



New South Wales  
TREASURY

## **The Case for Payroll Tax**

Office of Financial Management

**Research &  
Information Paper**

## **PREFACE**

As part of NSW Treasury's ongoing commitment to producing high quality, independent analysis and economic research, I welcome the publication of the latest Treasury Research and Information Paper, *The Case for Payroll Tax*.

The paper was prepared in 1998 as a contribution to the national tax reform debate. It was presented to the ATAX State Tax Conference in June 1998 and 27<sup>th</sup> Annual Conference of Economists in September 1998. The paper remains highly relevant because payroll tax is to be retained under the proposed tax reforms but the role that payroll tax should play in our tax system remains a topic of considerable debate.

This report aims to enhance the understanding of payroll tax and provide business and policy makers with the information to assist them making the best decisions for their constituents.

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## EXECUTIVE SUMMARY

This paper was presented and published at the ATAX State Tax Conference in June 1998 and the 27<sup>th</sup> Annual Conference of Economists in September 1998.

The tax reform debate presents an opportunity to assess the relative merits of *all* taxes, including payroll tax. The business community's most enduring criticisms of payroll tax are that:

- Payroll tax is a 'tax on jobs'
- Payroll tax is a 'tax on exports'.

The future of payroll tax and all other state taxes is currently under consideration. This paper presents the case for retaining payroll tax by addressing these and other criticisms.

The long-term impact of payroll tax on employment is very similar to that of other broad-based taxes such as personal income tax and a value added tax. The reason is that, although the legal liability of payroll tax is with employers, ultimately payroll tax, like all taxes, is paid by individuals. The tax liability is passed on to employees and customers.

- To the extent that payroll tax can be passed on to customers through higher prices, payroll tax is similar to a consumption tax.
- To the extent that payroll tax can be passed on to employees as lower wages - decreasing disposable income - payroll tax is similar to personal income tax.

When exchange rate movements are taken into account, payroll tax's impact on export competitiveness is likely to be small. This conclusion is supported by international comparisons that show that many successful exporting countries rely on payroll-like taxes far more than does Australia.

Most criticism of payroll tax from economists is directed at the tax-free threshold which narrows the tax base considerably. Analysis reported in this paper suggests that the economic cost of the threshold is insufficient to warrant abolishing this relatively efficient tax, while less efficient taxes continue to be used. Similarly, the revenue gains from reducing the threshold to half its current level are reasonably modest.

Abolishing payroll tax and replacing it with less efficient taxes will reduce the overall efficiency of the tax system. Replacing payroll tax with increased state grants will worsen the problem of Vertical Fiscal Imbalance that currently characterises Australia's federation.

Payroll tax is already one of the more efficient taxes operating in Australia. Reforms such as harmonising payroll tax across the states by adopting a common definition of the payroll tax base and a common, reduced threshold with states competing on rates, would further improve the efficiency of the tax system.

## **SECTION 1: PAYROLL TAX**

### ***1.1 Introduction***

Since its introduction in 1941, payroll tax has been one of the most maligned taxes operating in the Australian Federation. Most criticism of payroll tax has come from the business community which is legally liable for paying the tax. The most common criticisms of payroll tax relate to its alleged negative impact on jobs.

Despite its unpopularity within the business community, payroll tax has been supported by many economists who claim that it does not deserve the level of criticism it receives. In fact, many economists claim that payroll tax should play a greater revenue-raising role than it currently does.

If governments are to continue to provide services to the community, taxation is essential. Clearly it is desirable that revenue be raised in the most efficient and equitable manner. The national tax reform debate presents an opportunity to assess the relative merits of *all* taxes, including payroll tax, to determine which taxes should play a role in the Australian tax system.

Given the opportunity to change the tax system, it is pertinent to ask the question:

*Should payroll tax play any part in Australia's tax system?*

The future of payroll tax is currently under consideration. This paper looks at the popular criticisms of payroll tax and presents the case for retaining payroll tax in some form or another.

Section 1 examines the usefulness of economic analysis for answering questions about taxation. Section 2 examines common criticisms of payroll tax including the claims that payroll tax is a 'tax on jobs'. Other claims considered include that: payroll tax is a tax on exports; payroll tax is inequitable; and payroll tax imposes an excessive compliance burden on business.

Section 3 looks at issues related to the payroll tax-free threshold including the cases for and against the threshold, the economic impact of removing the threshold, as well as the revenue implications. Section 4 outlines several options for payroll tax and makes some concluding comments.

### ***1.2 Is Economic Analysis Helpful?***

It is often claimed that if payroll tax were abolished businesses could afford to increase employment and therefore aggregate employment would be higher.

While the claim that businesses 'could afford to increase employment' is reasonable, the conclusion that 'therefore aggregate employment would be higher' is not. A conclusion of this type should be based on analysis rather than assertions. Analysis of a change in government policy should draw on the relevant body of literature and, in the case of taxation, the relevant literature is economics including theory and empirical evidence.

It is at times tempting to dismiss economics on the grounds that it appears 'unrealistic', 'too theoretical' and 'not real world' due to its reliance on assumptions. It is argued that the answers to questions about the impact of taxation on 'real jobs' and 'real production' are not found in a text book but rather by going to the 'coal face' and asking the people who are directly affected - such as employers, unions and primary producers. However, trying to answer a question about taxation's impact on the economy without drawing on economic theory and evidence is likely to result in a misleading answer.

While it is true that economic models are based on assumptions it is also true that almost all statements about the economy which are *not* based on economic theory also involve making assumptions, usually implicit. Such implicit assumptions are rarely scrutinised, but if they were many would be shown to be implausible. Analysis based on sound economic theory and evidence, on the other hand, is far more likely to produce realistic conclusions and good policy outcomes than are simple assertions.

In response to the claim that payroll tax reduces employment, economic theory suggests that just because the legal liability of a tax is with a particular business at a point in the production process, does not establish that the burden of the tax falls on that business.

A society's 'economic wellbeing' depends on consumption by its individuals, most other types of economic activity (employment, investment, exporting, importing) are means to the end of greater individual consumption. Therefore the best way to examine the impact of a tax is to consider the way the tax affects individual consumption. The impact of a tax on employment, investment or exports is relevant in that those impacts may affect consumption.

