TAXATION ISSUES IN A WORLD OF ELECTRONIC COMMERCE

By Dale Pinto

The Australian Commissioner of Taxation, Mr Michael Carmody, recently stated that:

Tax administrators face greater difficulties in enforcing tax laws and maintaining their community's legitimate revenue base when dealing with international rather than domestic transactions, particularly when dealing with a jurisdiction that combines tax haven status with bank secrecy. Increasingly, tax haven regimes with bank secrecy laws in place are accessible to almost anyone with a modem and a computer.1 (emphasis added)

As improved technology and communications continue to make the world a smaller place, business and consumer dealings have become increasingly international in character.

Consistent with this development has been the growth of electronic commerce and the globalisation of trade and production, as well as shifts in the Australian labour market.

Against this background, the Australian taxation system finds itself in unchartered waters that promises much potential, creates many opportunities and will present numerous challenges to the Australian Taxation Office ("ATO") in administering the Australian taxation system.

It will be the desire of the ATO to properly harness these challenges to realise the full potential that electronic commerce can offer, while providing businesses with the appropriate opportunities to utilise the full benefits of this brave new world. The ATO will need to respond to the challenges quickly as many issues continue to emerge, yet at the same time they will need to exercise caution, prudence and care to ensure that any changes are instituted in a considered and balanced manner.

This article will examine the impact of tax havens and bank secrecy laws in administering Australia's taxation system, including an examination of the impact of electronic commerce.

The overall emphasis or thesis of the article is to assert that tax havens, bank secrecy laws and electronic commerce present many challenges to tax administrators, but also could produce opportunities for them. Having established this, the focus of the article is to then examine various proposals that could be considered to address the challenges identified in the article.

1. THE CHALLENGES

1.1 Traditional Barriers to International Cooperation

Vastly improved and rapidly emerging technologies, combined with globalisation of the economy has led to business and consumer dealings becoming increasingly international in nature, with a consequent increase in cross-border flows that have become easier, faster and more accessible than ever before.

One of the problems with this is the fear that it may open up greater opportunities for tax avoidance and evasion.2 In particular, it is the

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international dimension that potentially makes it extremely difficult for the ATO to collect the necessary information to properly enforce domestic taxation laws.

The availability of timely, detailed, accurate and useful information about a taxpayer's affairs is crucial to the ATO's efforts to effectively and fairly discharge its functions. As John A Calderwood, Director of the International Audits Division of Revenue Canada, observed:

Tax planners are very much aware that if information is located offshore, not necessarily in a true tax haven, it is much more difficult for a 'revenue' to gather evidence to support income tax assessments.

Past experience of the ATO's efforts in this area would confirm that it has been difficult to obtain information once it crosses the border of one country and into another country, particularly if the latter country happens to be a tax haven. Apart from the sheer logistical problems associated with trying to obtain information from an international source, foreign financial institutions are not subject to the same disclosure and regulatory requirements that are applicable to Australian institutions.

Another problem that the ATO has experienced is trying to obtain this information directly from the tax haven government. Given that taxpayers will tend not to voluntarily disclose information to the ATO, coupled with the fact that foreign financial institutions are not subject to the same reporting laws as Australian financial institutions are, the ATO has often been left only with the tax haven government to pursue its investigations. In many instances, this has proven to be a fruitless pursuit, either because the tax haven government does not collate the requested information, or because it has strict bank and secrecy laws that prohibit the disclosure of such information, or simply because it has no agreement with Australia that would authorise the release of the requested information.

Thus, while effective enforcement of taxation laws at the international level relies on cooperation between tax administrators (particularly in the sharing of information), it has been very difficult for the ATO to secure this cooperation when dealing with tax haven countries, especially those that also have strict bank secrecy laws.

Moreover, international cooperation has been hindered in the past by the barriers of national sovereignty, secrecy, reciprocity and competition for tax dollars. These barriers are briefly summarised below.

1.1.1 National Sovereignty

The main barrier to effective international cooperation is the principle of sovereignty of nations. It is an established principle of international law that a country is not obliged to assist in the enforcement of the tax laws of another country in the absence of an applicable treaty or bilateral agreement: *Planché v Fletcher*. This rule effectively means that one nation is not obliged to take notice of the taxation laws of another nation. Thus, the ATO cannot use the debt recovery process of another nation for the purpose of enforcing tax liabilities. It also means that tax administrators are not obliged to provide each other with administrative assistance.

It is recognised that this issue is not new in the area of international tax. However, given that it is expected that electronic commerce will lead to more cross-border activities by taxpayers, it is both timely and necessary to consider approaches to overcome this problem. One suggestion to emerge comes from the Committee on Fiscal Affairs ("CFA") of the OECD, which has suggested:

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5 For a more detailed treatment of these barriers see Woellner et al, above n 3, 144-146.
6 (1779) 99 ER 164, 165.
In this context Revenue authorities could develop an Article for inclusion in the OECD Model Tax Convention, or could develop a revised Commentary, to allow for assistance by one State in the collection of tax for another State.\(^7\)

However, such a course of action may prove difficult to implement in the context of the existing network of over 1500 bilateral treaties. Further, the suggestion does not overcome the basic problem when one looks at a tax haven country, where it is almost certainly the case that there will be no double tax agreement ("DTA") in existence to support such a proposition. Nevertheless, it is a measure designed to foster greater international cooperation between countries and on that basis should be given consideration.

### 1.1.2 Secrecy

In general, bank secrecy laws require that banks maintain absolute confidentiality regarding their clients’ accounts and transactions except where disclosure is required, as in criminal investigations by the domestic government. Violations of secrecy laws typically attract substantial civil and criminal sanctions.

Further, the revenue legislation of most nations contains secrecy provisions that would forbid their tax administration from disclosing information concerning a taxpayer’s tax affairs to another revenue authority.\(^8\)

Thus, secrecy laws act as a further barrier to cooperation.

Even where secrecy provisions do not apply, there may be undesirable economic consequences (such as capital outflows) from making such disclosures, particularly as the disclosing authority has little control over how the information is used.\(^9\)

### 1.1.3 Reciprocity

The concern here is that given the scarce nature of tax enforcement resources, many smaller tax administrations fear that they will simply become a branch of larger administrations, such as the ATO, with no corresponding benefits accruing to them.

### 1.1.4 Competition for Tax Dollars

Another barrier to effective cooperation between tax administrators has been an intensified competition for tax dollars. A good example is in relation to transfer pricing, where some have considered that there could be a "general open clash" between tax authorities, as the weak nature of the general arm's length principle and the "greed of the FISCS" leads sooner or later to a general fight for major tax resources.\(^10\) While this battle of finance administrations has not yet occurred, others warn that the current peaceful situation may be precarious, and prophylactic steps should be taken to increase international cooperation.\(^11\)

### 1.2 The Electronic Dimension

"Very optimistic about the possibilities but pessimistic about the probabilities."

This is what American writer and urbanist, Lewis Mumford said when he was faced with a series of challenges. Many tax authorities, including the ATO, will feel the same way about the growth of electronic commerce and the Internet generally, which many fear may open up new avenues for tax avoidance and evasion. The challenge for tax administrators is to maximise the...
potential efficiency gains of the Internet and at the same time protect their revenue base without hindering the development of new technologies.12

Before examining the main challenges that electronic commerce will present to the administration of the Australian taxation system, it is instructive to briefly step back and examine the evolution of our tax system in the context of economic developments over time.

One of the principles of an efficient tax system is that taxes should be simple to collect. An effective tax system must feed upon the way an economy generates wealth and it must also bear upon things that people cannot easily hide.13 The system of Anglo-Saxon England, designed to pay "Danegeld" to the invading Vikings, was highly efficient because it was based on a fixed rate per "hide" or "unit" of land.14 Not only was land difficult to hide, and therefore an easy taxation target, but also represented the source of income and wealth.

The economy has since evolved to become principally a manufacturing economy. In a manufacturing economy, many people are employed by large companies. Taxes such as pay-as-you-earn ("PAYE") taxes on wages became possible due to the emergence of the modern corporation and its payroll department to calculate, deduct and remit the applicable tax to the ATO. In a manufacturing economy, capital and labour replaced land as the source of wealth.

Also, in a manufacturing economy, large employers, banks and building societies act, in effect, as subcontractors to the ATO, by collecting taxes from employees and then remitting the same to the ATO. This represents a very efficient tax collection mechanism for the ATO. In a fully developed world of electronic commerce, where services dominate over goods and intangibles begin to replace tangibles, this efficient tax collection machine for the ATO will exist less and less.

If one looks forward to what the future holds in the next 10 or 20 years, the landscape of the economy is likely to be very different. It can be expected that during that period of time much of the economy will be made up of services rather than goods - some predict that between 50 and as much as 70 per cent of the economy could be made up of services. If predictions such as these transpire, it will mean that outputs will tend to become more intangible, difficult to measure or touch. A growing number of transactions are likely to be conducted via the Internet or WebTVs, possibly leaving little or no physical audit trail. Electronic systems of cash, such as "e-cash", electronic purses and stored value cards, will be well developed.

Further advances in information technology and communications systems will also facilitate production to be even more international than is presently the case. One implication that this is likely to have is the increased international mobility that could be expected with both capital and labour. This increased mobility can be broken down as follows:

i) Financial capital (savings) - developments in electronic commerce will mean that savings will be able to be moved around the world electronically, almost instantaneously, many times a day.

ii) Industrial capital will also be highly mobile. Instances of this are already becoming evident. For example, in the 1970s, large US corporations earned only about 15 per cent of their revenues from tax havens, or abroad; now it's close to 50 per cent.15

iii) Skilled labour will become increasingly mobile in response to increased competition based on

tion, 8.
14 ibid.
15 ibid.
different tax rates offered by countries. A good example is the attractiveness to top technologists (such as computer engineers) of the US Silicon Valley, who are attracted there by low Californian taxes. At the same time, at the other end of the employment spectrum, people who are low-income earners will tend to want to be paid in cash to avoid the adverse effects that declared income would have on the level of their social security benefits.

1.3 Specific Tax Issues in Cyberspace

The rise of Internet commerce will present a range of challenges for the ATO, as it will transcend state and national borders and commerce will become truly global in every sense. Small and medium enterprises (SMEs), and more consumers than ever before, will have the opportunity from the comfort of their personal computers or WebTVs, to buy and sell goods internationally.

Already in Australia, large telecommunications companies such as Telstra are running advertisements encouraging people to conduct their businesses through their "Big Pond" Internet service, touting as one of its advantages that consumers can be multinationals too and have access to an international market.

Next ponder the prospect of these goods and services being downloaded electronically and the entire transaction being protected by sophisticated encryption technologies. In this environment, the challenge will be for tax administrators to determine which government is entitled to tax?

A simple example will serve to illustrate the nature of the challenge involved here: A consumer in Australia could download software made in England, marketed via a web site in Los Angeles and delivered by a server located in the Cayman Islands. In this scenario, two issues that immediately arise are:

i) To identify whether a transaction has occurred and, if so, in what jurisdiction.

ii) To assess whether tax should be applied and how it should be paid.

It is quite evident that electronic commerce will have a considerable impact on the way in which transactions are conducted and considered for taxation by the ATO. Once the full impact of electronic commerce is fully experienced, the present tax system that was designed for an industrial world, will face many challenges. As noted above, the process of industrialisation shifted the tax base from land to capital and labour. The new economy, facilitated by the growth of electronic commerce, will require an equally fundamental change to cope with the issues that will arise.

The issues of taxation that arise in Cyberspace include challenges to tax administration, consumption tax and finally, questions will need to be raised in relation to concepts that have become entrenched in our income tax law, such as the concept of what constitutes a "permanent establishment".

Some of the major challenges are summarised below.16

1.3.1 Establishing Identity

In order to properly carry out taxation laws, the ATO needs not only to identify whether a transaction has occurred, but also needs to ascertain where it has taken place and by whom. Verifying the identities of parties to a business transaction may be difficult in the world of "e-commerce". For example, it may be impossible to identify the true owner of a web site conducting Internet business. The problem here is that the mechanisms for tracing identity are weak, in that it is a relatively simple matter to arrange for the untraceable use of an Internet web site. The correspondence, furthermore, between the Internet

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16 Some of the points have been based on and adapted from the OECD, Electronic Commerce: The Challenges to Tax Authorities and Taxpayers. November 1997, 13.
address (the computer "domain name") and the location where the activity is supplied, carried out or consumed is tenuous: although the address will tell you who is responsible for maintaining that site, it may not tell you anything about the computer that corresponds to the actual Internet address, or even where that machine is located.  

Authorities will need to think carefully before responding to this problem by instituting identification and registration requirements as it is likely such requirements will have limited success due to the growing ease with which web sites can be located offshore.

The Committee for Fiscal Affairs of the OECD has responded to this issue by recommending that:

Revenue authorities may consider requiring that business engaged in electronic commerce identify themselves to Revenue authorities in a manner that is comparable to the prevailing requirements for businesses engaged in conventional commerce in a country. (emphasis added).

This recommendation, while adhering to the desirable quality of trying to achieve neutrality between physical business enterprises and virtual business enterprises operating via the Internet, is essentially advocating voluntary compliance. Indeed, the OECD believes that many businesses will provide information on their web sites that can be used to accurately identify the business and its physical location, but also believes that it would be helpful if the information is provided as a matter of "common business practice." Nonetheless, as is the case in the physical world, any voluntary compliance regime that may be contemplated for the electronic world, will need to be reinforced with other methods to enable the ATO to trace businesses that do not provide this information as a "matter of course." An example of a supplementary measure could be the authorising of access for the ATO to Internet Protocol number allocation records to validate identity.

Finally, it is observed that both the current Government and the opposition Labor Party are proposed to introduce an Australian Business Number ("ABN") as part of their respective tax reform proposals which led up to the October 1998 Federal election. While it may not have been specifically proposed for this purpose, the ABN may nevertheless assist in making identity easier to ascertain in an electronic commerce world, by providing common registration for a range of Government authorities (including the ATO) in a single process.

1.3.2 Establishing Location

Assuming a transaction can be identified and the identity of the parties ascertained, the next problem is to determine whether a taxable transaction arises, and if so, in which jurisdiction that transaction should be taxed. Individuals and entities engaging in electronic commerce will be able to easily create an Internet address in almost any taxing jurisdiction irrespective of the location of their residence or the source of their activities.

An example of where this could be exploited is the manipulation of location to obtain a reduced or zero rate of withholding tax on royalties. While the problem of establishing physical presence and withholding tax entitlements is not necessarily a new one, it does take on a different dimension in an electronic commerce world. At present, a payer might be able to rely on the postal address of the payee to verify the right to any treaty benefit. However, in a world of electronic commerce, there is no necessary relationship between an Internet address and a physical location.

As an example, a taxpayer may download a digitised photograph from an electronic stock agency and obtain the right to reproduce that image in a magazine or book. The payment for this right would presumably be characterised as a royalty. The seller of this electronic information may claim to be a resident of a treaty country by establishing an Internet address in that jurisdiction.

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17 See Owens, above n 12, 17.
18 See generally OECD, above n 7, 14.
19 Ibid.
without any other connection to that jurisdiction in order to claim an entitlement to a reduced or zero rate of withholding tax on royalties.

Therefore, if withholding taxes are to be imposed on electronic commerce, it will be necessary to establish procedures and standards for verifying the identity of electronic counter parties to confirm claimed entitlements to a zero or reduced rate of withholding tax on royalties. Consideration would also need to be given to determining that if withholding taxes were necessary, how would it be administered?

The challenge presented here is that traditional taxation concepts rely on physical presence or economic connection to a physical location; e-commerce, however, has little dependence on physical location. Thus, as physical location becomes less important in an electronic commerce world, it will become more difficult to determine where an activity has been carried out.

Also, it will become easier to exploit rules based on location by establishing an Internet presence in jurisdictions to claim treaty or other benefits. Conversely, as an Internet presence can easily be relocated, one can expect that manipulation could occur to avoid undesirable tax consequences that may result from having an Internet presence in a particular jurisdiction.

