The impact of taxation: revenues and perceptions

One way of assessing the impact on business of a country's taxation system is to look at the taxation revenue — collected by all levels of government — as a proportion of GDP. Comparison shows that, on this measure, Australia is ranked towards the lower end of Group 1 countries.

Further analysis shows that Australia relies relatively heavily on revenue from the taxation of income and profits. In relation to revenue from the taxation on property and goods and services, Australia is ranked towards the lower end of the range of the countries in the sample. The third major component of total taxation is social security contributions. Australia raises negligible taxation under this category, while most other countries examined rely on this source of revenue to a high degree.

A second way of assessing the impact of the tax system is to look at taxpayer perceptions. The results of the annual survey conducted by the World Economic Forum suggest that Australian business does not currently regard the Australian taxation system as enhancing business competitiveness. As a result, only five of the 23 countries selected for comparison in this paper ranked lower than Australia.

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Introduction

Purpose

2.1 In comparing the various business tax systems in different countries, it is informative to examine key statistical measures of the total tax collected and its structure. While such comparisons must be used cautiously, they represent one element in assessing one tax system against another. Some of the limitations are discussed below.

Approach

2.2 Ideally, comparisons across countries would be based on consistent data covering taxes levied at all levels of government, not just by the central government. However, the only comparable source of data covering a sufficiently large group of countries is that produced by the OECD, which collects data for member countries only. Both Groups in this paper include some non-OECD countries for which data are not available. Thus the comparison is somewhat incomplete but it goes as far as is possible while still enabling meaningful comparison.

2.3 We have also included some data relating more to perceptions than to directly measured features of the tax system. These are drawn from the *Global Competitiveness Report 1997* published by the World Economic Forum. It is difficult to measure perceptions in this way and the outputs cannot be accepted uncritically. Nevertheless the attitudes that give rise to these perceptions can be relevant to improving the business tax system.

2.4 As noted above, comparisons of statistical information on international tax systems must be interpreted with great caution. Factors which differentiate one tax regime from another make it difficult to assess and compare the ultimate impact of taxation in different countries.

2.5 Four examples highlight the difficulties of comparison:

- Countries may deliver services or benefits to the community either by the use of direct payments to benefit recipients or by the use of tax rebates or tax deductions for certain expenditures such as on health or education. Even though the level of benefit provided may be very similar in the two cases, the direct payment will require a higher collection of tax revenue.
- In some countries, governments use taxation revenues to provide public benefits which in other countries employers are required to provide (for example, employee wages in the event of sickness). Thus, the cost of providing the benefit will fall to the

employer in both cases even though one country will record an apparently lower tax burden.

- Benefits such as unemployment payments may be taxed in some countries but not in others. This difference in taxation bases affects simple comparison techniques such as the ratio of benefits provided over total revenue collections, so that the revenue take may appear higher (or lower) than the level of benefits provided would suggest.
- Governments can deliver services and receive revenue via their ownership and operation of business enterprises. If these enterprises charge higher prices than an equivalent privately held enterprise, the 'super profit' derived can in some cases be considered economically equivalent to a tax.

Key comparisons

Total taxation revenues

2.6 The following tables provide broad indicators of the structure and impact of the tax systems in as many of the countries for which comparable data are available. Tables 2.1 and 2.2 show total tax revenues (for all levels of government) as a proportion of GDP for Group 1 and Group 2 countries which are also members of the OECD. (In most countries, non-tax revenue accounts for a minor portion of total revenue.) Australia is at the lower end of the scale at around 30.3 per cent of GDP. Of the Group 1 countries, only Japan and the United States have lower tax-to-GDP ratios than Australia.

2.7 New Zealand provides an example of a country that is generally seen as having relatively low rates of income tax but still has high tax collections. This reflects the fact that New Zealand has a broad tax base — all welfare benefits in New Zealand are subject to tax. Moreover, the goods and services tax applies to all government activities, thereby increasing both the revenue collected and the cost of providing the services of government.

