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A MODEL FOR ELECTRONIC TAX COLLECTION

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1. INTRODUCTION

1997 saw the release of numerous detailed reports on the Internet and how transactions taking place over the Internet should be taxed. 1998 was the year of great debate over the effectiveness of existing tax rules and how, if at all, they should be adapted to deal with the Internet. Within the tax community, the general level of understanding of the Internet and its effect on taxation has grown to the extent that any debate on the topic is increasingly sophisticated. The International Fiscal Association focus and the Organisation for Economic Cooperation and Development (OECD) Ministerial Conference in Ottawa in October 1998 assisted this process. Since then, the tax community has attempted to take the most promising ideas and explore the effect of their implementation on national revenue bases and international trade. This has occurred, for example, at the international level through the OECD working groups¹ and at the domestic level with the US Advisory Commission on Electronic Commerce.² Ultimately, the result should provide the basis for international consensus on the development and implementation of principles that satisfy a broad majority of nations.

Inevitably, where multilateral discussions are involved, it is important to provide a realistic framework for progress. It is unlikely that we shall see agreement on long-term goals in these early days of Internet commerce. However, progress may be possible if proposals that are discussed represent small incremental steps in dealing with the major issues facing the international community. That does not mean that the means to implement progress need be backward or take no account of new technologies. The opposite is true. Proposals should exploit the new technologies to the full to make the most of old concepts, so that as we discuss the new, we shall have a fuller understanding of how the old rules can indeed deal with the new technologies, and where the gaps are that require urgent action. This certainly seems to be the approach of the OECD Working Groups.

It was with this approach in mind that Professor Patrick Quirk and I developed a proposal for the Australian Banking Law Association in 1998.³ Proposals based on similar concepts were put forward elsewhere and I shall discuss these briefly below. Most of the recent proposals, although ambitious, are nowhere near as revolutionary as those put forward earlier. Part 2 of this paper looks at the context in which proposals for the taxation of electronic transactions are made. Part 3 presents a model for Electronic Tax

¹ [http://www.oecd.org/daf/fa/e_com/e_com.htm].

² [<http://www.ecommercecommission.org>].

³ "A Proposal For Electronic Transactions Tax Collection In The Context Of Tax-Driven Reform Of Banking Laws" (1999) 10 JBFLP 125 and (1999) 14 *Journal of International Banking Law*. I change the name of the proposal in this paper to ETC, as the term "transactions" more closely relates, in recent discussion, to a transactions tax.

Collection (“ETC”). Part 4 provides some analysis and conclusions on the main elements of ETC.

2. TAXATION PROPOSALS IN CONTEXT

Arthur Cordell first mooted the bit tax in 1994.⁴ It was taken up by Professor Luc Soete, who chaired the European Commission High Level Group of Experts.⁵ The bit tax has been the subject of intensive discussion and debate.⁶ Its general rejection is probably because it is seen as “radical or even revolutionary because it does not fit in the framework of income or consumption-based taxation”.⁷ A similar fate will probably meet proposals for a “packet tax”, which uses the packet identification numbers on each packet of information electronically transmitted to identify the relevant taxpayer. Taxes on transmission of information run contrary to current international taxing principles. They are also strongly opposed by the United States (US). However attractive the concept of a tax on information, attempts to change the basis for taxation in this way seem doomed to failure, at least in the short term.

The idea of a flat tax on Internet transactions is appealing in its simplicity. The two main ideas put forward are that of a transaction tax on money flows and a tax on telecommunications services.⁸ The proposals act to combat disintermediation by targeting as tax collectors large financial institutions or telecommunications providers. Objections to a transaction tax arise from the scope that it provides for the transfer of funds offshore and, in particular, to tax havens.⁹ A transaction tax also does not relate to current methods of taxation of income and consumption. As such it is not neutral and could seriously affect business efficiency. A tax on telecommunications services is less objectionable in that it relates to the supply of goods and/or services. However, it falls outside the existing scope of consumption taxes. Again, the potential result is economic distortion and double and cumulative taxation.

⁴ A Cordell and T Ide, “The New Wealth of Nations”, a paper prepared for the annual meeting of the Club of Rome, Buenos Aires, Argentina, 30 November - 2 December 1994, now published in AJ Cordell, T Ran Ide, L Soete and K Kamp, *The New Wealth of Nations: Taxing Cyberspace* (Between the Lines Toronto 1997).

⁵ Commission Report, *Building the European Information Society For Us All*, January 1996.

⁶ See generally, The International Tax Program and The Society for Law and Tax Policy, “Harvard Law School 1997 Spring Symposium on Multi-Jurisdictional Taxation of Electronic Commerce”, Harvard, 5 April 1997 (referred to as “Harvard Symposium”) See, specifically, L Soete, “Taxing consumption in the electronic age: the European bit tax proposal”, Harvard Symposium.

⁷ The International Fiscal Association Report by R Doernberg and L Hinnekens, *Electronic Commerce and International Taxation* (Kluwer The Hague 1999) at 360.

⁸ These are usefully summarised and discussed in Doernberg and Hinnekens, *ibid*, at 362.

⁹ For a discussion in the US context and basic principles needed for the proper operation of interstate taxation, see W Hellerstein, “Transaction Taxes and Electronic Commerce: Designing State Taxes That Work in an Interstate Environment” (1997) L (3) *National Tax Journal* 593.

Unitary taxation has also been revisited in the context of the taxation of electronic commerce.¹⁰ Proponents suggest that the antagonism towards formulary apportionment in the context of transfer pricing may become less strong when it is applied to electronic commerce, given that it provides a relatively simple and realistic method for apportioning tax revenues. The predicted exponential growth of electronic transactions raises concerns over the ability of traditional transactional taxation to cope. Nonetheless, general acceptance of unitary taxation is a long way off and negotiation of fundamental issues such as the formula to be used will inevitably delay it even further. However, in the context of consumption taxes, some argue that there could be a multilateral agreement to impose consumption tax at the point of sale. Importing nations could then receive compensation for loss of revenue. This would only really work domestically, say within the US, or within a tight regional grouping such as the European Union.¹¹

In an effort to move the debate forward, recent proposals have usually been less ambitious. Nonetheless, they still tend to need some modification of existing rules for their implementation. Their attraction is in the modest nature of this tweaking of current rules and the advantages that they appear to generate as a result. Professor Doernberg has suggested an approach that may allow equitable international tax sharing using an extension of the withholding tax system.¹² Where a cross-border transaction erodes the tax base of a state it will be permitted to withhold tax at a single rate. The approach “is premised on the idea of finding an overall compromise between electronic commerce exporting and importing states that is simple, equitable, and enforceable”.¹³ Withholding taxes are never popular because of their distorting effect. It remains to be seen whether a withholding tax will gain general support. In this context, Doernberg also addresses the problem of double non-taxation by focusing on human residence.¹⁴ There are significant issues of scope and definition yet to be addressed.

F Dittmar and H-J Selling, of the German Ministry of Finance suggest a turnover tax.¹⁵ What is of particular interest in their proposal is that banks will withhold tax at a standard rate whenever payments are made. Again, this is an attempt to overcome the effects of disintermediation and to use a withholding approach, which has worked so well in collecting a wide range of taxes. M Geurts has strongly criticised this proposal.¹⁶ The main criticism is aimed at the concept of a turnover tax collected in this fashion. Geurts

¹⁰ See, Doernberg and Hinnekens, above n 7 at 323. Also discussed in a useful summary of recent developments and international perspectives, in P McNab, “International Reaction to Electronic Commerce Developments” (1998) 27 *AT Rev* 219 at 222.

¹¹ Discussed in I Lejeune, J-M Cambien and M Joostens, “E-Commerce – The European Commission” (1999) 10 *VAT Monitor* 156.