Economic incidence analysis recognises that all taxes affect the consumption of individuals (customers, employees and shareholders). All taxes are therefore ultimately borne by individuals regardless of their legal incidence. Analysis of payroll tax must recognise the ways in which the burden of the tax ultimately flows through to individuals, and this can only be done by drawing on economic literature, such as tax incidence analysis, as is done in Section 2.

In order to assess whether a particular tax is a good tax (or a bad tax) it is necessary to examine how the tax distorts individual consumption decisions. A tax can distort consumption directly by affecting the prices of consumer goods or indirectly by distorting investment or employment decision. Virtually all taxes distort choices to some extent, but those that minimise distortions are said to be 'efficient'. With this concept in mind it is possible to examine the efficiency of payroll tax relative to other state taxes.

### ***1.3 The Importance of Payroll Tax***

Australian state governments are particularly constrained in terms of the taxes they can levy. The High Court's interpretation of the Australian Constitution has all but ruled out broad-based consumption taxes, while current Commonwealth-state financial relations are such that the income tax base is also unavailable to state governments.

Since its transfer from the Commonwealth to the states in 1971, payroll tax has been an important source of state revenue. Payroll tax currently represents approximately 25 per cent of NSW's tax revenue. (For a more detailed history of payroll tax see Appendix 1).

Of course history is not a good enough reason to persist with a tax that is inefficient and unfair. The tax reform debate provides the opportunity to redesign the tax system at both the

Commonwealth and state levels, with all taxes being assessed in terms of relative merits rather than historical importance.

It is impossible to consider the issue of state tax reform without looking at the issue of Vertical Fiscal Imbalance (VFI) and the problems it creates. Australian states are responsible for 42 per cent of total government outlays but raise only 17 per cent of government revenue. By weakening the nexus between government expenditure and revenue collection, VFI blurs the responsibilities and accountabilities of both state and Commonwealth governments. To the extent that payroll tax reduces VFI, it plays a vital role in the Australian Federation. Additionally, as a source of state revenue, payroll tax provides a mechanism for tax competition between the states contributing to competitive federalism.

Payroll tax is the broadest tax base Australian states have access to. Without payroll tax state governments would have to reduce their services or find alternative revenue sources. Empirical analysis supports the use of payroll tax. Han (1998) estimates that payroll tax is more efficient than most state and Commonwealth taxes, with only personal income tax estimated to be more efficient (land tax and company income tax were not considered).

The net effect of replacing payroll tax with most existing state taxes would be to reduce the overall efficiency of the tax system.

## SECTION 2: COMMON CRITICISMS OF PAYROLL TAX

### 2.1 *The Labour-substitution Effect*

It is often suggested that payroll tax is an inefficient tax as it changes the price of labour relative to capital causing a substitution of capital for labour. However there are several equally convincing counter arguments including:

- In the short term substitution between capital and labour is limited by the production process
- Payroll tax flows through to increase the price of domestically produced capital goods reducing relative price differences between labour and capital
- Substitution towards capital is partly offset by taxes on capital goods that do not apply to labour (for example fuel taxes).

The 'substitution effect' has been described as a 'popular economic fallacy'. Taxes like payroll tax initially increase the cost of employing labour and decrease the demand for it. When wages are flexible and the supply of labour relatively constant, decreased demand for labour reduces wages, reducing the cost of labour. The cost to the employer does not change significantly but the employee's wage decreases. The impact of the tax is on the employee's choice of hours worked rather than the company's choice between labour and capital.

This simple example illustrates the important distinction between *economic incidence* and *legal incidence* of taxation; in the long run, when wages have sufficient time to adjust, the economic incidence of payroll tax is borne by employees and customers, while the legal incidence falls on the employer. Companies are able to shift the tax burden backwards by reducing wages and possibly employment, or forwards to customers through increased prices. Reduced returns to shareholders is the third possible path of incidence although capital mobility makes this the least likely outcome. The way the tax burden is shared between employees, consumers and shareholders depends on the characteristics of the labour, product and equity markets.

While there is debate over the ultimate incidence of payroll tax, two observations are generally accepted:

- To the extent that payroll tax can be passed forward as higher prices, the net effect of the tax is comparable to a consumption tax
- To the extent that payroll tax can be passed backwards as lower wages - decreasing disposable income - the impact of the tax is similar to personal income tax.

### 2.2 *Is Payroll Tax a 'Tax on Jobs'?*

It is often claimed, particularly by the business community, that payroll tax is a tax on jobs. The basis of the claim is that an employer's tax liability increases with employment and wages. It is claimed that the employment impact of payroll tax is far more severe than that of other broad-based taxes such as personal income tax and consumption taxes. This claim considers the legal incidence of payroll tax and does not sufficiently consider payroll tax's economic incidence.



A well-established finding of economic theory is that virtually all taxes impose costs on the economy including reduced employment (even after allowing for the impact of governments spending tax revenue). This is because taxes, in general, alter prices and distort consumer choices. However the long-term employment impact of payroll tax is very similar to that of other broad-based taxes. Therefore, payroll tax is no more a 'tax on jobs' than are taxes such as income tax or broad-based consumption tax such as value added tax (VAT).