1.3.3 Obtaining Acceptable Documentation of Proof Will Become More Difficult

It is generally accepted that the ATO has extensive powers to obtain information from taxpayers and these powers are relatively easy to enforce within Australia. Obtaining information on activities carried out in other taxing jurisdictions, however, requires the use of exchange of information provisions found in tax treaties. Moreover, where books and records are maintained in a tax haven, the ATO will encounter particular difficulties in trying to obtain access to them. Thus domestic disclosure requirements become difficult to enforce. In any event, it is also questionable whether the evidence that tax administrators would be able to produce on transactions that take place in Cyberspace would satisfy the documentation and evidence standards set by tax laws. These "problems" should in theory be easily overcome by appropriate amendments to existing laws governing record-keeping requirements under the Income Tax Assessment Act 1936 (Cth) ("ITAA36").

However, corresponding legislative changes will need to be considered to cover encrypted data to ensure that it will be no excuse for businesses to claim that they have lost encryption keys and accordingly cannot produce requested information - that is, the onus of production of information must remain with taxpayers.

1.3.4 Dematerialisation of Trade

Increasingly, it can be expected that in an electronic commerce world, trade will turn more and more toward services rather than goods.

This can lead to many problems, including the removal of the ATO's ability to audit an assessment based on comparing inputs and outputs.

For example, if one considers a software company that distributes its programs on floppy disks, the ATO can check the number of blank disks the company purchases and can use that as a rough guide as to how much software it sells. But in the world of e-commerce, when a program can be downloaded over the Internet, the physical check on the scale of business will no longer exist.

Thus, the growth of electronic commerce and the rise of the intangible economy could potentially lead to erosion of the tax base.

Looking again at the Internet, the potential for revenue leakage becomes apparent. Currently, people who shop on the Internet mainly use it to order tangible products, such as books or CDs. In an electronic commerce environment, it is already possible to go on-line and buy books and CDs from a mail-order service such as Amazon.com or Cd Now, who then post the physical item to consumers. There is nothing very different about
transacting over the Internet in this way compared to buying it in a shop, as the physical good is still delivered via the post and hence the customs authorities can check it and collect any applicable duties or taxes.

However, more products are becoming intangible - for example, instead of receiving a physical CD ordered on-line and despatched via the post, consumers can now download it to their personal computers. In this context, Value Added Tax ("VAT") or Goods and Services Tax ("GST") become vulnerable to avoidance.

The ability in the future to download products such as videos, CDs and software, combined with being able to reprint books, will pose a serious threat to the ability of the ATO to detect any taxable transaction. This, of course, is unless some form of technology (for example, a "tax chip") is installed into every computer, a prospect that would no doubt raise the ire of civil libertarians. Also, the Government has ruled out the use a "bit tax" that involves taxing each bit of digital information flowing across global networks.20

In summary, electronic commerce will see services dominating over goods and the tangible becoming increasingly intangible. In an electronic commerce environment, the tyranny of distance will disappear, small businesses will have access to the world, SMEs will increase in number and transaction costs will be reduced. Notwithstanding these changes, it may be argued that in terms of income tax, there may be little difference between conducting an Internet business compared to any other. However, the greatest impact of these changes will be felt in the VAT/GST arena, because increases in cross-border flows will become easier, quicker and more accessible than ever before. Moreover, traditional intermediaries will not be able to stop the flow of these electronic products across borders as they have been able to do in a physical world. Impacts of electronic commerce on VAT/GST taxes are considered in more detail below.

1.3.5 The Impact on Wholesale Sales Tax and Value Added Tax/Goods and Services Tax

Australia currently does not operate a VAT or GST system (this will operate from 1 July 2000), but currently relies on a Wholesale Sales Tax ("WST") that applies to goods (which will be abolished from 1 July 2000). Goods are currently defined as being items of tangible property. As already observed, electronic commerce makes it possible for goods that were previously only available in a tangible form, and therefore subject to the WST regime, to be delivered in an intangible form which will not be subject to WST. Returning to the example of music that can now be downloaded directly from the Internet, practically, this will have the same function as music sold as a CD in a shop but it will not be subject to WST as no "good" arises on which WST could be levied.

As more goods and services become capable of being converted into electronic form, the application of sales tax, or for that matter, a VAT/GST, becomes more complicated and the potential for revenue leakage increases considerably. Already intangibles such as travel and ticketing services,21 software, entertainment (on-line gambling, games, and music), insurance and brokerage services, real estate services, banking, information services, legal services, and increasingly health-care, education and government services are appearing on the Internet. This trend will no doubt continue to increase, both in number and diversity of services that become available.

It is beyond the scope of this article to examine in detail the many challenges to consumption taxes.22 However, there are two final points worth mentioning in relation to the application of a VAT/GST in an electronic commerce world:

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22 A good discussion of the issues can be found in the OECD, above n 16, 15.
i) Tax administrators will experience three main problems in relation to the application of VAT/GST rules, particularly as they may apply to international services:

- Ascertaining *when* a transaction occurs;
- Determining *where* the *place of supply* is; and
- Attaching a *value* to the transaction: that is, what would be the consideration applicable to the transaction.

ii) For most businesses, VAT/GST is not a real cost but normally flows through to the final customer who ultimately bears the economic burden of VAT/GST. However, for some businesses that are exempt from VAT/GST, consumption taxes can be a real cost as they may not be able to claim a credit for VAT/GST charged on their business inputs. A good example of this is businesses that operate in the financial sector, such as banks. As banks cannot recover fully the VAT/GST normally charged on their business expenditure, they may look to the Internet to try to achieve real cost savings. As an example, banks may try to avoid VAT/GST by seeking out non-resident suppliers that have no business or other fixed establishment within Australia. Such businesses could then establish by contractual arrangements an "artificial" source of supply outside Australia, thereby avoiding VAT/GST. This type of arrangement would undermine the "place of supply" rules that are a feature of traditional VAT/GST systems.

Hence, the advent of electronic commerce not only has implications for the current WST system but will have implications for the VAT/GST system when it becomes operational.

1.3.6 Impact of Electronic Commerce on Customs Procedures

To assess the impact of electronic commerce on Customs procedures, it is necessary to distinguish between "on-line" supplies and "off-line" supplies. Activities involving international mail-order transactions of goods will, in principle, continue to be dealt with by the Customs authorities at the point of importation with regard to the collection of both Customs duties and VAT/GST as appropriate. In other words, for the off-line supply of goods and services via the Internet, no new problems are presented to VAT/GST authorities, other than the significant increase in the number of transactions that can be expected. This in turn raises a question mark over the ability of Customs authorities to be able to cope with the resulting demand.

In this regard, three issues need to be considered:

i) More resources will need to be directed to Customs authorities to ensure they can cope with the expected increase in the volume of transactions consequent upon electronic commerce.

ii) It is understood that the ongoing review of the Kyoto Convention23 by the World Customs Organisation ("WCO") was presented to the WCO Council in June 1999. At this forum, some options to deal with the streamlining and simplifying of Customs clearance procedures was suggested in a common effort toward achieving the full potential of a global market place for consumers.

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iii) A review of the customs duty and sales tax-free limit (currently $50) needs serious consideration. Certainly, the OECD has indicated that such a review is appropriate in the context of the global marketplace.24 The Joint Committee of Public Accounts and Audit has recommended that the current $50 limit should remain, pending a survey being conducted by the Government, which may validate a change of this value to $150.25

By contrast, the supply of "on-line" activities in the form of digitised information poses a serious challenge to the current "place of supply" rules contained in most VAT/GST systems. This in turn creates a real possibility of either no taxation or double taxation being levied in an environment where supplies can be made without the supplier having any form of physical presence.

In examining the overseas experience, the United States has stated that:

The Internet [should] be declared a tariff-free environment whenever it is used to deliver products or services.26

The US believes that this concept of a "duty-free" zone should be limited to goods or services delivered electronically. Thus, if a customer downloads some software from the Internet, the transaction should be free from any customs duties. The reasoning here is that in the case of software, tariffs are only imposed on the value of the media (for example, the floppy disk) and not the value of the software itself.

Therefore, if the floppy disk disappears through an electronic transaction, then there is no longer a transaction to which tariffs could be applied.

However, when physical goods are ordered over the Internet and delivered through conventional means, such as a mail-order sale of shoes, then the transaction should be subject to any generally applicable duties, as if the goods had been ordered via the telephone or by mail.

The US approach therefore recognises the distinction between "on-line" and "off-line" supplies and the policy stance taken seems reasonable and contains nothing that would limit the application of VAT/GST (as appropriate) in respect of importations of relevant goods and services.

1.3.7 Disintermediation Will Remove Convenient "Taxing Points"

One of the far-reaching consequences that electronic commerce is expected to have is the elimination of "middle-men," which has been described as disintermediation. The potential impact of disintermediation can be understood by two recent examples.

The first example is that of a company called "Daisytek" that has enjoyed massive cost and time savings through its "SOLOnet" electronic commerce network by adopting a business practice known as "drop-shipping" - where the product is shipped direct from the manufacturer to the customer, thereby by-passing the distributor.

"Amway" has also experienced similar benefits by establishing its "Electronic Link via Internet Services" Internet site. Big savings have been achieved in ordering electronically, where it has been reported that an electronic order can save up to $3 per transaction, which amounts to a considerable savings given about 700,000 orders are placed a year.27 Other benefits have included provision of on-line information including catalogues and full integration into Amway's back-end systems, which include finance, ordering, inventory and distribution.28

24 See OECD, above n 7, 22.
25 The Joint Committee of Public Accounts and Audit, Report 360 - Internet Commerce: To Buy or Not to Buy?, May 1998, 148-149.
26 Clinton Administration, A Framework for Electronic Commerce, 1 July 1997, [www.iitf.nist.gov/eleccomm/ecommm.htm]; also see [www.whitehouse.gov/WH/New/Commerce/].
27 As reported in an article by M Banaghan, "'Elvis' is King of the Amway Revolution" 7 September 1998 Business Review Weekly, 60.
28 Ibid.
Also, the importance of the potential savings in transaction costs through disintermediation cannot be overlooked. For instance, one estimate places the cost of buying software over the Internet at $0.20-$0.50 per transaction as opposed to $5 for a telephone order and $15 for a traditional retailer.\(^{29}\)

Disintermediation will lead to a diminished role of intermediaries, such as banks and similar institutions. Banks and other financial institutions have been traditional intermediaries for the ATO and in that role have collected taxes such as withholding taxes on behalf of the ATO. If consumers become able to by-pass these intermediaries, the result will be that the ATO will no longer be able to rely on them to collect withholding taxes, which may therefore become less viable sources of revenue for the Government.

Extending the analysis, the elimination of "middle-men" could therefore force the ATO to collect smaller amounts of revenue from a larger number of taxpayers. This would be undesirable, in that it will increase the administrative and compliance costs of the taxation system.

Apart from removing convenient taxing points, disintermediation could lead to a transformation of traditional banking systems, due to the expected availability of a large number of banking facilities on the Internet, many of whom would operate in an off-shore environment and some in tax havens.

This raises other concerns. Should the Reserve Bank lose control of even a portion of the money supply through pervasive electronic cash systems, then this could place Australia's current transaction reporting regime in jeopardy.\(^{30}\) The Financial Transaction Reports Act 1988 (Cth) ("FTRA") relies on the ability of financial intermediaries, such as banks, to identify suspicious transactions as well as those over certain prescribed limits.

Studies have shown that e-cash, combined with smart card technology:

Could be used to smuggle currency in an out of countries in violation of those [country's] laws. It can also be used to transact normal business without the knowledge of the authorities, which could make it very useful to the "underground economy."\(^{31}\)

This would create a need for some very creative and determined work on the part of AUSTRAC to keep ahead of the money launderers.

The issue of non-bank involvement in the provision of electronic purse services may require regulatory intervention to ensure that only banks be allowed to issue electronic purses.\(^{32}\) This is because banks and similar financial institutions would need to follow the standard requirements of identification and reporting. Non-bank institutions, on the other hand, are subject to fewer regulatory requirements and examinations, making them potentially more susceptible to money laundering activities.

1.3.8 Tax Havens and Off-shore Banking Facilities Will Become More Accessible

Tax havens and offshore financial facilities, once the domain of the rich, will soon be within the reach of the "average" taxpayer. Already a number of tax havens are offering numbered and coded bank accounts, combined with services such as on-line international money transfers as other payment options.

Whilst the principles which govern offshore banking are similar to those which govern traditional banking, the ways in which banking over the Internet may operate in the future will make a crucial difference to the ability of the ATO to counteract international tax evasion and avoidance. Internet banking will offer an ease of

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\(^{32}\) See Australian Institute of Criminology, above n 30, 24.
access, an immediacy of transferability of money, a degree of anonymity, and low transaction costs, which is not available today. If these features can be combined with well run off-shore institutions in circumstances that provide security, one can expect that a much wider group of consumers will be attracted to electronic commerce.

In a commercial context, the capital of a business can in this way be passed thousands of times through tax havens, in some cases on economic grounds, and finally deposited in its own accounts once it is perfectly clean and backed by a completely lawful activity.\(^{33}\)

In other words, taxpayers could try to take improper advantage of the globalisation of the international financial system and the fact that these systems operate across multiple jurisdictions, providing easy access and security.

Strategies such as this will make it difficult and costly for the ATO to follow their transactions. As Neil Warren has noted:

For tax evasion to be successful, the complicity of countries prepared to set themselves up as tax havens is fundamental. This complicity must extend to providing a low or zero tax regime for all internet commerce. This must extend to internet businesses and internet banks which deal with internet commercial transactions. The banking system has an important role in facilitating the laundering of any profits made back into the country where the real owner of the commercial website resides. While tax havens have always been with us, what is different now is that the internet makes them accessible to the masses. With bank secrecy ensured in the tax haven, everyone has the potential to participate in large scale tax evasion.\(^{34}\) (emphasis added).

1.3.9 A Cashless Society?

With the further development of electronic money technologies such as e-cash, the future of money itself as a form of payment could be in doubt. Cyberpayments\(^ {35}\) are quickly emerging as an innovative mechanism for conducting financial transactions.

The advantages of these types of systems include:

i) When transactions occur, either through the Internet or through use of so-called "smart cards", they will provide a speedy, convenient, secure, and anonymous method of transferring monetary value. Because of the anonymity associated with such cards, it may be necessary to consider limiting the use of these cards to low-value transactions to curtail any potential abuse that may be associated with such a facility.

ii) E-cash systems can be used over networks, such as the Internet. Real time e-cash therefore closely emulates paper money, in that it provides person-to-person payments, may have no audit trail and no interchange.

It is recognised that all of these systems are still in their infancy and there are no guarantees that they will meet with market acceptance. Nevertheless, a number of e-cash vendors (including large organisations such as "Mondex") are confident that their products will eventually displace cash as the principal method of payment.

So what are the risks associated with these emerging forms of payment?

At present, tax authorities can request the production of physical records, such as bank statements and other data when it conducts audits of taxpayers.

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\(^ {33}\) Ibid 19.


\(^ {35}\) Cyberpayments refer to financial payments and transfers of monetary value conducted either over the Internet and/or through the use of so-called "smart cards".
By contrast, in the electronic commerce world, there will be two types of systems governing cash - "accounted" and "unaccounted" systems.

Accounted systems provide many of the safeguards currently available through physical records such as bank statements and accordingly, there will be no great changes experienced with these systems. However, unaccounted systems pose significant risks. The problem with unaccounted systems lies in the fact that such transfers would leave no physical record, and when instantaneous transfers of money become a reality, there will be no time interval between purchase and supply making it difficult to establish an audit trail of the transaction.

So while we remain in a society where large banks, cash and paper still loom large, transactions are not difficult to verify. In future, however, audit trails may be more difficult to find, especially those associated with unaccounted systems.

Accordingly, the ATO should ensure that electronic payment system providers operate their systems in a way that enables the flow of funds to be properly accounted for, consistent with current laws that apply to the physical world. Careful consideration will need to be given to the applicability of current laws to facilitate the safeguards mentioned above. In particular, governments will need to "encourage" e-cash providers to adopt accounted systems to provide a ready audit trail. This encouragement may ultimately only be possible through changes to banking and taxation laws to ensure that these new systems of cash can be properly accounted for, consistent with laws that presently apply to the physical world.

1.3.10 Income Tax Concepts: Some of the Challenges

Many issues arising in relation to the administration of Australia's taxation system have already been identified, along with the issues arising for VAT/GST systems and Customs procedures.

