has in place a number of different tax bases, or taxable sums, to raise revenue. In Australia, the taxes employed include income tax, a GST or broad based consumption tax, a number of special purpose indirect taxes with narrow bases such as the excise duties, some transaction taxes with narrow bases such as stamp duties, and wealth taxes again on narrow bases such as local government rates. The objectives of this paper are to present generic versions of different tax base options, to use Australia as a case study to describe and illustrate these different options, and to compare and contrast some of their different properties.

Different tax bases are compared in terms of the traditional public finance criteria of revenue raising, efficiency, equity and low operating costs. The revenue criterion includes not only the dollar sum magnitude, but also revenue sustainability into the future and integrity against the erosion of the revenue by tax avoidance and evasion. Tax equity, which has both horizontal equity and vertical equity dimensions, reflects social and political views on fairness. To assess the equity effects of different taxes it is important to focus on the economic or final incidences of the different taxes, particularly as often they differ from the initial or statutory incidence. In practice, value judgements are involved in specifying capacity to pay, for example whether to assess in terms of income, consumption or wealth, whether to focus on the individual or the family, or whether to focus on just one year or over a lifetime. Inevitably, in practice all tax bases, whatever their generic type, result in different effective tax burdens on different choice options and so they distort decisions and result in efficiency losses. As a guide from the optimal tax literature, efficiency losses are greater the greater the price sensitivity of the choice options (and specifically the greater the compensated price response elasticity), and the losses increase more than proportionally with the magnitude of the tax differential on the distorted choice options. Costs of administering taxes and taxpayer compliance costs have social opportunity costs, and these operating costs vary with the different generic tax bases. Clearly, the different criteria often are in conflict, and the choice between different tax bases has to weight the relative importance of the revenue, equity, efficiency and operating costs criteria.

The rest of the paper is structured as follows. Section 2 provides an overview description and comparison of the alternative generic tax bases of income, consumption, wealth, and turnover. With this background, section 3 explores in the context of Australian taxation some of the comparative revenue raising, equity, efficiency and operating cost properties of the alternative tax bases. Section 4 provides some conclusions on directions for reform of taxation in Australia.

## **2. Overview of Different Generic Tax Bases**

One way of classifying different generic tax bases in their pure or comprehensive form is to specify the taxable sum as the flows, usually over a period of a year, linked to the national accounts for income and expenditure; secondly, to tax the value of stocks at a particular point in time of assets or wealth; and, thirdly, to use a measure of transactions as the taxable sum (see, for example, Sandford, 2000, or one of the many texts on public finance, such as Stiglitz, 2000). For reasons of political considerations, and sometimes with reference to the costs of implementation and operation, in practice special deductions and exemptions are made so that the actual taxable sum is less than the comprehensive tax base. In some cases it is feasible to apply progressive tax rate schedules to the tax base, and/or to adjust the taxable sum or tax rate according to individual and family circumstances, while in other cases it is more convenient to apply a flat tax rate.

In modern economies the most important tax bases in terms of revenue collected are the taxation of income flows and then the taxation of consumption flows. These different tax bases can be linked via identities used in the national income and expenditure accounts. In particular, income,  $Y$ , can be represented by its source as labour income,  $Y_l$ , plus capital income,  $Y_k$ , or by its expenditure as consumption,  $C$ , or saving,  $S$ , using the identities