Table 2.1: Total tax revenues as a percentage of GDP — Group 1 countries

OECD country	1997 %	1996 %	1995 %
Australia	30.3	31.1	30.4
Canada	na	36.8	36.0
France	46.1	45.7	44.5
Germany	37.5	38.1	39.2
Ireland	34.8	33.7	33.8
Japan	na	28.4	28.5
Netherlands	43.4	43.3	43.8
New Zealand	36.4	35.8	37.9
Sweden	53.3	52.0	49.5
United Kingdom	35.3	36.0	35.6
United States	na	28.5	27.9

Source: OECD *Revenue Statistics*, 1998
na — not available

Table 2.2: Total tax revenues as a percentage of GDP — Group 2 countries

OECD country	1997 %	1996 %	1995 %
Belgium	46.5	46.0	46.0
Italy	44.9	43.2	41.3
Denmark	na	52.2	51.4
Finland	47.3	48.2	46.1
Mexico	16.9	16.3	16.6
Norway	42.5	41.1	41.5
South Korea	na	23.2	22.3
OECD unweighted average	na	37.7	37.3

Source: OECD *Revenue Statistics*, 1998
na — not available

Taxes on income and profits

2.8 A second useful summary measure of the structure of the tax system is the relative importance of taxes on income and profits versus taxes on property and goods and services in each country.

2.9 Tables 2.3 and 2.4 show the ratio of taxes on income and profits to GDP for Group 1 and Group 2 OECD countries, respectively. The interesting point to note from Table 2.3 is that Australia has one of the highest ratios of such taxes to GDP of all the Group 1 countries. Only New Zealand and Sweden are consistently higher than Australia. From the Group 2 countries Belgium, Denmark and Finland are consistently higher than Australia.

Table 2.3: Taxes on income and profits as a percentage of GDP — Group 1 countries

OECD country	1997 %	1996 %	1995 %
Australia	17.1	17.5	16.8
Canada	na	17.4	16.8
France	8.9	8.2	7.8
Germany	10.5	10.8	11.8
Ireland	14.3	13.8	13.2
Japan	na	10.4	10.4
Netherlands	11.4	11.7	11.5
New Zealand	21.5	21.1	23.0
Sweden	21.5	21.3	20.5
United Kingdom	13.0	13.2	13.0
United States	11.5	13.5	12.8

Source: OECD *Revenue Statistics*, 1998
na — not available

Table 2.4: Taxes on income and profits as a percentage of GDP — Group 2 countries

OECD country	1997 %	1996 %	1995 %
Belgium	18.0	17.5	17.7
Italy	16.3	14.9	14.5
Denmark	na	31.4	31.0
Finland	19.7	20.1	18.5
Mexico	4.5	4.1	4.1
Norway	16.2	15.0	14.6
South Korea	na	7.0	7.0
OECD unweighted average	na	13.4	13.2

Source: OECD *Revenue Statistics*, 1998
na — not available

Taxes on corporate income

2.10 Tables 2.5 and 2.6 present taxes on corporate income as a percentage of GDP. The tables use the OECD definition of taxes on corporate income which is slightly broader than company taxation, as it includes related taxation such as some withholding taxes. The picture is consistent with the tables above showing direct taxation, with Australia having a relatively high ratio, and well above the OECD unweighted average. In fact, with the exception of New Zealand in 1995 and the Netherlands in 1997, Australia has had the highest ratio of all countries included in the analysis.

2.11 However, there are reservations that attach to the use of this particular comparison. Ideally, a comparison of the overall contribution to tax revenue from business should not be based on the revenue collected only from companies. Business income tax is also contributed by other types of entities and by individuals besides companies. Thus, the picture could be distorted depending on the relative importance in each country of the use of the company vehicle. Despite this reservation, it is likely that the broad picture in Tables 2.5 and 2.6 is correct even if the magnitude can be questioned.

Table 2.5: Taxes on corporate income as a percentage of GDP — Group 1 countries

OECD country	1997 %	1996 %	1995 %
Australia	4.2	4.7	4.5
Canada	na	3.3	3.0
France	2.1	1.7	1.6
Germany	1.8	1.4	1.1
Ireland	3.5	3.2	2.9
Japan	na	4.7	4.3
Netherlands	4.6	4.1	3.3
New Zealand	3.9	3.5	4.6
Sweden	3.3	2.9	3.0
United Kingdom	4.0	3.8	3.3
United States	2.3	2.7	2.6

Source: OECD *Revenue Statistics*,1998
na — not available

Table 2.6: Taxes on corporate income as a percentage of GDP — Group 2 countries

OECD country	1997 %	1996 %	1995 %
Belgium	na	3.1	3.0
Italy	2.2	4.0	3.6
Denmark	na	2.4	2.0
Finland	3.2	3.2	2.5
Norway	na	4.3	3.8
South Korea	na	2.7	2.7
OECD unweighted average	na	3.1	3.0