The scope of this article is to examine the impact of tax havens, bank secrecy laws and electronic commerce on the administration of the Australian taxation system by the ATO. As such, it is beyond the scope of this analysis to examine in detail the many issues arising for specific concepts that are contained within the income tax law.

Nevertheless, it is useful to briefly summarise some of the issues that electronic commerce raises in relation to these concepts.

i) Tax Treaties

The issues under this heading may be summarised as follows:

- the definition of when a permanent establishment exists and what profits should be attributed to it;
- the characterisation of income, particularly as regards digitised information and the definition of royalties; and
- the application of special rules, found in some tax treaties, dealing with income from services.

ii) Source and Residence Taxation

Traditional concepts of source-based taxation rely on there being a strong connection between an economic activity and a specific location.

Given that technological developments may make the location and identity of an entity difficult to determine and easily moveable, the implications for source concepts become apparent.

Likewise, traditional residency concepts are based on concepts such as physical presence,
incorporation and place of central or effective control. However, technology can make management and control less location-specific. For example, by holding company board meetings via a video-conference in a chosen country, it may be easy to manipulate the rules governing central management and control and thereby, the residency of the company. Thus, the implications for residency need to be considered.

iii) Transfer Pricing

While electronic commerce may not necessarily present any unique problems for transfer pricing, the growth of electronic commerce will be likely to make some of the transfer pricing problems more common. Some of the issues that need thought include:

- possible difficulties in applying the 1995 OECD Transfer Pricing Guidelines;
- the likely difficulties in determining profits of enterprises where a high level of "integration" within businesses (especially multinational enterprises) will be possible consequent upon electronic commerce; and
- the likely difficulties in identifying, tracing, verifying and quantifying transactions in highly integrated enterprises.

1.4 Conclusions

Even if the challenges outlined above only erode the fringes of the tax system, the impact could be considerable, because the public sector is inherently inflexible and dependent on taxes to fund political commitments given by governments. Consider the following example:

France collects about 50 per cent of its GDP in taxes. If it were to lose 10 per cent or so of that (about 5 per cent of GDP), its budget deficit would have to double, or else, to keep public spending stable, funding for health would be halved.\(^\text{38}\)

In other words, a relatively small cut in the tax take could leave politicians with painful choices.

2. THE OPPORTUNITIES

2.1 Light at the End of the Tunnel

Many of the challenges covered in the previous section of this article do not really pose any new problems, but they do give rise to greater complications due to increased volumes and a change in the way transactions will be handled once electronic commerce is established.

However, new technologies are not to be totally feared, for they may in fact provide solutions to some of these problems. For example, technologies such as "digital certificates" can make it possible to verify the identity of an on-line counterparty and "digital notarisation" can make it possible to verify that electronic records have not been altered.\(^\text{39}\)

Thus, it is recommended that one strategy to deal with these challenges is to continue to study these and other emerging technologies, in order to determine whether and to what extent they can assist in alleviating some of the tax administration issues posed by electronic commerce. The issue of the new technology itself providing a solution to some of the challenges created by electronic commerce will be returned to in Part 3 of the article.

Whilst electronic commerce presents many challenges, it must be understood that there are many opportunities offered by these new technologies as well. For example, the ATO will be able to improve its operations by using improved communication facilities. Already a number of tax authorities have electronic data interchange ("EDI") programs that are making their operations more efficient, improving the quality and timeliness of service to taxpayers.\(^\text{40}\)

\(^{38}\) See Leadbetter, above n 13, 9.
\(^{39}\) See OECD, above n 16, 12.
\(^{40}\) Ibid 14.
Electronic data interchange delivers benefits on both sides of the tax ledger by facilitating faster processing, quicker refunds, timely updating of clients' accounts, improved productivity, as well as achieving real savings in time (and also paper) for both taxpayers and the ATO.

New technologies provide the ATO with opportunities for better taxpayer service (for example, by providing information via the Internet), as well as ways to reduce administrative and taxpayer compliance costs and to enhance voluntary compliance. New technologies may help the ATO to reduce administrative costs by:

i) offering lower cost methods of processing information;

ii) allowing further automation of periodic processes, such as payments; and

iii) reducing physical storage costs.

New technologies also offer opportunities to streamline and simplify the process of interacting with the ATO (for example, by electronic lodgment services) and in doing so, the burden of tax compliance and administrative costs can be reduced.

Already in the area of income taxes, a number of countries (for example, Australia, Canada, Denmark, The Netherlands and the US) have implemented some of the following initiatives.

2.1.1 Electronic Funds Transfer

Electronic Funds Transfer ("EFT") systems can replace cheques as the usual method of issuing payments. Direct deposit has a number of advantages over traditional methods of payment, including offering clients a safe, convenient, dependable, and time-saving way of receiving payments, and at the same time saving the Government money through reduced fees and postage. In Australia, taxpayers can also have their income tax refunds deposited directly into their nominated bank account.

2.1.2 Electronic Lodgement Service ("ELS")

Tax returns can already be lodged electronically in Australia by floppy disk and modem. The ATO is also continuing its successful "e-tax" pilot on-line and it can be expected that lodgement by Internet is the next logical step of the use of technology in this context. The advantages of using ELS includes accuracy of tax data, reduced cost to the public and to the ATO, reduced paper use and fast processing of returns - most returns issue in Australia within 14 days of electronic lodgement. To satisfy security concerns, an encryption device is used to ensure that tax information remains confidential.

2.1.3 Automated Payroll Deductions

Tax administrations embracing electronic commerce will be able to accept payroll deductions electronically from any employer who wants to send them that way. This process eliminates the need for employers to file tapes or paper.

2.1.4 Customs Processes

EDI systems may be used to streamline the customs commercial process (for example, the recent Canada-United States Accord on the shared border arrangements). This will become more important as the expected increase in the volume of transactions, due to the growth of electronic commerce, is experienced.

2.1.5 Improved Exchange of Information

Intranet networks may create new possibilities for tax authorities to exchange information in a more timely and secure way. Already the OECD has developed an OECD Standard Management Format for automatic exchange of information and its work is advancing on developing an

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41 See generally OECD, above n 7, 9.
42 Ibid.
43 Some of the initiatives noted have been based on and adapted from OECD, above n 16, 14.
EDIFACT ("Electronic Data Interchange for Administration, Commerce and Transport") standard for Electronic Exchange of Tax Information. In the field of consumption taxes, the OECD is continuing its work toward developing better systems of international cooperation and means for exchanges of information. This type of facility, once fully developed, will be extremely useful and important to facilitate the sharing of information between revenue authorities.

2.1.6 ATOassist

The ATO has already launched its "ATOassist" web site designed to provide information on a wide range of taxation matters, as well as media releases, speeches and taxation rulings and determinations. Special categories exist for Individuals, Businesses and Students. An "e-tax" TaxPack is also available on-line.

For businesses, added features include ATO forms and a downloadable form filler, to enable businesses to download, complete and then lodge these forms with the ATO. A logical extension to this facility will be the capability to lodge the forms electronically, via the Internet, thereby reducing transaction and information processing costs.

A refinement to ATOassist may be to include advice to common questions, similar to the "Frequently Asked Questions" feature that is found on many Internet sites. This would benefit both the ATO by reducing costs and taxpayers by being able to access this information quicker than by the mail.

At the time of writing, it was understood that the ATO planned to make available to the public, parts of its databases by the end of 1998 which is now incorporated in the ATO website at [www.ato.gov.au].

The ATO has so far taken a commendable approach to utilising electronic commerce to better deliver its service. Consideration should be given to two other initiatives that could be introduced by the ATO to further utilise the opportunities afforded by new technologies:

i) Greater use of email by the ATO

Apart from offering the prospect of faster delivery and convenience, where a taxpayer has an email address this could be used to deliver Revenue authority mail, avoiding the cost and inconvenience of mis-directed mail.45

ii) A single registration number

A single registration number for a range of government services is a sensible use of technology to avoid duplication of paperwork for initial registration and for other events such as change of address notifications.46 It has already been noted that both the Coalition Government and the Opposition Labor Party in Australia proposed to introduce an ABN that would provide the opportunity to realise this possibility.

2.2 Conclusions

In conclusion, the ATO must remain committed to the effective utilisation of technology, not only to improve the service it provides to taxpayers but also, by making effective use of both existing and emerging technologies, administrative and compliance costs can be reduced.

Further, by being a leader in the use of technology, the ATO will gain a "hands-on" understanding of new developments and how they can be used by the ATO to better administer the taxation system. By exploring and understanding the technologies, the ATO will be in a position to comprehend the risks but also, and perhaps more importantly, appreciate the positive possibilities and potential that new technologies can deliver to assist with its administration of the Australian taxation system.

45 See OECD, above n 7, 10.
3. THE SOLUTIONS

3.1 A Journey Into the Unknown

The most promising words ever written on the maps of human knowledge are *terra incognita* – unknown territory. "(emphasis added)

This quote provides a useful introduction to this part of the article in that it encapsulates one of the biggest challenges and tensions facing electronic commerce. That is the inherent tension that exists between the need to move quickly to establish a stable, conducive framework to allow electronic commerce to develop and the fact that many aspects of electronic commerce are still just embryonic and need to mature before firm policies are established. However, while it is difficult to predict the policy needs in a field that is not yet mature, there is nevertheless a global consensus that all parties need to act quickly to create a certain and conducive environment to allow electronic commerce to develop to its full potential:

"The value ... will be measured by the solutions that are found, not just the barriers identified." (emphasis added)

Discussion in this article thus far has been on what the challenges and opportunities provided by electronic commerce could be, but now the focus will be on the more relevant issue of identifying solutions to the challenges. This will involve a consideration of what regulatory and other frameworks will be necessary to harness the full potential of electronic commerce and provide the many promised opportunities that this new medium can offer.

3.2 Where Should the Focus Be?

Apart from addressing what the focus of solutions should be, it will also be necessary to determine where the focus of solutions should be directed. In addressing this issue, it is instructive to reflect on some statistics.

As an introductory point, it can be said that the current electronic commerce market is fairly small in comparison to other types of commerce. At the same time, most analysts predict that it will grow by a factor of ten by the year 2000 to about the size of mail-order catalogue sales in the United States.

Thus, in the short-run, electronic commerce is likely to remain a relatively minor part of most economies, with most focus being on business-to-business markets:

"The consumer driven electronic commerce is not going to be the most significant factor in this equation. Our projections are that, in the next two to three years, up to 80 per cent of electronic commerce will simply be business to business commerce. It will be the transactions of business between suppliers, retailers, wholesalers and distributors in exactly the same kind of format they are using now, but with a global market. They can transact it much more simply and straightforwardly over the Internet, whether it is a private Internet or whether it is a public Internet." (emphasis added)

In the long-run, electronic commerce should succeed in moving economic activity closer to some of the ideals of perfect competition; low transaction costs, low barriers to entry, and improved access to information for the

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48 Excerpt from address by M Vuoria, Secretary-General of the Ministry of Trade and Industry (Finland) at the International Conference *Dismantling the Barriers to Global Electronic Commerce*, held in Turku, Finland between 19-21 November 1997.

49 M Ward, Internet Industry Association, Transcript of presentation to the Joint Committee of Public Accounts and Audit at a public hearing convened in Sydney to consider Internet Commerce, 5 November 1997, 170.
This is when business-to-consumer electronic commerce can be expected to rapidly accelerate in its growth.

These statistics tend to suggest that the most pressing solutions need to be found in the business-to-business environment, rather than the business-to-consumer environment. However, it is considered essential that solutions not only focus on one sector of the electronic commerce market, but the regulatory, legal and institutional framework that is established should accommodate all sectors, present and predicted. It is only then that a clear, transparent and conducive environment can be established to continue the growth experienced already in the business-to-business sector, while facilitating the expected growth in other sectors, including the business-to-consumer sector.

3.3 Is a Global Solution Needed?

Electronic commerce has no geographical boundaries and currently few legal ones - it is against this background that solutions need to be developed. Given the global nature of electronic commerce, it is considered that any solutions therefore need to also be global. Indeed, there is wide consensus that no single country acting alone can resolve all of the issues and it will necessarily involve considerable international cooperation between stakeholders to achieve solutions that are clear, consistent and certain.

Further, the impact of electronic commerce is not only global in its geography but also far-reaching in the rules that impact upon it. It is not just taxation or consumer protection laws that need to be considered, but also other areas such as privacy, consumer protection laws and intellectual property rights need to be incorporated as essential elements of any international framework that is established.

Finally, all of these challenges will not necessarily yield to one solution: electronic commerce may be global in nature, but finding universal solutions for all the challenges it creates will not always be possible (or feasible). Some solutions may be technology-based; others may necessarily involve government action while industry self-regulation may provide ways of dealing with some of the other problems. Accordingly, flexibility needs to be inherent in any policy-making process that is adopted. Consistent with this thinking, this article aims to consider a range of possible solutions and policy responses to deal with the issues identified earlier. For it is only by adopting a process of thoroughly considering what all the options could be that a better awareness and appreciation of optimal solutions may be achieved.

3.4 A Policy Perspective From Overseas

In looking at the range of potential solutions to the challenges created by electronic commerce, it is instructive to briefly examine the perspective from overseas as these experiences may provide some useful insights for the direction that the Australian Government should take in determining its policy in this area.

Much work directed at expediting the development of electronic commerce is currently taking place throughout the world, including work carried out in the United States, Europe and Japan, where studies have been directed at looking at the basic framework of policy in the area of electronic commerce.

A brief summary of the approaches taken by these countries follows.

3.4.1 United States

In its electronic commerce initiative, A Framework for Global Electronic Commerce, the United States government presents five principles to guide the strategy in establishing a desirable framework for electronic commerce.52

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51 See generally Clinton Administration, above n 26, [www.whitehouse.gov/WH/New/Commerce/].
52 For more detail on these five principles see [www.whitehouse.gov/WH/New/Commerce/read.html].
i) The private sector should lead;

ii) Governments should avoid undue restrictions on electronic commerce - that is, the market should drive events, not regulation;

iii) Where governmental involvement is needed, its aim should be to support and enforce a predictable, minimalist, consistent and simple legal environment for commerce;

iv) Governments should recognise the unique qualities of the Internet; and

v) Electronic Commerce over the Internet should be facilitated on a global basis.

3.4.2 European Initiatives

The sentiments of the European Commission are similar. In its Report, A European Initiative in Electronic Commerce ("the Initiative"),53 the European Commission makes the following observations:54

i) In order to allow for electronic commerce operators to reap the full benefits of the single market, it is essential to avoid regulatory inconsistencies and to ensure that a coherent legal and regulatory framework for electronic commerce at the European Union ("EU") level exists.

ii) Considering the essentially transnational nature of electronic commerce, global consensus needs to be achieved. The Commission will actively pursue international dialogue, involving government and industry, in the appropriate multilateral forums, as well as bilaterally with its main trading partners.

iii) The political objective of the Commission is to implement this coherent framework of technological, regulatory and support actions, as a matter of urgency, by the year 2000.

Action-oriented proposals for advancing electronic commerce that are directed at creating a favourable regulatory framework and promoting a favourable business environment are contained in the Initiative. One such example is to reinforce international dialogue in the appropriate multilateral and bilateral forums to achieve an adequate global regulatory framework for electronic commerce, in particular in data security, data protection, intellectual property rights, and taxation.55

3.4.3 Japan

Japan has also undertaken work in this area, releasing its two main initiatives, Towards the Age of the Digital Economy-For Rapid Progress in the Japanese Economy and World Economic Growth in the 21st Century,56 in May 1997 and Vision 21 for Info-communications,57 in June 1997.

These initiatives also proceed along similar lines of both the United States and European Commission's approaches as noted above.

3.4.4 Conclusions

These overseas experiences are useful in that they illustrate common themes being put forward by various countries: the need for global solutions to electronic commerce; the need for continued international cooperation between countries; the need to establish a coordinated strategy to deal with the many issues within an appropriate framework and the need for coherent and clear rules that are consistent with the technology.

Finally, consensus seems to exist between countries that to ensure the success of creating the necessary framework for electronic commerce to develop within, a global partnership between the private sector, governments and international organisations is going to be necessary.