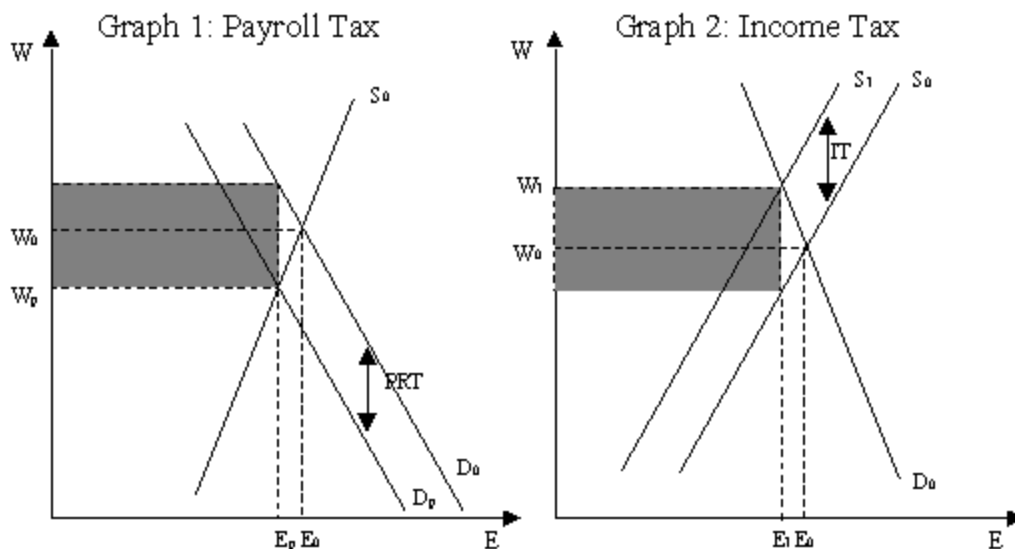
The impact on jobs of replacing payroll tax with another broad-based tax is likely to be small. Although surveys often suggest that businesses would consider hiring more staff if payroll tax were abolished, it is not clear whether survey respondents take into account the changes in wages and prices that may also occur if the tax were abolished. Just as a tax *increase* can be passed on as higher prices, lower wages and possibly lower returns to shareholders, a tax *decrease* will ultimately result in lower prices, higher wages, higher returns or a combination of all three.

The similar long-term impacts of a broad-based consumption tax and a comprehensive payroll tax is well established in public finance theory. When the two taxes are levied comprehensively and at the same rate, both increase the final purchase price of the good or service being produced.

On the matter of the relative merits of a VAT and payroll tax, Freebairn concludes: *"There seems no worthwhile economic argument for replacing a broad-based payroll tax with a broad-based consumption tax."*

The similar employment impact of payroll tax and personal income tax is another well-known result. The claim that replacing a payroll tax with income tax would boost employment contradicts one of the most fundamental principles of tax incidence analysis; taxes levied on different sides of the same transaction will have the same effect (in a competitive market).

This point is illustrated in the following graphs showing the supply of, and demand for, labour. Graph 1 shows the initial impact on the labour market of an increase in *payroll tax*, Graph 2 shows the initial impact on the same labour market of an increase in *personal income tax*.



In Graph 1, the payroll tax initially shifts the labour *demand* curve downwards (from  $D_0$  to  $D_P$ ) reducing employment (from  $E_0$  to  $E_P$ ). The shaded region indicates the revenue collected. In Graph 2, an income tax raising the same revenue initially shifts the labour *supply* curve upwards (from  $S_0$  to  $S_I$ ) also reducing employment (from  $E_0$  to  $E_I$ ). While this analysis does not take into account interactions with other sectors of the economy, it illustrates the point that the same labour market outcome can be achieved using two different taxes.

***...but payroll tax is a tax on business where as a VAT is a tax on consumers***

Businesses are legally responsible for paying payroll tax and it is likely that they would also be responsible for collecting and remitting to government the proceeds of a VAT. (Businesses are also responsible for the bulk of PAYE income tax administration even though the legal liability is with employees.)

Businesses bring together labour and capital to produce goods and services for consumption by individuals but in the end, it is individuals who pay tax, not businesses. In order to reduce compliance costs it is sensible to make businesses liable for the tax, and effectively pass on the cost to individuals through prices and wages.

An example of a 'tax on business' being passed on to employees is Fringe Benefits Tax (FBT). Upon its introduction FBT was seen as a tax on business, as firms are legally liable to pay tax on the fringe benefits of their employees. Now FBT is often explicitly included in calculations of employee remuneration packages. That is, over time FBT has been passed on to employees. Some employers explicitly include payroll tax in remuneration packages (although this is less common than with FBT). Examples of taxes that are passed on to customers include Financial Institutions Duty (FID) and bank accounts debits (BAD) tax. The legal incidence of these taxes is with financial institutions however they are explicitly passed on. Many other taxes are *implicitly* passed on to customers.

### ***2.3 Is Payroll Tax a 'Tax on Exports'?***

It is argued that 'origin-based taxes' (taxes paid at the origin of a transaction), such as payroll tax, are taxes on exports, while 'destination-based taxes' such as VATs are not. The basis of the argument appears to be that export producers are liable for payroll tax while overseas producers of Australian imports are not. The arguments against payroll tax have often been expressed in terms of the export benefits associated with alternative tax systems such as VATs. These arguments ignore the role of flexible exchange rates on import and export prices.

On this matter Kesselman states:

*"The export-augmenting claims for a destination-based value added tax are among the most enduring mythologies of taxation policy."*

And a report by The Economic Planning and Advisory Council (EPAC) concludes:

*"It is not clear that the cost to competitiveness (of payroll tax) is any greater than would be the case if the payroll tax were to be replaced by a compensating increase in company tax or personal income tax."*

A destination-based tax such as a VAT appears to initially favour exporters (compared to an origin-based tax such as payroll tax). However, the resulting deterioration in the trade balance would, in due course, induce a fall in the value of the domestic currency relative to foreign currencies so as to restore the initial trade balance. When the trade balance is restored and the real depreciation has worked its way through the system, the long-run effect of payroll tax is similar to that of a consumption tax.

The effect of payroll tax on export competitiveness is the same as the effect of any other labour-related input costs such as compulsory superannuation contributions, social security contributions, income tax and wages. Export industries, like all industries, are able to pass on some of the payroll tax burden in the form of lower wages. While the impact of passing on a tax as higher prices may be greater in export markets than elsewhere, the impact of payroll tax on export competitiveness is modest, especially when the exchange rate effect is taken into account.

The international competitiveness of a company depends on many factors including the efficiency of the local tax system. It is misleading to attribute export performance to one particular factor such as payroll tax. However when investigating the impact of a change in any input costs (including a change in payroll tax) on the export performance it is essential to consider the impact on the exchange rate.