¹² RL Doernberg, “Electronic Commerce and International Tax Sharing” (March 30, 1998) *Tax Notes International* 1013. Most of this article is included in the text of Doernberg and Hinnekens, above n 7, at 315.

¹³ Doernberg, *ibid* at 1018.

¹⁴ See further, Doernberg and Hinnekens, above n 7 at 338.

¹⁵ “How to Control Internet Transactions? – A Contribution from the Point of View of German Tax Inspectors” (1998) 26 *Intertax* 88.

¹⁶ “How to Tax Electronic Commerce Transactions?” (1998) 26 *Intertax* 301.

also identifies problems involved in the introduction of a withholding tax implemented in payment systems. I shall revisit these problems later in this paper.

The upshot of the extensive discussion and debate over taxation of Internet transactions is that certain principles have emerged that are likely to govern future developments. They can be found in various forms in the reports of individual nations. They are also reflected in the discussion papers and other documents put out by international institutions.¹⁷ I summarise them here so that they can act as a benchmark against which the ETC model can be judged.

A 1998 OECD discussion paper sets out a number of principles that it believes should be used in developing the taxation framework conditions for the taxation of electronic commerce.¹⁸ An underlying premise of the paper is that progress will be based on international co-operation and agreement. The paper reiterates the traditional principles of neutrality, efficiency, certainty and simplicity, effectiveness and fairness, and flexibility. It also states that, “at this stage of development in the technological and commercial environment, existing taxation rules can implement these principles. This approach does not preclude new administrative or legislative measures, or changes to existing measures, relating to electronic commerce, 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”.¹⁹ There is a further caveat that any arrangements adopted should maintain national fiscal sovereignty, provide a fair sharing of the tax base between countries, and avoid double taxation and unintentional non-taxation.²⁰

The European Commission has set out similar principles.²¹ It stresses particularly, the importance of international co-operation and “where appropriate, co-ordination in order to avoid distortion of competition”.²² There are working groups within most of the international organisations, such as the World Trade Organisation, operating on a similar basis.

¹⁷ A reasonably extensive list is set out in Doernberg and Hinnekens, above n 7 at 297.

¹⁸ OECD Committee on Fiscal Affairs, *Electronic Commerce: A Discussion Paper on Taxation Issues* presented at the OECD Government/Business Dialogue on Taxation and Electronic Commerce held in conjunction with the OECD Ministerial level meeting, *A Borderless World – Realising the Potential of Global Electronic Commerce* in Ottawa, Canada, on 7-9 October 1998 (Ottawa).

¹⁹ *Ibid*, at paragraphs 7 and 8. This approach is debated by a number of commentators. See, for example, D Pinto, “Taxation Issues in a World of Electronic Commerce” (1999) 4 *Journal of Australian Taxation* 227; HA Kogels, “VAT @ e-commerce” (1999-2) 8 *EC Tax Review* 117; P McNab, above n 11; P Postma, “Netherlands Discussion Paper” (1998) 26 *Intertax* 303; L Hinnekens, “The Challenges of Applying VAT and Income Tax Territoriality Concepts and Rules to International Electronic Commerce” (1998) 26 *Intertax* 52; and WF Fox and MN Murray, “The Sales Tax and Electronic Commerce: So What’s New?” (1997) L(3) *National Tax Journal* 573.

²⁰ Ottawa, above n 18 at paragraph 9.

²¹ In its 1998 Communication, *E-Commerce and Indirect Taxation* Com(98) 374 Final, 17 June 1998.

²² *Ibid* at 2. See further the general discussion on the need for international co-operation and the ways to achieve it in Doernberg and Hinnekens, above n 7 at 363.

The European Commission outlines a number of general guidelines that it will follow in adapting the European Union VAT system to deal with the needs of electronic commerce. Four are of general application and are endorsed by many countries and bodies. One is that there should be no new or additional taxes on electronic commerce. A second guideline is that compliance should be made easy to avoid unnecessary burdens on business. A third is that there is appropriate control and enforcement. A fourth is that the European Union should facilitate tax administration.

The first principle is reflected in the US *Internet Tax Freedom Act*,²³ which effectively bars discriminatory taxation of Internet commerce in the US for three years from 1 October 1998 and actively promotes the Internet as a “Global Free Trade Zone”.²⁴ This law is important in that it governs the reaction of the US, as the major force in electronic commerce.

The *Internet Tax Freedom Act* specifically bars state and local governments from imposing taxes on Internet access.²⁵ It also prohibits multiple taxation of electronic commerce and is aimed at preventing different states levying taxes on the same transaction without providing for tax credits.²⁶ The Act prohibits discriminatory taxation where electronic commerce is treated differently from other forms of commerce.²⁷ The anti-discrimination provision extends to prevent the imposition of new taxes on transactions that are exclusive to the Internet. It also prevents taxing authorities from imposing new tax collection or tax reporting duties on Internet transactions. The idea is to protect organisations such as Internet service providers, financial institutions and telephone companies from being subject to such duties only for electronic commerce transactions. States are also restricted in expanding their definitions of nexus to bring electronic commerce conducted by out-of-state business within their jurisdiction.²⁸ The Act created the Advisory Commission on Electronic Commerce, which studied the taxation implications of the growth of electronic commerce without reaching substantive conclusions.²⁹

The Act has potential international effect through US foreign and trade policy. Congress is now to receive annual reports on the existence and removal of foreign barriers to US electronic commerce.³⁰ The President is to pursue bilateral, regional and multilateral

²³ Included as Titles XI and XII of the Omnibus Appropriations Act of 1998, approved as HR 4328 by Congress on 20 October 1998 and signed as Public Law 105-277 on 21 October 1998. For the text and an analysis of the law by one of its introducers, Rep. Christopher Cox, see <http://cox.house.gov/nettax/>. See also, J Ross, “The Internet Tax Freedom Act Finalised” (1999) 1 *Tax Planning International E-Commerce* 19.

²⁴ Section 1201 extends the prohibition to Federal taxes.

²⁵ Section 1101(a).

²⁶ Section 1101(a)(2).

²⁷ Section 1104(2).

²⁸ Sections 1104(2)(B) and 1204.

²⁹ Section 1102. See its URL above n 2. The Commission has set out criteria for evaluation of proposals for a new sales tax system, which are largely in line with other guidelines referred to here.

³⁰ Section 1202.

agreements to remove tariffs and discriminatory foreign taxes from electronic commerce.³¹

The principles that have emerged from recent research and debate suggest that participants will not countenance new taxes or significant variation to existing rules. However, there is a general consensus that there should be international co-operation to ensure that new technologies are used to make the current rules work more effectively so as to protect the revenue bases of nations.

The next section sets out a model for electronic collection of existing taxes. I return to the principles outlined in this section in Part 4, where I analyse the model.

3. A MODEL FOR ETC

This part first defines the main terms used in describing ETC. Second, it describes the model in detail. Third, it looks at the regulation of the model and the basis for its application.

Definitions

To ensure a common understanding it is worth identifying terms that I shall use that have a particular meaning. I use “Electronic commerce” in a narrow sense to cover commercial transactions on the Internet.

I give “Electronic money” a fairly broad meaning. It refers to electronic funds transfers within the existing payment systems as well as money that moves electronically outside the normal payment systems. It does not cover debit or credit cards, but includes E-Cash, Network money and digital cash or coins.³² The latter are not a recognised form of currency but allow the secure transfer of stored value over the Internet. Their attraction lies in their security, that they can be converted easily into money, and that they are recognised by an increasing number of merchants and service providers on the Internet.³³

³¹ Section 1203.

³² The definition can extend to smart cards, but the proposal in this paper is restricted to their use in conjunction with the Internet. The definition could also apply to credit cards. However, it is arguable that existing rules satisfactorily cover the use of credit cards even where they are used to make purchases over the Internet. There would therefore be no need for credit cards to fall within this proposal, unless to exclude them would be to discriminate against their use.

