

Analysis of Tax Avoidance Strategies of Top Foreign Multinationals Operating in Australia: An Expose

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1. Introduction to Tax Aggressiveness

The term “tax aggressiveness” first entered accounting research literature in the late 1990’s. At this time, the gap between financial income and tax income in company financial statements was getting wider and wider.¹ Research into tax aggressiveness has been concerned with the magnitude, determinants and consequences of these corporate behaviours and activities. It has borrowed from similar research in economics that investigates the tax burden and where the burden lies, and from finance research that examines the effect of taxes on firm value, expected returns and leverage (Hanlon & Heitzman 2010).

In tax research, “tax aggressiveness” is generally defined as a broad continuum of activities that range from benign behaviours that were envisioned by tax policies at one end, to outright tax fraud and tax evasion at the other (Hanlon & Heitzman 2010). While the term has a specific meaning within accounting research into tax, in wider practice it is used interchangeably with the term “tax avoidance”, and in Australia, it is often referred to as “aggressive tax planning”. Much of the tax research uses very broad definitions of tax aggressiveness that capture all tax-reducing activities. However, it is the activities at the more aggressive end of the spectrum that is of interest to most stakeholders, such as tax authorities, capital markets, employee organisations and interest groups.

The need to encompass the definitions from other disciplines becomes obvious when a firm, or firms, have been identified and accused of being tax aggressive. The first response by the firm, or firms, or the industry body, is nearly always that they fully comply with all laws and pay all taxes required of them in all jurisdictions in which they operate (Aston & Wilkins 2014). The question as to whether or not an activity or scheme is legal is a fundamental issue in gauging or ranking the level of tax aggressiveness. As Borek, Frattarelli & Hart (2014) point out, “litigation has long revealed difficulties in designing, implementing and interpreting tax law in a manner that allows taxpayers to claim intended benefits without encouraging abuse.” (p.2) The abuse of tax mechanisms for unintended consequences are the activities and corporate behaviours that both interests and motivates much of the tax research in accounting.

Within the research literature, as well as in general usage, there are other terms such as “tax minimisation”, “tax planning”, “tax avoidance”, “tax sheltering”, and “tax evasion”. At

¹ This gap was identified by Desai (2003) who found that by 1998, the book-tax gap could no longer be explained by the previously attributed determinants, such as capital allowances, debt structure, etc.

times, some of these terms are also often used interchangeably. However, they can have specific meanings, based on legal, economic or legislative notions. Recent attempts to categorise and characterise these terms (Lisowsky, Robinson & Schmidt 2013; Hanlon & Heitzman 2010) has led to the following general categorisation.

- *Tax minimisation* refers to any activity that reduces explicit taxes.² This includes tax concessions such as capital allowances, accelerated depreciation, and research and development tax deductions that designed to encourage investment and growth in the Australian economy.
- *Tax planning* is a term mainly used in Australia and Europe research literature and usually refers to an aggressive form of tax minimisation. It is described as a concerted strategy to reduce taxes.
- *Tax avoidance* refers to companies (and individuals) entering into transactions that have no economic significance, and with the sole or dominant purpose of reducing taxes. While this is supposedly illegal in Australia under Part IVA of the Income Tax Assessment Act, these cases can be difficult to prosecute and exist in a “grey” area of tax law that usually requires judicial determination.
- *Tax sheltering* is a U.S. term that is similar to tax avoidance, but usually refers to schemes that are marketed by tax consultants and sometimes involve a series of transactions in an attempt to disguise the ultimate nature of the arrangement.
- *Tax evasion* refers to activities that are illegal under tax legislation such as not reporting foreign income or claiming fraudulent deductions.

The decision to enter into an aggressive tax scheme involves balancing the costs and benefits involved. The main benefits of corporate tax aggressiveness are:

- increased cash and liquidity (Saveedra 2014);

² Explicit taxes are those taxes paid to tax authorities. On the other hand, implicit taxes are the losses incurred by entering to certain transactions. For example, when a U.S. firm purchases local government bonds, the interest they receive on the bonds is not taxable income, thereby reducing explicit taxes. However, the firm may have to accept lower rates of return on these bonds than they could achieve elsewhere, thereby incurring an implicit tax. Most tax research is only interested in explicit taxes. Implicit taxes are very difficult to identify or estimate and are largely ignored in tax research.

- increased after-tax profits represented in a firm's performance metrics such as earnings per share (Hanlon & Slemrod 2009);
- a reduced tax liability (Hanlon & Slemrod 2009); and,
- a reduced effective tax rate that can send a positive signal to investors, thereby reducing the cost of equity capital (Chi, Pincus & Teoh 2014; McGuire, Omer & Wilde 2014; Inger 2014).

The costs of tax aggressiveness include:

- transaction costs incurred in setting up the tax planning strategy, such as registration and legal fees to establish off-shore subsidiaries;
- the risk of detection if the activities are illegal, or in the "grey" area. Gergen (2002) produced empirical evidence that the risk of detection increases as more firms engage in the same strategy, and also with the length of period a firm pursues the strategy;
- the increased ability of managers to use the opaqueness required to disguise some transactions in order to extract rents for themselves (Desai & Dharmapala 2009); and,
- the incentives required to encourage the tax manager or director to engage in these activities, as they face personnel costs if detected (Crocker & Slemrod 2005; Chen & Chu 2005).

There are further costs involved if the activity is detected and disallowed, such as:

- the unpaid tax liability and back taxes;
- tax benefits that may be disallowed;
- interest on the tax deficiency;
- penalties imposed on both managers and the firm; and,
- staff and managers time along with disruptions from normal activities in order to comply with a tax audit.

Critically, there are also reputational and political costs from being associated with tax avoidance, both for the firm (Gallermore, Maydew & Thornock 2013) and the individual

managers (Chyz 2013). Reputational damage can affect a company's sales, and produce a negative effect on a firm's share price, leading to an increased cost of equity capital (Hanlon & Slemrod 2009).

However, if the only determinant of tax aggressiveness was weighing up of the costs and benefits involved, it would most probably be much more widespread than it is and involve almost all firms. Different risk profiles between firms, and amongst the individuals involved, leads most tax research to observe a variation in level of tax aggressiveness between firms (Weisbach 2002; Hanlon & Heitzman 2010).

The response to corporate tax aggressiveness by tax authorities has followed three main avenues. Firstly, there has been a concerted effort to close any loopholes in the current legislation, such as an amendment to the ITAA97³ in 2015 that closed a loophole in the definition of a permanent establishment that made it inapplicable to overseas multinational corporations for capital gains tax purposes. The second response has been to improve the general anti-avoidance provisions that are contained in Part IVA of the ITAA36⁴. Part IVA cases are difficult to prosecute and there have been few successful cases in Australia. The third response was the introduction of dividend imputation in Australia in 1987 that provides strong incentives for firms to pay the full statutory tax rate on all reported profits. Companies that pay fully franked dividends in Australia pay on average over 10% additional tax on the same level of earnings than companies not paying franked dividends (Govendir et al. 2016). However, private companies do not have the same level of incentives as they do not need to send a message to their shareholders and the financial markets regarding their future prospects. Foreign-owned companies and investors do not benefit from the imputation system and are not influenced by the incentives.

Multinational corporations are in a unique position to engage in tax aggressive strategies, as they are generally large in size and highly profitable, they exhibit low levels of debt in their capital structure, and have operations across national borders that generate foreign income streams. The overall group is made up of multiple entities across a number of tax jurisdictions and most multinational corporations have at least one subsidiary in a tax haven. These characteristics have been associated with tax shelter activity in the U.S. (Wilson 2009) and with aggressive tax planning strategies such as abusive transfer pricing in Australia

³ Income Tax Assessment Act, 1997

⁴ Income Tax Assessment Act, 1936

(Richardson et al. 2012). The information technology, pharmaceutical and energy sectors are both dominated by large multinational corporations and provide strong mechanisms that allow these corporations to divert profits away from where value and profits are created in order to reduce their tax liabilities.