Source: OECD *Revenue Statistics*,1998
na — not available

Taxes on property and goods and services

2.12 Tables 2.7 and 2.8 present the ratio of taxes on property and goods and services to GDP. On this measure, Australia is at the lower end of the spectrum (above only Japan, Mexico and the United States). Australia's position reflects the fact that it does not currently have a VAT/GST although it does have high rates of tax on a limited range of goods. A GST is expected to be introduced in 2000 to replace a raft of existing taxes.

Table 2.7: Taxes on property and goods and services as a percentage of GDP — Group 1 countries

OECD country	1997 %	1996 %	1995 %
Australia	11.2	11.5	11.5
Canada	na	13.0	12.8
France	15.1	14.8	14.5
Germany	11.4	11.8	12.0
Ireland	15.5	15.0	15.3
Japan	na	7.6	7.6
Netherlands	14.2	14.3	13.8
New Zealand	14.5	14.4	14.6
Sweden	14.1	13.8	13.4
United Kingdom	16.3	16.5	16.3
United States	na	8.0	8.1

Source: OECD *Revenue Statistics*, 1998
na — not available

Table 2.8: Taxes on property and goods and services as a percentage of GDP — Group 2 countries

OECD country	1997 %	1996 %	1995 %
Belgium	13.7	13.6	13.1
Italy	13.5	13.5	13.6
Denmark	na	18.8	18.5
Finland	15.6	15.6	14.8
Mexico	na	9.3	9.3
Norway	16.7	16.5	17.2
South Korea	na	13.3	12.7
OECD unweighted average	na	13.7	13.7

Source: OECD *Revenue Statistics*, 1998
na — not available

Social security contributions

2.13 Adding taxes on income and profits to taxes on property and goods and services does not give the total of taxation collections. In most OECD countries there are further categories of revenue, the major one being social security contributions. These can apply to both employers and employees and can be very large.

2.14 Tables 2.9 and 2.10 provide estimates of these contributions for most of the OECD countries that have been included in this analysis. These contributions are commonly in the range 10-20 per cent of GDP in other countries, but, based on OECD definitions, are virtually zero in Australia.

2.15 The definitions used are often criticised and, in the case of Australia, the Superannuation Guarantee charge (set at 6 per cent on wages and salaries income in 1997-98) is often suggested as an amount that is equivalent to the social security charges of other countries. The Superannuation Guarantee charge and equivalent contributions (in funded and unfunded schemes, up to the 6 per cent level) equalled around 2.5 per cent of GDP in 1997-98.

Table 2.9: Social security contributions as a percentage of GDP — Group 1 countries

OECD country	1997 %	1996 %	1995 %
Australia	...	...	...
Canada	na	6.0	5.9
France	19.2	19.7	19.3
Germany	15.6	15.5	15.5
Ireland	4.5	4.5	4.9
Japan	na	10.4	10.4
Netherlands	17.7	17.1	18.3
New Zealand	...	...	...
Sweden	15.9	15.5	14.4
United Kingdom	6.0	6.2	6.3
United States	6.8	7.0	7.0

Source: OECD *Revenue Statistics*,1998
na — not available

Table 2.10: Social security contributions as a percentage of GDP — Group 2 countries

OECD country	1997 %	1996 %	1995 %
Belgium	14.8	14.9	15.2
Italy	15.1	14.8	13.1
Denmark	na	1.6	1.6
Finland	11.9	12.4	12.7
Mexico	2.7	2.5	2.7
Norway	9.6	9.6	9.7
South Korea	na	2.1	1.8

Source: OECD *Revenue Statistics*,1998
na — not available

Adjustments to the revenue comparisons

2.16 There is nothing new in the above observations. It has long been observed that Australia has a low ratio of tax revenue to GDP but a relatively high ratio of direct taxes to GDP. A point of debate has been whether social security contributions should be regarded as equivalent to a direct tax, and if so, whether they represent a cost to the individual or a cost to the employer, and if the latter, whether borne by shareholders or passed forward into prices. Social security contributions are generally paid by both the employer and employee, but this does not necessarily give any guidance as to the actual incidence of the tax.