³³ There are numerous discussions of Internet payment systems. The most accessible summary for readers may be in Doernberg and Hinnekens, above n 5 at 92. See also the national reports on the Internet and taxation, for example, A Tyree et al, INNET 97/2 Report, “Electronic Commerce, Banking and Finance Issues” prepared for the Australian Taxation Office Report, *Tax and the Internet*, released in August 1997 (ATO Report). For the legal status of electronic money see for example: in Canada B. Crawford QC, ‘Is Electronic Money Really Money?’ 12 BFLR 399; in Australia - M Sneddon, ‘Cyberbanking - The Emerging Technology and Legal Issues’, paper prepared for the 14th Annual Banking Law and Practice Conference, Sydney, 22 May 1997; see also A Beatty, ‘Internet Banking, Digital Cash and Stored Value Smart Cards’ in A Fitzgerald et al (eds) *Going Digital - Legal Issues for Electronic Commerce, Multimedia and the Internet* (Prospect Sydney 1998) 90; in New Zealand - K Daly, ‘Electronic Cash Products: Legal

I refer to an issuer or provider of electronic money as an “electronic money provider” under the acronym “EMP”.

It may be that ETC could be extended to cover credit card transactions and similar credit arrangements. However, I have specifically excluded such methods from my analysis, as their sophistication requires adaptation of existing, active systems, rather than the formulation of a new model to cope with the transactions involved.

An important distinction for this paper is between accounted and unaccounted systems. “Accounted systems” allow the provider of the electronic money to track its use and identify the customer to whom it was issued or transferred. “Unaccounted systems” allow the electronic money to circulate freely, for example using a “blind” digital signature, without the provider knowing where the money is or who the customer is who is using it.

The model

This section first sets out the parameters for ETC. Second, it identifies the types of taxes for which it could be used. Third, explains the model and gives examples of how it might operate for different types of taxes.

The parameters for ETC

The model put forward by Professor Quirk and myself develops existing ideas in the light of recent trends and new technologies. The model is deliberately kept as simple as possible. This is to allow its adaptation to cope with a framework of domestic and international rules that tend to develop very slowly in the context of technologies that are constantly changing. In broad terms, our aim is to engender discussion of how we can use the existing rules in new ways to protect both taxpayers and the tax base, without hindering the development of electronic commerce.

The model works within a number of specific parameters that reflect the international consensus to date (discussed in Part 1). First and foremost, it is not a new tax and is not premised on amending existing substantive tax rules.³⁴ Rather, it is an arrangement for the automated collection of some existing taxes taking advantage of new technologies. The model does envisage some changes to the process of administration and collection of existing taxes.³⁵ However, that is inevitable if tax administrations are to apply tax rules to electronic commerce. Also important is that the model can be adopted incrementally, first at a domestic level and then at an international level. Where gaps are identified in the existing rules the model is sufficiently flexible and adaptable to cope with subsequent changes.

and Regulatory Issues’, paper prepared for the 15th Annual Banking Law and Practice Conference, Gold Coast, June 1998.

³⁴ For a discussion of the substantive problems in international and domestic taxation and a number of proposed solutions, see Doernberg and Hinnekens above n 7, particularly chapters 4 and 5.

³⁵ This should not contravene the spirit of the US *Internet Tax Freedom Act*, as it substitutes for existing collection procedures new and more efficient collection mechanisms that will reduce long-term compliance costs.

The model is constructed specifically to assist with efficient tax administration, while protecting the rights of taxpayers, particularly their right to privacy. Taxpayers should find it easier to comply with complex tax rules leading to reduced compliance costs. Tax authorities will be able to exercise more efficient control and enforcement of revenue assessment and collection from electronic transactions. Tax administration costs should fall over time, after the initial investment in training and resources.

Because ETC focuses on collecting existing taxes, there is no threat to national sovereignty. The efficient electronic collection of tax will make it easier to provide evidence for and to monitor the incidence of double taxation under existing rules. The same applies to incidences of unintentional non-taxation.

A major threat to current tax collection methods stems from disintermediation (where electronic commerce takes place without an intermediary). Traditionally tax is collected through an intermediary that can be held accountable by the tax authority. Examples include employers, wholesalers, retailers and financial institutions. Most are registered and easily traceable. Where electronic commerce takes place directly between a large number of final consumers and a large number of small businesses, the accountability is no longer so easily traceable or enforceable. However, there is always an element of intermediation in any transaction involving the transfer of electronic money. It is the electronic money itself. This is the focus of ETC.

Currently most jurisdictions require the licensing of financial institutions. ETC seeks to emulate the existing framework for electronic money. ETC requires that all electronic money providers be licensed. Electronic money is sourced from EMPs. As ETC operates through the electronic money provided by an EMP, licensing carries with it the burden of ETC and administration. The burden should not be dissimilar to that of many similar reporting obligations already found in almost every jurisdiction.³⁶ It also fits well with electronic data interchange (EDI), which is the largely automated electronic transfer between computers of information in a standard format.³⁷

³⁶ In many developing countries, all foreign exchange dealings are reported to a central authority. In many developed countries any financial transactions above a certain set limit are reported to allow monitoring for money laundering and tax evasion. Financial institutions are commonly used as intermediaries. In Australia, the *Australian Prudential Regulation Authority Act 1998* (Cth) and associated legislation brings about fundamental reforms in the regulation of the Australian financial sector. The new regulations bring about a shift from *institutional* based supervision to *functional* based supervision by controlling those institutions which operate a 'payment system'. 'Payment system' is defined as a 'funds transfer system that facilitates the circulation of money, and includes any instruments and procedures that relate to the system' in the *Payment Systems (Regulation) Act 1998* (Cth) s 7. Control is further refined by permitting only 'authorised deposit taking institutions' (ADIs) to operate a payment system. All EMPs are effectively brought under Reserve Bank control. See further on this topic, A Beatty 'Internet Banking, Digital Cash and Stored Value Smart Cards' in Fitzgerald et al, above n 33 at 90, 108-111.

³⁷ For a useful summary description of the operation of EDI, see Doernberg and Hinnekens, above n 7 at 78.

Taxes for which ETC could be used

If ETC is to work it has to be able to apply existing rules for each of the taxes it is supposed to collect. ETC is likely to be used for three main types of tax. These are tax instalment deductions from salary or wages, taxes withheld at source from dividends, interest and royalties, and consumption type taxes such as the value-added-tax (VAT) and sales tax. The following basic description of the key features of each type of tax is subsequently used to explore the operation of ETC. It is sufficient for preliminary analysis if ETC can provide for each of the main features of a tax.³⁸

The employer makes tax instalment deductions from salary or wages before the employee receives payment of the net salary or wage. The tax authorities normally advise employers of the rate at which tax should be deducted from the relevant payment, or how to calculate that payment. It is largely done through self-assessment, often using codes to classify employees taxed at a particular rate, with a different code for each rate. The employer is required by law to deduct the relevant tax instalments and remit them to the tax authorities. Automated systems are used to some degree in most businesses in most jurisdictions. The system must be able to provide both the employer and the tax authorities with comprehensive information about payments made and tax deducted.

Taxes withheld at source from dividends, interest, and royalties are usually deducted at a standard rate or rates. To avoid the deduction a taxpayer usually has to make some form of declaration to the deducting company or institution. Deductions are largely automated and are remitted to the tax authorities. There are usually comprehensive information requirements as to payments made and tax deducted.

Consumption type taxes are more complex and have given most cause for concern at potential loss of revenue in an electronic environment. The problem is not so much in the automation, which is largely in place in many jurisdictions. It is found in the combination of the application of consumption taxes to most businesses, their increasing cross-jurisdictional incidence, and the difficulties in applying current rules to complex electronic transactions.