2. Base Erosion, Profit Shifting and Loss Creation Mechanisms

Shifting profits away from where they are created to low or zero tax jurisdictions undermines the corporate tax base in those countries whence profits are diverted. Companies that engage in these behaviours operate at an advantage to domestic only companies as they do not have to provide funds to cover their tax liabilities. They are able to undercut their domestic competitors' profits and margins, thereby reducing the aggregate amount of profits that are captured by a national corporate tax regime. While globalisation has brought many benefits to the global and domestic economies,⁵ it has also created problems for national tax laws. Multinational corporations dominate large sectors of the global economy, interconnected financial markets support the rapid movement of capital, and the digital economy allows firms to connect with a global customer base, ignoring national boundaries. This creates gaps and mismatches in and between national tax laws that can be exploited, especially by multinational corporations.

In the pre-integrated world economy, the main tax issue affecting world trade and the ability of companies to operate in multiple economies was double taxation, whereby profits were taxed in the country where the operations took place and again when the (after tax) profits were repatriated to the parent company. This issue has been mainly addressed by the negotiation of bilateral tax treaties where the two countries agree on where the tax will be imposed. However, we now have an issue with double non-taxation, where these same tax treaties are being used to avoid paying tax anywhere. This undermines the fairness and integrity of corporate tax systems allowing multinational corporations a competitive advantage over their domestically-based rivals. The consequences of this behaviour by multinational corporations affect almost all countries, but have a larger effect on developing

⁵ According to the OECD Action Plan on BEPS, Globalisation has resulted in "the free movement of capital and labour, the shift of manufacturing bases from high-cost to low-cost locations, the gradual removal of trade barriers, technological and telecommunication developments, and the ever-increasing importance of managing risks and of developing, protecting and exploiting intellectual property, have had an important impact on the way cross-border activities take place. Globalisation has boosted trade and increased foreign direct investments in many countries. Hence it supports growth, creates jobs, fosters innovation, and has lifted millions out of poverty." (OECD 2013)

countries, as they face policy and other conditions that reduce their abilities to address these corporate strategies.

The Organisation for Economic Co-operation and Development (OECD) has identified the opportunities multinational corporations have to greatly reduce their tax burden and the harm this creates for governments who are experiencing declining tax revenues, for individual taxpayers who have to cover the shortfall in corporate taxes, and for other business who have difficulty competing. In 2012, the G20 finance ministers requested that the OECD develop an action plan to address Base Erosion and Profit Shifting (BEPS) by multinational corporations. BEPS refers to tax planning strategies that exploit these gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no overall corporate tax being paid. BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs). The BEPS Action Plan states that "BEPS relates chiefly to instances where the interaction of different tax rules leads to double non-taxation or less than single taxation." (OECD 2013, p.10) These activities artificially segregate income from the activities and jurisdictions that generate them, through a series of arrangements that ultimately achieve low or zero taxation. The concern is that because of the gaps in the interactions between separate, domestically-based tax systems, and in some cases due to the application of bilateral tax treaties, that "income from cross-border activities may go untaxed anywhere, or be only unduly lowly taxed." (OECD 2013, p.10) Research undertaken since 2013 confirms the potential magnitude of the BEPS problem. Conservative estimates indicate annual losses of anywhere from 4 to 10% of global corporate income tax revenues, i.e. \$US100 to \$US240 billion annually (OECD 2015, p.4).

Another mechanism used to reduce tax liabilities but has received little attention from corporate regulators, tax authorities or accounting researchers is *loss creation*. In March 2016, the Australian Tax Office (ATO) released data on large private companies operating in Australia for 2014. This data showed that almost a third⁶ of these companies reported no tax liability for the year. The response from many of these companies, their industry associations and some in the financial press argued that these companies had losses from previous periods and these losses can legitimately be used to offset current tax liabilities. The message being expressed is that it is a fairly low act to accuse these poor companies, who are making losses,

⁶ 92 out of a total of 321 private companies that reported revenues over \$200 million in 2014 had no tax liability for that year (ATO 2016).

of being tax aggressive. In some cases, such as Qantas, there are legitimate reasons for the substantial losses they incurred during the Global Financial Crisis, such as high oil prices, a high interest expense, and a drop off in the demand for air travel. There is an incentive for firms that are making a loss due to changed market situation to maximise the size of the loss for tax purposes. However, there has been little to no scrutiny of how many of these losses are generated, particularly for private companies who have less incentive to report profits.

The methods used by companies to increase their tax losses have not been investigated although there is some evidence that supports the existence of such strategies. There is substantial evidence, that in their first year following their appointment, new CEO's take what is called a "big bath". They employ strategies to create large losses and blame it on the incompetence of the previous occupant thereby providing themselves with ample flexibility to improve performance in subsequent years (Murphy & Zimmerman 1993; Arya et al. 1998). For instance, large write-downs and impairments of assets are written directly into the income statement and are based on internally-generated estimates providing flexibility as to timing and magnitude.

Loss creation is particularly useful for large infrastructure investments, such as resources and energy companies as they are characterised by large initial investments with long time lags between the commencement of the investment, the start of production and the receipt of sales revenues. During these time lags, the operation is incurring expenses, such as interest payments and administrative costs, but is not receiving any revenues, therefore reporting a loss. Losses can accumulate over extended periods and it can take years to offset these losses with profits before any tax is paid. Loss creation provides an opportunity for firms to maximise losses in order to reduce future tax liabilities.

BEPS and loss creation are overall strategies that firms use to reduce their tax liability and, due to the cost and effort involved in setting up the schemes that are employed, are usually undertaken on an ongoing or permanent basis. Two schemes that are used stand out as being most popular with large multinational corporations and most problematic for tax authorities. Technology and pharmaceutical firms favour a scheme dubbed the Double Irish with Dutch Sandwich, while resources and energy firms prefer the use of Thin Capitalisation and Debt Loading to lower their tax liability.

2.2 Double Irish with Dutch Sandwich

The Double Irish with Dutch Sandwich scheme is used to move profits from both the country where the intellectual property rights are created as well as from the country where the revenues are realised through sales. Intellectual property rights are usually held in low or zero tax jurisdictions and revenues from sales are either booked directly to the subsidiary in the tax haven, booked through another subsidiary first to avoid withholdings taxes, or incorporated into the cost of the product at the manufacturing stage. There are other variations of this scheme using Luxembourg, Switzerland, Delaware in the U.S., and Singapore appears to be a hub for Australian operations.

Different processes will be used depending on the product or service being supplied. For instance, Google books its revenues from sales of advertising in Australia directly to a subsidiary in Singapore; Uber's revenues from ride-sharing fares go directly to a subsidiary in the Netherlands, and AirBnB revenues go directly to Ireland, thereby by-passing any recognition of revenues in their Australian operations. On the other hand, Apple incorporates large intellectual property rights costs into its products at the manufacturing stage through licence, patent and copyright fees. They sell the product in Australia with a very low margin between the selling price and the cost which is bloated with these fees. The margin is usually just sufficient to cover the costs of their retail and marketing operations in Australia.

The Double Irish with Dutch Sandwich scheme utilises a series of aggressive tax planning strategies to shift profits to low, or zero, tax jurisdictions. It involves the use of a combination of Irish and Dutch subsidiary companies to shift profits and revenues, first through one Irish company, then to a Dutch company, and finally to a second Irish registered company but with its headquarters in a tax haven for tax purposes. This mechanism is used primarily by large multinational tech and pharmaceutical companies and is based around the transfer of intellectual property rights to a subsidiary in a tax haven. The royalties and licence fees that are generated from these rights are then used to shift profits to the low tax jurisdiction.