2.17 Apart from collecting data on tax revenue, the OECD has carried out some work which attempts to make adjustments to the statistics on the public cost of social security by factoring in the taxation of such benefits and the fact that in some countries the benefits are compulsorily or habitually supplied by employers. The OECD work is incomplete and only covers a limited number of countries for 1993 but it is useful to illustrate the limitations of international comparisons of tax burdens.

2.18 Table 2.11 shows the provision of social benefits through either public or private expenditure in six selected OECD countries. Column 1 shows the gross public social expenditure as a percentage of GDP. As expected, this shows enormous variations between countries consistent with the picture on revenue shares.

2.19 Column 2 in the table shows the adjustment for the fact that some countries tax public social benefits, thereby reducing the size of the benefit (except in the case of the United States where social benefits provided through the tax system outweigh the taxation of social benefits). Finally, the private sector provides certain benefits, either because they are mandatory or because it is habitual for whatever reason. These adjustments are shown in columns 3 and 4.

2.20 The final column 5 shows the total benefit delivered to beneficiaries. It is apparent that four of the six countries are quite close together after these adjustments, even though the gap was large in terms of public social benefits. The US remains the lowest but is within about 5 percentage points of the other countries, excluding Sweden.

Table 2.11: Net total social expenditure as a percentage of GDP (1993)

OECD country	Type of social expenditure				
	Gross public (1) %	Net current public (2) %	Net current mandatory (3) %	Net current voluntary private (4) %	Net current total (5) %
Denmark	35.25	26.35	0.33	0.44	27.13
Germany	32.48	27.17	0.90	1.45	29.52
Netherlands	34.02	24.86	...	3.41	28.20
Sweden	42.38	32.39	0.39	0.97	33.76
United Kingdom	26.91	23.92	0.20	3.19	27.31
United States	16.31	16.96	0.53	7.82	24.24

Source: *The Growing Role of Private Social Benefits*, OECD Labour Market and Social Policy — Occasional Papers No 32, April 1998.

2.21 It has not been possible to make these adjustments for Australia. However, it is probable that the starting point for Australia (column 1)

would be above that for the United States but below that of the other countries. Adjustments would tend to move Australia towards convergence with other countries, possibly still at the lower end of the range.

Perceptions of how tax systems affect business competitiveness

2.22 As well as looking at taxation revenues, a second way of looking at the overall impact of the tax system is to look at the views of taxpayers based on their perceptions of broad features of the tax system. While it is then difficult to determine the factors that have given rise to these perceptions, it provides a basis for close examination of both the positive and negative factors that may have contributed. The *Global Competitiveness Report 1997*, published by the World Economic Forum, compares national economies in terms of their prospects for economic growth. As taxation is an important factor in determining a country's ability to achieve sustainable economic growth, a comparison of several taxation indicators is included in the survey.

2.23 The *Report* surveys various business organisations to ascertain whether the arrangements each country administers to collect tax revenues are considered to be an enhancement of business competitiveness, and whether they act as an incentive or disincentive in terms of attracting business investment to that country.