$$\begin{aligned} Y &= Y_l + Y_k \\ &= C + S \end{aligned} \tag{1}$$

These identities embrace a number of different tax bases in practice and some that have been proposed. The income tax base uses  $Y$  as the taxable sum, and so it falls on both labour and capital income, and on income that is allocated to current consumption or that is saved for future consumption. A comprehensive income tax base in the traditional Haig- Simons language ensures that the stock of wealth is not reduced, and that consumption plus the increase in the stock of wealth over the taxable period is taxed. A broad based consumption tax, such as the multistage value added tax (VAT) or goods and services tax (GST), or the single stage retail sales tax (RST), seeks to tax  $C$  and exempt  $S$ . Alternatively, proposals for a direct consumption tax seek to use  $C = Y - S$  as the tax base, but to date, with the exception of short term experiments in one state in India and Sri Lanka, the direct consumption tax remains primarily an idea only. If we take a lifetime perspective in comparing the generic income and consumption tax bases, rather than the more usual annual accounting period, lifetime differences in saving across different people are very much smaller than for a comparison over a single year, and then the differential revenue, equity and efficiency effects of a generic income versus a generic consumption base are more about the timing of when tax is paid, albeit an important consideration, than it is about the aggregate sum taxed. A comprehensive payroll tax base, or social security tax base in Europe, falls on  $Y_l$  and exempts  $Y_k$ . In a long run equilibrium context the  $C$  and  $Y_l$  tax bases, if they are broad based and comprehensive, together with flat tax rates, have very similar economic effects (including revenue, equity and efficiency effects), but they have significantly different effects in the short run (see, for example, Stiglitz, 2000). In some European countries, the direct tax system explicitly distinguishes between labour income,  $Y_l$ , and capital income,  $Y_k$ , in what are called schedular tax systems (Sandford, 2000).

When the income and personal consumption tax bases are used, it is relatively easy to apply different forms of progressive tax rate schedules and to adjust the tax rate for individual demographic circumstances such as single or married, number of dependent children, and even age. By contrast, with the indirect consumption taxes, including VAT, GST and RST, it is more common to impose a flat tax rate. While the indirect consumption tax rates can be varied by product, this is a relatively blunt way to achieve

vertical equity goals of a progressive tax incidence relative to the opportunities with the direct taxes.

There is a long, controversial and still indecisive literature which compares and contrasts the relative efficiency and equity properties of a broad based income tax versus a broad based consumption tax (see, for example, Sandford, 2000, and Stiglitz, 2000, and the chapters by Goode and Zodrow in Head and Krever, 2000). In theory there are pro and con arguments whose resolution depends in part on value judgements and in part on empirical facts, and even in the case of empirical facts there is sufficient uncertainty about key parameters to mean that we are far from an agreed position. Debate over the ANTS tax reform package introduced in Australia in 1999, where about two of the ten percentage points of the GST was used to fund lower income taxation (and higher social security payments), is illustrative.

A second set of generic tax bases use the stock of capital or wealth as the taxable sum. These assets can include unimproved land, land improvements, other business assets, stocks and shares, and personal property such as jewellery and art works. These asset stocks represented the sum of accumulated saving and investment specified in the flows described in (1) above. A link between the stock of wealth,  $W$ , and the income and expenditure flows of (1), particularly saving,  $S$ , can be represented as

$$W_t = W_{t-1} + S_t - D_t \tag{2}$$

where,  $D$  is depreciation.

Wealth taxes can take various forms. One option is an annual wealth tax on the assessed market value of taxable wealth, namely  $W_t$  in (2). Such a tax was common in Europe, but in recent decades many countries have deleted such taxes and even then the wealth tax generated less than a few percent of total tax revenue. Australian States impose a land tax on some unimproved land, with land used for owner occupied dwellings and primary production being exempt from the tax base, and Local government rates are levied on the improved value of land and building assets. Resource rent taxes levied on earnings from

the extraction of oil and minerals can be considered a particular and narrow based wealth tax.

Another version of the wealth tax is to tax wealth transfers, either at death or as gifts. Death and gift taxes earn less than one percent of total tax revenue in most countries, and they were phased out in Australia around 1979.

When an income tax already is in place, and with a comprehensive income base the savings used to accumulate wealth shown in (2) and the capital income earned on wealth assets are taxed (see (1)), a number of arguments are made pro and con for adding a wealth tax (see, for example, Sandford, 2000). In terms of equity, against the apparent double taxing argument, a pro argument to tax wealth as well as to tax income is that wealth per se brings its holder advantages in addition to the income, for example security, independence and additional opportunities, and so the holding of wealth raises capacity to pay and warrants taxation on horizontal and vertical equity grounds. Wealth tends to be more unequally distributed than income (for Australia see Headey, Marks and Wooden, 2005). Further, because of the many deductions and exemptions in practical income tax systems, and generally these are estimated to favour the better off who accumulate most of the wealth, a wealth tax can be seen as a way, albeit a second best way when compared with broadening the income tax base, of achieving equity goals. Again, on the criteria of efficiency, there are pro and con arguments for taxing wealth in addition to taxing income. The negative argument is that the double taxation acts as a disincentive to saving and investment, and particularly in a modern global economy, this double taxation falls on highly price elastic decision choice options which lead to large efficiency costs. Pro efficiency arguments include that wealth taxation by reducing the required income tax rate on income to collect a given aggregate of tax revenue reduces distortions caused by income taxes to labour market decisions, and that the wealth tax encourages wealth holders to reallocate their wealth among the different investment choice options to more socially productive uses. Perhaps the greatest challenges to taxation of wealth, and the reasons for the decline in its importance in most countries over the second half of the last century, can be attributed to the problems of its administration, including disclosure by