Most consumption taxes place the burden of the tax on the consumer. Value-added-taxes collect the tax on the value added at each stage of the production or supply of a good or service. The tax is relatively neutral for businesses as they can claim credits for tax paid on inputs into the production or supply process. Sales taxes usually impose the taxing point at a single point in time at or immediately prior to the point of consumption. Consumption taxes are not normally payable on exports. However, they are payable on imports, either as a tax or as an excise. Administration and payment of consumption taxes is increasingly automated both within businesses and the tax authorities. Consumption tax systems normally impose strict documentation requirements; particularly where businesses are claiming input tax credits.

³⁸ Note that most tax authorities are trying to automate the collection of these taxes. It was one of the implementation options put forward at Ottawa, above n 18 at 13.

Description of the model

ETC uses the tried and successful concept of tax collection by an intermediary in a transaction. Disintermediation means that traditional intermediaries may not exist. So ETC focuses on the EMP as transferor of electronic money. ETC applies at the time that one party transfers funds electronically to another party. Where this transfer of funds requires the payment of tax of any kind, the EMP collects the appropriate amount of tax at the time of transfer.

Under ETC, before an EMP can allow a transfer of electronic funds, the parties must advise the EMP of the type of transaction. This is done through a code, which will identify the type of transaction and enable the EMP to work out the tax that it must collect. The EMP has an automated computer program that can calculate the amount of tax that is due, if any, based on the code identifying the transaction. At the end of a specified period, say each week, the program at the EMP automatically remits to the tax collection authority any taxes due together with a report of electronic money transfers that took place in the period. The report lists the transactions by code, and provides the identifying code of the parties transferring electronic money. The requirement to install the appropriate program and make the necessary deductions is a term of the EMP's licence.

Where do the relevant codes come from? The transaction code is notified to taxpayers by the revenue authorities. ETC is simply a method of collecting existing taxes when electronic money is used. Taxpayers already have to self-assess payment of taxes and have to differentiate between different types of transaction. For example, taxpayers registered for VAT know that VAT may be charged on most items, but some items, such as financial services, may be taxed at a different rate, if at all. Under ETC, the revenue authorities will simply ascribe a code to each class of transaction that requires different tax treatment. The taxpayer will use that code to identify the type of transaction when transferring electronic money. For taxpayers that are not registered for tax, the EMP will request a description of the transaction from a specified list. Listed items will have a classification code that will enable the deduction of tax as appropriate. For example, a gift of electronic money will have a code signifying that the EMP need not deduct tax.

Revenue or other government authorities will also probably provide the code identifying the taxpayer. Most jurisdictions already register taxpayers by a particular number. The ETC identifying code is likely to be the same number.

The advantage of ETC is that it is not restricted to electronic commerce transactions, but applies to any transaction where funds are transferred electronically. The funds may transfer simultaneously with the transaction or arrangement or subsequently, perhaps in instalments. The timing is not important, it is the fact of the transfer that elicits the deduction of tax, as is the case with any arrangement for the deduction of tax at source.

Software will be developed to enable licensed EMPs to deduct tax. The program will contain the relevant tax rates of all participating jurisdictions and any variations within

each jurisdiction. It is not necessary for administration and compliance for there to be a standard rate of tax, though that is always simpler. Fewer rates reduce the requirement to have multiple classifications of transactions.

Assume, however, that different rates apply to different transactions. The classification acts as an identifier to trigger the deduction of the right amount of tax. The party authorising the EMP to transfer the electronic money classifies the transaction and the EMP's ETC program automatically deducts tax at the appropriate rate for that classification. It does not matter whether transactions are exempt from tax altogether, or subject to different rates of tax. The process relies on self-classification by the party authorising transfer of funds, but there is an audit trail for the tax authorities, and the procedure is no different to current self-assessment requirements for most taxes. For consumption taxes on domestic transactions, the vendor will usually provide the party purchasing the good or service with the relevant classification for the EMP via an electronic "tax invoice".

Each tax covered by ETC would have rules that would determine the liability for ensuring that tax is deducted. The liability would depend in part upon the type of tax and this is discussed in more detail below. However, using a self-assessment system, the rules would place the liability on either the transferor or the transferee of the electronic money to ensure that the correct amount of tax is deducted and paid. The EMP would not have any liability to pay the tax itself, but would have an obligation to make deductions in accordance with the information given by the parties, and to remit the tax to the appropriate revenue authorities. The EMP would be prohibited from transferring electronic money without knowing the tax identification of the transferor and the transaction classification code. In circumstances where the transferor is not able to, the EMP would have the obligation to determine the appropriate classification code from a description that the transferor gives of the transaction. The ETC program would effect the deduction. EMP's would have an obligation to obtain the appropriate licence and to ensure that they correctly implement and operate the program. Users of electronic money would have an obligation under a self-assessment regime to use a licensed EMP.

The process of quoting the classification code will be very efficient for businesses. Most standard transactions, such as transfers of salaries or interest payments, will automatically generate a code. For consumption taxes, the vendor of any digital or physical trading stock will encode the classification into the stock number or service code. The vendor's system will automatically transmit the classification code. Transmission will be to the EMP when requesting transfer of the electronic funds authorised by the purchaser directly from the EMP. Otherwise transmission will be to the purchaser, who will provide the classification code to the EMP when authorising the EMP to transfer the electronic funds. The vendor and EMP would automatically retain records of the transaction to ensure an audit trail. The EMP would also automatically remit a list of transactions with the appropriate transaction code to the tax authorities, say each week.

Tax authority programs would perform a statistical analysis of the transactions listed and produce exception reports and other analytical data to assist with enforcement. For example, if a purchaser and vendor were colluding to use exemption codes fraudulently on transactions, it is likely that there would be a greater incidence of exemptions from that vendor which would generate an exception report for investigation. In any event, exemptions would be investigated periodically as part of the audit program of the tax authority.

A particular advantage of self-assessment is that it protects taxpayers' privacy. Taxpayers do not have to disclose details of the underlying transaction to a third party. The EMP deducting any tax due is unaware of the particular transaction to which it relates. The most it can do is to identify the general type of transaction from the transaction code and the parties involved in the transfer of electronic money related to the transaction. This does not go as far as most credit card transactions, where the EMP has full details of the transaction. However, it does emphasise the need to protect the privacy of EMPs' customers by imposing strict licensing requirements similar to the current rules governing financial institutions in most jurisdictions. The tax authorities may subsequently request details of the transaction. But that is a usual element in any tax system and does not encroach further on taxpayers' privacy.

How does ETC cope with the difference between accounted and unaccounted payment systems? In an accounted system the party transferring funds may contact its EMP electronically and request the EMP to make the transfer. It is at this point that the transferor notifies its EMP of the classification code for the transaction.³⁹ The EMP already knows the transferor's taxpayer identification code, which the transferor will have given to the EMP when opening an account. Alternatively, the transferee may electronically request the transferor's EMP to transfer the funds. The transferor would authorise the transaction through some form of electronic identification. To allow ETC, either the transferee will provide the transaction classification code, or the transferor will include it in the electronic authorisation for the transfer. The transferee may contact the transferor's EMP directly or through the transferee's own EMP. Once the transfer is made, usually the EMP will notify the transferor that the transfer has taken place.

In an unaccounted system the EMP provides electronic money but has no further involvement in its use until it is fully expended. The EMP simply guarantees payment on presentation of the electronic money. The electronic money is encrypted with vital identification characteristics. ETC requires the EMP to include within the encrypted data a mini-ETC program. This protects the EMP's ability to issue unaccounted electronic money.

There are two possibilities here. The electronic cash could contain the whole ETC program, so that the electronic cash could itself identify the code of origin of the party requesting payment, and deduct the appropriate percentage of tax at the time of payment.

³⁹ There are some interesting issues where the transaction is domestic and falls within a VAT type system. These are discussed below.