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53 See [www.cordis.lu/esprit/src/ecomcom.htm].
54 See [www.cordis.lu/esprit/src/ecomcomx.htm].
55 See [www.cordis.lu/esprit/src/ecomcomc.htm].
56 See [www.miti.go.jp/intro-e/a228101e.html].
57 See [www.mpt.go.jp/policyreports/english/telecouncil/v21-9706/info21-sum-index.html].
All these suggestions, while eminently sensible, may nevertheless represent perfect solutions in an imperfect world. Nevertheless, a useful starting point in examining the solution to any problem is to start with what may be the optimal and then move to the feasible. Thus, in examining the range of possible solutions and policy responses, the discussion will start from the ideal and then move to look at other solutions.

Also, a useful benchmark against which one needs to evaluate these solutions needs to be established. Accordingly, the next section of the article looks at the characteristics that an ideal system of reform should display and then the various solutions that will be put forward can be evaluated in light of these ideal features.

### 3.5 The Essential Criteria for Any Reform Proposal

The desirable criteria that any reform proposal should contain may be summarised as follows:

- **i)** The system should be **equitable**. Taxpayers in similar situations that carry out similar transactions should be taxed in the same way.

- **ii)** The system should be **simple**. Administrative costs for the tax authorities and compliance costs for taxpayers should be minimised as far as possible.

- **iii)** The rules should provide **certainty** for the taxpayer so that he or she knows in advance of a transaction what will be the tax consequences. Taxpayers should know what is to be taxed and when and where the tax is to be accounted for.

- **iv)** Any system adopted should be **effective**. It should produce the right amount of tax at the right time. The potential for evasion and avoidance should be minimised.

- **v)** **Economic distortions should be avoided.** Corporate decision-makers should be motivated by commercial rather than tax considerations. This applies to both domestic and international transactions.

- **vi)** The systems need to be sufficiently **flexible and dynamic** to ensure that the tax rules keep pace with technological and commercial developments.

- **vii)** Any tax arrangements adopted domestically and any changes to existing international taxation principles should be structured to ensure a **fair sharing of the tax base** between countries.

- **viii)** Initially the focus should be on **adapting existing tax arrangements** to the world of electronic commerce rather than examining the introduction of new forms of taxation.

Having examined the overseas experience and identified the ideal characteristics that any reform proposal should contain, discussion will now focus on specific proposals to deal with some of the challenges posed by tax havens, bank secrecy laws and electronic commerce, along with an evaluation of them in light of the above criteria.

### 3.6 Proposal 1: A Global Partnership

#### 3.6.1 The Concept

From the preceding discussion, it is clear that given the global nature of electronic commerce and the mutual desire of countries to have laws that are clear, consistent, coherent and coordinated, the solutions to many of the challenges created by electronic commerce ideally lie in discussing the issues and reaching consensus within a cooperative framework as represented below: that is, as an "international partnership" between the private sector, governments and international organisations.

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58 See OECD, above n 16, 32-33.
Given that electronic commerce stretches beyond the province of individual countries, this limits the ability of any one country unilaterally being able to dictate policy in this area. While the identification of potential solutions may be elusive, unless some type of "partnership" approach is taken, it will be even harder to develop and implement them in a coherent fashion.

Thus, countries such as Australia must resist trying to assert their own rules in isolation of other countries. This would just lead to fragmentation, confusion and an ineffective outcome that would severely limit any potential gains that electronic commerce may offer.

This partnership between the private sector, governments and international organisations could effectively create a "virtual" international organisation in which the respective strengths of the partners could be brought together while avoiding the undesirable consequences that may flow by formally creating a new supervisory or regulatory authority.

In considering how such a partnership may operate, one may liken its modus operandi to how we govern ourselves in a federation, such as Australia. That is, in our federal system of government, various government departments and ministries come together with the private sector in forging national or regional policies in many areas. A translation of this concept to the international level through the agency of a global partnership in lieu of a federal government may be appropriate to deal with electronic commerce.

Nevertheless, it must be said that the approach as outlined above represents what many would regard as being a utopian solution that may not be feasible in the cold light of day. The political and international realities of this proposal may mean that it is not the panacea to confront the challenges posed by electronic commerce. Indeed, even if such a proposal was to succeed, Australia's comparatively weak position in the world scene, given its small population base and economy, may mean that it would not have a great say in such a global partnership of the kind contemplated by this proposal.

Still, if it is accepted that an international partnership of the type described above is a starting point to the way forward, the next issues to be determined are: (i) agreement on the framework within which the partners need to operate and (ii) establishing the roles of the partners.

3.6.2 The Necessary Framework

Assuming that a global partnership proves feasible, it is necessary to consider what the objectives such a virtual international organisation should be.

Three goals that would be important are:

i) to coordinate the various stakeholders to ensure that a true dialogue between the partners can be established;

ii) to clarify who is responsible for doing what and by when; and

iii) to ensure that consistency among different solutions is achieved.
These objectives need to be achieved within an established framework. It has been suggested that there are three vital elements to this framework:

... three elements — principles, agreement on the approach to devising solutions to particular problems and assigning the development and implementation of solutions to various organisations — provide a loose framework for dismantling the barriers to global electronic commerce ...

(emphasis added)

These main features of these three elements and the general policy approach that could be adopted may be summarised as follows:

i) here is a need to develop an effective consensus among the private sector, governments and consumers on principles that will guide the formation and implementation of policies relating to electronic commerce. These principles were discussed in a general sense at the Turku conference that was held in Finland in November 1997 and the ministerial level conference in Ottawa, Canada held in October 1998, and provided an opportunity for countries to advance this process further.

ii) An agreement on the basic policy approach to be adopted in devising solutions needs to be reached between the partners. A suggested approach here is for stakeholders (for example, OECD) to bring forward an issue or problem (for example, a taxation issue) for consideration by the global partnership. Consideration of the problem/issue should initially be in light of existing laws (if any) in the area under consideration. If it is agreed that existing laws are adequate to embrace the challenge, it may be that nothing needs to be done. On the other hand, if it is considered that existing laws are either deficient in some way to deal with the problem or simply do not cover the problem at all, then a policy position must be reached. Solutions to problems will depend largely on the precise nature of the individual problem and flexibility of approach will be needed to ensure the appropriate solution is put forward for the relevant problem: it may be self-regulation or it may be a technology-based solution or it may even involve a binding international protocol, treaty or code with enforcement provisions of some kind. However, the overriding consideration in this process must be that all parties should strive for consensus to achieve the goals of consistency, clarity and coherence in arriving at a solution.

iii) There also needs to be agreement reached on the respective roles of the partners in this process and which organisations will be best placed to deal with and implement solutions that would be consistent with the approach above.

The issues outlined above will be examined in more detail below, when the roles of the partners are considered. At this point, it is useful to mention that the purpose of this principle is to once again promote coherence in policy making while avoiding duplication. Nevertheless, it does not necessarily follow that one solution will emerge from one organisation: depending on the nature of the problem, it may be better to consider and implement many solutions.

Finally, the framework should not be binding or exclusionary: it should instead be a first step in achieving some coherence in the development of solutions. Given that a variety of issues will inevitably be raised in many disparate arenas, the framework should provide for a coordinated approach between partners to avoid duplication and fragmentation in developing policy.

3.6.3 The Roles of the Stakeholders

The stakeholders under this proposal are the private sector, various governments and relevant international organisations. Under this proposal,
the success of electronic commerce will demand an effective partnership between these stakeholders, with the respective roles as outlined below.

3.6.3.1 The Role of the Private Sector

Much of the spectacular growth experienced in electronic commerce can be attributed to the private sector. The continued growth of electronic commerce will largely depend on this leadership to continue - that is, the private sector should lead the way in the world of electronic commerce. Certainly, the consensus of overseas experience appears to accord with this policy stance (see discussion above).

Private sector leadership will be possible in a number of areas, including in the development of industry-led solutions to areas needing self-regulation (such as privacy), standards development and ensuring that inter-operability of systems can be achieved. At the same time, for self-regulation to be feasible, the broader public interest must be taken into account and all measures should be transparent.

The role of the private sector in this process will be two-fold: as partner and pathfinder. In its role as partner, the private sector will, with governments and international organisations, need to establish a stable framework for electronic commerce that will create user confidence and trust and thereby lead to the continued growth of electronic commerce. As pathfinder, the private sector needs to continue to be left to invent the technologies and create the necessary environment within which electronic commerce can flourish.

3.6.3.2 The Role of Government

The role of government is best defined as being one that must be coherent and cautious, avoiding the contradictions and confusions that can sometimes arise when different governmental agencies individually assert too vigorously and operate without coordination.62

Governments are faced with a difficult role in trying to balance how to design a framework that adequately protects the tax base without hindering the progress of electronic commerce. In trying to achieve this balance, two questions need answering: "What regulatory impediments need to be removed to promote the development of electronic commerce?" and "What regulatory frameworks are needed to ensure a level-playing field in the world of electronic commerce?"

These questions will not always be easy to answer and competing priorities of different governments will inevitably leave politicians with difficult decisions.

Thus, while it will be the mandate of the private sector to take the electronic world forward, governments will need to play an important supporting role. While the private sector will develop new markets, new products and new businesses, they will need to work in partnership with the government to ensure that a stable framework that creates trust and confidence in the marketplace is achieved.

The coordinating role that governments need to play in this process may be summarised by the following quote:

We cannot afford more than 200 governments on the digital networks if they act in an uncoordinated way, but we also need to have all of them on board in order to govern the networks.63

Apart from its coordinating and supportive role, governments will need to show leadership in using these new technologies to deliver many government services, as well as act as an educator to the broader community to encourage them to embrace electronic commerce.

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62 See Clinton Administration, above n 26.
63 Excerpt from keynote address of T Aakvaag, Chairman of the Business and Industry Advisory Committee (BIAC) at the International Conference Dismantling the Barriers to Global Electronic Commerce, held in Turku, Finland between 19-21 November 1997.
3.6.3.3 The Role of International Organisations

The role of international organisations, such as the OECD, cannot be underestimated if a global partnership is to succeed.

The role of such organisations will be to coordinate the various activities that occur and to bring business and governments together to discuss problems inhibiting electronic commerce and to consider, develop and implement consistent, clear and coherent solutions at the international level.

Already, electronic commerce and the policy issues it raises have been the topic of a number of international meetings raised through the agency of international organisations such as the OECD. These efforts have continued through the ministerial level conference held in October 1998 in Ottawa, Canada, entitled A Borderless World - Realising the Potential of Global Electronic Commerce.

By convening forums of this nature, international organisations can achieve the following outcomes:

(i) An identification and clarification of major policy problems, their potential solutions, and the organisations best placed to develop and implement them.

(ii) The ability to consider initiatives currently in place to ensure that consistency and coordination exists between them and new solutions.

(iii) To act as go-between between business and government in developing a consensus as to how to best cope with emerging issues.

Already arising from the Turku conference held in Finland in November 1997, it became clear that some organisations could play an important role in developing and implementing solutions to specific problems confronting electronic commerce:

UNCITRAL for the revision of commercial law and for digital signature, the World Intellectual Property Organisation (WIPO) for intellectual property rights, the World Wide Web Consortium (W3C) for Internet standards and technological protocols for self-regulatory mechanisms, the World Trade Organisation (WTO) for telecommunications access agreements, and the World Customs Organisation (WCO) for simplifying customs clearance procedures.

Finally, the OECD itself has through its CFA intensified its work in the taxation area by utilising its subsidiary bodies to examine the impact of electronic commerce in their respective areas of competence. In addition to Steering Groups and Special Sessions convened to examine special issues relating to various taxation issues (e.g., consumption taxes), the CFA has established various working parties to deal with the many issues in this area. It has also produced a discussion paper on taxation issues that was presented for discussion at the OECD Government/Business Dialogue on Taxation and Electronic Commerce that was held in Hull, Quebec on 7 October 1998.

3.6.4 Conclusions

In introducing this proposal, it was stated that a partnership at the international level represents a starting point to the way forward in considering possible solutions to the problems presented by electronic commerce. Indeed, it will be critical that the private sector, international organisations

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64 Examples include the G7 Ministerial Conference on the Information Society held in Brussels in February 1995, the Ministerial Conference on Global Information Networks held in Bonn in July 1997, and the three day International Forum on Dismantling the Barriers to Global Electronic Commerce held in Turku, Finland on 19-21 November 1997.

65 See OECD, above n 50, 6.

66 Examples include the following: Working Party No 1, dealing with Double Taxation and Related Questions; Working Party No 2, dealing with Tax Policy Analysis and Tax Statistics; Working Party No 6, dealing with Taxation of MNEs and Working Party No 8, dealing with Tax Avoidance and Evasion.

67 See OECD, above n 7.
and various governments participate in a collegial way to identify problems, consider solutions and discuss approaches to emerging issues relating to electronic commerce.

In evaluating this proposal, it certainly has many desirable features, including being able to achieve policies that would be certain, flexible and most importantly, consistent. It represents an overall policy approach as to the threshold issue of establishing the appropriate framework within which both existing and emerging issues can be considered.

Countries such as Australia may take heart from the apparent consensus that seems to exist among many countries that this is the way forward. The consensus seems to be that the private sector needs to take a lead role, while governments play a supporting minimalist role and international organisations play an important coordinating role in bringing issues forward and considering and implementing solutions to these problems in an international context.

Further, this consensus seems to extend to agreement that the market and industry can solve a lot of the problems, while other issues (such as encryption, taxation, privacy and consumer protection) will need more dialogue before a common view can be reached.

Nevertheless, despite the encouraging features of this proposal, one must consider the realities and ask whether such a solution is feasible, either politically, logistically or economically.

One such reality is the fact that significant areas of "national interest" in terms of trade, job creation and wealth creation divide the major western players - that is, there are significant areas of conflict of interest between these countries. Issues of this nature are well illustrated by the European experience and the current difficulties regarding international tax policy and attempts to harmonise tax systems. This type of conflict of interest would therefore militate against the success of the global partnership contemplated by this proposal.

Another disadvantage of this proposal is that while a virtual organisation has considerable flexibility in that it would be able to provide advisory opinions and recommend actions within a loose framework, such an organisation would have no real power in making authoritative decisions in disputes between its "partners". Thus, each member country would remain the ultimate decision-making power for itself.

This disadvantage suggests that a more formal structure may be needed rather than a "virtual" international organisation to ensure that a greater constraint is placed on strong nations to abide by international obligations. Also, one would have to question the role a country such as Australia would play, given its comparatively weak position in the world scene.

Thus, while this proposal seems attractive it does contain inherent questions that will require countries such as Australia to seek out additional solutions to address the problems created by tax havens, bank secrecy laws and electronic commerce.

3.7 Proposal 2: An Informal Sharing of Information

Consistent with the proposal of creating a global partnership between the private sector, governments and international organisations, is the suggestion that tax administrators should informally share information through their membership to multilateral associations. Already a number of multilateral associations of tax administrators exist.68 These associations provide an opportunity for the discussion of ideas and experiences on tax administration and other technical matters. It is understood that the ATO is a member of several such associations, including the Pacific Association of Tax Administrators, the Commonwealth Association of Tax Administrators, the Group of Four (USA, UK, Germany and France), the Pacific Association of Tax Administration, and the Study Group on Asian Tax Administration and Research.
Administrators, the Study Group on Asian Tax Administration and Research and the OECD Committee on Fiscal Affairs.\(^{69}\)

While these associations are useful forums for the discussion of taxation matters, in the absence of an enforceable treaty or other obligation, secrecy laws would prevent the exchange of information about particular taxpayers at meetings of such associations.\(^{70}\) Nevertheless, continued membership by the ATO to these associations would be a useful supplement to the global partnership contemplated by proposal one.

3.8 Proposal 3: A Multilateral Agreement

3.8.1 A More Realistic Alternative?

The "virtual" international organisation contemplated by proposal one, supplemented by the informal sharing of information contained in proposal two both appear attractive, though it must be stated that the informal nature of both proposals may limit their effectiveness in practice. That is, it may be difficult to maintain sufficient coherence, momentum and genuine commitment in the context of the relatively informal framework that these proposals contemplate.

And it has already been observed that given the global nature of electronic commerce, no single country can effectively deal with the range of problems and challenges of tax havens, bank secrecy laws and electronic commerce unilaterally.

This leaves two other options for consideration: some form of bilateral measure, such as the existing network of double tax treaties, or some type of multilateralism.