This technique has allowed large multinational corporations to dramatically reduce their overall corporate tax rate. Ireland is one of the few countries that allow companies to choose their own tax residency. It is this feature alone that allows this arrangement to exist. The inclusion of a Dutch subsidiary is to avoid the imposition of withholding tax on funds being transferred out of the EU, as the recipient is an Irish registered company. However, for tax purposes, the Irish registered company has its headquarters in a tax haven.

The process usually involves the rights to some intellectual property such as patents or copyrights. This intellectual property has mostly been produced in high to medium taxed jurisdictions, such as the U.S., Europe, Korea, Japan, or Australia. Quite often it has been produced with the aid of generous tax concessions for research and development expenses, with the assistance of taxpayer-funded universities and research centres, or from large government contracts, such as defence contracts in the U.S. While the economic rights may have been produced in a high to medium taxed jurisdiction, they are subsequently transferred to a subsidiary in a low or zero taxed jurisdiction. The rights are usually transferred at well below either the cost to produce them or the future income they will generate. Once the foreign subsidiary owns the economic rights, the profits derived from them become those of the subsidiary, not the parent

Transferring the economic rights over the intellectual property to the subsidiary is either through a direct transfer at low price or through a cost sharing arrangement. To reduce the level of abuse that can take place when assets are transferred between associated entities, transfer pricing rules based on “arm’s length” principles have been developed by tax authorities. “Arm’s length” pricing involves an estimate of the price an entity would have paid for the goods or service in an open market or what an unrelated third party would have to pay. The problem with intangible assets, especially mobile assets such as intellectual property rights, is that there is no active market for these rights in order to compare prices, as each right is unique. An example of the abuse of transfer-pricing involving Microsoft was outlined in a 2012 U.S. Senate enquiry. In 2011, Microsoft transferred certain intellectual property rights to two subsidiaries. Microsoft Singapore paid \$US1.2 billion and Microsoft Ireland paid \$US2.8 billion. However, in a single year, Microsoft Singapore generated revenues of \$US3 billion and Microsoft Ireland, \$US9 billion from those rights. Over 85% of Microsoft’s research and development is undertaken in the U.S. (Levin 2012)

Intellectual property rights acquired through a cost sharing arrangement does not involve any transfer, so the transfer-pricing rules do not apply. Under cost sharing, the subsidiary in a low tax jurisdiction provides some funds to a joint development of the intellectual property with the parent company. These funds are usually a small proportion of the actual development costs. However, the subsidiary usually acquires the rights to exploit the intellectual property in all markets outside the parent company’s home country or region. This arrangement has been mainly exploited by large U.S. multinational technology

companies who mostly pay full tax on their domestic operations and profits but pay very little if any tax on profits produced abroad.

The "double Irish" provision allows corporations with operations in Ireland to make royalty payments for the use of intellectual property rights to another Irish-registered subsidiary. It is called double Irish because it requires two Irish companies to complete the structure. One of these companies is tax resident in a tax haven, such as the Cayman Islands or Bermuda. Irish tax law provides that a company is tax resident where its central management and control is located, not where it is incorporated, so that it is possible for the first Irish company not to be tax resident in Ireland. This company is the offshore entity which owns the valuable intellectual property rights. These rights are then licensed to a second Irish company (tax resident in Ireland) in return for substantial royalties or other fees. The second Irish company receives income from use of the asset, but its taxable profits are low because the royalties or fees paid to the first Irish company are deductible expenses. Any profits remaining in the second Irish company are taxed at the Irish rate of 12.5%, although in Apple's case this is still regarded as too much, and they have negotiated a rate at around 1.5%.

The addition of a Dutch sandwich to the double Irish scheme is used to eliminate withholdings tax liabilities. Ireland does not levy withholding tax on certain receipts from other European Union member states. Therefore, revenues from the sale of the products shipped by the second Irish company are first booked through a shell company in the Netherlands, taking advantage of generous tax laws there. The remaining profits are then transferred directly to the Cayman Islands or Bermuda. Thus if the two Irish holding companies are thought of as "bread" and the Netherlands company as "cheese", this scheme is referred to as the "Dutch sandwich". The Irish authorities never see the full revenues and hence cannot tax them, even at the low Irish corporate tax rates. There are equivalent Luxembourgish and Swiss sandwiches. Companies do not need to be located in Ireland, Netherlands or even Europe to take advantage of this scheme.

An example of a company employing this method to reduce their tax liability is Google, whose Dublin headquarters is its main hub for all sales outside the United States, including Australia, and employs more than 2,500 people. A Dublin-based subsidiary of Google generates the revenue, mostly from online advertising. It then pays royalties for the use of Google intellectual property rights, such as the name and software, to another subsidiary in the Netherlands, who in turn pay it back to a separate Google unit in Ireland, which is

resident in Bermuda for tax purposes. The second Irish company holds the ultimate rights to the Google intellectual property.

In 2013, following pressure from the European Commission, the Irish government announced that companies will no longer be able to incorporate in Ireland without also being tax resident there, a measure intended to counter arrangements similar to the Double Irish. Michael Noonan, Ireland's finance minister, recently told the Irish Parliament, "I am abolishing the ability of companies to use the 'double Irish' by changing our residency rules to require all companies registered in Ireland to also be tax resident." (NYT 14 Oct 2014) These changes came into effect from January 2015. However, there is an extended "grandfathering" or phase-out period for existing schemes that will continue until 2021, allowing corporations exploiting this loophole to re-arrange their tax avoidance strategies. Variations of this scheme already exist elsewhere such as the Swiss-Luxembourg Sandwich.

In response to the increased scrutiny of companies and their relationships with known tax havens, companies such as Google, Oracle and FedEx have begun declaring fewer of their ongoing offshore subsidiaries in their public financial filings. This reduces the visibility of these companies using entities in known tax havens, and the visibility of tax havens in general. The negative effects on a company's reputation from being associated with tax aggressive behaviours, leads companies to limit their disclosures and become less transparent. This suggests that companies are highly sensitive to the reputational damage caused by these behaviours being exposed to the general public.

The Double Irish with Dutch Sandwich strategy is used by multinational corporations to move profits out of Australia. The amount of profit diverted is difficult to estimate, and schemes like this are also difficult to legislate against. An Australian retailer basically pays tax on the difference between the amount it sells its products for and the cost of those products. Apple is able to load intellectual property rights charges into the cost of its products so that there is very little profit. It is difficult to put a realistic price on those intellectual property rights in order to ascertain a non-contrived cost base for its products as that information is not publicly available. Likewise, with an Australian service provider that pays tax on the difference between the revenues it derives from selling its services and the deductions, such as wages and salaries that are allowable against that revenue. Companies like Google or Uber book their revenues directly in a low tax jurisdiction. The only revenues returned to Australia are to cover the costs of marketing and analysis carried out here, with

those costs fully deductible against that revenue. Both these situations leave very little profit in Australia subject to company tax.

A necessary requirement of the Double Irish with Dutch Sandwich scheme is usually some exclusive intellectual property rights or other intangible assets. These assets are mainly the domain of technology and pharmaceutical firms. Resources and energy companies have only fixed or tangible assets and therefore must look other mechanisms, such as thin capitalisation or debt loading, to reduce their tax liabilities.

2.3 Debt Loading and Thin Capitalisation

For most intentions and purposes, the terms “debt loading” and “thin capitalisation” have the same meaning. Thin capitalisation is a technical term used in tax legislation and in some accounting research, whereas debt loading is a more general term used in the media and in business circles. This report will use the term “debt loading” in keeping with general usage. However, the terms can be used interchangeably.