It would remit the tax directly to the relevant tax authority. Alternatively, if the program to effect this were too complex to include in each unit of electronic cash, the program could simply effect a notification of the transaction. At the time of payment, the fact of its transfer would initiate the unit of electronic cash to notify the EMP. The potential for avoidance or jurisdiction shopping would be greater in this last scenario.⁴⁰

Notification may be preferable, given that electronic cash is designed, so far, for small transactions. With disintermediation it is likely that many transactions between parties will not include a party with access to classification codes. However, there are other alternatives if tax avoidance is a problem where transactions use electronic cash. On transfer, as well as notifying the EMP, the program in the electronic cash could automatically deduct tax at a standard rate. Or, the program could simply prompt the transferor to choose to deduct or not deduct tax before it will execute payment. This would extend the concept of self-assessment but would provide a transaction record for analysis by the tax authorities. Different options to collect tax or notify the tax authorities are available under ETC, where the parties to a transaction use electronic cash. It is simply a question of choosing the most appropriate option to suit the use of electronic cash. At this stage it is too early to say how its use will develop.

Some commentators suggest that electronic cash should be restricted to small transactions.⁴¹ This is partly because it is an unaccounted system and lends itself to illegal activities. If electronic cash includes an ETC micro-program it effectively becomes an accounted system. Many of the concerns about electronic cash then disappear and it makes it feasible to allow much wider use for larger denominations. This would be a major advantage. Attempts to regulate electronic cash and limit its use to a set amount to try to limit illegal transfers are fraught with difficulty.

ETC is best illustrated by a number of representative transactions. The transactions show the operation of ETC for the different types of tax, in accounted and unaccounted systems, and for domestic and international transactions.

Purchase of a good or service in the same jurisdiction, using electronic money under an accounted system, assuming the application of a consumption tax

A typical purchase involves one vendor “V” and one purchaser “P”. They may negotiate over the terms of the contract. More often in an ordinary transaction over the Internet, P may visit V’s web page. Once there, P may browse the virtual shelves and will then choose to purchase one or more items displayed, or described as being offered for sale. P may do this, for example, by clicking on an icon which reads “add to shopping basket”. To complete the purchase P will then have to enter her or his payment details.

⁴⁰ The deduction process highlights the general need for flexibility in the make-up of electronic cash so that it can cope with micro-transactions and, where necessary, reformulate into larger amounts when joined by other electronic coins or tokens. The purchase of very small items, such as a page of information off the Internet, would result in a deduction for the purchase of a very small amount from the electronic coin or token. The same would be the case for some tax deductions and the facility to cope with such transactions is an essential element in the potential success of electronic cash.

⁴¹ Ottawa, above n 18 at 16.

Assume P wishes to pay using electronic money under an accounted system. P will already have set up an account with an EMP. P may make an electronic withdrawal and send the electronic funds to V, instruct P's EMP to transmit the funds directly to V, or authorise V to approach P's EMP and request a transfer of funds. In each case, P's EMP requires electronic verification of P's identity. Under ETC, P's identity code or signature will include a tax and jurisdiction identification code. To effect transfer of the funds P (or V) will also have to provide a code for the transaction so that the EMP's ETC program can deduct the correct amount of consumption tax.

How can this be done in a simple way? In most cases, P would have to obtain the code from V. Each item offered for sale will have an identification code in any event. When P completes a transaction, V supplies an electronic "summary tax invoice" for P to send to her or his EMP with the authorisation to transfer funds to V. The "summary tax invoice" simply provides the identification code and total price of each category of goods or services. All goods or services subject to the same rate of tax could be pooled. In most cases that would mean that only one code and amount would be sent to the EMP. If V did not know the relevant code, the EMP's authorisation program would prompt P to self-classify the transaction based on a simple question and answer decision-tree process.

Once P's EMP receives authorisation and identification, its ETC program deducts tax at the appropriate rate and transfers the balance to V. The EMP subsequently remits the tax to the revenue authority electronically, together with an electronic transaction report. Meanwhile, V provides the good or service to P.

Purchase of a good or service in another jurisdiction, using electronic money under an accounted system, assuming the application of a consumption tax

This scenario is similar to the last one. The difference is that the transaction takes place across jurisdictions. The problem here is to ensure that the EMP deducts the correct amount of tax and that the tax is remitted to the appropriate tax authority. The ETC program will identify the type of transaction from its identification code. Where the transaction is an export from one jurisdiction and an import into another, V's "tax invoice" will identify it as such.

Usually exports are not subject to consumption taxes, while imports are. The ETC program will deduct tax at the rate required for an import into P's jurisdiction. P's identification code will include an element identifying the jurisdiction with which P is most closely connected. The tax authorities will assign jurisdiction identification codes in accordance with the existing tax rules in that jurisdiction. ETC simply implements those rules. P's EMP will remit the tax paid to the tax authority in P's jurisdiction. This means that it does not matter if V's EMP is not subject to ETC.

A problem will arise where V does not know how much tax will be deducted from the purchase price as an import into P's jurisdiction. V will not be able to set a gross price inclusive of the appropriate consumption tax. In such cases P will simply authorise her or

his EMP to transfer the full purchase price to V. The EMP will then automatically deduct, in addition, the appropriate taxes from P's account much as already occurs in some jurisdictions with government taxes on debit or credit transactions.

Purchase of a good or service using electronic money under an unaccounted system, assuming the application of a consumption tax

The same principles would apply in an unaccounted system. However, it would depend on the rules adopted as to whether the micro-program in the electronic cash allows the EMP simply to notify the appropriate tax authority of P's purchase or to remit the appropriate amount of tax where the micro-program has deducted it. If notification were used, it would provide further evidence of the transaction under the normal tax rules that apply to all transactions not covered by ETC. Automatic collection and remittance of the tax would simplify the assessment and collection process.

Payment of salary or wages using electronic money assuming an obligation on the employer to deduct tax instalments

The employer usually pays salary or wages on a regular basis, but may also do so irregularly or only once. Most jurisdictions require employers to deduct tax instalments when making such payments. Employers are required to register and are given identification numbers. Tax authorities usually have a list of codes to determine the appropriate deduction. Employers determine the appropriate code for the employee based on the amount paid in the current period and in the year to date.

Where the employer pays the employee using electronic money the same principles apply. The employer authorises the EMP to make the payment. The authorisation includes the employer identification code, the transaction classification (a deduction from salary or wages), and the appropriate code for the EMP to deduct the correct amount of tax. The EMP's ETC program automatically deducts the tax and remits it to the appropriate tax authority. At the end of each period (say monthly) the ETC program provides an automatic report to the customer (the employer) of payments made to the employee and amounts deducted and remitted to the tax authority.

Assume that the employer pays the salary or wages using electronic cash. If the electronic cash contains a micro-program that can effect the tax instalment deductions, the process is the same as for an accounted system. If the electronic cash only contains a notification program then the employer would have to remit the tax instalments separately and the electronic cash would be in payment of the net salary or wages. The ETC program would still notify the EMP, which would in turn notify the tax authorities of the payment. The notification would provide the tax authorities with the information to check the employer returns of wages paid and tax deducted.

Payment of interest, dividends or royalties using electronic money assuming an obligation on the payer to deduct tax at source

Under withholding tax provisions usually the payer is required to deduct tax before making the payment. The payer remits the tax to the tax authority. The tax authority may give the payer a special identification code.

Where the payer uses electronic money, the payer authorises its EMP to make the payment. The authorisation includes the taxpayer identification number and the transaction classification code. The latter code will determine the tax rate the EMP uses to calculate the tax to deduct. There are usually very few rates of withholding tax and they depend upon the nature of the payment. The EMP's ETC program will automatically deduct the appropriate tax and remit it to the relevant tax authority. The ETC program will provide an automatic periodic report to the payer for its tax records.

Where the payer uses electronic cash to make the payment, if the electronic cash includes a micro-ETC program, the payer will have to provide a classification code for the transaction. The ETC program will deduct and remit the tax and provide a report, in the same way as in an accounted system. Where the electronic cash contains only an ETC notification program the payer will have to deduct and remit the tax, but the ETC program will automatically notify the EMP, which will in turn notify the relevant tax authority of the transaction. This provides the tax authority with a check on the transaction for subsequent audit purposes.