3.8.2 The Limitations of Bilateral Measures

Before considering whether a multilateral agreement may be necessary to provide a viable solution to some of the issues that have been identified, it is useful to examine whether the existing network of bilateral treaties can provide some of the answers.

There are currently in excess of 1,500 bilateral tax treaties and the number is growing constantly. Indeed, Australia has entered into a number of DTAs with other countries. These agreements have two basic purposes: the avoidance of international double taxation and the prevention of international tax avoidance and evasion.

In relation to the prevention of international tax avoidance and evasion, each DTA contains a mechanism for administrative assistance via an information exchange article. This provides administrators such as the ATO with the necessary authority and corresponding obligation to cooperate with other tax administrators.

Thus, the exchange of information under Australia's bilateral tax treaties is one information gathering method that the ATO has used to follow the trail of transactions offshore. It must be said that generally these treaties have proven effective only in circumstances involving the routine exchange of information. Concerns about the need for reciprocity and a growing competition for tax dollars have further limited the usefulness of such information exchanges (see previous discussion).

The inherent limitation of DTAs is that they are bilateral in nature and are largely ineffective when dealing with MNEs. Indeed, the ATO's battle with the multinational taxpayer may be likened to the "local under-12s cricket team taking on the Australian national side".

Electronic commerce is leading to a greater level of globalisation and enterprises are able to operate in a truly multilateral fashion with greater ease than ever before. At the same time, electronic commerce will permit a higher level of integration (especially within MNEs), as well as facilitate decentralisation and greater opportunities for global collaborative product development. It is against this background that the existing bilateral

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69 See Woellner et al, above n 3, 175.
70 Ibid.
framework of DTAs must try to operate. However, DTAs are becoming increasingly irrelevant and find themselves completely detached from the multilateral way in which modern commerce operates and will encounter great difficulties when trying to cope with multinational enterprises operating in an environment of electronic commerce.

Specifically, the limitations of DTAs may be summarised as follows.

3.8.2.1 DTAs Cannot Deal Adequately With Simultaneous Audits of Multinationals

The information exchanges that are provided for in DTAs, while useful in a bilateral context, cannot provide a complete picture of the activities of a MNE with transactions that extend beyond the jurisdiction of one country. Thus, many tax authorities have sought to use simultaneous audit programs with treaty partners to assist their efforts when examining MNEs.

Simultaneous audits involve treaty partners jointly carrying out an audit of a taxpayer, particularly a MNE. Selecting a case for audit normally involves taxation authorities examining the scale of operations of the MNE, the extent to which transfer pricing occurs and the utilisation of tax havens.

While the great advantage of simultaneous audits is that they allow for a coordinated audit approach to MNEs, they are limited by secrecy obligations that require information to be exchanged only bilaterally.

A simple example serves to illustrate the problem. If countries A, B and C propose carrying out a multilateral audit, there must be a DTA between A and B, B and C and A and C. It would be insufficient for there to only be a DTA between A and B, and B and C. This is because domestic secrecy provisions would prevent A from disclosing information to C and treaty secrecy provisions would prevent B passing the information received from A onto C, because DTAs do not permit such third party disclosures but only cover bilateral exchanges of information.

This is a severe limitation on the effectiveness of these audits because it means that there must be a DTA with an information exchange article of similar scope between all countries involved for such an audit to succeed.

The clear advantage of a multilateral treaty is that it can overcome this problem by facilitating the required multilateral cooperation between tax administrators at the international level that is needed to effectively deal with MNEs.

3.8.2.2 DTAs Cannot Adequately Cope With Emerging Issues

DTAs also suffer from inflexibility when dealing with emerging issues. The application of the arm's length principle to transactions between related enterprises or different parts of the same organisation illustrates the problem well. At the time the arm's length principle was conceived, it was sensible and practical. Most transactions involved tangible goods, related enterprises in different countries that were relatively autonomous and the volume of trade within transnational corporations or groups was sufficiently limited and of a kind that made it possible to find genuine arm's length prices for comparable transactions.

However, the world is now a very different place, more so with the advent of electronic commerce. Transactions in intangibles are increasing and perhaps dominating over transactions in tangibles (especially as many transactions in goods are accompanied by related transactions in intangibles such as a licence to use patented or copyrighted features of the goods), communications are instantaneous so that the control of the various parts of a transnational corporation or group around the world is feasible.

71 Ibid 199.
and the volume of trade within transnational corporations or groups has grown to the extent where there are many transactions which are unique to that environment.73

For the ATO, these changes mean that enforcement of the arm's length principle has become extremely difficult since actual arm's length comparable prices are frequently not available and various models often involving formula elements of their own have to be adopted. From a theoretical perspective, these changes mean that the arm's length formula has ceased to have any real meaning in many situations involving transnational corporations.74

3.8.2.3 Tax Havens Have Diminished the Value of DTAs

While there is an extensive global network of some 1,500 DTAs, very few are with nations which actively make themselves available for the avoidance of tax which would otherwise have been paid in relatively high tax countries (that is, "classical tax havens").75

Indeed, Australia has no DTAs with such countries. Even if a DTA were to exist with a tax haven country, it rarely overrides the bank and commercial secrecy laws which are characteristic of such nations.76 Countries such as the USA have tried to overcome this problem by providing Caribbean tax havens with economic incentives to encourage them to enter into limited tax treaties focusing on administrative assistance.77 This policy has met with only limited success.78

3.8.2.4 General Limitations of DTAs

Some of the general limitations of DTAs include:79

i) Tax treaties do not require the information to be provided in a specific form, with the result that much of the information received from a foreign jurisdiction is not readily usable by domestic tax authorities.

ii) The tax treaties expressly provide that no disclosure of information is required if disclosure would violate local secrecy laws. Thus, many tax havens do not provide the detailed information requested by the domestic tax authorities and, instead, provide only information that is often public knowledge and substantively inefficient to detect and prosecute tax evasion.

iii) The treaties have allowed "treaty shopping" by residents of non-signatory countries through the easily satisfied residence requirements. These treaty-shopping activities often lead to tax evasion efforts that cannot be discovered since there is no tax treaty under which information can be exchanged.

Other limitations of DTAs include:

i) The scope of most of Australia's DTAs is limited to income and corporation taxes, and any identical or substantially similar taxes. This raises definitional problems. Clearly, Australia's DTAs would not permit the

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73 Ibid.
74 Ibid.
76 See Woellner et al, above n 3, 146.
77 In 1983, The US Congress passed the Caribbean Basin Economic Recovery Act, commonly referred to as the Caribbean Basin Initiative ("CBI"). The aim of the CBI was to encourage the tax havens of the Caribbean to enter into information exchange arrangements with the US being arrangements that were not limited by local bank and commercial secrecy laws. In return, the USA would provide greater economic aid and grant the country "North American area" status for the purpose of US tax. See generally, WM Sharp and BK Steel. "The Caribbean Basin Exchange of Information Draft Agreement - A Technical Analysis". (1985) 19 International Lawyer 949.
78 Of the 27 countries targeted, only four have signed a CBI exchange of information agreement (namely Barbados, Costa Rica, Dominican Republic and Bermuda (in relation to insurance business)) and only the agreement with Barbados is effective. Most of the Caribbean countries appear to believe that the detriment from entering into the exchange of information agreement outweighs the benefit.
exchange of information in relation to the application of an indirect tax, such as sales tax.\textsuperscript{80} It may be arguable that even taxes such as Fringe Benefits Tax may not be covered by our DTAs, as such a tax may not be regarded as one that is \textit{identical or substantially similar} to income tax.

ii) Information that may be exchanged under a DTA is limited to that which is \textit{necessary} for the relevant purpose(s). Again this raises potential definitional problems which could arise if what is necessary is given a strict and narrow interpretation.

\textbf{3.8.2.5 Concepts of Source, Residency and Permanent Establishment}

Quite apart from the problems identified above in relation to the limitations of DTAs in the context of tax administration, their lack of utility is further exposed when one considers the traditional concepts of source, residency and permanent establishment that are entrenched in our DTAs.

Australia, like many other countries, taxes non-residents on income sourced within its jurisdiction. However, source rules were developed at a time when earning income was a more physical activity. Even as originally formulated, it is arguable that the use of categories in source-based taxation has always been weak, but a combination of transaction costs and finite substitutability allowed them to operate with a fair degree of success.

Now that money is earned through less tangible activities, the weaknesses of the old rules have been stretched to the point where they can no longer function effectively. In other words, the argument here is that the old rules have never been perfect and their weaknesses are dramatically exposed due to the difficulties posed by electronic commerce.

These difficulties include a greater mobility of activity, difficulty in identifying the activity, difficulty locating the activity, rapidly changing transactions and activities, and multijurisdictional considerations.

As discussed earlier in the article, individuals and entities engaging in electronic commerce will be able to establish an Internet address in almost any taxing jurisdiction irrespective of the source of their activities.

This in turn will raise concerns about \textit{where} business is transacted electronically, what is the source of that income for taxation purposes and assuming these hurdles can be overcome, which jurisdiction has the right to impose tax on the profits earned by the parties to that transaction?

But even accepting source-based taxation and an ability to classify electronic commerce satisfactorily and thereby identify a source rule, it must be decided what tax treatment applies under the "trade or business" and "permanent establishment" standards contained in our DTAs.

The concept of "permanent establishment" needs to be carefully considered in the context of electronic commerce. Electronic commerce may permit taxpayers to engage in more extensive activities when creating a permanent establishment in a given country than is currently possible.

This raises troublesome questions including:

i) How should the concept of permanent establishment be applied to these developments?

ii) Do the rules require a certain type of physical connection in a less physical world?

iii) Can a web site on a server (or server space) constitute a permanent establishment for tax purposes?

iv) Are there alternatives to the concept of permanent establishment? Is another measure better able to associate electronic commerce's level of connection to a particular jurisdiction?

\textsuperscript{80} See para 5 of the Commentary to Art 26 of the 1977 OECD Model Convention.
There are at least 2 opposing arguments on the permanent establishment issue:

1. The concept can be applied in an e-commerce environment, with appropriate clarifications provided by the OECD, to the definitions of permanent establishment that are contained in the OECD Model Tax Convention. However, such an approach has to be questioned in that electronic commerce is expected to lead to greater multilateralism, yet this approach seeks to deal with this issue in a bilateral way.

2. The concept of physical location has no place in electronic commerce. Therefore, the concept of permanent establishment is rendered irrelevant. Moreover, since location is easily transportable and businesses will operate in a more decentralised way, the concept of permanent establishment will become irrelevant.

It is important not to end up in a situation where enterprises bear no tax anywhere. At the same time, the prospect of multiple layers of tax, based on different source rules must be avoided. Traditionally, problems of double tax have been tackled by double tax treaties (that is, bilaterally).

However, in the new global environment where multilateralism will be common, double tax treaties will not be able to adequately deal with issues presented by electronic commerce.

In considering what to do in response to these challenges, two possibilities may be considered:

(1) Modify existing rules to provide clarification of how they operate in an e-commerce world (OECD approach).

(2) Start with a clean slate and determine rules afresh (idealistic).

The current consensus of opinion and reality is that approach (1) above will be taken, with the result that the current (imperfect) source rules will become more exposed in an e-commerce world. The ultimate result of this course of action may be that governments will tend toward residence-based taxation of electronic commerce because of a perception that it would not be as difficult as source-based taxation.

However, residence-based taxation will also experience difficulties in a world of electronic commerce. Traditional residency concepts are based on criteria like physical presence, personal and economic relations, place of incorporation and place of central management or effective control. Electronic commerce can broaden the range of economic relations a person may have, and can make management and control less location-specific and this will in turn impact upon the traditional concept of residency.

Moreover, with increased globalisation and the expected increase in mobility of capital, electronic commerce will lead to concepts applicable to residence being easily manipulated. Therefore, tests such as the "place of effective management" tie-breaker test contained in the OECD Model Tax Convention and many double tax agreements, and many domestic residence tests such as place of "central management and control" will be easily manipulated in an e-commerce world.

For example, the simple use of videoconferencing technology facilitates board meetings being undertaken simultaneously in more than one jurisdiction. This may make it easier, for example, for a company's place of effective management either existing in more than one location or not capable of being pinpointed to a specific location.

3.8.2.6 Conclusions

Apart from the problems explained above, given that there are over 1,500 DTAs in existence, the prospect of getting any major changes in existing treaties within a reasonable time frame is quite remote.
Professor Richard Vann summed up well the limitations of double tax Treaties based on the 1977 OECD Model Convention when he wrote:

There are three important ways in which the Model is showing its age. It is increasingly inefficient in the sense that it creates biases in economic decisions by firms and governments.

It is increasingly irrelevant in the sense that it fails to deal with many emerging problems in the international area. And it is increasingly inflexible (for most but not all countries) because of the extensive bilateral treaty network that it has spawned. (emphasis added)\(^81\)

An extensive series of similar bilateral treaties is much more difficult to alter in fundamentals than a multilateral treaty - unless the alteration is pursued multilaterally - which in the tax context is a major advantage of multilateral treaties over bilateral treaties.\(^82\)

3.8.3 The Perceived Benefits of a Multilateral Treaty

Given the many limitations associated with unilateral and bilateral means (such as double tax treaties) of gathering information, serious consideration needs to be given to the possibility of implementing some form of multilateral agreement in the area of tax administration.

Multilateral income tax treaties are attractive in that information gathering and tax collection procedures could be enhanced and most importantly, the exchange of information under a multilateral income tax treaty could provide a basis for a complete sharing of information in multilateral simultaneous audits. Other benefits include:\(^83\)

i) Information gathering and exchange would be facilitated since a larger group of countries would have an identical agreement and the countries may agree to more extensive information exchange and tax collection procedures.

ii) A multilateral agreement could provide for mutual assistance in collecting taxes imposed by the other countries as well as for the enforceability of the tax claims of one country in each of the other countries. Provisions of this nature are contained in the Scandinavian Multilateral Treaty.\(^84\)

iii) A multilateral agreement would cure the inability of the domestic revenue authority to share information obtained from other countries in a multilateral simultaneous audit as this is prohibited under existing treaties.

Given that a multilateral agreement could certainly overcome some of the tax administration problems experienced when dealing with MNEs, serious consideration should be given to whether Australia should pursue such an agreement.

3.8.4 Is a Multilateral Agreement Feasible?

The idea of multilateral treaties is not entirely a new concept in the international tax area. There is already in the customs area a multilateral treaty that deals with transactions between related parties and so serves a similar purpose as the arm’s length test and formulary apportionment found in other areas such as transfer pricing.\(^85\) Further, the importance of existing multilateral agreements on trade in goods (“GATT”) and trade in services (“GATS”) is already widely recognised.

In considering the question as to whether a multilateral agreement is possible, one must

\(^81\) See Vann, above n 72, 103.
\(^82\) Ibid.
\(^83\) See Crinion, above n 79, 1243.
\(^84\) See Agreement Concerning Reciprocal Administrative Assistance in Matters of Taxation, 9 November 1972, Denmark, Finland, Iceland, Norway and Sweden. 956 UNTS 61 (English translation at 97) (referred to as the “Scandinavian Multilateral Treaty”).
\(^85\) See Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade, 1979 (commonly referred to as the “GATT Valuation Code”).
contemplate what is the nature of the "agreement" that one refers to.

Thus, while it is possible bilaterally to solve most of the conflicts between two tax systems, it is generally considered impossible to secure agreement multilaterally on the many specifics arising from tax systems' diversity that are raised in treaty negotiations.86

This is what distinguishes the administration area of the tax system and permits a multilateral approach - the greater uniformity of the systems and the common (fairly limited) international problems faced.87 So while a multilateral treaty may not be available to cover all aspects of the tax system, it certainly would seem to be possible in the area dealing with administrative assistance.

Indeed in the area of tax administration, the OECD/Council of Europe Convention on Mutual Administrative Assistance in Tax Matters ("Multilateral Convention") represents a multilateral treaty in the tax administration area, which came into force on 1 April 1995. This clearly shows that the OECD and the Council of Europe believe that multilateral treaties are feasible.