Debt loading refers to a strategy by the firm to finance business operations and capital structure primarily with debt capital rather than equity capital (Richardson et al. 1998; Taylor & Tower 2009; Taylor, Tower, & Van der Zahn 2010). A company is regarded as employing debt loading when its capital is made up of a much greater proportion of debt than equity, i.e. its gearing, or leverage, is too high, for the life-cycle stage of the business or industry. This excessive use of debt finance compared to equity finance creates “debt loaded” or “thinly capitalized” structures in subsidiaries located in higher tax jurisdictions. This constitutes an important international corporate tax avoidance technique used by multinational firms (Shackelford & Shevlin 2001; Shackelford, Slemrod, & Sallee 2007; Taylor & Richardson 2013). These activities are consistent with the legal definition of “sole and dominant purpose.” Due to the effects of the dividend imputation system in Australia, the incentive to use thin capitalisation by public companies is reduced. However, private companies and foreign subsidiaries operating in Australia are not affected in the same way by these incentives.

Debt loading is perceived to create problems for two classes of people:

- Creditors bear the solvency risk of the company, which has to repay the bulk of its capital with interest; and

- Revenue authorities, who are concerned about abuse through excessive interest deductions reducing taxable income.

The corporate laws in some countries actually allow for companies to be thinly capitalised, or loaded with debt. However, the revenue authorities in those countries will often limit the amount of interest that a company can claim as a tax deduction, particularly when it receives loans at non-commercial rates (e.g. from associated or connected parties). However, some countries simply disallow interest deductions above a certain level, from all sources, when the company is considered to be too highly geared under applicable tax regulations.

Some tax authorities limit the applicability of thin capitalisation rules to corporate groups with foreign entities to avoid “tax leakage” to other jurisdictions. The U.S. “earnings stripping” rules are an example. Hong Kong goes even further to protect tax revenues by prohibiting payers from claiming tax deductions for any interest paid to foreign entities, thus eliminating the possibility of firms using thin capitalisation to shift income to a lower-tax jurisdiction. Thin capitalisation rules determine the amount of interest paid on corporate debt that is allowable as a deduction for tax purposes. Such rules are of strong interest to private-equity firms, which use significant amounts of debt to finance leveraged buyouts.

The rules for thin capitalisation in Australia are found in Division 820 of the ITAA 97. They attempt to put a limit on the amount of interest a company can claim in deductions on its tax. The rules do not apply to companies that operate on a purely domestic basis. The rules use the arm’s length principle to set rates of interest that can be claimed between related entities. However, in a recent case involving Chevron and the ATO, a company merger and restructure reduced the paid up capital of Chevron Australia Pty Ltd from over \$3 billion to only \$29 million with the shortfall made up by \$US2.5 billion loan from another Chevron subsidiary. Central to the proceedings is a credit facility agreement between Chevron Australia and Chevron Texaco Funding Corporation under which it was agreed to make advances through a Credit Facility Agreement in aggregate of \$2.5billion. Interestingly, the agreement did not breach the thin capitalisation rules nor any other anti-avoidance provisions of Part IVA of the Income Tax Assessment Act 1936 (ITAA). The critical issue related to the contravention of other provisions of the ITAA, specifically those introduced in the *Tax Laws Amendment (Cross-Border Transfer Pricing) Act (No. 1)* in 2012. The argument brought forward by the Australian Tax Office (ATO) was that the agreement was not at *arm’s length*, as defined in ITAA section 136AD (3) (c) where a related party transaction is made between

two companies and the acquisition amount exceeds a commercial amount. In addition, it was in contravention of the international agreement cross-border transfer pricing rules (as set out in the *Cross-Border Transfer Pricing Act*). Accordingly, the agreement contravened the transfer pricing rules in Australia's double tax agreements with the U.S.

A similar change to a company's capital structure has occurred with the U.K-based William Hill bookmaker in its acquisition of Sportingbet and Tom Waterhouse (West 2014). The new entity has had its capital reduced and replaced with debt from a Gibraltar-based subsidiary. As changes in capital structure are common in mergers and takeovers, it is difficult for the ATO to mount a case against such activities using the current rules.

Large, multinational resource and energy firms operate in many jurisdictions, including Australia. The Australian operations are usually wholly-owned subsidiaries of their parent company, and therefore are only required to make minimal disclosures of these operations. This allows these corporations to arrange their finances in such a manner as to reduce their tax liabilities in Australia without any public scrutiny.

3. Analysis of Effective Tax Rates of Foreign Multinationals Operating in Australia

Sample Selection

A sample of 100 large, private firms was selected from a database of companies reported by the ATO in December 2015. These firms operate in the technology, electronics and media industries, the pharmaceuticals and healthcare sectors, and the energy sector. Most of the firms are wholly-owned subsidiaries of foreign corporations plus a few large private companies. The latest financial reports for these companies were acquired from ASIC⁷ in March 2016, and relevant data required to analyse the tax aggressiveness of these companies for their last two years was hand collected from the reports. The data for each firm was averaged over the two year period to provide a clearer picture of any tax reducing mechanisms and to reduce the volatility that can exist in single period results. The sample contained 24 companies that made an overall loss for the two years. Therefore, the sample was divided into profit firms, who netted an overall profit across the two years, and loss firms who reported an overall loss. The main reason that the loss firms were eliminated from the

⁷ Australian Securities and Investment Commission.

analysis is that the incentives involved in loss creation move in the opposite direction to profit-shifting in profitable firms, and therefore, could potentially corrupt the results. The sample was divided into three basic industry groupings that are loosely aligned with different tax planning methods. Initially, there were 62 technology, electronics and media companies; 15 pharmaceutical and healthcare companies; and 23 energy firms included in the sample. However, this was reduced down to 48, 13 and 15 respectively when the loss firms were eliminated. The summary of the data selection process is in Table 1.

Table 1: Sample Selection - Selected Private Australian Companies – 2013 & 2014

	<i>Technology, Electronics & Media</i>	<i>Pharmaceuticals & Health</i>	<i>Energy</i>	<i>Total</i>
<i>All Firms</i>	62	15	23	100
<i>Loss Firms</i>	14	2	8	24
<i>Profit Firms</i>	48	13	15	76

Data source: ASIC 'Copy of financial statements and report', Form 388

Descriptive Statistics

Over the two-year period, profit firms reported total net profits before tax of almost \$11.7 billion. On these profits, they incurred a total tax liability of over \$1.89 billion and they claim to have paid cash of over \$4.17 billion in taxes. The average profit firm reported an annual profit of \$76 million, whereas, firms reporting losses made an average loss of approximately \$128 million per year. This provides some initial evidence that firms may be engaging in loss creation. The largest profit in a single year was \$1.49 billion by Japan Australia LNG (MIMI) Pty Ltd, who explore and produce gas and oil on the North-West Shelf, in 2013. The largest single loss was reported by coal miner, Peabody Australia Holdco Pty Ltd of over \$1.2 billion in 2014. Over the two years, eighty per cent of profit firms incurred a net tax expense as opposed to a tax benefit and 76% paid taxes rather receiving a net refund. While some loss firms did pay taxes and report a tax expense, profit firms were five times more likely to pay taxes and ten times more likely to report a tax expense against their profits.

The descriptive statistics are shown in Table 2. Panel A shows the total amount over the two-year period. Panel B displays the average annual amount for each firm.