taxpayers, asset valuation, and the opportunities afforded by the many special deductions and exemptions in current taxable sums which provide fertile grounds for wealth tax avoidance schemes.

The third set of generic tax bases are broadly grouped under the heading of transaction taxes. The most comprehensive base is the turnover tax whereby every market sale of goods and services from firm to firm and from firm to consumer is taxed. It falls on sales of intermediate goods and services and on capital goods as well as consumer goods and services (which are the target of the RST, and also of VAT and GST). Total turnover is many fold measured income and GDP, and with increasing specialisation and intra-industry trade the multiple is increasing with the passage of time. Although the flat tax rate per transaction will be small, because a turnover tax involves tax on tax situations (which are avoided under a VAT or GST through the granting of a credit for tax paid on purchased business inputs), the effective tax rate on consumer purchased goods and services has to, on average, approach 30% if the current aggregate tax revenue collection is to be achieved. Because the number of intermediate input market exchanges vary from product to product, the effective consumer tax per product also will vary. This ad hoc variability of effective consumer tax rates by product distorts consumption and production decisions, and it has incoherent, and generally both unintended and politically undesired, redistributive effects. Further, a turnover tax seriously distorts industrial organisation choices by favouring vertical integration to reduce the number of market transaction taxes, and turnover tax paid, and it discriminates against specialisation and trade with the efficiency gains they bring.

A debits tax, whether it is levied on payments into financial institutions or on withdrawals from financial institutions, in essence is a particular form of a turnover tax. Despite its apparent simplicity and low rate, a debits tax has the unsatisfactory efficiency and equity effects of a turnover tax, relative to a broad based income or consumption tax.

The Australian States impose a number of special and narrow base transaction taxes under the general title of stamp duties (for details see NSW Treasury, 2004). These

include conveyance duties on the sale of business and residential property, the transfer of motor vehicles, and stamp duties on gross insurance premiums. These selective turnover taxes seem to have no rationale other than to raise revenue. Clearly, stamp duties place a tax wedge between the price paid by a buyer and the net return to the seller, and so they reduce the consumption and production of these products when compared with other goods and services which are not subject to stamp duties. In the case of stamp duties on asset transfers, including on property and motor vehicles, these taxes in time become capitalised as lower market prices for the assets than otherwise, much in the way that wealth taxes are capitalised as lower market prices for the assets taxed. Further, many of the transactions are intermediate goods and services between firms and so stamp duties also distort business choice of production method decisions. The final incidence of stamp duties on consumers is ad hoc and in general is inconsistent with political and social ideals of fairness, and generally the final distribution of these taxes is not even understood.

In principle there is a compelling economic efficiency case for special transaction taxes on those activities which generate external costs, or spill-over costs on third parties. Potential examples are the consumption of alcohol, tobacco and gambling, the burning of fossil fuels for transport, electricity and other business uses which generates greenhouse gases and other pollution, and for peak hour traffic in the cities generating congestion external costs. Special taxes on some of these “sin goods” often also are justified on merit good grounds, in the sense that consumers do not fully recognise the private costs to them of consuming tobacco, alcohol and gambling. Ideally, the special tax would be set at the marginal external cost. While an externality case might be made for the excise taxes levied by the Commonwealth on petroleum, alcohol and tobacco products, and by the taxes on motor vehicles and gambling levied by the States, the choice of tax base and tax rate in each case is some distance from an efficiency improving externality correction tax. Evidence is that the final incidence of most of the potential externality correction transaction taxes is regressive (Harding, 2005).