### ***...but the 'exchange rate effect' doesn't happen in the real world***

Foreign exchange markets are among the most flexible markets in the world. While they may display volatility associated with short-term capital flows, they are ultimately driven by trade fundamentals. This is evidenced by the close correlation between currency movements and fundamentals such as the terms of trade. It defies credibility that the introduction of a significant tax that impacts on the prices of traded goods will not flow through to the exchange rate, although the impact may not be obvious against the background of exchange rate volatility.

Few would argue that in a competitive market a reduction in demand for a particular good would not lead to a decrease in the price of that good. Why, then, would a decrease in demand for Australian exports, which can only be purchased with Australian dollars, not lead to a decrease in the price of the Australian dollar?

## **2.4 International Comparisons of Payroll-like Taxes**

As shown in Table 1, international evidence shows no correlation between the use of payroll tax and export performance.

**Table 1: Payroll-like tax revenue and exports as a percentage of GDP, 1994.**

<i>Country</i>	<i>Revenue %</i>	<i>Exports %</i>	<i>Country</i>	<i>Revenue %</i>	<i>Exports %</i>
Australia	2.0	18.8	Italy	10.3	22.1
Austria	11.3	37.5	Japan	6.0	9.3
Belgium	10.4	65.0	Netherlands	6.8	51.2
Canada	4.1	33.6	Switzerland	6.5	35.7
France	14.4	22.8	UK	3.6	26.4
Germany	8.7	22.7	US	4.0	10.4

Some of the most successful exporting nations have 'payroll-like' taxes considerably larger than those operating in Australia. In Australia payroll-like taxes raise revenue equivalent to 2 per cent of GDP. In US payroll-like taxes raise revenue equivalent to 4 per cent of GDP. Several other successful exporting countries rely heavily on payroll-like taxes to raise revenue. For example, France (14 per cent of GDP), Germany (9 per cent), Italy (10 per cent), Japan (6 per cent), Switzerland (7 per cent) and UK (4 per cent) all raise more revenue from payroll-like taxes than does Australia, and all are successful exporters. While many non-OECD countries levy less significant payroll-like tax than does Australia, international evidence suggests that the use of payroll-like taxes is not an impediment to successful export performance. A country's export performance relies on an array of factors including productivity, total labour costs and the exchange rate. Table 1 confirms that attempting to explain export performance by considering just one cost in isolation is likely to be inconclusive.

### **2.5 Why Are Exports 'Zero Rated' Under a VAT?**

One aspect of a VAT that appears to have influenced its popularity is that it explicitly taxes imports while exports can be exempt or 'zero rated'. However as argued above, there is essentially no trade impact from replacing payroll tax with a VAT other than transitional effects. The chief advantage of a destination-based tax such as a VAT appears to be that it offers the *illusion* that it promotes exports.

It has been argued that it is desirable for the economy that exporters be given indirect tax rebates including payroll tax rebates. However this would result in the reallocation of the economy's resources towards exporting sectors similar to that created by exempting the profits, labour inputs or capital inputs of exporters from taxation. Such a reallocation would not benefit the economy.

There is no economic justification for such a misallocation of resources as there is nothing intrinsically good about exports. While exposing businesses to foreign competition via international trade can increase productivity, the main reason to export is to pay for imports that can be more efficiently produced overseas.

Giving favourable tax treatment to exporters concentrates the tax burden on the non-traded goods and import-competing sectors, penalising these sectors in favour of exporters. Misallocating resources in favour of the export sector would result in lower aggregate employment and output and, ultimately, reduced living standards.

It is sometimes claimed that Australia has a balance of payments problem and the way to solve this problem is to increase exports. In the long run the trade balance is determined by national savings. The extent to which a tax system can be used to address the balance of payments depends on its ability to influence national savings, rather than its ability to promote exports.

By rearranging the definition of national income it can be shown that the balance on the current account is exactly equal to the amount the private sector saves (national income less consumption, taxation and investment) plus public sector savings (tax less public spending). In Australia's case a current account deficit is equal to private sector dis-savings plus public sector dis-savings.

## **2.6 *Is Payroll Tax Inequitable?***

An exact definition of 'equity' has eluded public economists, but the concept is generally related to the ability of taxpayers to meet tax liabilities. It is sometimes suggested that payroll tax is inequitable. That is, payroll tax is unfair as it taxes labour-intensive firms more than capital-intensive firms, or that it taxes some industries more heavily than it taxes others.

The claim that payroll tax is inequitable because it discriminates against labour-intensive businesses ignores payroll tax's contribution to the cost of locally-produced capital goods (see Section 2.1).

It should be noted that equity is a notion that refers, primarily, to individuals, not businesses. It makes sense to talk about the equitable treatment of individuals and the efficient treatment of firms. It does not make much sense to talk about the equitable treatment of businesses. Even though concepts such as a 'level playing field' (applying similar tax regimes to all firms) and 'broad-based taxation' (including as many firms in the tax base as possible) are often interpreted as being 'fair', they have more to do with efficiency than equity.

Little can be said of the equity impacts of payroll tax other than in the long run, its impact is similar to that of a proportional income or a flat-rate consumption tax. This outcome may be desirable as equity concerns are best addressed by national governments because of the tendency for individuals to move in search of the tax system that best suits their income. (The rich move to the least progressively taxed region, the poor move to the most progressively taxed region.)

The exemption of small businesses from the payroll tax base complicates equity issues. Horizontal equity implies that 'similar' individuals face 'similar' tax liabilities while vertical equity implies that 'different' individuals face appropriately 'different' tax liabilities. Vertical equity appears unlikely to be achieved by shifting payroll tax costs to consumers or employees because individuals in product and labour markets with different abilities to pay will face the same tax liability. In terms of horizontal equity, consumers and employees of small businesses may incur a smaller tax liability than 'similar' consumers and employees of large businesses.

To establish a case for using the payroll tax threshold to address equity concerns it is necessary to show that employees and consumers of small businesses are more needy than those of larger businesses. However, given that by its nature the payroll tax threshold primarily affects individuals who are employed, it is unlikely to be as good an instrument for addressing equity concerns as is the current welfare system.