Table 2: Descriptive Statistics - Selected Private Australian Companies - 2013 & 2014*Panel A: Total amounts for the two year period*

	No.	Accounting Net Profit before Tax \$'000	Tax Expense \$'000	Cash Tax Paid \$'000
<i>Technology, Electronics & Media</i>	48	2,913,864	-220,139	-294,997
<i>Pharmaceuticals & Health</i>	13	573,848	-32,623	-157,309
<i>Energy</i>	15	8,182,994	-1,638,758	-3,720,958
<i>All Profit Firms</i>	76	11,670,706	-1,891,520	-4,173,264

Panel B: Average annual amount for each firm

	No.	Accounting Net Profit before Tax \$'000	Tax Expense \$'000	Cash Tax Paid \$'000
<i>Technology, Electronics & Media</i>	48	30,353	-2,293	-3,073
<i>Pharmaceuticals & Health</i>	13	22,071	-1,255	-6,050
<i>Energy</i>	15	272,766	-54,625	-124,032
<i>All Profit Firms</i>	76	76,781	-12,444	-27,456

Data source: ASIC 'Copy of financial statements and report', Form 388

Methodology

Measuring tax aggressiveness in business research has always been problematic as it is not directly observable due to the private nature of tax returns and other submissions to the tax authorities. Accounting research has traditionally employed proxy measures of tax aggressiveness obtained from data in the financial statements. The main proxies used in recent research are the effective tax rates (ETR's) and book-tax gaps (BTG's). These proxies capture the tax burden facing companies and are useful for the comparative ranking firms, based on their level of tax aggressiveness. The most popular effective tax rates are the cash effective tax rates, which utilise cash taxes paid, rather than the tax expense. However, using these measures in this analysis is problematic due to inconsistencies in the reporting of cash taxes paid in the financial statements of some companies. Some companies, particularly the energy firms have included other taxes, such as the Resources, Rent Tax and Royalty payments, in taxes paid thereby inflating the figures. Therefore, this analysis will rely on the

GAAP⁸ effective tax rate and the book-tax gap to examine these companies and to estimate the amount of taxes avoided.

The GAAP effective tax rate can be split into current tax payable and deferred tax liability. While most of the deferred tax liability will at some stage reverse and become current tax payable some of it can be deferred almost indefinitely. In such cases, the tax expense may not accurately represent the correct level of taxes incurred on corporate profits. GAAP ETR's can also be distorted by the estimates used to calculate accruals. These estimates may be unreliable and many accruals are disallowed for taxation purposes. However, GAAP ETR's capture the reporting behaviour of firms which is the main focus of this analysis. The formula used to estimate this measure is:

$$GAAP\ ETR = Tax\ Expense / Accounting\ Net\ Profit\ before\ Tax$$

Book-tax gaps are useful for estimating the amount of taxes that are avoided. Like the ETR's, these measures can use either cash taxes paid or the GAAP tax expense. The book-tax gap measures the difference between the amount of tax that was paid and the amount that would have been paid if the statutory tax rate was applied to reported profits. It provides a measure of the magnitude of the economic loss caused by tax aggressive behaviours. The GAAP BTG grosses up the tax expense by the statutory tax rate and deducts the pre-tax profits. The formula used to estimate this measure is:

$$GAAP\ BTG = (Tax\ Expense / STR) - Accounting\ Net\ Profit\ before\ Tax$$

When interpreting the results from these measures, a lower ETR represents a higher level of tax aggressiveness, whereas it is the opposite for the BTG.

Results

The results from the main analysis of tax aggressiveness in large private companies and multinational subsidiaries operating in Australia are shown in Table 3. Column 1 (GAAP ETR) displays the results from the GAAP ETR. The average ETR is 16.2%. This is almost half the statutory tax rate for companies in Australia which is currently 30%. However, it is worse at the industry level, with an ETR of only 5.7% for the Pharmaceutical and Health

⁸ Generally Accepted Accounting Principles

sector, and 7.6% for Technology, Electronics and Media. The overall figure is boosted by the Energy sector that not only has an ETR of 20% but also average company profits more than ten times those of the other two sectors. However, the 20% ETR is still only 2/3rds of the statutory rate.

Table 3: Results of Analysis - Selected Private Australian Companies - 2013 & 2014

	No.	GAAP ETR	Average BTG \$'000	Total BTG \$'000
<i>Technology, Electronics & Media</i>	48	7.55%	45,418	2,180,068
<i>Pharmaceuticals & Health</i>	13	5.69%	35,777	465,103
<i>Energy</i>	15	20.03%	181,364	2,720,466
<i>All Profit Firms</i>	76	16.21%	70,600	5,365,638

Data source: ASIC 'Copy of financial statements and report', Form 388

Column 2 (Average BTG) shows the average BTG for each firm per year. The BTG figure represents the amount of tax not paid on the accounting income. While Energy firms may be paying at tax at a higher ETR than the other sectors, the average BTG indicates that these firms still save on average over \$90 million per year. Column 3 (Total BTG) shows the total amount of tax not paid on the profits of these companies over the two year period. Just 76 firms were able to reduce their tax liability by almost \$5.37 billion in only two years. This does not imply that these firms are doing anything wrong or breaking any laws. However, it does question the notion that these corporations in Australia bear a heavy burden when complying with their tax liabilities. Of more interest are the methods used to bring about this largesse.

Further Analysis of Individual Companies

1. Apple Inc.

As outlined in Section 2.2, Apple Inc has set up the mechanisms required to implement the Double Irish with Dutch Sandwich strategy. Under this strategy, a company loads the cost of the intellectual property rights into the cost base of its products. As each stage pays for the product to the previous phase, the large profit from this process moves back till it eventually arrives in a low tax jurisdiction where the rights are held. An examination of Apple's Australian operations shows a very low gross profit margin of only eight to nine per cent,

whereas the margin for the consolidated global group is close to 40% across all their operations. The net profit margin before tax in Australia is between four and six per cent, compared to the group margin of around 30%. The cost structure embedded in the price of Apple's products in Australia is just sufficient to cover the costs of their operations here.

2. Google Inc

Another company that utilises the Double Irish with Dutch Sandwich scheme is Google Inc. However, Google does not use the intellectual property rights embedded in its prices of its products to shift profits as they book revenues directly into low tax jurisdictions. From examining Google's financial statements, Google appears to be more generous with the Australian taxpayers than Apple with net profit margins before tax of around 13%. While this is still considerably less than the twenty-six to thirty-one per cent margin for the consolidated global group, it is only on those revenues that are recognised in Australia. Out of Google's global revenues in 2014, only 0.54% was booked through Australia. The Australian economy generates almost 2% of the world's GDP. For a company so closely integrated into all aspects of business, it would be expected there would be a closer correlation between Australia's share of GDP and our share of Google revenues.

3. Chevron

The Double Irish scheme is mainly used by multinational corporations that possess valuable intellectual property rights. Therefore, it is not available to companies in other sectors such as mining and energy firms. However, these firms have large investments and are highly capital intensive allowing them to take advantage of aspects of the thin capitalisation rules and undertake debt loading. Chevron is involved in the exploration and production of oil and gas in Australia including the massive Gorgon natural gas project off North-Western Australia. Chevron has already had settlements with the ATO over the level of debt, or more precisely, the amount of interest it wishes to deduct from its revenues. In 2014 Chevron had an interest expense equal to over 62.5% of its sales revenues and 45% in 2013. It increased the amount of the interest expense by another two per cent through a process called accretion⁹. At the end of the 2014 financial year, Chevron was carrying a debt-to-equity ratio of over 4:1. Most, if not all of this debt was provided by associated entities. While these arrangements might not breach the thin capitalisation rules, the conditions of the loans may

⁹ In accounting, an accretion expense is an expense recognized when updating the present value of a balance sheet liability. This is can be in response to anticipated moves in interest rates, or the economic outlook.

have breached the arm's length principles. Chevron's financial statements also revealed very large amounts of unrecognised tax losses that they have carried forward. These losses can be used to offset future taxable income.