Transfer of funds between persons using electronic money in connection with a transaction or arrangement that does not require deduction of tax

ETC depends largely on self-classification of transactions. Assume a company simply wants to transfer funds electronically between branches. There is no taxable transaction. However, the EMP requires the company to classify the transaction when authorising the payment. The transaction will have a classification signifying that no tax is deductible. The EMP will report the transaction and the relevant tax authority will have a record for audit purposes.

The same principles will apply where there is a transfer of electronic cash. Where the transferor uses electronic cash it is more likely that the transferor will not know the classification code. The ETC program will prompt the transferor to self-classify the transaction based on a simple question and answer decision-tree process, much the same as occurs before a customer can withdraw cash from an automatic teller machine.

Licensing

ETC is based for its operation and effectiveness on EMPs. It is likely that most EMPs will be financial institutions already in existence. Financial institutions are heavily regulated, usually through a licensing process. A major strength of ETC regulation is that it simply builds on the existing regulation of financial institutions, particularly banks.

There are concerns that disintermediation will produce a large number of issuers of electronic cash.⁴² The barriers of entry to the market, in the form of the significant capital and technological investment that is required, suggest that the concerns are overstated. Nonetheless, there will be new players in the market. For the most part they will operate within trading jurisdictions and it is likely that they will fall within banking regulations. Some will operate from tax havens and will trade on taxpayers wishing to have a secret account generating undeclared income. ETC could overcome this problem, as discussed below under “International Implications”. However, it would require general international agreement. In the meantime, tax authorities will have to rely on tracing transfers of funds offshore to find such accounts. ETC helps the tracing process.

To operate, EMPs will usually have to apply for a banking licence. This facilitates the implementation of ETC. EMPs will receive a code to identify them as licensed issuers of or dealers in electronic money. They will use this code as part of the authentication of electronic money transfers. Licensed EMPs will have legal obligations. These will include a requirement to collect and remit tax withheld on electronic transactions. Collection will be through the ETC program, which EMPs will incorporate into their systems. Where banks issue electronic cash, they will incorporate into it the ETC micro-program.

For the system to work all account holders will have to provide identification for tax purposes. This is already a requirement in many countries. For example, in Australia, taxpayers provide their tax file number as identification when opening a bank account. Stringent privacy rules govern banks’ use of tax identification numbers.⁴³ The same rules would apply to EMPs, protecting taxpayers’ privacy.

The ETC program will use tax identification numbers in combination with the EMP identification code and the transaction classification. The tax identification number will identify the jurisdiction to which the account holder is most closely connected under the relevant tax rules.⁴⁴ This is as relevant to domestic transactions involving different tax jurisdictions within the one country as it is to international transactions. When combined with the classification code for a transaction the ETC program can then deduct the right amount of tax based on the type of transaction and the tax rates applicable to the

⁴² Owens J, “The Tax Man Cometh to Cyberspace”, Harvard Symposium, above n 6 at 10 and (2 June 1997) *Tax Notes International* 1833.

⁴³ ASS Ow, “Multi-Jurisdictional Taxation of Electronic Commerce”, Harvard Symposium, above n 6 at 13.

⁴⁴ Discussed further below under “Administration”.

transaction in that jurisdiction. The duty to collect and remit tax under ETC is similar to banks' existing duty to collect and remit other forms of withholding tax.

The ETC program incorporates a reporting function. It automatically deducts the appropriate tax and sends it to the correct tax authority based on the account holder's tax identification code. At the end of each designated period, the program also automatically sends a transaction report to each tax authority with which it has dealt in the period. The report lists the transactions for account holders connected with that jurisdiction. It includes transactions classified as exempt or concessionally taxed. The reports provide the tax authority with sufficient information to analyse transactions according to taxpayer type, industry sector and other relevant risk indicators. It makes it easier for tax authorities to monitor taxpayer compliance, whether it is by using exception reporting or other audit techniques.⁴⁵

The reporting function provides EMPs with sufficient information to meet their reporting requirements under the licensing provisions. It also provides transaction reports to account holders. They can ascertain from the reports that the transfer has taken place as authorised and the amount of tax deducted on each transaction. Banks already provide reports of this kind to their customers and to the tax authorities. The ETC streamlines the reporting function by making it automatic and electronic.

International implications

ETC is effective for most transactions that flow in or out of a jurisdiction. The representative transactions described above demonstrate several important points. ETC covers most aspects of a consumption type tax. If ETC only operates in the jurisdiction of the purchaser, the purchaser's EMP is responsible for ensuring that the appropriate tax is withheld from the transfer of funds to the vendor. This covers payment of consumption tax on importation. Most importantly, it covers the purchase of electronic goods that the purchaser simply downloads electronically. It also covers transfers of funds in payment of services. The tax is self-assessed, but each transaction is reported. Tax authorities can then use advanced audit techniques to monitor anomalies.

Where there is payment of salary, wages, dividends, interest or royalties, ETC operates automatically through the EMP. Even where there is a transfer of funds where tax is not payable, there is a reporting function so that the tax authority is aware of the transfer. Reporting the import and export of funds is common in many jurisdictions. For example, there is a requirement for financial institutions to report transfers of all amounts in and out of Australia over a very low threshold.⁴⁶

⁴⁵ A Yamanaouchi, "International Tax Issues Affecting Electronic Commerce and Banking", Harvard Symposium, above n 6 at 9, states that "to the extent that a bank issues electronic money, it will use an 'accounted system' that will require it to maintain a central record of the flow of its electronic money." This, according to the US Treasury, *Selected Tax Policy Implications of Global Electronic Commerce*, November 1996 at para 8.3.1, "will be an advantage for both taxpayers and tax administrators since the central records maintained by an accounted system could be used by taxpayers and auditors to verify payments".

⁴⁶ *Financial Transactions Reports Act 1988* (Cth).

This means that under ETC the traditional avoidance methods are covered by reporting requirements. It is then up to the tax authority to develop efficient data matching and audit techniques to identify and monitor areas of risk to the revenue. However, at the international level, the development of electronic commerce has raised other areas of concern, particularly for tax authorities.

The OECD is co-ordinating international research into how existing rules of international tax can cope with electronic commerce. The Committee on Fiscal Affairs first identified its main areas of focus at the Turku business-government round table in November 1997.⁴⁷ These were taken up at the Ottawa conference in 1998 and have formed the basis for several OECD working and discussion groups.⁴⁸ The key areas are “improved taxpayer service, reduced administration costs and reduced compliance burdens; effective tax administration and issues surrounding consumption taxes and international taxation norms like those found in the OECD Model Tax Convention and the OECD Transfer Pricing Guidelines”.⁴⁹

I have shown how ETC provides a useful contribution in many of these areas. However, it does not attempt to solve substantive problems. ETC can add little to the discussion about the fair allocation of income between jurisdictions and review of such concepts as residence, permanent establishment, royalties and the valuation of intangibles. As a collection mechanism ETC can simply assist with the implementation of those rules. Where ETC may add a new dimension to current debate beyond the collection of tax, is in the areas of tax avoidance and harmful tax competition.

Consider the OECD Report on Harmful Tax Competition (the Report), from which three trends can be drawn.⁵⁰ It aims to reach agreement on the elimination of harmful tax practices, particularly through international cooperation, it proposes the tightening of domestic and treaty anti-avoidance provisions and it seeks to protect the rights of taxpayers through compliance with OECD recommended standards of conduct by tax administrations. ETC could advance all three.