The Multilateral Convention differs from Australia's DTAs in a number significant ways, including:

i) The Multilateral Convention covers all compulsory taxes, with the exception of customs duties, and is therefore wider in coverage than presently is the case under Australia's DTAs.

ii) The types of assistance provided for under the Multilateral Convention is varied and comprehensive, covering the exchange of information between countries, simultaneous tax audits and participation in tax audits carried out in other countries, the recovery of taxes due in other countries and notification of documents issued in other countries.

iii) The residence or nationality of the taxpayer or other persons involved does not restrict the scope of the Multilateral Convention.88

iv) Under the Multilateral Convention, information is to be exchanged if it is foreseeably relevant89 to the stated purposes. This minimum foreseeability test makes it potentially broader than the necessary test applicable under Australia's DTAs.

Given these considerable advantages, the question that must be asked is: Why hasn't Australia signed this Convention?

In October 1988, the Treasurer announced that Australia would not be signing the Multilateral Convention.90 The main reason provided for this decision was the belief that it was not needed having regard to the existing network of DTAs. However, as discussed already, DTAs contain severe limitations when one considers the tax position of a multinational enterprise.

In 1988, the Multilateral Convention was dubbed by some commentators as "INTERFIPOL"91 or the "world fiscal police".92 In the context of information exchange (and a signatory state can limit its involvement to this), the reality is that the Multilateral Convention will

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88 See Art 1(3) of the OECD/Council of Europe Convention on Mutual Administrative Assistance in Tax Matters ("Multilateral Convention").
89 Article 4(1) of the Multilateral Convention.
not significantly broaden the information collection powers available under most DTAs — in fact, in relation to secrecy, the Multilateral Convention provides greater protection to taxpayers than do many DTAs.93

Other concerns were expressed about Australia using its already scarce resources in assisting other countries to collect their taxes. But again these concerns are not really valid, as the Multilateral Convention allows individual countries to limit their participation to simply the exchange of information.

Apart from the sensationalist reporting of the effect that the Multilateral Convention would have, the Government was trying to have tax file number and related privacy legislation passed through Parliament at this time. Also, the reaction by business to the Multilateral Convention was less than enthusiastic. Therefore, the political and business climate was not sufficiently conducive to permit Australia joining the list of signatories to this Convention.

Another view as to why the Multilateral Convention was not signed is that it was introduced at a time when many tax administrators were only beginning to effectively utilise the exchange of information clauses contained in the various DTAs that they had concluded. In other words, it was premature to contemplate a multilateral level of cooperation until a bilateral cooperation had become fully established.

Whatever the reasons, it is considered regrettable that Australia chose not to sign the Multilateral Convention in that it represents a missed opportunity on the part of the ATO to organise their enforcement activities in the same way as multinationals organise their tax affairs, that is, multilaterally.

3.8.5 Conclusions

With an ever-increasing number of cross-border flows, the ATOs current information-gathering and enforcement powers are simply inadequate for the task they face. If the ATO is to effectively monitor the Australian tax effects of international transactions, its information-gathering mechanisms must be improved.94

To date, the ATOs information gathering has relied mainly on a growing network of some 1,500 bilateral DTAs. However, this bilateral approach is less than ideal in a rapidly integrating world economy where many multinationals exist. At the same time DTAs with many countries, especially tax havens, do not exist. As electronic commerce continues to be embraced, these difficulties will be magnified as the number, range and impact of international transactions affecting Australia will inevitably increase.

Nevertheless, despite their inherent difficulties, DTAs represent an important evolutionary step in the process of information gathering. That is, the information gathering process has moved from unilateral to bilateral measures via DTAs and now this needs to evolve into a multilateral one, consistent with the pattern of the economy.

Globalisation is increasing daily, especially as electronic commerce becomes more pervasive. It calls for enhanced international cooperation for the ATO and other revenue authorities to be better organised.

The usefulness of multilateral agreements in other forums has been widely accepted (for example, GATT and GATS).

The time has surely come for Australia to enter into some form of multilateral agreement, at the very least in the area of tax administration. This is not the same quantum leap that may be involved in suggesting a multilateral agreement covering all aspects of the tax system.

This opportunity could come by Australia taking renewed action to sign the Multilateral Convention that it has thus far chosen not to sign. There is nothing to be feared in such a suggestion

93 See Woellner et al, above n 3, 147-148.
94 Ibid 199.
because the information exchange provisions of the *Multilateral Convention* merely build on the existing global network of DTAs, by allowing information to be exchanged multilaterally rather than just bilaterally. Although much of the information which may be obtained under the *Multilateral Convention* can already be obtained under a DTA, the great advantage of the *Multilateral Convention* is that it allows tax administrators to counter tax evasion and avoidance on a coordinated multilateral basis.\(^95\)

The *Multilateral Convention* is the logical next step in international tax enforcement and there are clear advantages, therefore, in Australia participating at the very least in the information exchange arrangement provided for by the *Multilateral Convention*.\(^96\)

Indeed, such a suggestion has received recent endorsement from the OECD:

Where Revenue authorities are not currently parties to appropriate existing international agreements for mutual assistance in tax administration matters, *such as the OECD/Council of Europe Multilateral Convention*, they may be encouraged to review their decision.\(^97\) (emphasis added)

In conclusion, the combination of tax havens and bank secrecy laws, along with the advent of electronic commerce represent a potent mix that can be exploited by taxpayers such as multinationals, who can organise their affairs in a borderless world, beyond the jurisdiction of national or bilateral bodies. What is needed, therefore, is for the ATO to organise its activities in a like-manner, for a significant impact on the activities of multinational companies will only be made when the multinational managing director is called upon to face the multinational Commissioner acting under a multilateral treaty.\(^98\)

### 3.9 Proposal 4: An International Tax Institution

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\(^96\) Ibid.

\(^97\) See OECD, above n 7, 30.

\(^98\) See Woellner et al. above n 3, 200.
3.9.1 A Multilateral Treaty to Establish a Regional Alternative

It has been observed that neither unilateral nor bilateral measures (such as DTAs) will be sufficient to deal with the challenges created by increased globalisation and multinational taxpayers. Therefore, solutions on a multilateral basis must be pursued.

However, the real issue then becomes one of how to best achieve a multilateral framework. Is the best way forward to pursue an informal global partnership (Proposal one), or does the answer lie in engaging in the informal exchange of information (Proposal two), or is a Multilateral Convention to cover mutual assistance in administrative matters the solution (Proposal three), or perhaps the best option is a regional international tax institution established under a multilateral treaty (Proposal four).

The likely answer is that none of the proposals will individually provide all of the answers, but could prove useful to deal with selected aspects of the problems encountered. The solutions that are presented as part of proposals one, two and three should be achievable in the administrative area but perhaps not more generally. The reasons for this are two-fold: first, a multilateral approach in the tax administration area becomes possible due to the greater uniformity that exists in these rules between countries and, second, there is a commonality that exists in the types of international problems that need to be solved, largely dealing with the gathering of information. In other words, it is easier to achieve global multilateralism when one looks at one discrete aspect of a tax system - that is, tax administration - for a smaller part of the universe is being tackled here. Accordingly, solutions postulated pursuant to proposals one, two and three are entirely achievable in the context of the tax administration area.

However, when one goes beyond the world of tax administration, the prospect of dealing multilaterally with the many specifics of each country's tax system becomes very difficult, if not impossible. This is because unlike systems of tax administration, there is a great diversity in the tax systems between countries. This makes multilateralism on a global basis difficult to achieve. However, while an ideal multilateralism may be difficult to achieve (that is, a fully global agreement), it is worth considering whether a regional approach may be appropriate to deal with some of the problems identified.

3.9.2 Is a Formal Structure Necessary?

One of the advantages of the global partnership contemplated in proposal one was that it could create a "virtual" international organisation and thereby avoid the undesirable consequences that may flow from formally creating a new supervisory or regulatory authority.

However, while such a virtual organisation has considerable flexibility in that it can provide advisory opinions and recommend actions within a loose framework, a major disadvantage is that such an organisation would have no real power in making authoritative decisions in disputes between its "partners". Thus, each member country would remain the ultimate decision-making power for itself.

The advantage of an international institution over current arrangements is that a greater constraint arguably is placed on strong nations to abide by international obligations and the institution can act with some degree of independence in setting the agenda of development and bringing about change.99

As well as providing the focus of evolution of international tax rules, an international tax institution set up under a multilateral treaty would permit quite different approaches to international tax problems that simply are not feasible in the bilateral framework or in a multilateral framework without an international institution.100

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99 See Vann, above n 87, 156-157.
100 Ibid 157.
3.9.3 How Would it Work?

At present, in the international tax arena, a specialist tax body that has authority, procedures and powers to apply international tax rules to members does not exist. This seems surprising given the established multilateral agreements on trade in goods, that is GATT and trade in services, that is GATS, as well as the success of the International Monetary Fund.

The major international (as opposed to regional) institution dealing with tax matters, the OECD and the UN, use persuasion rather than legal powers and procedures to attempt to produce changes in international tax matters, and neither is a specialist tax institution.\(^\text{101}\)

Professor Richard Vann describes the virtues and minimum requirements to create such a specialist international institution as follows:

A more flexible approach to international tax problems may be possible in the context of an international tax institution structured like the GATT. The minimum requirements for such an institution are a power to determine disputes among members and to act independently as a catalyst for promoting changes in international tax rules. The advantage of this approach is the flexibility that it offers. At the beginning it would only be necessary to have some minimal generally binding rules such as an obligation to relieve double taxation and the conferring of most favoured nation status on signatories. Nations could then adopt from a menu of options a greater range of undertakings such as tax rate ceilings (without reciprocity) and non-discrimination in much the same way as tariff undertakings and side agreements operate in the GATT.\(^\text{102}\) (emphasis added)

An international institution structured in this way would not be bureaucratic, given that only minimal generally binding rules would need to apply. The great advantage such an institution would offer is the flexibility that it could exercise in how it operates and seeks appropriate solutions to international tax problems.

3.9.4 Why Should it Be Regionally Based?

Given the perceived success of the existing bilateral network of DTAs, there has not as yet been a worldwide rush to embrace a multilateral solution to deal with existing and emerging international tax problems.

However, it has been observed earlier that DTAs are becoming increasingly inflexible, irrelevant and inefficient, and perhaps what is called for is a completely different approach to solving international tax problems.

In any event, to achieve a worldwide consensus on a multilateral solution or some other replacement for the current DTA regime will take some time, and meanwhile problems will continue to arise in the international arena.

It is against this background, therefore, that an international tax institution should be considered by Australia as a major player in the Asia-Pacific region. It must be said that the Asia-Pacific region is uniquely positioned to implement a regionally based international institution as described above:

The Asian-Pacific region provides an ideal proving ground because it is not so preoccupied as Europe, Africa and the Americans with other issues such as trade blocs, the conversion of centrally planned to market economies and third world debt. Moreover, it is time that the region exerted an influence on world affairs as befits its economic status, and the need for another solution to international tax problems provides the opportunity to do so.\(^\text{103}\)

\(^{101}\) Ibid 156.

\(^{102}\) See Vann, above n 72, 100.

\(^{103}\) Ibid.
3.9.5 Conclusions

If a regionally based international institution could be achieved, all that would occur is that there would be a new method of approaching international tax problems, rather than a fundamental change in international tax rules.

Such an institution structured with minimal rules would be flexible rather than bureaucratic; at the same time it would need some powers to make enforceable rules - otherwise it will merely be a "toothless tiger." It would seem that for countries to surrender some national sovereignty in return for the combined ability to approach international tax problems with independence, flexibility and innovation would be a small price to pay.

Indeed, if such a proposal were feasible, it would remove the problems created by tax competition, avoid inefficiencies created by tax rate reciprocity, remove the administrative difficulties involved in complying with and enforcing the arm's length principle, and avoid the need to rely on geographical concepts, such as source and residency, for taxation sharing.

Nevertheless, while this proposal has a theoretical attractiveness, it must be tempered by applying a reality check to question the likelihood of its success in the context of the unequal playing field in the international tax arena. Reality reveals that many countries have been aggressive in taxing income to get a greater share of the international tax-take on multinational enterprises. This problem is exacerbated by the conflict of interest among the countries involved and traditional barriers to international cooperation, such as reciprocity.

Indeed while many tax problems would disappear if tax systems were harmonised, the reality of electronic commerce is that national sovereignty still stands strong in the face of the fall of global barriers to commerce.

Further, there are other disadvantages with such a proposal. First, it is going to be a difficult and lengthy process to move away from bilateral agreements and achieve a multilateral agreement, even on a regional basis. Second, problems will be created by countries that remain outside the system.

Perhaps the true merits of a multilateral agreement to apportion tax will only become attractive once electronic commerce realises its full potential and the tax bases of countries are affected. In this event, the disadvantages explained above could become less of an obstacle and there will be considerable incentive to achieve a workable outcome to the problems of international taxation sharing.

Despite the realities that national sovereignty, reciprocity and competition for tax dollars remain as barriers to international cooperation, perhaps it is time for Australia to seize the initiative and not rule out a plan such as that outlined above. Indeed, if it succeeds, it may provide the necessary impetus for a global multilateral approach to international tax problems and place Australia as a proactive country in that process.

3.10 Proposal 5: Technology-Based Solutions

3.10.1 Unfounded Fears?

In examining how to deal with the traditional international tax problems of tax havens and bank secrecy laws, much emphasis has been placed by tax administrators on how to obtain timely and adequate information to support tax assessments.

With the advent of electronic commerce, tax administrators have become even more nervous about being able to gather the required information: included among their fears is the belief that traditional audit trails will disappear in cyberspace; that there will be no verification of the identity of parties to transactions; that obtaining acceptable documents of proof will become...
difficult; and that tax haven, offshore banking will become prominent.\(^{104}\)

Borderless and ungoverned, some fear that electronic commerce will provide a new and more accessible vehicle for mass tax avoidance, especially when combined with tax havens and bank secrecy laws.

Part 1 of the article examined these challenges in some detail. In summary, some of the main concerns identified were:

- How to establish the identity of parties in an electronic commerce world? This raises the question of what measures are necessary to ensure identification of taxpayers.
- How to identify and verify (authenticate) transactions to minimise the risks of fraud? This has an impact on withholding taxes, which rely on the ability of tax administrators to identify transactions of a particular type.
- How to establish the location of a taxpayer or transaction will also pose challenges for tax administrators. In this respect, it was observed that it would be easy for taxpayers to establish an Internet address in almost any taxing jurisdiction irrespective of their residence or the source of their activities.
- Obtaining acceptable documentation of proof may prove difficult - record-keeping requirements and audit trails in cyberspace were also identified as concerns, as well as issues relating to data that is encrypted - that is, to ensure it can be unlocked by the ATO.
- How can tax administrators deal with the problems of tax evasion raised by electronic cash (lack of traceability, easier access to tax havens, etc)?

- How can new technologies be used to improve the administration of taxes and provide better services to taxpayers? - that is, to reduce administrative costs for tax administrators while reducing compliance costs for taxpayers, through simplification and streamlining of administrative processes via new technologies?

However, according to some, these concerns are overstated:

It's time to rid our discussions of the extreme, highly unlikely scenarios which presumably cause sleepless nights for the tax administrator.\(^{105}\)

Indeed, many believe that new technologies are not to be feared, as they actually will provide solutions to some of the concerns expressed by tax administrators. In other words, industry-driven technologies will be needed to create a supportive environment within which electronic commerce can develop and this will in turn solve many of the concerns of tax administrators.

Accordingly, it will be instructive to examine some of the technology-based solutions in an effort to determine whether or not they can assist tax administrators in solving some of the above concerns.

### 3.10.2 Nothing New?

They are as solvable for electronic trading in an e-Business world as they are today.\(^{106}\)

People who argue that technology can provide many of the solutions to e-commerce largely believe that the electronic world presents no new problems. Their belief is that traditional international tax concepts of source, residence and permanent establishment should continue to apply and be verifiable in the world of electronic commerce. On questions of enforcement and compliance, it is their belief that tax administrators will be faced with the same questions that they

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\(^{105}\) Quote by J Owens - see [www.oecd.org/da/af/MATERIAL/MATTSON.DOC]

encounter in a physical world. That is, traditional questions of who has authority to conclude contracts, whether a display of goods exception applies, whether there is sufficient presence for a fixed place of business, and whether the services are auxiliary to the sale will still be issues of the day.107

Indeed, the concept of conducting business in an electronic world is not really "new" and can be thought of as representing a natural evolution of the traditional models of business-to-business and business-to-consumer commerce (see diagram below).