When companies engage in aggressive tax strategies, footprints and signals can appear in their financial statements¹⁰. In some cases, these signals are the result of a unique but legitimate set of circumstances. However, that explanation appears to wear very thin when these signals are widespread and appear throughout the financial statements of the very same groups of companies that have both the largest incentives to engage in these behaviours, and the opportunities and means to carry them out. In this context, there is a demand from tax authorities, governments, other taxpayers and interest groups to address the underlying mechanism of abusive profit shifting and loss creation. Some solutions have now been proffered by international forums and institutions.

4. Solutions

In 2009, the G20 finance ministers requested that the OECD assess the issues of multi-jurisdictional tax avoidance and produce a plan to address them. As a result, the OECD commenced the BEPS project and produced in a list of fifteen action items that to address different aspects of multinational corporate tax aggressiveness. The action items were agreed at the ST Petersburg meeting of the G20 in September 2013. These action items rely on the co-operation and support of the member nations. The action items are as follows:¹¹

1. Address the tax challenges of the digital economy.
2. Neutralise the effects of hybrid mismatch arrangements.
3. Strengthen Controlled Foreign Company (CFC) rules.
4. Limit base erosion via interest deductions and other financial payments.
5. Counter harmful tax practices more effectively, taking into account transparency and economic substance.

¹⁰ This is not always the case. Attempts to uncover the strategies known to have been used by Enron in the years leading up to its crash were unable to find any evidence in the financial statements for that period. However, Enron and some of its executives were engaging in outright fraud.

¹¹ Further information and details on the BEPS Project and the Action Items is available from OECD (2013).

6. Prevent treaty abuse.
7. Prevent the artificial avoidance of Permanent Establishment status.
8. Develop rules to prevent BEPS by moving intangibles among group members.
9. Develop rules to prevent BEPS by transferring risks among, or allocating excessive capital to, group members.
10. Develop rules to prevent BEPS by engaging in transactions which would not, or would only very rarely, occur between third parties.
11. Measuring and monitoring of BEPS.
12. Require taxpayers to disclose their aggressive tax planning arrangements.
13. Re-examine transfer pricing documentation.
14. Make dispute resolution mechanisms more effective.
15. Develop a multilateral instrument.

While some of these action items may seem like nothing more than “motherhood” statements, such as “prevent treaty abuse”, they have at least opened the process required to create solutions to BEPS. Others items show greater substance and put forward practical solutions that address some of the underlying issues, such as some of the disclosure and transparency proposals, and limiting interest deductions and financial payments. Other items drive at the heart of some avoidance schemes, such as rules to limit the transfer of intangible assets within groups, but these items will be difficult to implement.

The difficulty in finding solutions to some of these issues has led some countries to begin to enhance their tax regimes, mostly within the BEPS framework. One such endeavour is the Diverted Profits Tax, or as it is better known the “Google” tax, given it is specifically targeted at companies like Google that use the Double Irish with Dutch Sandwich in some form. In 2015, the U.K. adopted what has become known as the “Google” tax based on proposals from a number of interest groups and following public outrage at the low tax bill of many large, multinational corporations operating in the U.K. Other groups, such as the Tax

Justice Network and Publish-What-You-Pay, have called for increased disclosures and transparency in corporate tax affairs.

4.1 *Diverted Profits Tax*

The U.K.'s Diverted Profits Tax (DPT) (also known as the Google Tax) came into effect on April 1, 2015. It is aimed at multinational corporations who divert profits from the U.K. by either arranging their affairs so as to avoid creating a permanent establishment in the U.K. (BEPS7), or by making payments that lack economic substance, such as some royalty payments and management fees (BEPS5). The DPT rate itself is set at 25% of any profits relating to U.K. activity that are diverted. A secondary aim of the DPT is to remove information bias, allowing the U.K. tax authorities full and timely examination of high-risk transfer pricing transactions (BEPS13). This provision creates strong financial incentives for full disclosure and engagement with tax authorities (BEPS12). The tax amendment was aimed directly at companies such as Google in order to prevent the diversion of revenues directly to another tax jurisdiction and loading U.K. operations with high levels of management and other fees. In addition, further anti-avoidance requirements were introduced in the U.K. with the 2016 *Finance Bill* with respect to hybrid mismatch arrangements and royalty payment. There were many detractors of the DPT in the U.K. claiming that it is in breach EU legislation, tax treaties and that most multinational would challenge its legality based on those factors. Although, it has only come into force a little more than one year there have not been any major legal challenges as far as we are aware, but it has had notable successes already. Most notably Google's tax deal with HM Revenue and Customs for over 130 million pounds in January this year could be seen as the first success despite the fact that the deal related to periods prior to 2015. Perhaps the DPT has no direct link to the deal many commentators agreed that it may have played an indirect role in the settlement.

Although there was some early optimism in late 2014 when the then treasurer Joe Hockey suggested that Australia may also adopt a U.K. style DPT, most of that optimism disappeared with the 2015 Budget and in late 2015 when it became obvious that the *Tax Laws Amendment (Combating Multinational Tax Avoidance) Bill 2015* was a mere shadow of the U.K. DPT. Although it is unclear what happened between late 2014 and the 2015 Budget, as the decision was made not to introduce a U.K. style DPT, it has been suggested that what may have spooked the law makers in Australia are the same problems (double taxation treaties, the U.S. government and potential legal action by multinationals) that were presented prior to the U.K.

adopting the DPT. Thus, Australia adopted a less stringent version of the DPT in 2015 budget with the Multinational Anti-Avoidance Law (MAAL), with further measures included in the *Tax Laws Amendment (Combating Multinational Tax Avoidance) Bill 2015*. However, these measures do not actually represent a new tax and the 2015 Budget provided no estimate of associated revenue gains, with many speculating at the time that any gains would be marginal if any at all. Further, MAAL only applies to “significant global entities” with global revenues of over \$1 billion, with a presence in a low tax or secrecy jurisdiction. Like the U.K. version, the legislation focuses on corporate attempts to avoid creating a permanent establishment in Australia (BEPS7). It is based on whether the “principal purpose” of the structures is to avoid Australian or foreign taxes as per ITAA36 Part IVA. The legislation is accompanied by compulsory disclosure by a company of their country-by-country tax affairs. However, the disclosure is confidential to the ATO only. This allows companies to avoid public scrutiny of their tax avoidance strategies. While there is a significant increase in the penalties for a breach of these laws, the measures are not back-dated and allow existing schemes to continue.

There is criticism that the legislation seeks to claim unlimited taxing rights over “stateless” income. However, the legislation only seeks to tax those profits that would have been attributed to a foreign entity’s Australian permanent establishment had the artificial structures and diversion of sales revenue not occurred. The Australian Treasurer, Joe Hockey, defended the limited nature of the Australian legislation compared to the U.K. on the grounds that further restrictions would breach existing tax treaties. Thus, the recommendation to combat all forms of the Double Irish with Dutch Sandwich is to introduce a U.K. style DPT in Australia.

4.2 Debt Loading Solutions

Limiting base erosion via interest deductions and other financial payments is a key target of BEPS. Australia already has relatively strict thin capitalisation provisions, which limit the gearing levels of foreign owned companies and the allowable level of interest deductions given a company’s level of debt. Despite that, the Chevron case has shown that private companies which are, in particular, wholly owned subsidiaries of large multinational energy companies can still avoid hundreds of million in tax using interest deductions. One option is to restrict, or even eliminate, interest expense deductions on related party borrowings. That is,

to prevent the wholly owned subsidiaries of multinational corporations claiming a deduction for interest on their borrowing from other subsidiaries¹² within the group. Hong Kong has adopted this approach to prevent debt loading abuse. This is essentially what Chevron was able to achieve and what other energy companies also have an opportunity to exploit. Additional measures may include providing the ATO with further resources to audit all energy multinationals operating in Australia.