Harmful tax practices include tax havens and harmful preferential tax regimes.⁵¹ The OECD has set up a review committee to identify those jurisdictions engaged in harmful tax practices. The process has been strongly criticised.⁵² ETC could assist in the purpose of the Report and ameliorate some of the criticism. “Harmful jurisdictions” are usually not a concern to tax administrators in other countries simply because of their lower tax rates or incentives. They are a concern primarily because of the secrecy provisions that

⁴⁷ *The Communications Revolution and Global Commerce: Implications for Tax Policy and Administration* (Turku).

⁴⁸ Above n 1.

⁴⁹ Ottawa, above n 18 at 6.

⁵⁰ OECD, *Harmful Tax Competition: An Emerging Global Issue* (OECD Paris 1998).

⁵¹ *Ibid* at 8.

⁵² For a comprehensive summary of the debate, see A Easson, (25 January 1999) *Tax Notes International* 371.

they employ to prevent tax administrators tracing and verifying the activities of their own residents.

The Report recommends that all OECD countries implement CFC and FIF legislation. If it is implemented, this legislation goes a long way towards preventing undesirable revenue leakage. However, such legislation's efficacy depends upon tax administrators being able to monitor the activities of their residents abroad. A concern about electronic commerce is that the monitoring will become difficult.⁵³ Tax administrators fear that encryption and widespread electronic access to "harmful jurisdictions" will make it difficult to trace tax evasion.⁵⁴ Many ordinary citizens who take advantage of such facilities will not even be aware that they are breaking the law and not paying tax that is legally due.

Let us assume that OECD members enter into a voluntary agreement to use ETC. EMPs in each jurisdiction must have a licence to deal in or issue electronic money. The EMP will have a country code, as will the individual taxpayer transferring funds. Each transfer will also have a classification code. All transfers are reported electronically to the relevant tax authority and tax is remitted under the ETC program as appropriate. There is a clear audit trail identifying electronic transfers from residents of a participating jurisdiction.

Implementation of ETC would require international agreement between participating jurisdictions so as to permit the transfer of information by an EMP in one jurisdiction to another jurisdiction's tax authority.⁵⁵ This could be done by multilateral agreement, perhaps by adding a protocol to the Convention on Mutual Administrative Assistance in Tax Matters. Adding a protocol to existing double tax conventions may also effect it.⁵⁶ The agreement or protocol would require, among other things, that where funds are transferred from the other jurisdiction an EMP would only accept a transfer from a licensed EMP. The EMP in the other jurisdiction would require an identification code for any account and would therefore be aware of who was resident in a participating jurisdiction. The EMP's ETC program would automatically report all fund transfers by the residents of the other jurisdiction to the tax authorities in that jurisdiction.

This last requirement would have a similar effect to treaty shopping provisions, but aimed at domestic anti-avoidance. It would prevent residents of one participating state using another participating state as a conduit for the secret transfer of funds from a non-participating jurisdiction unless they acted illegally. Assume countries A and B signed a protocol to their double tax convention as outlined. A resident of A wishes to lodge some funds in a secret bank account in a tax haven. Assume small amounts of cash were not

⁵³ For a useful summary, see Pinto, above n 19.

⁵⁴ Ottawa, above n 18 at 16.

⁵⁵ Ibid at 31.

⁵⁶ For an analysis of the shortcomings of double tax conventions in this context see Pinto, above n 19, at 252. Pinto expresses strong preference for a multilateral agreement covering tax administration issues. McNab, above n 10, also provides an extensive discussion of the various bilateral and multilateral options.

queried by the tax authority in A as they were transferred to country C over a long period and then transferred from C to the tax haven. Eventually, assume that the resident of A wishes to use the money. How does the resident repatriate the funds without drawing attention to them?

The resident could smuggle in large amounts of cash, which is illegal in country A. Electronic transfer of the funds from C or from the tax haven to A would immediately raise a report on the transfer by the receiving EMP in A. The resident could simply repatriate small amounts over a long period and hope they are not caught by data matching programs. A safer alternative could have been to transfer the amount from the tax haven to a licensed EMP in country B and then to a licensed EMP in country A. However, the protocol to the double tax convention between A and B, would oblige the EMP in B to report to the tax authority in country A all funds transfers to and from the country A resident's account. This would include the transfer of funds from the tax haven to country B.

The result is that if residents of participating countries wish to minimise taxes by keeping money in secret accounts, they have to act illegally at every step and it is difficult to repatriate the funds. Of course, when opening an account in country B the resident of country A could give an address in the tax haven. No report from country B would then ever go back to country A's tax authority under the ETC program. But the action would be illegal in country A and B. Also, data matching using information transferred under the ETC program would have a reasonable chance of identifying these types of accounts and non-commercial transfers of large amounts or of large numbers of small amounts between B and A. ETC will not eliminate tax evasion. It will make it more difficult by providing standard information on the transfers of funds by residents when they operate through another ETC jurisdiction.

ETC would be most effective in this context if it were widely adopted by the major trading nations. If that were to occur a more formal arrangement could take place to reduce the illegal use of third jurisdictions to evade tax. Assume that a large number of trading nations entered into a multilateral agreement to introduce ETC. There could be a requirement that EMPs would only accept funds transferred from licensed EMPs as a standard practice. Funds transferred from unlicensed EMPs (ie those in non-participating states) could be subject to detailed scrutiny with an increased reporting requirement. Or, there could be a withholding tax on transfer, which would be credited in the resident's tax return.

If a resident of a participating jurisdiction wished to trade with a resident of a non-participant the transfer of funds would require more onerous reporting and compliance costs and possibly a creditable withholding tax on transfer. This would act as an incentive to non-participants to join the multilateral agreement, to reduce the cost of foreign investment. The additional requirements would not be a tariff designed to inhibit free trade. Agreements to facilitate free trade through the introduction of standard monitoring functions are common to most trading blocs. There is nothing illegitimate in

participants safeguarding their revenue bases by placing more onerous requirements on transfers of funds from non-participants.

A multilateral agreement would not prevent tax evasion. However, it would inhibit it and provide a much broader and more effective reporting arrangement than is currently in place. Participants would have much greater opportunity to trace transactions to ensure compliance with CFC and FIF information. The information would assist tax authorities in monitoring and auditing transactions. An agreement would also assist legitimate taxpayers. There would be clear international standards on the transfer of information. Internationally agreed safeguards would ensure security of transactions, privacy of information and limits on the use of information. An international agreement would provide an opportunity to put in place a high level of protection for taxpayers that is simply not available under most current information exchange agreements.⁵⁷

4. Analysis and conclusions

Use of EMPs

Why use EMPs to administer ETC? Disintermediation means that EMPs are ideally placed, as one of the few remaining intermediaries, to carry out an administrative role. Furthermore, financial institutions are already widely used to carry out similar functions. In many countries they are required to deduct tax at source from interest payments and to remit the tax to the tax authorities together with relevant reports.⁵⁸ They have elaborate identification requirements already in place when a person opens an account. Financial institutions are often required to monitor and report on transfers of funds in and out of a jurisdiction and are vital to the implementation of exchange control regulations in those countries that have them.⁵⁹ Accordingly, they administer and regulate tax and reporting systems already, using systems that maintain the highest levels of security and confidentiality. ETC may well streamline their existing functions and the automation would be more efficient than under many of their current reporting obligations. EMPs are familiar with payments systems and their operation. They would be well placed to introduce ETC as they continue to upgrade their own internal systems.

Who will bear the cost of the new technology? EMPs should bear some of the cost as licensing necessarily provides a barrier to full market competition. EMPs should reap higher profits as a result. They should also face lower compliance costs once the system is implemented. Governments should also invest resources in a system that will provide higher returns by improving compliance, protecting the revenue base and reducing administration costs.

Before ETC is implemented there would need to be clear regulation of the relationship between EMPs and taxpayers. Not all elements of ETC are under the control of the EMP

⁵⁷ D Bentley, "Future Directions" in D Bentley (ed) *Taxpayers' Rights: An International Perspective* (1998 Gold Coast The Revenue Law Journal) 380 at 387.