In other words, one way of thinking of electronic commerce is simply as a new medium through which the same business is conducted. For example, there are many similarities between a phone order and an Internet-based order. In both cases, consumers communicate what they want to buy and how they will pay for it (usually using a credit card) by simply using the technology (phone or Internet) as a conduit between buyer and seller. The fact that verification may flow through the phone lines as an analogue signal while they become a digital signal over the Internet doesn't in itself alter the basic rights of the consumers or intermediary banks.

107 See Mattson, above n 104, 3.
For the business-to-business model, the move to electronic commerce can be viewed as the next logical step in the development of systems such as Electronic Data Interchange ("EDI"), that have already been widely accepted for many years. For the business-to-consumer model, the move to electronic commerce can also be seen as an evolution of the traditional retail store shop to mail/phone orders, and ultimately to the Internet.

Systems such as EDI and mail order already have to support electronic transactions and records. Consequently, tax administrators and taxpayers already have valuable experience in dealing with electronic records. In this way, the tax administration issues currently under discussion in connection with e-commerce, therefore, are neither new nor unique to e-commerce.

3.10.3 It's A Matter of Trust

... e-Business requires legitimacy and trust to be successful and this should provide comfort to the tax administrator that the reliable documentation will be available for the audit.

The views as expressed above may appear novel: some would argue they are over simplistic and dismissive of the real problems confronting tax administrators. Nevertheless, there is certainly a growing view that the technology itself will provide many of the solutions to the concerns expressed by tax administrators.

The reasoning given is simple enough - for electronic commerce to flourish, it is simply essential to establish "trust" between the participants to a transaction.

In other words, unless people have confidence in transacting in the world of electronic commerce and continue to enjoy legal rights that they presently have, they will simply not embrace electronic commerce.

According to this view, verification of the identity of the parties to a transaction along with measures to ensure authenticity will be vital elements to ensure that large-scale commerce becomes a reality in the electronic world.

If this argument is accepted, then the system should (at least partly) be self-regulating as verifiable measures should be in place to validate the identities of parties and authenticate transactions:

As these processes begin to migrate to the Internet, there will be some modification in the way in which transactions are entered into the systems and how the transactions flow through the enterprise. However, the underlying systems of internal control will not change dramatically ... companies will need to support an effective security and control architecture to maintain their competitive positions ... which requires systems that maintain reliable transaction information. (emphasis added)

3.10.4 Some Examples of Technology-Based Solutions

In examining the validity of the views put forward, it is useful to examine some of the technologies that may serve to ease the concerns of tax administrators. It is beyond the scope of this article to examine these solutions in detail, however, some of the current technology-based solutions will be examined below.

3.10.4.1 Digital Certificates, Digital Notarisation and Digital Signatures

It was observed earlier that technologies such as "digital certificates" can make it possible to

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109 Ibid.
110 See Mattson, above n 104, 3.
111 See Mueller, above n 108, 734.
112 For a comprehensive discussion of technologies to cope with electronic commerce, see Mueller, above n 108.
verify the identity of an on-line counterparty while "digital notarisation" can make it possible to verify that electronic records have not been altered. 

Also, "digital signatures" can be used to document details relating to a transaction, as well as validating identity.

3.10.4.2 Secure Electronic Transaction Protocols

Secure Electronic Transaction ("SET") protocols for processing credit card transactions over the Internet represent one example of an industry-driven technology that will also be useful in ensuring that tax audit and compliance processes will be routine. 

Jointly developed by Visa and Mastercard, SET was born and bred on the Internet and currently represents the industry standard for secure electronic transactions. Its essential features may be summarised as follows:

- It is an open multiparty solution for conducting secure bank card and debit card payments over the Internet. SET provides message integrity, authentication of all financial data and encryption of sensitive information. Under SET, solution payment processors interact with payers (customer) and payees (merchants). The financial institution processing the payment uses software that decrypts the sensitive information and manages transaction settlement for the merchant.

- In an international context, SET technology was used as early as 1997 to facilitate the ordering of airline tickets over the Internet. However, the application of SET technologies is not simply limited to small and isolated applications, as the following example illustrates:

  An example of this application is its use by the largest department chain in Europe, German-based Karstadt, with stores in 51 countries worldwide and sales of nearly twenty billion dollars. Four million internet users currently frequent Karstadt's Web site.

  SET technologies will therefore be useful to both business and also tax administrators. It provides security, authentication of financial data and encryption of sensitive information, which are important features for businesses and consumers alike. At the same time, it contains features that will also be useful in ensuring that tax audit processes can be complied with.

3.10.4.3 Vendor-supplied and Third Party Products

Vendor-supplied software and third party "plug-ins" will satisfy most technology requirements in the world of electronic commerce. They will be capable of providing transaction logs and audit reports, similar to reports currently produced by cash registers.

Acting as cash register for the vendor on the Internet, "CommercePoint e Tell" software is one example that provides the following functions: records transactions in the vendor's database, manages all aspects of the payment process, including authorisation, cryptography and authentication functions.

Customers can use another software package, "CommercePoint Wallet", to view accounts and

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113 See OECD, above n 16, 12.
114 See Mattson, above n 104, 1.
116 See Mattson, above n 104, 3.
117 Ibid.
store authorisation certificate details. This certificate validates identity in a digital form and would be issued normally by an authorised party.\textsuperscript{118} Once the authorisation certificate details are stored in the software program, customers can then place orders safely through the Internet and will receive a printable receipt at the end of a transaction.

These software applications would of course feed in to the vendor's existing customer and transaction databases that would then be available for the ATO to audit.

In fact, the audit trail for an Internet merchant should be potentially easier to follow than for a mail order retailer because the Internet infrastructure (hardware and software) provides:\textsuperscript{119}

i) Digital certificate verification of the parties to the transaction; and

ii) Log files of the transaction.

Finally, sophisticated tax calculation and compliance management software provided by companies such as "Taxware International\textsuperscript{120} is already widely in use.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{diagram.png}
\caption{Diagram of taxware interface.}
\end{figure}

\textsuperscript{118} It is noted that the Federal Minister for Communications has released for public comment a Discussion Paper on a proposed model for a National Authentication Authority for electronic authentication: \textit{Establishment of a National Authentication Authority: A Discussion Paper}, September 1998. [www.noie.gov.au/reports/authenticate.html].

\textsuperscript{119} See Mattson, above n 104, 2-3.

\textsuperscript{120} See [www.taxware.com].
The above diagram illustrates how a program such as Taxware's "WORLDTAX" program interfaces with an e-commerce server.

The main features of this type of software may be summarised as follows:

i) The program can determine local, state, transit, or other taxes they are required to collect;

ii) The software can handle situations in which multiple tax authorities impose different tax burdens across a single postcode;

iii) The software also can capture data from the seller's accounting system, making calculations, and produce audit trails for the generation of reports and returns.

With appropriate plug-in products from third party vendors, sellers can have a truly integrated and sophisticated system covering all aspects of their business - ordering, inventory, billing, credit card authorisation, record-keeping and tax calculation.

This augurs well for tax administrators who will need to modify their own systems to interface with these new systems, but otherwise should have a ready audit trail and transaction log to verify and audit commercial activities.

In fact, such systems can provide more information than is currently possible from records in conventional commerce; and in a form that will be easier to use and less expensive to produce and store.

At the same time, the ATO will need to work closely with businesses to ensure that appropriate consensus is reached on the format of such information, either through a Code of Practice, or alternatively, through legislation.

Also, to guard against problems associated with the retrieval of information that is encrypted, revenue authorities will need to consider key recovery, trusted third party or other arrangements to guard against inadvertent loss of encryption keys. In many countries, the loss of a key will not excuse a taxpayer from providing information to the revenue authority and having the onus of proof in regard to any encrypted transactions. Measures such as this may need to be enshrined in legislation to ensure that the ATO's access to this information is not diminished in any way.

3.10.5 A Model Based on Technology

Having regard to the technologies as described above, a model that is a technology-based solution is presented below.
The above model illustrates the four essential components of an effective e-commerce system.\(^{125}\)

For the consumer, the main component is either a personal computer or a device such as a WebTV, with an Internet browser (such as Netscape or Internet Explorer) and a connection to the Internet.

For the seller, there are three basic components:\(^{126}\)

- A storefront system containing such things as catalogues, means of ordering and customer service.
- A set of back office systems that accept, process and record transactions. Plug-in modules supplied by third parties can perform functions such as credit card authorisation and tax calculations.
- A payment gateway that validates and obtains credit card authorisation and effects settlement, using protocols such as SET technology.

3.10.6 Conclusions

In conclusion, technology-based solutions are certainly to be given serious consideration and with continued development they may indeed provide answers for the many concerns of tax administrators.

Already, it has been observed that some of the concerns of tax administrators can be solved by technology-based solutions. In summary:

- digital certificates and digital signatures can make it possible to verify the identities of parties to a transaction and also to document transactions;
- digital notarisation can make it possible to ensure that electronic records have not been altered;
- protocols such as SET can be useful to ensure that tax audit and compliance procedures can be complied with by providing an audit trail;
- vendor-supplied and third party products can provide for the verification of parties, authentication of transactions, security of data transmitted and stored, and can also produce log files of transactions for tax compliance.

Accordingly, the ATO should continue to work closely with the private sector to ensure that it is aware of the latest technological developments, so it can harness the potential of the same and use it to the best advantage in its administration of the taxation system, especially in a world of electronic commerce.

3.11 Proposal 6: Cooperation With Internet Service Providers

As more and more consumption is organised via the Internet, concerns expressed by tax administrators include how they are going to ascertain whether a transaction has taken place, and if so, by whom and where.

Using the simple example of ordering a compact disc, if it is physically delivered, it was observed that authorities can easily track the transaction. But if it is delivered electronically through the Internet directly to a consumer’s computer, the job of keeping track becomes more difficult. Further, it was noted earlier in the article that more and more products and services will become intangible as the electronic commerce world matures and this will mean that more products will be delivered electronically rather than physically.

To address this concern, two alternatives quickly come to mind; however, their success may be dismissed just as quickly. The first involves a "bit tax" on the transmission of digital data. However, the US is opposed to this idea, as is the European Commission and the Australian Government has ruled out the use of such a tax.\(^{127}\)

\(^{125}\) For a more detailed explanation see Mueller, above n 108, 736.

\(^{126}\) Ibid.

\(^{127}\) See above n 20.
The second involves the suggestion of a "tax chip" to be installed into every computer that is sold. However, this solution seems as unlikely as the bit tax, as it would raise many objections from civil libertarians.

Given that neither a "bit tax" nor a "tax chip" is likely to gain favour, perhaps tax administrators should seek to cooperate with the companies that provide the nodal points in the world of electronic commerce, the Internet service providers ("ISPs").

As the hubs of the economy in the electronic world, ISPs represent an identifiable source from which tax administrators can be expected to seek cooperation in tracking transactions that occur in the world of e-commerce.

In this way, ISPs could effectively operate as new intermediaries for the ATO in a world where it is feared that intermediaries will shrink in number.

Certainly the job of tax administration would be made easier if cooperation with ISPs could be achieved. However, it can be expected that ISPs would reject calls to monitor all usage and traffic. The sheer volume of transactions would render such a suggestion very resource intensive and expensive, pushing up cost structures that would be contrary to encouraging more people to embrace electronic commerce. Nevertheless, as electronic commerce matures, things may change and tax administrators may come to expect greater ISP cooperation to maintain their revenue bases.

In the short-term, tax administrators may expect resistance from ISPs to requests for cooperation. Also, consumers would resist such moves on grounds of privacy and such moves would seem to be contrary to encouraging more people to embrace the Internet. In any event, such moves would need to be facilitated by legislative change to have any real impact. This legislative change, it is submitted, would be very difficult to achieve in light of the resistance that is likely to be encountered.

However, as the e-commerce market matures, it may well be that ISPs will have no choice but to be the new intermediaries that tax administrators have to rely on to obtain information and even collect tax on their behalf. It is not inconceivable that in years to come, "Microsoft" and "Telstra" could play a greater role in payment systems than some large banks and in assuming this new role, the tax administrator may seek an increased level of cooperation from them:

The Anglo-Saxons paid Danegeld to the Vikings; we may well pay it to Microsoft.  

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129 P Forde and A Patterson, “Anonymity enables Paedophile Internet Activity: Exploratory Observation of Paedophile Conduct on WWW, FTP, E-mail, Newsgroups and IRC”, 8 February 1998 (unpublished).
130 See Leadbetter, above n 13, 9.
3.12 Proposal 7: Some Radical Solutions

In the context of examining the range of options to deal with the expected impact that tax havens, bank secrecy laws and electronic commerce may have on the administration of the Australian taxation system, three radical options have emerged for consideration.\(^{131}\)

a) It was noted earlier that the system of taxation applicable to Anglo-Saxon England was highly efficient because it was based largely on land, a source of wealth that was easily identifiable and difficult to conceal. Perhaps with the growth of electronic commerce and the fear that it will be easier to conceal new sources of wealth, we may see a renewed emphasis of the taxation of property. Difficult to hide, land may experience a renewed emphasis in the taxation equation.

Moreover, tougher land taxes could be justified on grounds other than taxation, including environmental grounds. While such a proposal has simplistic merit, it may prove difficult to apply fairly; for example, manufacturing industries would have to bear a higher share of tax than services industries. Finally, it is interesting to note that in the context of the October 1998 Federal Election, the Labor Party proposed an extended application of the capital gains tax regime to apply from 1 January 1999 - could this be the precursor to such a proposal?

b) Another possibility is the increased use of "hypothecation", whereby taxes are specially designated for a particular purpose, such as pre-school education, and non-tax ways of raising revenue - such as lotteries - are likely to increase.

c) A final possibility could be the use of "tax contracts". For example, a city or regional council might persuade a group of local companies to pay a higher corporate tax rate in exchange for specified improvements to the local transport and schools.

In conclusion, while such proposals may sound far-fetched, it is nevertheless useful for the government to consider alternative ways of revenue raising, in case the tax base does indeed dwindle. In the new environment that electronic commerce will create, it will not just be business that needs to be entrepreneurial; rather, it can be expected that governments will need to be more ingenious in their efforts to maintain their revenue bases.

3.13 Proposal 8: Solutions to Consumption Tax Issues

Some of the problems associated with consumption taxes in an electronic commerce environment were noted earlier, particularly problems in respect of time (when a transaction occurs), place (where the place of supply is) and value (what would be the consideration applicable to the transaction) of the supplies of goods and services.

Particularly in the context of the concept of "place of supply", there are some difficult issues to be confronted. The rules for place of supply generally turn on questions of the location of the supplier or customer and in other instances on where the goods or services have been performed or enjoyed. In an electronic commerce environment, it is often difficult to answer the question of where an enterprise is located or even where a service has been used or enjoyed, so significant challenges exist here.

So what are the solutions?

One option would be to maintain the current place of supply rules but to broaden the definition of fixed (or permanent) establishment to cover

\(^{131}\) Ibid.
cabling, switching and other technical resources required to deliver such services.\textsuperscript{132}

The OECD has suggested that rules for the consumption taxation of cross-border trade should result in taxation in the jurisdiction where consumption takes place.\textsuperscript{133} This in turn raises the problem of "where" something is consumed in an electronic commerce environment.

Traditional rules that have been used to determine this issue, such as "effective use and enjoyment" may not be appropriate in an electronic commerce environment and accordingly clarification of where something is consumed in an electronic commerce environment would be needed before implementing the OECD position.

Further, while this proposition may appear attractive, it raises the fundamental question of how tax would be levied on non-business consumption on, for example, reverse-call systems used by households for international telephone calls.\textsuperscript{134} Financial institutions (which are usually subject to exemption under VAT systems and therefore cannot claim credits for their inputs) would be tempted to arrange their affairs in such a way so that the "consumer" is an associate that is not established in the jurisdiction.\textsuperscript{135}

An alternative approach may be to require a non-resident supplier (or agent) of services to register in the country of consumption of those services.