4.3 Greater Transparency

Require taxpayers to disclose their aggressive tax planning arrangements is also an important target of BEPS. However, the disclosure requirements related to private companies' in Australia is in many respects is the equivalent of the Wild West. Many do not produce general purpose financial statements and the few that do not comply will many important Australian accounting standards as per the analysis of the 100 companies analysed in this report. Thus despite having a presence in Australia which is as big and significant as the most well know public companies, the amount of useful information disclosed is negligible and very difficult to interpret. In fact, some of the financial reports analysed were not legible and thus non-compliant which raises questions as to whether ASIC even looks at what the private companies submit. However recent research by Dyreng et al. (2016) indicates that public scrutiny can sufficiently change the costs and benefits of tax avoidance such that tax expense increased for scrutinized firms. Therefore, public pressure from outside activist groups can exert a significant influence on the behaviour of firms. The key point is that in order to increase scrutiny the public requires quality financial information, which simply is not currently supplied by large private companies in Australia, and may in turn explain their high levels of tax aggressiveness. This issue is also known to the Australian Accounting Standards Board, which we hope will revisit the concept of the 'reporting entity' in the conceptual framework and the AASB 1053 standard on the Application of Tiers of Australian Accounting Standards. The solution is rather simple. It would require a small change in the accounting standards that made it compulsory for at least all large private companies to apply all Australian accounting standards without any exception. One immediate benefit is that the public will have access to related party transactions and executive remuneration data of these private companies. This is but one example of information which will enable the public to

¹² The lending subsidiary is usually not located in Australia.

have a better understanding and scrutiny of the tax affairs of private companies. Additionally, the ATO could go further than the BEPS recommendations of providing country-by-country tax reporting to tax authorities, by requiring all companies to disclose that information to the public.

In the U.K. the *Finance Bill 2016* includes provisions requiring large groups, companies, partnerships and UK PEs of foreign entities to publish an annual tax strategy in relation to UK taxation, which has to be disclosed to the public on the Internet. Non-compliance carries significant penalties. Furthermore, certain European companies, such as banks, have to now disclose country-by-country tax information to the public. Unfortunately, Australia lacks far behind with respect to any similar initiatives. The recent disclosures from the Panama Papers once again draw attention to the links between transparency, corruption and tax avoidance.

5. Conclusion

The BEPS project and the G20 meetings over the past 4 years have provided an excellent framework with very specific and achievable recommendations related to decreasing base erosion, profit shifting and loss creation. Some of the recommendation have been adopted by certain countries, albeit at a different pace and with distinct priorities. Although this is a good start base erosion, profit shifting and loss creation continue unabated, especially by multinational firms using the Double Irish with Dutch Sandwich and interest rate deductions. The analysis here of Australia's top private companies or subsidiaries owned by foreign multinationals that have significant activities in this country indicates that the potential tax avoidance is economically significant (in the billions of dollars). Thus, immediate action is necessary to reduce the avoidance and if such action is proper could net the government billions of dollars in additional corporate tax revenue in the coming years and beyond, which will in turn reduce the burden on individual tax payers. The solutions include, introducing a U.K. style DPT, limiting the deductibility of interest from related party debt/loans and significantly increasing the transparency of financial and tax information disclosed by large private companies in particular in order to increase the public scrutiny of their tax affairs. Other countries have already adopted these measures, which is a first necessary step in defeating BEPS and loss creation. No doubt Australia can do the same if the government is serious about reducing corporate tax avoidance.

6. References

- Astin, H. and Wilkins, G. 2014, 'ASX200 company tax avoidance bleeds Commonwealth coffers of billions a year, report finds', *The Age*, 30 September 2014, accessed at, <http://www.theage.com.au/action/printArticle?id=61543983>, on 16 December 2014.
- Arya, A., Glover, J. and Sunder, S. 1998, 'Earnings management and the revelation principle', *Review of Accounting Studies*, 3(1-2), pp.7-34.
- Borek, C.T, Frattarelli, A. and Hart, O. 2014, *Tax Shelters or Efficient Tax Planning? A Theory of The Firm Perspective On the Economic Substance Doctrine*, Harvard University Law School, Working Paper, April 2013 (revised May 2014).
- Chen, K-P. and Chu, C.Y.C. 2005, 'Internal control versus external manipulation: a model of corporate income tax evasion', *The RAND Journal of Economics*, Vol. 36, No. 1, PP. 151-164.
- Chi, S.S., Pincus, M. and Teoh, S.H. 2014, 'Mispricing of Book-Tax Differences and the Trading Behavior of Short Sellers and Insiders', *The Accounting Review*, Vol. 89, No. 2, pp. 511-543.
- Chyz, J.A. 2013, 'Personally tax aggressive executives and corporate tax sheltering', *Journal of Accounting and Economics*, Vol. 56, pp. 311–328.
- Crocker, K.J. and Slemrod, J. 2005, 'Corporate tax evasion with agency costs', *Journal of Public Economics*, Vol. 89, pp. 1593–1610.
- Desai, M. A. 2003, 'The Divergence between Book Income and Tax Income', in Poterba, J.M., Ed., *Tax Policy and the Economy, Volume 17*, MIT Press, Cambridge MA.
- Desai, M.A. and Dharmapala, D. 2009, 'Corporate Tax Avoidance and Firm Value', *The Review of Economics and Statistics*, Vol. 91, No. 3, pp. 537–546.
- Dyrenz, S.D., Hoopes, J.L. and Wilde, J.H. 2016, 'Public pressure and corporate tax behavior', *Journal of Accounting Research*, 1 January 2016.
- Gallemore, J., Maydew, E.L. and Thornock, J.R. 2014, 'The Reputational Costs of Tax Avoidance', *Contemporary Accounting Research*, Vol. 31, No. 4, pp. 1103-1133.
- Gergen, M.P. 2002, 'The Logic of Deterrence: Corporate Tax Shelters', *55 Tax L. Rev.* 255 2001-2002.
- Govendir, B., Lanis, L., McClure, R. and Wells, P.A. 2016 *The Effect of Dividend Imputation on Corporate Tax Aggressiveness*, Working Paper, University of Technology Sydney, dated 1 April 2016.

- Hanlon, M. and Heitzman, S. 2010, 'A review of tax research', *Journal of Accounting and Economics*, Vol. 50, pp. 127-178.
- Hanlon, M. and Slemrod, J. 2009, 'What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement', *Journal of Public Economics*, Vol. 93, Iss. 1-2, pp. 126-141.
- Inger, K.K. 2014, 'Relative Valuation of Alternative Methods of Tax Avoidance', *The Journal of the American Taxation Association*, Vol. 36, No. 1, pp. 27-55.
- Lisowsky, P., Robinson, L. and Schmidt, A. 2013, 'Do Publicly Disclosed Tax Reserves Tell Us About Privately Disclosed Tax Shelter Activity?', *Journal of Accounting Research*, Vol. 51, No. 3, pp. 583-629.
- McGuire, S.T., Omer, T.C. and Wilde, J.H. 2014, 'Investment Opportunity Sets, Operating Uncertainty, and Capital Market Pressure: Determinants of Investments in Tax Shelter Activities?', *The Journal of the American Taxation Association*, Vol. 36, No. 1, pp. 1-26.
- Murphy, K.J., and Zimmerman, J.L. 1993, 'Financial performance surrounding CEO turnover', *Journal of Accounting and Economics*, Vol. 16, No's 1-3, pp. 273-315.
- OECD 2013, *Action Plan on Base Erosion and Profit Shifting*, OECD Publishing, <http://dx.doi.org/10.1787/9789264202719-en>
- OECD 2015, *Explanatory Statement*, OECD/G20 Base Erosion and Profit Shifting Project, OECD.www.oecd.org/tax/beps-explanatory-statement-2015.pdf
- Richardson, G., Taylor, G. and Lanis, R., 2013 'Determinants of transfer pricing aggressiveness: Empirical evidence from Australian firms', *Journal of Contemporary Accounting & Economics*, Vol. 9, pp. 136-150.
- Saavedra, D. 2013, *Analysis of Unsuccessful Tax Avoiders*, Working Paper, Massachusetts Institute of Technology, Dec 2013.
- Shackelford, D.A., and Shevlin, T. 2001, 'Empirical tax research in accounting', *Journal of Accounting and Economics*, Vol. 31, No. 1, pp. 321-387.
- Shackelford, D.A., Slemrod, J. and Sallee, J.M. 2007, *A unifying model of how the tax system and generally accepted accounting principles affect corporate behavior*, (No. w12873). National Bureau of Economic Research.
- Taylor, G. and Richardson, G. 2013, 'The determinants of thinly capitalized tax avoidance structures: Evidence from Australian firms', *Journal of International Accounting, Auditing and Taxation*, Vol. 22, pp. 12- 25.