## **2.7 *Is the Administrative and Compliance Cost of Payroll Tax Excessive?***

Payroll tax's administrative cost has been estimated at about 0.2 per cent of payroll tax revenue which compares favourably to other state and Commonwealth taxes. The compliance cost of payroll tax is estimated at about 3.6 per cent of total payroll tax revenue, significantly less than Commonwealth taxes such as personal income tax (10.8 per cent), company tax (22.9 per cent) and FBT (10.6 per cent). Payroll tax's administrative and compliance cost is low because the tax is levied on relatively few firms (due to the tax-free threshold that exempts most firms) and because company payroll is simple to calculate.

It is incorrect to see compliance costs as 'a cost to business' and administrative costs as 'a cost to government'. While compliance and administrative costs represent costs to society, like the tax itself these costs ultimately fall on individuals. Compliance costs can be passed on to consumers or employees and administrative costs are passed on as further taxes that ultimately fall on individuals.

The tax-free threshold introduces extra administrative and compliance costs by adding to the differences between the payroll tax base and income tax base. Typically the more elaborate the threshold system the greater the compliance costs. Reducing the compliance and administrative costs of payroll tax could be achieved by aligning the payroll tax base with the personal income tax base. Under this system payroll tax could 'piggyback' on the income tax administrative and compliance systems with little *additional* administrative and compliance costs. ]

## SECTION 3: PAYROLL TAX-FREE THRESHOLD ISSUES

### 3.1 *Background*

The feature of payroll tax that attracts the most criticism from economists is the tax-free threshold. (See Appendix 2 for a summary of the different threshold systems operating in Australia.) When payroll tax was levied by the Commonwealth it included a threshold equivalent to less than \$150,000 in today's dollars. Since payroll tax was handed to the states the threshold has increased significantly.

### 3.2 *The Case for the Payroll Tax-free Threshold*

The most obvious rationale for tax-free thresholds is **simplicity**. The **compliance cost** of many taxes falls disproportionately on small firms. Extending the payroll tax base to include small firms accompanied by a revenue-neutral rate reduction is likely to increase compliance costs as a proportion of payroll tax revenue. In the case of very small firms the **administrative costs** associated with collecting, processing and enforcing payroll tax can be greater than the revenue collected.

Tax-free thresholds are often justified in terms of the 'unique role of small business' in the economy, for example:

- Encouraging market entry: Taxing small businesses may reduce the likelihood of new (small) firms entering the market, reducing competition and innovation in product markets, leading to inefficient production
- Seedbed role: Most big businesses start out as small businesses. It is argued that small business is the birthplace of successful big businesses
- Innovation: It is sometimes argued that the small business sector plays a vital role in the area of innovation. Reduced bureaucracy and flatter management structures allow small firms to quickly adapt to markets and take advantage of new opportunities.

### 3.3 *The Case Against the Payroll Tax-free Threshold*

The main argument against payroll tax-free thresholds is that it creates **distortions** resulting in reduced output and employment. When all businesses are taxed at the same rate the companies that produce at the least cost can charge the lowest price and survive in the market. Labour and capital is allocated to the most efficient operators and production is maximised. When businesses are taxed at different rates less efficient operators are able to sell at an artificially low price, due to their preferential tax treatment. The result is that the firms receiving preferential tax treatment are allocated a greater share of the economy's resources, resulting in reduced output.

The threshold also **reduces the incentive for small businesses to grow** to their optimal size. A small firm, with a reduced tax liability to pass on to consumers and employees, may find the cost savings from expanding or merging are cancelled out by the increased tax liability. Alternatively, a small firm may continue to expand by adopting a corporate structure designed to avoid the tax liability.

The threshold system also **reduces economic output** in the short term by concentrating the tax on exporting firms (there is a positive correlation between payroll and exports). An established finding of public finance is that in order to minimise the distortion of a tax,

commodities with demand that is less price sensitive should be taxed more heavily than commodities with demand that is more price sensitive. If export markets are more price sensitive than domestic markets, then the threshold system will create a distortion between large and small firms.

### **3.4 The Economic Cost of the Tax-free Threshold**

This section draws heavily on Puthucheary and Crowe (1997) which examines the economic cost of the payroll tax-free threshold. The following claim is tested by simulating the removal the payroll tax-free threshold in all states accompanied by revenue-neutral reductions in payroll tax rates.

*"Broadening the payroll tax base in all Australian states will increase the competitiveness of Australian export industries and hence increase the output and employment of the national economy."*

The simulation is conducted using the Monash Multi-Regional Forecasting model (MMRF).

The results suggest that the economic benefits from removing the threshold are reasonably minor in the context of national economy, with the majority of the impact taking place in the short term. While it is clear that removing the threshold would make payroll tax more efficient, it is difficult to conclude that the costs of the threshold are sufficient to justify abolishing the tax completely while other less efficient taxes continue to be used. It is worth noting that the tax most commonly nominated to replace payroll tax, a GST, is likely to be levied on an eroded base.

MMRF does not recognise the size of firms in each industry, however industries with a high proportion of large firms, such as mining, finance and public utilities, pay a higher average rate of payroll tax than industries with a low proportion of large firms, such as agriculture, construction and personal services. Table A3.1 in Appendix 3 shows changes to industry payroll tax rates.

The simulation is conducted under short-run conditions (two-year time frame). **Capital does not have time to adjust** to clear the market and **real wages are fixed**. For an explanation of modelling assumptions and limitations see Puthucheary and Crowe (1997).

Results represent the percentage change in the value of variables above or below what would have occurred in the absence of the payroll tax reforms. That is, the results isolate the effect of the tax reform.

### **3.5 Short-run Macro-economic Results**

The results in Table 3.1, below, show that in the short run, real GDP is predicted to be 0.12 per cent higher than it would otherwise be. This is equivalent to an increase of \$550 million in 1995-96 GDP. National employment is predicted to be 0.17 per cent higher or over 10,000 full-time jobs in 1995-96 employment figures. This employment increase would decrease the unemployment rate by 0.15 per cent assuming no change in labour force participation. Private consumption expenditure increases by 0.12 per cent driven by an increase in disposable income as a result of higher employment.



