# Myths and Misconceptions in the Tax Mix Debate

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## ABSTRACT

Recently, the Australian states supported an increase in the Goods and Services Tax (GST) as a means to increase revenue available to them. This would entail further tax mix reform in favour of taxing consumption. This paper considers the merits of tax reform, drawing on the earlier Australian debates on the topic from the 1990s and the associated academic literature. While it is argued that the benefits of tax mix reform are often overstated, if increasing the GST rate is marketed as part of a package to broaden the income tax base, it offers a vehicle to bring about tax reform.


## INTRODUCTION

Over the last few years, several OECD countries with broad based consumption taxes (BBCTs) have either raised the consumption tax rate or raised the spectre of so doing (examples are Australia, France, Germany). This has led the OECD to pose the question: Are further shifts toward BBCTs inevitable?[♠] Changing the tax mix

[♠] OECD, Consumption Taxes: The Way of the Future? Policy Brief, 2007

generally entails two main components (depending on the specific proposal). First a BBCT replaces (or further replaces) indirect taxes. Second, a BBCT (or increase in the rate of a BBCT) is used to finance income tax cuts; hence, there is a shift in emphasis from taxing income to taxing consumption. A number of claims have been made in favour of moving further toward a consumption tax, but an unfortunate aspect of the debate is that the merits of changing the tax mix are often painted in black and white terms, which overlooks the subtleties of tax reform.

In Australia, West Australian Premier, Colin Barnett has recently called for the GST to be increased to consolidate the revenue base of the states. Given that Australia is now considering increasing the consumption tax rate, it is sobering to consider the merits of so doing. Drawing on the Australian debates about tax mix reform from the 1990s, encapsulated in *Fightback!* and related documents, this paper evaluates some of the main claims made in favour of changing the tax mix in five main areas: the effect on incentives to save, incentives to work, the level of tax avoidance and evasion, vertical equity and simplicity. It argues that a lot of the claimed advantages for a BBCT tend to be overstated, but if a change in the tax mix is marketed as part of a wider package involving significant broadening of the income tax base, greater emphasis on a BBCT might still offer us our best hope of comprehensive tax reform.[1]

## EFFECT ON THE LEVEL OF SAVINGS

The personal income tax represents a double taxation of savings because income is taxed when earned and saved, distorting the consumption-savings decision in favour of consumption. A BBCT, though is neutral between consumption and

savings. Hence, a common argument is that a change in the tax mix will improve levels of personal savings given that a BBCT does not discriminate in favour of current consumption. This perspective has considerable popular appeal given that most estimates suggest that savings levels in Australia need to increase at an annual rate of about 2% of GDP on a sustained basis. However, the claims for a BBCT are almost certainly overstated. Most, if not all, economists would agree that a change in the tax mix would have some positive effect on savings, but it is the magnitude which is the real issue.

The effect of changing the tax mix on savings levels depends on how responsive savings are to variations in interest rates. If savings are responsive to higher net of tax returns, the benefits of changing the tax mix will be significant, but the issue is not straight forward. First the empirical evidence from the United States is, at best, mixed. A few simulated studies in the late 1970s and early 1980s suggested that a higher expected real interest rate acts as a strong incentive to defer consumption (see eg Boskin 1978, Summers 1981). However, almost without exception, more recent studies have been less optimistic suggesting a low or zero response (see eg Hall 1988, Engen & Gale 1997). Second, these studies are highly stylised simulations. Measurement problems and restrictive assumptions mean that the policy conclusions we can draw are limited. As Head (1991 p.25) puts it, "empirical work in this area has simply not reached the stage, even in the United States, where it could possibly serve as a useful foundation for tax policy".

Apart from the effect on intertemporal choice, the existing income base grants a number of concessions and exemptions which distorts the allocation of savings. Broad areas such as accrued capital gains, accrued pension rights and imputed rent are not taxed at all. It is often claimed that changing the tax mix will reduce distortions in saving decisions, therefore directing savings into productive investment. In fact, estimates for the United States by Fullerton *et al* (1981) and for Australia by Piggot (1986) suggest that potential gains to national welfare from eliminating all distortions to savings and investment choices might be as high as 1% of GDP. In practice, however, the gains from changing the tax mix would be much smaller than this figure suggests because feasible attempts to trade off across the mix could not remove all distortions. To make real progress in eliminating distortions between savings and consumption substantial broadening of the income base is needed, but successive governments have been slow to close income loopholes.