2.24 Various factors contribute to formulating these perceptions.

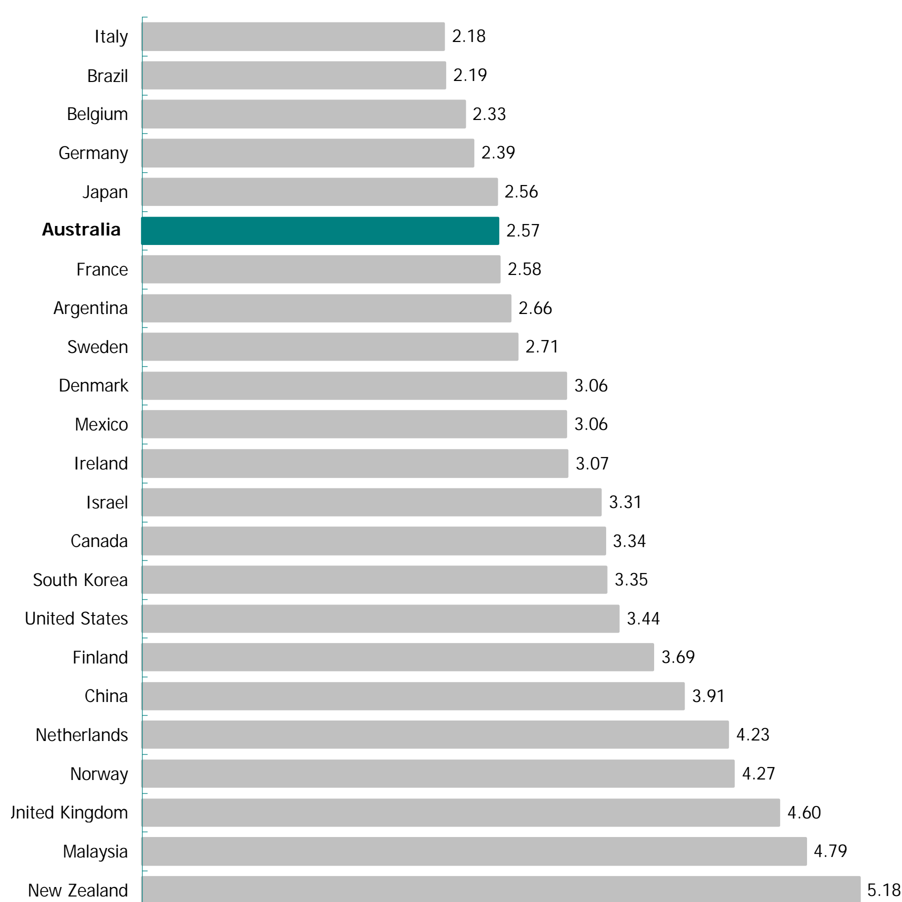
- In the first place, there are different levels of compliance requirements in various countries. From a business perspective, higher levels of compliance should equate to higher costs resulting in a diminished incentive for an enterprise to invest in that particular country. Similarly, taxation systems in different countries vary in terms of their complexity. A business organisation is likely to prefer to invest in those countries that have a more transparent taxation administration as the greater the complexity, the greater the associated costs.
- The survey is important in gauging the perceptions of business organisations relating to the various administrative and government bodies in each country responsible for operating its taxation system. The greater the number of public bodies with responsibilities for taxation policy and administration, the greater likelihood of higher compliance costs and complexities relating to an enterprise operating in that particular country, and presumably the lesser the investment incentive for business groups.

2.25 Furthermore, the methods of operation and preferred approach engaged in by public bodies in each country may also impact upon the perceptions each business enterprise has of investing in that particular country. Business groups would conceivably argue that they would be less prepared to invest in a country whose tax authorities have developed a reputation for being unpredictable in their application of the taxation laws.

2.26 Figure 2.1 provides a description of business taxpayers' perceptions of the ability of tax systems in different countries to enhance business competitiveness. Respondents were asked to respond to the statement 'The tax system in your country enhances business competitiveness'. A continuum is employed to compare the response relevant to each country ranging from 1 (strongly disagree) to 7 (strongly agree).

2.27 On the basis of this indicator, Australia performs poorly. New Zealand, which has a much higher tax to GDP ratio, actually performs very well. Favourable scores are also recorded by Malaysia, the Netherlands, Norway and the United Kingdom. Ireland, despite its range of incentives, is only around the middle of the sample.

Figure 2.1: Comparison of taxpayer response to statement 'The tax system in your country enhances business competitiveness'



Source: *Global Competitiveness Report*, World Economic Forum, 1997
Note: Response: 1=strongly disagree; 7=strongly agree

2.28 The results of this survey can be criticised. For example, the response from a particular country can depend on the political, cultural and business environment in that particular country. Respondents in one country may feel that it is in their best interests if their country is portrayed as being highly competitive from a taxation point of view and will respond accordingly. Equally, respondents in another country may see greater advantage in being critical of their tax system as a means of encouraging governments to make favourable changes.

2.29 Australia's position in the overall ranking is likely to generate negative sentiment towards Australia by potential foreign investors. Further investigation by such investors might improve that sentiment but a risk remains that such deeper investigation might not be undertaken.

2.30 The process of taxation reform will deliver significant benefits to business and the economy as a whole. If business reacts positively to the changes, the impact on sentiment and Australia's ranking on this survey could be substantial. Positive reaction could result both because business recognises the improvement in competitiveness that the reforms will deliver and from the acceptance that government has made positive steps to improve the tax system. In both cases, an improved position in this ranking would be viewed in a positive light.