**Table 3.1: Short-run results**

	<i>Aust</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>
GSP (%)	0.12	0.11	0.08	0.20	0.13	0.13	0.20	0.11	0.03
Employment (%)	0.17	0.16	0.12	0.28	0.17	0.20	0.29	0.20	0.04
Consump. (%)	0.12	0.10	0.10	0.19	0.11	0.11	0.18	0.11	-0.02
Exports (%)	0.31	0.50	0.03	0.50	-0.03	0.22	0.64	0.15	-0.34
Budget (\$m)	180	18	11	25	9	8	5	3	-1

The major source of growth in the national economy is exports. The payroll tax reforms have the short-run effect of shifting some of the payroll tax burden from large exporting firms such as those in the mining industry, to smaller firms operating in 'domestic' industries, such as construction and personal services. In highly competitive export markets demand is assumed to be more price sensitive than in domestic markets.

Table 3.1 indicates that all states benefit from the payroll tax reform in terms of increased GSP and employment. The increases in employment flow through to increased consumption in all states. The budget positions of all governments, including the Commonwealth, are improved (with the exception of ACT).

### **3.6 Long-run Economic Impacts**

It is likely that in the long run most of the impact of the reform will disappear as wages and prices adjust. If, in the long run, increased demand for labour results in higher real wages rather than increased employment, the impact of reforming payroll tax is likely to be small.

In the long run, say eight years, annual GDP is predicted to be 0.06 per cent lower than would it otherwise be due to a reduction in capital stock. The result is deceptive as GDP is an imperfect indicator of economic wellbeing. The long-run change in national consumption, which is a better measure of national wellbeing, is predicted to increase by 0.02 per cent. That is, annual consumption is predicted to be \$60 million higher than would be the case without the payroll tax reform.

### **3.7 Revenue Implications of Reducing the Threshold**

The previous analysis considered removing the threshold on a revenue-neutral basis. The distortion created by the threshold could also be removed by maintaining the rate and increasing payroll tax revenue. However, the revenue gain from reducing the threshold are modest unless the threshold is eliminated completely.

The current NSW threshold of \$600,000 results in approximately 12,000 firms being liable for payroll tax. Estimates prepared for this paper (based on ABS data) shown in Table 3.3, suggest that reducing the threshold to \$500,000 would generate just \$60 million in additional revenue. Halving the threshold to \$300,000 would add just \$230 million.

**Table 3.3: Revenue impacts of reducing the NSW threshold**

<i>Threshold</i>	<i>Additional revenue</i>	<i>Additional liable firms</i>
\$500,000	\$60 m	1,500
\$400,000	\$140 m	4,000
\$300,000	\$230 m	7,500
Nil	\$2,500 m	250,000

The distribution of firms in New South Wales is such that even a small threshold would exempt the majority of firms. In order to gain substantial additional revenue it would be necessary to reduce the threshold to something close to zero.

## **SECTION 4: FUTURE OPTIONS AND CONCLUSION**

### ***4.1 Future Options for Payroll Tax in Australia***

Several possible future options for payroll tax are outlined below.

#### **4.1.1 Abolish payroll tax**

Abolishing payroll tax and replacing it with a Commonwealth tax, combined with increased state grants, would probably be welcomed by some. Abolition would remove the distortion created by the threshold, and reduce the likelihood of further tax base erosion. However it would also remove tax rate competition and worsen VFI. This option would see NSW's own-source revenue fall from approximately 65 per cent to less than 50 per cent, exacerbating the VFI-related problems mentioned in Section 1.3.

#### **4.1.2 Give payroll tax back to the Commonwealth**

A common definition of the payroll tax base, combined with a common threshold and tax rate would see payroll tax effectively cease to be a state tax. Such a system would be equivalent to a Commonwealth tax with a system of state grants that distribute revenue according to each state's share of payroll tax collected. If such a reform were to take place it may be better to hand payroll tax back to the Commonwealth in return for increased grants (see option 1) or access to the income tax base.

#### **4.1.3 Maintain the status quo**

This option would see the current system of different definitions of the base, different payroll tax rates, different threshold levels and types of thresholds (deduction or single marginal rate). This system is by no means optimal, however given the inefficiency of other state taxes it may be preferable to abolition.

#### **4.1.4 Harmonise the base across the states**

Under this option the states agree on a common definition of the payroll tax base and a common threshold, but individual states would choose their payroll tax rate. Compliance costs for cross-border firms would be reduced by base harmonisation, but the extent to which this option represents an improvement on the current system depends on the level of the agreed threshold. A threshold no greater than the lowest current threshold would undoubtedly be an improvement.

#### **4.1.5 Abolish the threshold completely**

In this case the threshold is completely abolished, with the base defined identically to the personal income tax base. The distortion created by threshold is removed and compliance cost is minimised by piggybacking on income tax. Administrative costs would increase due to the increased number of liable firms. States would be free to compete on rates maintaining competitive forces with the federation. This system would allow payroll tax to be levied at a much lower rate (approximately half the current rate), or would allow less efficient state taxes to be abolished.

## ***4.2 Conclusion and Summary***

The tax reform debate provides a unique opportunity to consider the relative merits of all taxes, with a view to improving the efficiency and fairness of Australia's tax system.

The business community has consistently called for the abolition of payroll tax claiming it is an unreasonable impost on business, a 'tax on jobs' and a 'tax on exports'. The economic literature on payroll tax suggests that many of the common criticisms of the tax are exaggerated or unjustified.

The long-term impact of payroll tax on employment is very similar to that of other broad-based taxes such as personal income tax and a value added tax. The reason is that, although the legal liability of payroll tax is with the employer, ultimately payroll tax, like all taxes, is paid by individuals. The tax liability is passed on to employees and consumers.

When exchange rate movements are taken into account payroll tax's impact on export competitiveness is minimal. This conclusion is supported by international comparisons that show that many significant exporting countries rely on payroll-like taxes far more than does Australia.

Abolishing payroll tax and replacing it with less efficient taxes will reduce the overall efficiency of the tax system. Replacing payroll tax with increased state grants will worsen the problem of VFI that currently characterises Australia's federation.

Payroll tax is already one of the more efficient taxes operating in Australia. Reforms such as harmonising payroll tax across the states by adopting a common definition of the payroll tax base and a common, reduced threshold with states competing on payroll tax rates would further improve the efficiency of the tax system.