## THE EFFECT ON THE INCENTIVE TO WORK

A common argument put forward in support of *Fightback!* was that changing the tax mix would increase the incentive to work. The argument is that if marginal tax rates on income are reduced, the reward for working will increase. However, there are a number of difficulties with this argument. First, the effect of high marginal tax rates on people's incentive to work is not clear. If marginal tax rates on income increase some people might work less, because the price of leisure is reduced relative to after-tax income from work, but others might work harder to maintain existing living standards. At a theoretical level both of these scenarios are as plausible as each other (see Brooks 1993 pp.265-266). And

at an empirical level the evidence varies. A few studies have found that high marginal tax rates offer a strong disincentive to work (see eg Hausman 1985), but most have found that high marginal tax rates have little or no effect on work incentives (see eg Triest 1990).

Second, putting aside this issue, the notion that changing the tax mix will increase worker's incentives relies on repeated fiscal illusion. The supporters of changing the tax mix argue that most people perceive that their marginal tax rate is on income and not income plus consumption. Thus people will respond to lower marginal tax rates on income and take little or no notice of offsetting increases in the prices of most goods and services. The problem is that while perceived marginal tax rates (on income) decline, in a revenue neutral switch, actual marginal tax rates (on income plus consumption) remain the same. While people might miscalculate their total tax burden when the BBCT is first introduced because the tax component is hidden in the price, it is unlikely that people will continue to underestimate the amount of tax which they are paying over time.

Third, the effect on incentives to work are further clouded if a change in the tax mix is coupled with targeted compensation measures for low income workers as in *Fightback!* Apps (1993) and Jones (1993), among others, demonstrate that people in low income brackets such as second earners will face higher effective marginal tax rates when welfare is means-tested. An implication of this is that second earners can be expected to face strong disincentives to work. As noted above, the empirical evidence on the effect of

higher marginal tax rates on work incentives in general is ambiguous, but most studies have found that low or second income earners such as married women and part-time workers are more responsive than "prime aged" males (see eg Killingsworth 1983).

## THE EFFECT ON TAX AVOIDANCE AND EVASION

The *Fightback!* document suggested that a BBCT would reduce incentives to avoid and/or evade tax. Two main reasons are often given in support of this claim. First, it is argued that a BBCT ensures that income which avoids or evades income tax bears some liability when it is spent. Second, it is argued that changing the tax mix provides significant opportunities for reductions in marginal income tax rates which will reduce incentives for avoidance and evasion. Both of these arguments, however, have their limitations. The first argument places weight on the fact that people who avoid or evade tax still eat, clothe themselves and purchase other consumer goods and services. An immediate problem with this argument is that it assumes a BBCT is levied on a comprehensive base. In practice this is not the case. Some items will present the same difficulties for the consumption base as the income base. To start with, even academic proposals like Chisholm, Freebairn and Porter (1990) do not attempt to tax financial or housing services. And given the political realities, to get public support, the government might have to go further than this. For instance, at the 1993 election, *Fightback! Mark II* made a number of additional concessions to the comprehensive ideal, exempting basic foods, building and construction, education and health and it is likely that similar concessions would have to be made again to make a BBCT politically acceptable.

However, a more basic problem is that it is not clear what effect a BBCT *itself* would have on reducing tax evasion. The advocates of a BBCT point out that it puts in place certain checks which make it harder for potential malefactors to cheat. For example, if the BBCT is collected using the invoice approach opportunities exist to cross-check returns and invoices. In addition each firm has an incentive to make sure that suppliers do not underestimate tax on their sales invoices because each firm is able to credit tax paid on inputs against tax paid on sales. Nevertheless, inspite of these checks ample opportunities still exist for people to evade a BBCT. As Brooks (1993 p.280) points out:

> "Collusion between buyers and sellers, false invoices and similar means of defeating the 'self-policing' character of the [BBCT] are possible at each stage of production. At the retail stage, where the buyer has no reason to maximise the tax credit because none is received, the possibilities are even greater. Consequently a [BBCT] is likely to be almost as vulnerable to evasion as other taxes".

The fact that in a lot of areas the opportunities for tax evasion will be similar with a BBCT to what exists now means that claims for additional revenue from taxing consumption out of income that has avoided or evaded income tax are often overstated. For example *Fightback!* estimated the fiscal dividend from curtailing tax avoidance and evasion to be $4 billion, but Bascand (1989) puts the fiscal dividend at most equal to $1.1 billion,

suggesting that when we allow for compensation for low income earners somewhere between $400 and $500 million is more realistic. These figures are about on a par with Chisholm, Freebairn and Porter's (1990) estimate of a dividend of around $600 million.