### **3. Tax Bases in Australia**

#### **3.1 Income Taxation**

Income taxation represents 55% of all taxation revenue. (This and other taxation receipt data came from ABS, 2004.) Ultimately, the final incidence is on individuals, although most income tax initially is paid by business. About a third of income tax revenue is collected from corporations as a form of withholding tax against the capital income earned on individual shareholder funds, much as is the case for the business payment of PAYG tax deductions from wage and salary income. In important ways the present income tax base is far from a comprehensive tax base, Y, described in (1) above, effective tax rates are less progressive than suggested by the statutory tax rate schedule, and there are elements of taxation of the family unit rather than of the individual.

There are many exemptions and deductions from income in measuring taxable income which significantly reduces the size and revenue raising capacity of the income tax. For example, Treasury in its Tax Expenditures Statement reveals concessions for capital gains, for superannuation, for some fringe benefits, for some lump sums, for those living in remote areas, and so forth amounting to tens of billions of dollars of foregone revenue per year (Treasury, 2005). Many forms of capital income receive a concessional tax treatment relative to the income taxation of most wages and salaries, for example neither imputed rent or the capital gains on owner occupied housing is taxed, other capital gains are taxed at half the statutory rate and then only when realised, for most people superannuation is taxed at a lower rate, yet interest income is given a conventional (nominal) income tax treatment (Pender, 1997). Not only do these various special deductions and exemptions result in distortions to decisions and the loss of economic efficiency as well as revenue, they are more used and are more valuable for those on higher incomes resulting in a less progressive tax incidence than is suggested by the statutory tax rate schedule (based on data in ATO, 2005), and they result in some horizontal inequities.

One obvious area for reform of the Australian income tax system is to broaden the tax base towards the comprehensive base by removing most, if not all, of the special

exemptions and deductions. Such a reform strategy could fund lower, and flatter, tax rates as a revenue neutral package with small redistributive effects, or with the same tax rate schedule it would collect additional revenue. An approximately aggregate revenue neutral tax reform package of base broadening (the sticks) combined with lower tax rates (the carrots) proved politically saleable in Australia in 1985 with individual taxes and again in 2000 with business taxes, in the US and New Zealand in the mid-1980s, and in other countries (Sandford, 2000). Such a strategy would result in greater future revenue security and reduced opportunities for and rewards from tax avoidance and evasion, it would provide a more level playing field on different choice options and result in efficiency gains, it would improve horizontal and vertical equity, and the greater simplicity should reduce administration and compliance costs.

In principle the income tax unit in Australia is the individual rather than the family. However, in practice, for some income it is easy to share income among family members and achieve in effect a family income tax base. Income splitting is common for small business enterprises, and it also is used for much capital income via family sharing of wealth assets. By contrast, for wage and salary income the individual tax base is applied. Various family and children allowances in the Australian systems of taxation and social security payments move the effective incidence of the income transfer system away from an individual base towards a family base. There are a range of pro and con arguments against both the equity and efficiency criteria for using the individual or the family as the income tax unit (see, for example, Head and Kreyer, 1996).

Clearly the income tax base lends itself to flexibility in the choice of the tax rate schedule. In all countries, including Australia, a progressive tax rate schedule based on individual taxable income is applied. Also, the tax rate can be modified for demographic circumstances, including children and other dependents, age and geographic location.

### 3.2 GST

The goods and services tax (GST) in Australia is a broad based indirect tax at a flat rate on most, but not all, goods and services consumed domestically. It collects over 12% of

total Australian tax revenue. The exemption of expenditure on basic food and most expenditure on health, education and by not-for-profit organisations means the tax base is smaller than a comprehensive consumption tax base  $C$  in (1). New Zealand, by contrast, has a system with minimal exemptions. The 10% Australian GST rate is low when compared with VAT rates in Europe, which exceed 20% in some countries.

Clearly the GST is a robust revenue raiser. Over time its tax base and revenue collected rise proportionately with increases in nominal aggregate consumption and GDP. Because households smooth consumption relative to income, GST revenue is less subject to business cycle fluctuations compared with the stream of income tax revenue.

In terms of distributional effects, the GST approximately is a proportional tax in its incidence on the common assumption, and on the observed effects of its introduction in 2000, that the tax is fully passed forward to consumers as higher prices. The proportional distributional effect is more the case when several years rather than a single year is considered. In any year, relative to an income tax, a consumption base tax, such as a GST, takes relatively more revenue from those who have negative savings than those with positive savings. Some have argued that a wealth tax, particularly on gifts and at death, should complement a consumption tax to tax accumulated savings which have escaped GST (drawing on equation (2) above).