## APPENDIX 1: THE STATES' RELIANCE ON PAYROLL TAX

All state governments rely heavily on payroll tax as a source of revenue. In 1995-96 payroll tax made up approximately 25 per cent of NSW tax revenue, in 1986-87 this figure was 38.5 per cent. The reasons for state governments' reliance on payroll tax can be summarised in two key points:

### **i) The transfer of income taxing powers from the states to the Commonwealth**

**Government** occurred with the *Uniform Income Tax Act (1942)*. The transfer occurred in order to finance Australia's involvement in World War II however income tax has remained a Commonwealth tax ever since. The Australian Constitution does not preclude state governments from levying income tax however Commonwealth-state financial relations are such that revenue raised by a state income tax can be deducted from that state's Commonwealth grant.

**ii) Section 90 of the Australian Constitution** gives the Commonwealth exclusive rights to impose '*duties of customs and excise*'. The High Court initially adopted a 'narrow' interpretation of excise as a tax on the production of goods. This narrow interpretation did not significantly reduce the scope for states to levy broad-based taxes. However the High Court has gradually broadened its interpretation of excise establishing that '*for constitutional purposes duties of excise are taxes directly related to goods imposed "at some step" in their production or distribution*'. This 'broad' interpretation has all but ruled out states levying consumption or sales taxes.

## APPENDIX 2: PAYROLL TAX SYSTEMS IN AUSTRALIA

Payroll tax was introduced by the Commonwealth Government in 1941. In 1971, the power to levy payroll tax was handed to state governments which increased the rate from 2.5 per cent to 3.5 per cent immediately. The transfer of payroll tax powers was accompanied by a nearly matching reduction in state grants.

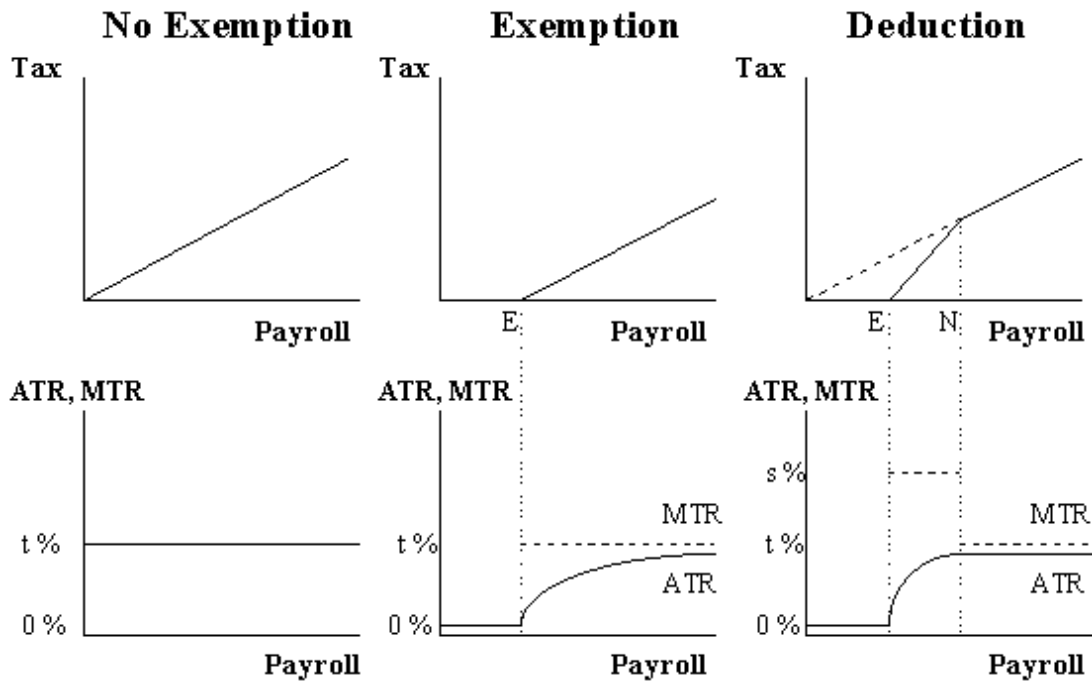
Since the mid-70s, differences have emerged in the various state payroll-tax regimes in terms of rates, tax-free thresholds and deductions. Reforms in recent years have typically involved increasing the tax-free thresholds.

**Table A1.1: Australian state and territory payroll tax regimes (as at 1/7/1999)**

<i>State</i>	<i>System</i>	<i>Threshold</i>	<i>Rate</i>
New South Wales	Exemption	\$600,000	6.4 %
Victoria	Exemption	\$515,000	5.75 %
Queensland	Deduction	\$850,000	5.0 %
South Australia	Exemption	\$456,000	6.0 %
Western Australia	Deduction	\$675,000	4.9-9.4 %
Tasmania	Exemption	\$600,000	6.6 %
Northern Territory	Exemption	\$600,000	6.75 %
ACT	Exemption	\$800,000	6.85 %

A summary of the payroll tax regimes is presented in Table A1.1, above. Most states use an 'exemption system' where the tax is levied as a single marginal rate for any amount above the tax-free threshold. In Queensland and Western Australia the tax-free threshold is progressively removed as payroll rises. This is done by applying a higher marginal rate to the total payroll or by reducing the threshold. This is often called a 'deduction system'. Figure A1.1 summarises the characteristics of the different threshold systems.

**Figure A1.1 Payroll tax-free thresholds**



For example, in Queensland the tax-free threshold is \$850,000 and the marginal tax rate is 5 per cent. For firms with payrolls above \$3.4 million there is no tax-free threshold (ie. the payroll tax payable is \$3.4 million times 5 per cent). For firms with a payroll between \$850,000 and \$3.4 million the tax-free threshold is progressively reduced from \$850,000 to zero. This system results in firms with a payroll between \$850,000 and \$3.4 million paying a higher marginal payroll tax rate than firms with a payroll above \$3.4 million.

The rapid expansion of payroll tax-free thresholds in Australia is partly due to the competitive pressures of Australia's federation. Competition between states to attract investment has led to the increased use of payroll tax exemptions either through tax-free thresholds for small firms or through 'incentive packages' for large businesses looking to relocate to a particular state.