A number of difficulties also emerge with respect to the second argument that reductions in marginal income tax rates will reduce tax avoidance and evasion. To begin with it is not clear that incentives to avoid and evade income tax will be greater at higher marginal tax rates. The gains from tax avoidance and evasion are greater, but it is often overlooked that the expected penalties are also higher if caught. First, fines tend to be proportional to unpaid taxes and, second, the incentive of the tax department to audit high income earners is greater because, for a given level of under-reporting, recouped revenue will be higher (Brooks 1993 p.280). Most theoretical studies suggest that the expected penalties, if caught, outweigh the potential benefits if successful so that higher marginal tax rates should increase compliance (see eg Graetz *et al* 1986). Moreover, the bulk of empirical evidence is supportive of this proposition. Some earlier studies such as Clotfelter (1983) found a positive relationship between tax evasion and tax rates, but later empirical work using better modelling and data sets such as Cox (1984) and Dubin *et al* (1987) have found that a positive correlation exists between marginal tax rates and tax compliance.

A second problem centres on whether worthwhile cuts in income tax rates are feasible. If the BBCT is not levied on a comprehensive base the scope for tax cuts will be reduced

meaning that similar incentives to avoid and evade tax will persist. The potential for sizeable income tax cuts has been reduced since a BBCT was first mooted in the Draft White Paper (Australian Government 1985). Under the Hawke government's favoured "Option C" a 12½% BBCT would have been sufficient to compensate low income earners and finance income tax cuts of about 30%. In the *Fightback!* proposal six years later, after compensating people on low income, a 15% BBCT would have financed income tax cuts of around 10% depending on the income tax bracket. Now it is almost certain that a BBCT would have to be levied at a higher rate to provide for cuts in income tax rates.

For example John Freebairn suggests that with a comprehensive base, excluding just housing and financial services, a BBCT of around 11% would be needed just to eliminate existing indirect taxes. But if, in addition, education, food and health services were exempted the rate would need to increase to over 15% to maintain a revenue neutral switch.[2] And this makes no provision for income tax cuts. On Freebairn's figures it seems likely that if the basic necessities are exempted even moderate income tax cuts would require a BBCT of close to 20%. Whether this is feasible or even desirable from a political perspective is doubtful. A third problem arises if a switch in the tax mix is coupled with means-based welfare. As pointed out above this will mean higher effective marginal tax rates for low income earners. Thus *if* higher tax rates do encourage avoidance and evasion, without effective base broadening, the incentive to avoid and evade tax will just shift from high to low income earners. Again this suggests that the most effective method

to deal with tax avoidance and evasion is to broaden the scope of the income base.

## THE EFFECT ON VERTICAL EQUITY

Vertical equity requires that people on higher incomes pay more tax than people on low incomes. Viewed in isolation a BBCT levied on a comprehensive base is vertically inequitable. This is because irrespective of an individual's disposable income he/she has to pay the uniform rate on all goods and services purchased. As a result people on low incomes pay a higher proportion of their income in tax than people on middle and high incomes. The advocates of changing the tax mix, however, argue that this is misleading because it focuses on annual incidence. It is argued that while a BBCT is regressive if viewed at a single point in time, when lifetime consumption and income are examined the regressive characteristics of the BBCT are exaggerated. This is because if we look at Household Expenditure data over an extended period many people who are in the low income deciles according to annual data are not in fact amongst the long-term poor.

But the results of lifetime incidence studies have given mixed results. Using Canadian data Davies *et al* (1984) compared the annual and lifetime burdens of excise and sales taxes on low and high income earners. According to their calculations the average annual burden on the lowest income earners was 27.2% of income, but just 8.5% of income for the highest income group. Yet the taxes were nowhere near as regressive when lifetime incidence was considered. The burden on households in the lowest lifetime decile was 15% and the burden on households in the highest lifetime decile was 12.4%. However,

Harding's (1993) results using Australian data on excise duties and the wholesale sales tax paint a different picture. Her results support the view that households in the lowest income group change over time, but suggest that there is not that much difference between annual and lifetime incidence for high income earners. Harding found that the average annual burden on the lowest income decile was 35% while the comparable figure for the highest income decile was just 4.2%. On a lifetime basis, the burden on the lowest income decile fell to 12% and was 4.7% for the highest income decile. In contrast to the results which Davies *et al* (1984) got, these figures indicate that even from a lifetime perspective concerns about the regressive nature of indirect taxes seem well founded.