In relation to the problem of whether digitised products constitute "goods" or "services" for the purposes of consumption tax, the OECD has recommended that the supply of digitised products should not be treated as the supply of goods.\textsuperscript{136} This approach is intended to provide certainty in the application of taxes, and to prevent the tax base erosion that could occur under some systems if these products were to be considered goods for the purpose of application of tax on importation and for the purpose of applying place of supply rules.\textsuperscript{137}

Finally, in relation to dealing with the problems associated with the increasing trend for goods and services becoming "intangible", the OECD recommends that countries should examine the use of reverse-charge, self-assessment or other equivalent mechanisms where this would give immediate protection of their revenue base and of the competitiveness of domestic suppliers.\textsuperscript{138} While it is beyond the scope of this article to examine these mechanisms in detail, it must be said that there are several disadvantages associated with the reverse-charge system, including its likely inability to effectively deal with the taxation issues surrounding on-line international supplies of services to private consumers.

In conclusion, much work remains to be done in the area of consumption taxes to adequately address the many issues that arise when one considers the impact of the interplay between electronic commerce and VAT/GST systems of taxation.


Many issues remain in relation to concepts such as source, residence and permanent establishment that have been embedded in the income tax law, and some of the challenges that electronic commerce presents to these concepts were examined earlier in the article (see discussion of limitations of DTAs under Part 3.8).

It is beyond the scope of this article to examine in detail the current thoughts on each of these

\textsuperscript{132} See Owens, above n 12, 18.
\textsuperscript{133} See OECD, above n 7, 19.
\textsuperscript{134} See Owens, above n 12, 18.
\textsuperscript{135} Ibid.
\textsuperscript{136} See OECD, above n 7, 20.
\textsuperscript{137} Ibid.
\textsuperscript{138} Ibid.
issues. At the same time, it is useful to examine current policy approaches in relation to the determination of some of the more prominent issues, as this is likely to guide how the emerging issues may be handled.

It was observed that one significant issue is in relation to the definition of "permanent establishment" that is currently contained in DTAs. One issue identified in this context is the question as to whether a web site on a server located in a country could be regarded as a permanent establishment. This in turn raises other issues such as would it be regarded as a fixed place of business; whether the activities would go beyond preparatory or auxiliary activities; and does it matter who owns the web site.

The concept of permanent establishment depends largely on physical presence and one might question the relevance of such a concept at all in an electronic world. Nevertheless, the consensus of current thinking on this issue seems to be to retain the concept. The Committee of Fiscal Affairs of the OECD has agreed to provide clarification in the Commentary on the OECD Model Tax Convention, as to how the current definition of permanent establishment applies where electronic commerce transactions are concluded through a web site on a server located in a country.139

At the same time, in light of concerns that the concept may not be relevant in an electronic world, the OECD suggests that proposals for alternative rules should be examined so as to place them in a position to make appropriate recommendations if and when necessary.140

In relation to issues concerning source and residency concepts, solutions do not appear to be readily available:

... the CFA has concluded that it would be premature to reach any conclusion as to the effect of electronic commerce on the sharing of tax revenues between source and residence countries or to put forward alternatives to the present rules of tax conventions concerning the taxation of business profits.141

This "wait and see" approach may be a sensible one, but the risk of countries implementing unilateral measures to guard their revenue base is one that weighs against the desirability of such an alternative. Frustrated by inaction at the international level, some countries may have little choice but to implement unilateral measures; however, this would produce a fragmented and inconsistent set of rules in this area - an undesirable result.

Finally, in relation to issues such as those that arise under transfer pricing or the proper characterisation of income as royalties or services, the OECD is proposing a similar approach as outlined above - that is, clarification where appropriate, supplemented with monitoring developments as they occur and responding accordingly.

The proposed approach of the OECD to many of these issues seems to be sensible in that it seeks to consider first the applicability and appropriateness of existing rules before considering whether new rules are needed. Nevertheless, its approach may be symptomatic of a system of bilateralism that is seriously challenged by the issues arising as a result of the interplay between tax havens, bank secrecy laws and electronic commerce. This further underscores the need to consider a range of proposals in how best to deal with the many issues raised.

4. CONCLUSIONS

In conclusion, it will be useful to review the current work that has been undertaken in the area of electronic commerce with a view of looking forward to what remains to be done. This will
provide a general policy setting within which proposed solutions may be considered.

Following this, each of the specific proposals presented in this article will be reviewed and conclusions and recommendations will be made in respect of each.

4.1 The General Policy Framework for the Way Forward

The Turku conference that was held in Finland in November 1997 commenced work on developing framework conditions for the taxation of electronic commerce.

The Ottawa Ministerial-level conference, held in October 1998, continued this work by embracing the report Electronic Commerce: Taxation Framework Conditions that was prepared by the Committee on Fiscal Affairs of the OECD. This report sets out the taxation principles that should apply to electronic commerce and outlines the agreed conditions for a taxation framework. However, much work still remains to be done to ensure that the work program that is contained within this report is taken forward.

The role of governments and tax administrators in the process of taking these efforts forward will be to provide a conducive environment within which electronic commerce can be allowed to develop. This needs to be balanced carefully with the need to ensure that a certain and equitable taxation regime is in place that provides the revenue necessary for the government to continue providing services expected of it.

It must be emphasised that this balance will be difficult to achieve without effective cooperation and broad consultation between governments, international organisations, the private sector and taxpayers.

Electronic commerce will continue to produce many challenges that need solutions. The areas needing solutions that have been identified in this article may be summarised under four headings:

a) Improving Taxpayer Service - by simplifying tax systems to minimise costs of compliance;

b) Tax Administration - developing guidelines to ensure: proper identification of taxpayers, internationally compatible information requirements; and measures to improve tax compliance;

c) Consumption Taxes - reaching consensus on place of consumption, place of taxation and definitions of services and intangible property;

d) International Tax Norms and Cooperation - clarifying how concepts such as "permanent establishment" and transfer pricing "arm's length" standards will operate in an electronic commerce environment, and improving use of bilateral and multilateral agreements for administrative assistance.

A principles-based approach will be required in developing appropriate solutions to respond to these challenges and the following widely-accepted tax principles should apply to finding solutions to the problems created by electronic commerce:142

i) neutrality;

ii) efficiency;

iii) certainty and simplicity;

iv) effectiveness and fairness; and

v) flexibility.

Within this framework of administrative principles, appropriate taxation frameworks need to be developed to respond to the challenges presented by tax havens, bank secrecy laws and electronic commerce.

142 Ibid 6-7. See also previous discussion in this article.
This will be best achieved by adopting a two-fold policy approach:

a) First, by considering how existing taxation laws and technologies may apply to this new environment. Many challenges may be adequately dealt with by applying existing laws and technologies.

b) Second, if it is considered that existing laws are not adequate, then appropriate administrative or legislative responses need to be considered provided that those measures are intended to assist in the application of the existing taxation principles, and are not intended to impose a discriminatory tax treatment of electronic commerce transactions.143 More specifically, any changes need to create systems that:

- prevents double and unintentional non-taxation;
- protects tax revenue generally;
- does not increase the opportunity for avoidance, evasion or fraud;
- minimises the cost of compliance for business; and
- does not hinder the development of electronic trade.

4.2 The Specific Proposals in Review

This article has presented some specific proposals and policy approaches to address some of the challenges presented by electronic commerce. Having examined the general policy framework within which solutions may be pursued, it is instructive to briefly revisit the proposals presented in the article with a view of reaching some conclusions and recommendations in respect of each proposal.

4.2.1 Proposal 1 - A Global Partnership

This proposal contemplated a “virtual” international organisation between the stakeholders of electronic commerce - that is, the private sector, international organisations and various governments.

The advantages of this proposal include being able to achieve policies that would be certain, flexible and most importantly, consistent.

Countries such as Australia may take heart from the apparent consensus that seems to exist among many countries that this is the way forward.

Despite the advantages of this proposal, however, one must consider the political and international realities and ask whether such a solution is feasible.

Given the significant areas of conflict of interest between countries and the relatively weak influence a country like Australia would probably have in such a global partnership, one must question the effectiveness of such a proposal.

Thus, while this proposal seems attractive it does contain inherent questions that will require the ATO to seek out additional solutions to address the problems created by tax havens, bank secrecy laws and electronic commerce. Nevertheless, it does represent a starting point in approaching some of the challenges posed by electronic commerce.

4.2.2 Proposal 2 - An Informal Sharing Of Information

Under this proposal, the ATO should continue to informally share information through its membership to multilateral associations.

These associations provide an opportunity for the discussion of ideas and experiences on tax administration and other technical matters.

143 143 Ibid 7.
144 144 Ibid 18.
However, a major drawback of this proposal is that while these associations are useful forums for the discussion of taxation matters, in the absence of an enforceable treaty or other obligation, secrecy laws would prevent the exchange of information about particular taxpayers at meetings of such associations.

Nevertheless, continued membership by the ATO to these associations would be a useful supplement to the global partnership contemplated by proposal one.

4.2.3 Proposal 3 - A Multilateral Agreement

Globalisation is increasing daily, especially as electronic commerce continues to be embraced. This calls for enhanced international cooperation and for the ATO and other revenue authorities to be better organised.

To date, the ATO's information gathering has relied mainly on a growing network of bilateral DTAs. However, this bilateral approach is less than ideal in a rapidly integrating world economy where many multinationals exist. Put simply, DTAs are becoming increasingly inflexible, irrelevant and inefficient. They are simply unable to cope with modern commerce and the way in which multinationals operate.

What is needed therefore is some form of multilateral agreement. The time has surely come for Australia to enter into some form of multilateral arrangement, at the very least in the area of tax administration. This is not the same quantum leap that may be involved in suggesting a multilateral agreement covering all aspects of the tax system, where greater diversity and conflicts of interest would inevitably arise. In the area of tax administration, a multilateral agreement should be possible as a smaller part of the universe is being tackled, where different countries share a common goal - the collection of information to facilitate the effective administration of their respective taxation systems.

As a minimum, Australia should take renewed action to sign the Multilateral Convention that it has thus far chosen not to sign. The great advantage of the Multilateral Convention is that it allows tax administrators to counter tax evasion and avoidance on a coordinated multilateral basis. Indeed, such a course of action has received the endorsement of the OECD.

In conclusion, to be able to deal with taxpayers such as multinationals (who can organise their affairs in a borderless world) beyond the jurisdiction of national or bilateral bodies, the ATO needs to organise its activities in a like-manner and act in a multilateral way under a multilateral treaty, at least in matters of tax administration.

4.2.4 Proposal 4 - An International Tax Institution: A Regional Alternative

Realising the futility of trying to achieve an international tax institution on a global basis, the proposal put forward here is one of creating an international tax institution on a regional basis.

Not being so preoccupied as Europe, Africa and the Americans are with issues such as trade blocs, the conversion of centrally planned to market economies and third world debt, it may be argued that the Asian-Pacific region could prove an ideal proving ground for such a proposal.

Indeed, if such a proposal were feasible, it would remove the problems created by tax competition, avoid inefficiencies created by tax rate reciprocity, remove the administrative difficulties involved in complying with and enforcing the arm's length principle, and avoid the need to rely on geographical concepts, such as source and residency, for taxation sharing.

Nevertheless, while this proposal is theoretically attractive, one must question the likelihood of its success in the context of the unequal playing field in the international tax arena. This problem is exacerbated by the conflict of interest that would exist among the countries involved. Further, the traditional barriers of reciprocity and the reluctance of countries to cede national sovereignty remains.
Also, it is going to be a difficult and lengthy process to move away from bilateral agreements and achieve a multilateral agreement, even on a regional basis. And problems will be created by countries that remain outside the system.

Despite these disadvantages, perhaps it is time for Australia to seize the initiative and not rule out a plan such as outlined above. Indeed, if it succeeds, it may provide the necessary impetus for a global multilateral approach to international tax problems.

4.2.5 Proposal 5 - Technology-Based Solutions

The technology-based solutions that were put forward by this proposal (eg, digital certificates, digital signatures, digital notarisation, SET technologies and vendor-supplied products) should be given serious consideration and with continued development, they may indeed provide answers for the many concerns of tax administrators.

These technologies already can assist in areas such as establishing identities of parties, authenticating transactions and also providing log files and audit trails for compliance activities.

Accordingly, the ATO should continue to evaluate the latest technological developments, to be in a position to use them to the best advantage in its administration of the taxation system.

4.2.6 Proposal 6 - Co-operation with Internet Service Providers

ISPs could effectively operate as new intermediaries for the ATO in a world where it is feared that intermediaries will shrink in number.

As the hubs of the economy in a world of electronic commerce, ISPs represent an identifiable source from which tax administrators can be expected to seek cooperation in identifying and tracking transactions.

Certainly the job of tax administration would be made easier if cooperation with ISPs were possible. However, it can be expected that ISPs would reject calls to monitor all usage and traffic. The sheer volume of transactions would render such a suggestion very resource intensive and expensive, pushing up cost structures that would be contrary to encouraging more people to embrace electronic commerce.

In the short-term, tax administrators may expect resistance from ISPs to requests for cooperation. However, as the e-commerce market matures, it may well be that they have no choice but to be the new intermediaries that tax administrators have to rely on to obtain information and even collect tax on their behalf.

4.2.7 Proposal 7 - Some Radical Solutions

This proposal put forward three radical proposals: a renewed emphasis on the taxation of property, the increased use of hypothecation, and the possible use of tax contracts.

While such proposals may be considered "far-fetched", it is nevertheless useful for the government to consider all ways of revenue raising. This is because in the new environment that electronic commerce will create, it will not just be business that needs to be entrepreneurial; rather, it can be expected that governments will need to be more creative in their efforts to maintain their revenue bases.

4.2.8 Proposal 8 - Solutions to Consumption Tax Issues

Problems associated with consumption taxes in an electronic commerce environment were noted earlier, particularly problems in respect of time (when a transaction occurs), place (where the place of supply is) and value (what would be the consideration applicable to the transaction) of the supplies of goods and services.

Particularly in the context of the concept of "place of supply", there are some difficult issues to be confronted. In terms of arriving at solutions to
this problem, the OECD has suggested that for the consumption taxation of cross-border trade, the rules should result in taxation in the jurisdiction where consumption takes place. This in turn raises the problem of "where" something is consumed in an electronic commerce environment.

Further, while this proposition may appear attractive, it raises the fundamental question of how tax would be levied on non-business consumption on, for example, reverse-call systems used by households for international telephone calls.

And financial institutions (which are usually subject to exemption under VAT systems and therefore cannot claim credits for their inputs) would be tempted to arrange their affairs in such a way so that the "consumer" is an associate that is not established in the jurisdiction.

Another problem in the consumption tax area is whether digitised products constitute "goods" or "services" for the purposes of consumption tax. In this regard, it was noted that the OECD has recommended that the supply of digitised products should not be treated as the supply of goods.

In conclusion, much work remains to be done in the area of consumption taxes to adequately address the many issues that arise when one considers the impact of the interplay between electronic commerce and VAT/GST systems of taxation.

4.2.9 Proposal 9 - Solutions for Income Tax Problems

Many issues also remain in relation to concepts such as source, residence and permanent establishment that have been embedded in the income tax law, and this proposal examined the current approach of the OECD to tackling these problems. In brief, the approach of the OECD is to:

- apply existing treaty principles;
- review and clarify their application;
- consider alternatives to current rules, to be prepared if the existing principles prove to be inadequate.

This approach seems to be sensible in that it seeks to consider first the applicability and appropriateness of existing rules before considering whether new rules are needed. Nevertheless, its approach may be symptomatic of a system of bilateralism that is seriously challenged by the global nature of electronic commerce.

Further, this "wait and see" approach runs the risk of countries implementing unilateral measures to guard their revenue base and is another factor that weighs against the desirability of such an alternative.

The alternative approach may be to accelerate the consideration of alternatives to the current rules (e.g., is there a better alternative to the permanent establishment concept in an e-commerce world?) with a view of being able to implement new solutions quickly. Again, the practicalities of achieving these new and quick solutions will mean that this is a difficult ideal to strive for.

4.3 Conclusion

In conclusion, by presenting both the general policy framework within which solutions to the problems created by electronic commerce should be pursued, along with a summary of the specific proposals contained in this article to deal with the challenges posed by electronic commerce, it is hoped that a significant contribution has been made to the understanding of the potential, opportunities and challenges facing the ATO in this area.
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