### APPENDIX 3: MODELLING PAYROLL TAX REFORM

The changes in payroll tax rates used in the MMRF simulations reported in Section 3 are summarised below. The average rate of payroll tax paid by each industry in each state as recorded in the MMRF 1990-91 database are shown in Table A3.1. The 'new rate' indicates the payroll tax rate required to maintain revenue levels when the base is expanded to include all firms. The database rates for community services and public services are maintained. In each state the changes to payroll tax regimes are *ex-ante* revenue neutral. That is, the average rate of payroll tax in each state remains unchanged.

**Table A3.1: Payroll tax rates by industry**

<b>MMRF Database Rates</b>								
<i>Industry</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>
Agriculture	1.0	1.2	0.9	0.8	0.8	0.6	0.5	0.4
Mining	5.5	6.4	5.1	4.4	4.6	3.1	2.7	2.5
Manufacturing	3.8	4.4	3.5	3.0	3.2	2.1	1.8	1.7
Public Utilities	5.8	6.9	5.4	4.7	5.0	3.4	2.9	2.7
Construction	1.9	2.3	1.8	1.5	1.6	1.1	0.9	0.9
Domestic	3.9	4.6	3.6	3.1	3.3	2.2	1.9	1.8
Transp. and Com.	2.8	3.3	2.6	2.2	2.4	1.6	1.4	1.3
Finance	6.5	7.6	6.1	5.2	5.6	3.8	3.2	3.0
Public Service	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Com. Services	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.4
Personal Serv.	2.8	3.3	2.6	2.2	2.3	1.6	1.3	1.2
<b>New Rate</b>	<b>4.0</b>	<b>4.7</b>	<b>3.4</b>	<b>3.0</b>	<b>3.2</b>	<b>2.1</b>	<b>1.8</b>	<b>1.8</b>
<b>Database Avg</b>	<b>3.1 %</b>	<b>3.5 %</b>	<b>2.6 %</b>	<b>2.1 %</b>	<b>2.4 %</b>	<b>1.5 %</b>	<b>1.1 %</b>	<b>0.7 %</b>
<b>New Avg.</b>	<b>3.1 %</b>	<b>3.5 %</b>	<b>2.6 %</b>	<b>2.1 %</b>	<b>2.4 %</b>	<b>1.5 %</b>	<b>1.1 %</b>	<b>0.7 %</b>



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## FOOTNOTES

1. Throughout this paper the terms 'state' and 'states' includes territories.
2. NSW Government (1998) , Budget Paper No. 2.
3. For a discussion of VFI-related problems see Izmir (1998).
4. Inefficient taxes are those that alter economic choices by changing relative prices, resulting in a misallocation of an economy's resources.
5. Mishan (1969).
6. The decrease in the post-tax wage rate may be enough to persuade an employee to opt out of the labour market.
7. It is sometimes claimed that abolishing payroll tax would reduce business costs and hence increase profitability. However the long-term beneficiaries of business cost reductions are more likely to be customers than shareholders.
8. Even if the 'competitive market' assumption doesn't hold the effects are likely to be similar.
9. Kesselman (1994).
10. EPAC (1992).
11. Given that it may be more difficult to pass on a tax as higher prices in export markets, it is likely that a greater proportion of the tax is passed backward to employees than is the case in other industries.
12. OECD classifies payroll taxes into 'Taxes on Payroll and Workforce' and 'Social Security Contributions'. 'Social Security Contributions' are supposed to be hypothecated to social security spending however several of these taxes actually finance general expenditure. Accordingly, 'Taxes on Payroll and Workforce' and 'Compulsory Employer Social Security Contributions' have been added together. For further discussion of OECD payroll tax comparisons see Kessleman (1996) and OECD, (1996).
13. The correlation coefficient between revenue and exports for the selected OECD countries in Table 1 is +0.29 While this limited sample does not establish any relationship between payroll tax and exports, it does support the claim that it is difficult to attribute export performance to a single cost item.
14. For further discussion of this issue see Fitzgerald (1993).
15. Ultimately, this equity concern is likely to be removed as price differentials in product markets and wage differentials in labour markets are removed by consumers and employees shifting between small and large firms.
16. Puthuchery and Crowe (1997).
17. For example, the tax gains from splitting a medium-sized firm into two smaller firms may outweigh the costs of administrative duplication.
18. Big businesses account for 90 per cent of Australia's international trade and the largest 100 firms generate 60 per cent of Australia's export revenue, BIE (1992).
19. Ramsey's Inverse Elasticity Rule, see Ramsey (1927)
20. This will be the case even after the exchange rate effect (discussed in Section 2) has taken place. That is, the exchange rate effect will under-compensate large exporting firms and over-compensate smaller exporting firms.

21. MMRF is a multi-regional computable general equilibrium model of the Australian state and territory economies. Australia's eight states and territories are modelled as individual regional economies and aggregated to give national results. MMRF was developed by The Centre of Policy Studies at Monash University, Melbourne and is based on the ORANI CGE model. For a description of MMRF see Peter (1996) or Crowe (1995)
22. Most GST models include exemptions for housing and financial services. Food, health, education and community services are further possible exemptions.
23. The ACT budget result is heavily influenced by the assumptions regarding Commonwealth Government consumption spending which impacts on the ACT economy.
24. NSW Budget Papers (various)
25. *Bolton v. Madson (1963)*
26. Ryan (1995)
27. New South Wales, Victoria, Queensland, South Australia, Tasmania, the Northern Territory and the Australian Capital Territory include superannuation payments in the payroll tax base.
28. The NSW rate will decrease to 6.2 per cent in July 2000
29. The Queensland rate will decrease to 4.9 per cent from July 2000.
30. In Western Australia this is done by a series of marginal rates, whereas in Queensland this is done by progressively reducing the threshold.
31. Denoted as 'N' in Figure 1.1
32. It should be noted that *ex-ante* revenue neutrality does not imply that there will be no impact on state budgets. Changes to the payroll tax regime may result in changes to the economy that will affect government finances.
33. The rates for the community service and public service industries are maintained.