Weisbach, D.A. 2002, 'Ten Truths About Tax Shelters', 55 *Tax L. Rev.* 215

West, M. 2014, 'Bookmakers' books seem to add up under the odds', *Sydney Morning Herald*, 22 September 2014, accessed at, <http://www.smh.com.au/business/comment-and-analysis/bookmakers-books-seem-to-add-up-under-the-odds-20140921-10k0f1.html>, on 8 April 2016

Wilson, R. 2009, 'An Examination of Corporate Tax Shelter Participants', *The Accounting Review*, Vol. 84, No.3, pp. 969-999.

Appendix A: List of the 100 Private Companies

<i>Company Name</i>	<i>ABN</i>
Abbott Australasia Pty Limited	95000180389
Allergan Australia Pty Ltd	85000612831
Becton Dickinson Pty Limited	82005914796
Mundipharma Pty Limited	87081322509
Roche Diagnostics Australia Pty Ltd	29003001205
Colgate Palmolive Pty Ltd	79002792163
Dupont (Australia) Pty Limited	59000716469
Medtronic Australasia Pty Limited	47001162661
Procter & Gamble Australia Pty Limited	91008396245
Novo Nordisk Pharmaceuticals Pty Ltd	40002879996
Roche Products Pty Limited	70000132865
Cristal Inorganic Chemicals Australia Pty Ltd	20125123784
Glaxosmithkline Holdings Pty Ltd	75000465878
Sanofi-Aventis Australia Pty Ltd	31008558807
Pfizer Australia Holdings Pty Limited	91108292799
Samsung Electronics Australia Pty Limited	63002915648
Ricoh Australia Pty Ltd	30000593171
Motorola Solutions Australia Pty Ltd	16004742312
Huawei Technologies (Australia) Pty Limited	49103793380
Exxonmobil Australia Pty Ltd	48091561198
Schneider Electric Australia Holdings Pty Ltd	30105310781
Sap Australia Pty Ltd	26003682504
Electrolux Home Products Pty Limited	51004762341
Bp Regional Australasia Holdings Pty Ltd	91092495700
Cisco Systems Australia Pty Ltd	52050332940
Unisys Australia Pty Limited	31105642902
Fujitsu Ten (Australia) Pty Ltd	63007413578
Ncr Australia Pty Ltd	61000003592
Konica Minolta Business Solutions Australia Pty Ltd	50001065096

Netapp Australia Pty Ltd	14092499431
Concophillips Australia Gas Holdings Pty Ltd	69081089170
Microsoft Pty Ltd	29002589460
Epson Australia Pty Limited	91002625783
Apple Pty Ltd	46002510054
Amadeus It Pacific Pty Ltd	22080674255
At&T Global Network Services Australia Pty Limited	72087916701
Access Prepaid Australia Pty Ltd	47145452044
Electronics Boutique Australia Pty Ltd	50077681442
Transalta Energy (Australia) Pty Ltd	40062135844
Csc Computer Sciences Australia Holdings Pty Limited	33120570390
Japan Australia Lng (Mimi) Pty Ltd	18006303180
Dell Australia Pty Limited	46003855561
Datacom Australia Holdings Pty Limited	45094235373
Toshiba (Australia) Pty Limited	19001320421
Yahoo! Australia & Nz (Holdings) Pty Limited	54117505450
Origin Energy Uranquinty Power Pty Ltd	26120384938
Lockheed Martin Australia Pty Limited	30008425509
Panasonic Australia Pty Limited	83001592187
Brother International (Australia) Pty Limited	17001393835
Honeywell Holdings Pty Ltd	18000383764
Saab Technologies Australia Pty Ltd	47002950790
Airbus Group Australia Pacific Holdings Pty Limited	75003066788
Lg Electronics Australia Pty Limited	98064531264
Sas Institute Australia Pty Limited	13002287247
Activision Blizzard Pty Limited	90054096883
Google Australia Pty Limited	33102417032
Hawker Pacific Pty Ltd	94001540316
Freedom Energy Holdings Pty Ltd	24093243844
G4s Australia Holdings Pty Ltd	68128783602
Click Energy Group Holdings Pty Ltd	31160484837
Vodafone Hutchison Australia Pty Ltd	76096304620

Acer Computer Australia Pty Limited	78003872768
Puma Energy (Australia) Holdings Pty Ltd	26147978890
Amaysim Australia Pty Ltd	65143613478
Boeing Australia Holdings Pty Ltd	42101168932
Tokyo Gas Australia Pty Ltd	46102349557
Saxon Energy Services Australia Pty Ltd	91137534993
International Power (Australia) Holdings Pty Ltd	70105041209
Technip Oceania Pty Ltd	43062878719
Energy Infrastructure Investments Pty Ltd	95104348852
Verizon Australia Pty Limited	62081001194
Foxteq Australia Pty Limited	38114305494
Nikon Australia Pty Ltd	34121761537
Enerflex Energy Systems (Australia) Pty Ltd	74140790610
Symantec Australia Holding Pty Ltd	43003967333
Foxtel Cable Television Pty Limited	45069008797
Ge Oil & Gas Australia Pty Ltd	65009080951
Nokia Solutions And Networks Australia Pty Ltd	74122172365
Cnooc Gas And Power Aus Investment Pty	28142591044
Kogas Australia Pty Ltd	42130065682
Nec Australia Pty Ltd	86001217527
Glencore Australia Investment Holdings Pty Ltd	74154042636
Hewlett Packard South Pacific Pty Ltd	94121554489
Glencore Investment Pty Limited	67076513034
Peabody Australia Holdco Pty Ltd	61154820130
Warner Bros. Entertainment Australia Pty Limited	70003773411
Citrix Systems Asia Pacific Pty Ltd	37078874530
Myob Group Pty Limited	61153094958
Agilent Technologies Australia Pty Ltd	29088510605
Sumitomo Australia Pty Ltd	81000371497
Lenovo (Australia & New Zealand) Pty Limited	70112394411
Lexmark International (Australia) Pty Limited	86050148466
Axia Energy Australia Pty Limited	75108275216

Ge Energy Holdings Australia Pty Ltd	37086855076
Nokia Australia Pty Limited	39007366949
Fujifilm Holdings Australasia Pty Limited	58008443892
Ibm A/Nz Holdings Pty Limited	12105319248
Fuji Xerox Australia Pty. Ltd	63000341819
News Australia Holdings Pty Limited	32105197028
Toshiba International Corporation Pty Ltd	29001555068