### 3.3 Payroll Tax

Payroll tax levied by the States collects about 4% of total Australian tax revenue. Primarily because of exemptions for small businesses (which varies from \$0.5 to \$1.0 billion a year depending on the State), and other exemptions, the current payroll tax base is less than a half of the comprehensive labour income tax base,  $Y_1$ , in (1). Flat marginal payroll tax rates are applied, with the rate varying across the States (from a low of 4.75% in QLD to a high of 6.85% in the ACT) (NSW Treasury, 2004).

Efficiency and simplicity arguments support broadening the payroll tax base. Further gains in simplicity would be achieved if the payroll tax was to be levied either on the

existing State workers' compensation base or on the Commonwealth PAYG tax base, rather than the present distinct payroll tax base.

A comprehensive payroll tax base with a flat rate of tax, and also the current narrow based Australian payroll tax system, is close to proportional in its final incidence on individuals and families. This proportional distributive effect is the case whether businesses who initially pay payroll tax then fully pass forward the charge to consumers as higher prices much as an increase in wages and other input costs are passed on, or if employers pass the tax back to employees as lower take home wages than otherwise in the same way as they deduct income tax from wages and salaries, or a combination. Which market reaction occurs depends on different assumptions about how pre-tax market wages are set and about the relative elasticities of labour supply and demand.

### 3.4 Taxation of Wealth

Land taxes are levied on a narrow base with a progressive rate structure by the States (NSW Treasury, 2004). They collect about 1.5% of total Australian tax revenue. The land tax base is the unimproved land value, and with a few exceptions all land used for owner occupied housing and for primary production is exempt. A progressive land tax rate structure does little to achieve vertical equity because most of the taxed land in the central business districts of the capital cities ultimately is held by investors in property trusts and superannuation funds, many of whom are not rich, while many owners of residential property and land used for primary production which is exempt from land taxation are among those regarded as wealthy.

On the criteria of economic efficiency, simplicity and greater revenue, there is a compelling case to both broaden the land tax base by removing the current exemptions and the zero rate threshold, and to move to a flat land tax rate. In particular, because land tax when levied on the unimproved value is born ultimately by the wealth owner and has no effect on the market land value (which is determined by demand against a fixed supply), it has the virtue of a non-distorting and efficient tax. Unfortunately, the

redistributive effects and associated political opposition to these changes combine to make such a radical reform unlikely.

An important part of the revenue of Local governments, and nearly 3% of total taxation revenue, comes from local rates levied on the improved value of land and improvements. Sometimes local rates are described as a crude form of user pays fee for the provision of such services as local roads, garbage collection, community health and libraries. But also, they have an element of selective taxation of wealth.

Royalties levied on the extraction of minerals and petroleum products by the Commonwealth and the States, and revenue collected on the sale of quotas to use other natural resources in scarce supply, for example fishing licences, particularly when they operate as resource rent taxes, can be considered a form of wealth tax. If more and more of Australia's scarce environmental resources are to be allocated by market like instruments in the future, including water and access to natural wonders and national parks with unique flora, fauna and scenery, further gains in revenue can be anticipated in the future, although such revenue is unlikely to exceed more than a few per cent of total taxation revenue.

### 3.5 Special Transaction Taxes

Australia, like most other countries, imposes special taxes on petroleum, alcohol, tobacco and gambling products, and on motor vehicles. Often their initial introduction was based primarily on the argument of an easy to administer revenue collection measure. Today they also may be justified, at least in part, as a means of correcting market failures, for example for external costs or as a form of a users pays charge for government provided services. In total, these taxes collect about 22% of all Australian taxation revenue.