There are two methods to reduce the regressive impact of a BBCT. The first is to introduce exemptions for items which low income households spend more on in relative terms such as food and clothing. The second is to compensate low income earners through some redistributive mechanism such as social welfare transfers or sales tax credits. There is a lot of political pressure for governments to choose the first option. In the lead up to the 1993 election various sections of the public such as church groups were vociferous advocates of this approach (see Dwyer 1991). As a result the Hewson-led coalition bowed to political pressure in *Fightback! Mark II* exempting some basic foods. Most economists, however, favour the second option because there is often little to be gained from exempting broad consumption categories while the costs can be substantial.

Creedy (1993) presents evidence to suggest that exempting food does make the BBCT a

little less regressive, but whether this is sufficient to outweigh the problems which it introduces is doubtful. First, introducing exemptions opens the door for special interest groups to bring pressure for further concessions. This undermines the consumption base forcing the government to raise the rate on remaining items. Second, it makes the implementation of the BBCT more complex because different records have to be kept for items which are exempt. This increases compliance costs and the potential for tax avoidance and evasion. Third, there are costs in terms of efficiency, because concessions in the consumption base distorts consumer choices between exempt and non-exempt goods and services. Fourth, horizontal equity, meaning that people in similar circumstances should have comparable tax burdens , is facilitated if the BBCT is levied on a broad base. Individuals with similar levels of income, but different consumption patterns should not pay different rates of tax just because certain items are exempted.

## SIMPLICITY

The collection and compliance costs of a BBCT would be higher than existing indirect taxes such as the wholesale sales tax. This is because more businesses would have to be registered with the BBCT. Bascand (1989) estimated that in the mid eighties the number of firms involved in collecting the BBCT would have been five times the number involved with the wholesale sales tax. However, the compliance costs might not be as great as sometimes claimed. Pope (1993) compared the compliance costs of a BBCT with wholesale sales and payroll taxes. He found that while the gross compliance costs of a BBCT are higher than the existing indirect taxes, when we allow for offsetting cash flow

benefits arising in the collection process the net compliance costs are about the same or might even be slightly less for a BBCT. We might also expect compliance costs of a BBCT to decrease over time as businesses become more accustomed to the procedures. Studies of the compliance costs involved in collecting the BBCT in the U.K support this claim. Sandford *et al* (1981) (1989) in two separate studies estimate the compliance costs of the U.K BBCT in 1977-78 and 1986-87. In 1977-78 the compliance costs represented 9.25% of revenue collected under the BBCT, but in 1986-87 compliance costs had fallen to 3.69%. While this was due in large part to simplification of the BBCT structure and the adaptation of a single rate, at least some of it can be attributable to better understanding.

The administration costs in the initial stages would be high because of the costs of educating businesses and the public. However, this cost and the disadvantages of a BBCT in terms of higher collection and compliance costs have to be offset against potential gains in terms of administration and managerial effectiveness once it is in operation. A consumption tax levied on a broad base with a uniform rate would be much simpler to administer than the present set of indirect taxes which are levied on narrow bases with a range of multiple rates and exemptions. But, of course, if exemptions are introduced into the consumption base, as discussed above, some of the benefits of the BBCT in terms of administration would be lost. The Sandford *et al* studies also suggest that on the basis of the U.K experience there might be significant gains in terms of managerial effectiveness in particular for small firms forced to improve their records for BBCT compliance.

## CONCLUSION

In recent times, the Australian states have called for an increase in the GST. This inevitably puts the issue of tax mix between income and consumption back on the Australian agenda. Australia has been there before and had the same debates over the Draft White Paper Option C and *Fightback* proposals. Drawing on the literature from these earlier debates, this paper has argued that most of the claimed benefits for a BBCT in important areas like savings, work incentives and tax evasion are overstated.

While existing empirical work has some methodological problems, the bulk of statistical studies suggest that a change in the tax mix would have little effect on incentives to save and work. It is also doubtful whether a shift to a consumption base would achieve much in terms of reducing tax avoidance and evasion.

On the downside, the regressive nature of a BBCT means that the potential costs to low-income earners is considerable. And while exempting items like food and clothing might give the government its best chance of selling a BBCT to the electorate, the costs of this approach are high because concessions increase distortions and compliance costs. If the BBCT was levied on a sufficiently broad base with compensation for low-income earners it need not be regressive (Option C in the 1985 Draft White Paper is a case in point) and would provide the additional revenue the states seek without the political costs of increasing the rate.

## ENDNOTES

1. This paper discusses a BBCT in a generic sense. It does not consider the merits of different sorts of BBCT such as a Retail Sales Tax and a Value Added Tax. For a discussion of the pros and cons of different sorts of BBCT see Cnossen (1989)

2. These estimates are reported in Henderson (1997).

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