While there is a compelling economic efficiency case for using special transaction taxes as an instrument to correct for private sector market failures, and more might be applied, the current tax system choice of tax bases and rates to apply warrants substantial reform. For example, if the justification for special taxation of alcohol products is to correct for

market failure associated with excessive alcohol consumption, while the tax base for beer and spirits appropriately is the alcohol quantity, but then the tax rate levied on this base varies with different products, then the ad valorem tax on the wholesale price of wine is not even closely related to the external costs of wine consumption. Effective tax rates on different forms of gambling differ with the form of gambling. Clearly the present mix of taxes on petroleum products, registration fees on motor vehicles and stamp duties on the transfer of motor vehicles represent poorly targeted imposts to charge for road construction and maintenance services, or as taxes to correct for the external costs of congestion and pollution. On the now widely agreed view that the burning of fossil fuels results in external costs associated with the build up of greenhouse gasses, a carbon tax should be applied not just to petroleum products used for on road vehicles, but also for off road use, for the burning of fossil fuels to produce electricity, and for all other uses of fossil fuels.. Reform should focus on selecting bases to reflect the external costs and the rate should approximate the marginal external cost.

Most evidence on the distributional effects of special transaction taxes to reduce external costs is that they are regressive in their incidence. Because the efficiency arguments are powerful for such taxes, the policy implication is to recognise their regressive effects and to combine these taxes as part of an income transfer package which also contains income tax and social security instruments for progressive redistribution, so that the larger package in aggregate achieves the socially desired distributional outcomes.

### 3.6 Other Transaction Taxes

State governments continue to rely on a number of stamp duties for revenue, although there is a trend to reduce them. The largest revenue earners are conveyance duties on the sale of property and stamp duties on insurance. Revenue raising taxes which have been phased out in recent years, or are planned for removal in the near future, include the FID and BAD taxes on bank transactions, stamp duties on share sales, and mortgages and loan security duty.

Other than being established revenue raisers, there is little to commend these revenue raising transaction taxes on efficiency or equity criteria (Freebairn, 2002). They represent a second level of discriminatory taxation on some business and household transactions which reduce production and consumption of these products for no good market failure reason. When they fall on business inputs, they also distort the choice of production methods. Since conveyance duties fall on property only when it is sold, it has the effect of locking-in the use of property in less productive uses and the tax acts as a brake on change, innovation and productivity growth. Studies of the incidence of these revenue raising transaction taxes find them to be regressive in most cases, and proportional at best.

There is a compelling case not to increase general revenue raising transaction taxes, and there are good arguments to replace them with other taxes. In the case of conveyance duties, an annual land tax would remove the distortions to sales of land from lower value to higher value uses, while at the same time having relatively small redistributive effects (Freebairn, 2002). Similarly, stamp duties on the transfer of motor vehicles could be replaced with a larger annual registration fee for revenue neutrality, to improve efficiency, and with relatively small redistributive effects. There is no obvious product specific flow or stock tax replacement for stamp duties on insurance and other transactions. The more likely candidates for funding the revenue losses of these transaction taxes include expanding the bases of the payroll and/or land taxes as discussed above, or increasing revenue from the GST by expanding its base or raising the rate.

#### **4. Some Conclusions**

Even if one accepts the current aggregate revenue collected and the current distributional effects of the current set of taxes as being a desirable reference point, the assessment of alternative tax bases in this paper suggests some key directions for tax reform in Australia. Of course, the set of reasonable reform options to be considered would be expanded greatly if different revenue targets and/or distributional outcomes relative to the status quo were to be acceptable.

A key message is the revenue, efficiency, equity and in many cases also simplicity gains from broadening existing tax bases for income, the GST, payroll and land taxes by removing most of the present special exemptions and deductions. In the case of income tax, the broader base could fund a lower and flatter tax rate schedule. Extra revenue from more comprehensive GST, payroll and land tax bases could be used to fund replacement of some of the transaction taxes or to lower their own base tax rates. The equity effects of a progressive land tax rate schedule are weak, and it results in efficiency losses and it adds to operating costs.

There are good economic efficiency reasons for levying special transaction taxes on those activities which generate external costs. Current excise taxes and taxes on gambling and the use of motor vehicles are not well designed for these market failure correction roles, both in terms of the tax base and the rate. Since externality correction taxes are likely to be regressive in their incidence, these taxes and their effects need to be considered as part of a package which includes income and other taxes.

The choice of an appropriate mix of taxes on income and consumption flows, on wealth stocks, and on special transactions involving market failures involves complex and ambiguous trade-offs of efficiency and equity. There is widespread disagreement in the public finance literature as well in the general and public arenas on the relative merits of the different options.

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