⁵⁸ For example, in Australia and the United Kingdom.

⁵⁹ Above n 46.

so EMPs cannot be liable for incorrect deduction where incorrect information is provided. That would put EMPs in the same position as a financial institution currently required to withhold tax on interest. In that case, there is a liability to deduct tax. But the deduction is based on information provided. The liability for providing false information rests with the taxpayer.

There may also be need for a defence of reasonable error where any of the automatic processing goes wrong and incorrect amounts of tax are deducted. The EMP's duties of confidentiality would need articulation, as would taxpayers' rights to enforce those obligations.

Technology

Is the technology available to develop and implement ETC? The technology exists and several commercial providers have stated that they have the capacity to develop such a program.⁶⁰ The most recent example, which bears the closest resemblance to ETC is a "point of sale tax reporting and automatic collection system including a smart tax register located at a retailer location".⁶¹ The OECD technical working group has reviewed many systems with similar potential capability.

An important technical issue is that ETC software must be able to connect with the systems of different tax authorities and financial institutions. Again, this problem is not insurmountable and has been solved successfully for EDI. As another example, tax authorities are moving towards automated systems that require tax agents, accountants and similar intermediaries to provide tax information electronically. Many are successfully in operation despite the wide variety of platforms in use.⁶²

ETC fits well within the existing structures for operating EDI. EDI has shown that it is possible to automate a payments system that involves a huge volume of transactions. The use of automatic clearing houses is similar to the ETC concept and has been shown to work effectively at an international level.

ETC is based on current and currently proposed payment systems. These are likely to change rapidly, but probably in the medium rather than short-term, given the high development costs and the difficulties in implementation. As ETC is based on taxing principles and is not tied to a particular software program, it can be readily adapted to suit new technologies.

⁶⁰ A different approach could be through adaptive technology. See W Olders and W De Vito, "Adaptive Technology: A Foundation for Automating the Taxation of E-Commerce" (24 May 1999) *Tax Notes International* 2171.

⁶¹ Invented by PA Francisco and FJ Peschauer of TaxNet Systems Inc, it is registered as US Patent application 5,875,433 at the US Patent & Trademark Office on the Patent Full Text and Image Database, at [<http://www.uspto.gov>] (at 31/10/1999).

⁶² For example, the electronic tax lodgment system has been in operation for a number of years in Australia and electronic interaction between government and business is becoming the norm rather than the exception. Platform compatibility issues have been successfully overcome. For further information, see [<http://www.ato.gov.au>] (at 31/10/1999).

International principles

ETC represents a mechanism for collection and enforcement that leaves to each jurisdiction the basis for collection according to its own tax rules. It is unlikely that there will be early resolution of the arguments about the effectiveness of existing tax rules. However, the work of the OECD and individual tax authorities suggests that there will be a continued focus on enforcement of tax rules in an electronic commerce environment. Mutual self-interest suggests that international consensus will see a congruence in general approach, even if an international agreement is slower in coming.⁶³ Having said that, there is no reason why there should not be international agreement on discrete elements affecting taxation of electronic commerce. An agreement on ETC would be similar to the agreements on EDI. Although there are two competing standards for EDI, they provide an effective framework in an area experiencing explosive growth.⁶⁴

Because ETC does not introduce a new tax or type of tax, but simply collects tax under existing rules, it fits neatly within the US Internet Tax Freedom Act. It uses familiar methods of implementation adapted to new technologies, thereby overcoming the difficulties of proposals such as the bit tax.⁶⁵ ETC also complies with the requirements of the various international prohibitions on special tariffs on electronic commerce.

It is important to note that ETC complies with the principles-based approach set out by the OECD in its Ottawa document.⁶⁶ That document identifies, in particular, the principles of neutrality, efficiency, certainty and simplicity, effectiveness and fairness, and flexibility.⁶⁷

ETC should be tax neutral. It does not discriminate between forms of electronic commerce. Neither does it favour electronic commerce over other forms of commerce.⁶⁸ It simply effects collection and reporting of existing rules that apply to all forms of commerce. The only complaint of discrimination that could be levelled against it is that

⁶³ ATO Report, above n 33 at 6.2.3-6.2.5.

⁶⁴ Doernberg and Hinnekens, above n 7 at 78.

⁶⁵ ATO Report, above n 33 at 6.2.5. It is important to note that ETC would work in every one of the extensive scenarios identified as causing potential problems in the CSIRO section of the ATO Report prepared by P McCrea and B Smart.

⁶⁶ Above n 18 at 7.

⁶⁷ For further discussion of the principles that should be used to analyse a tax system, see the Carter Report, published in Canada, which has been one of the most influential documents in the English speaking world: Royal Commission on Taxation, *Report* (Carter Report) (Ottawa 1966). See also, United States Treasury, *Blueprints for Basic Tax Reform* (Washington 1977); United States Treasury, *Tax Reform for Fairness, Simplicity and Economic Growth* (Washington 1984); Irish Commission on Taxation, *First Report: Direct Taxation* (Dublin 1982); P McCaw, *Report of the Task Force on Tax Reform* (Wellington 1982); and Taxation Review Committee, *Full Report* (the Asprey Report) (AGPS Canberra 1975), Taxation Review Committee, *Preliminary Report* (AGPS Canberra 1974) and *Reform of the Australian Tax System*, Draft White Paper (AGPS Canberra 1985).

⁶⁸ Although, it is a domestic policy decision whether those who provide goods or services electronically should be taxed differently from those who provide the same goods or services in other ways. Hellerstein, Harvard Symposium, above n 6 at 2, argues that “virtually all concerned parties agree that state taxes on electronic commerce should be economically neutral”. This point was also put forward at an international level by ATO Commissioner Michael Carmody in a 1997 speech to Turku, above n 47.

its automation provides a higher standard of reporting and compliance than is possible in manual compliance. However, this is a feature of technological development and is hardly a disadvantage, except for tax evaders.

Electronic compliance is becoming a feature of most tax systems and is integral to the OECD and EU goals of improving both taxpayer service and tax administration.⁶⁹ It engenders efficiency by reducing compliance and administration costs.⁷⁰ ETC is an efficient tool for improving electronic compliance.

ETC cannot influence the drafting of tax rules. However its operation is clear and simple. Taxpayers would be able to “anticipate the tax consequences in advance of a transaction, including knowing when, where and how tax is to be accounted.”⁷¹ The only caveat would be that taxpayers would need education in the operation of ETC as they do with any tax collection method. The implementation needs to be transparent, with dissemination of information to all users. The system should be simpler for most users. They will no longer have to account to the tax authorities themselves for tax collected and much of the reporting will be automated. The compliance function once ETC is implemented should be relatively simple for EMPs as well. Again, that is because of the automation of most processes.

One of the major benefits of ETC is that it is effective and fair.⁷² Automated collection using a program that deducts tax at source, at the appropriate rate, and in accordance with self or vendor classification, is one of the most effective methods of tax collection.⁷³ Source collection by a third party reduces opportunities for avoidance and is one of the reasons why value-added taxes are so popular.⁷⁴ Although ETC is based, to a certain extent, on self-assessment, this increases rather than reduces the capacity of the tax authority to undertake effective risk management.⁷⁵ ETC enhances fairness by eliminating the need for double taxation.⁷⁶ ETC should prevent electronic and non-electronic taxation of the same transaction, particularly by different jurisdictions. Where

⁶⁹ Ottawa, above n 18 at 8.

⁷⁰ These are as important for electronic as non-electronic tax collection. See the extensive references in the various US reports on taxation of electronic commerce, cited in W Hellerstein, “State Taxation of Electronic Commerce: Preliminary Thoughts on Model Uniform Legislation”, Harvard Symposium, above n 6.

⁷¹ Ottawa, above n 18 at 7.

⁷² Ibid.

⁷³ These conclusions are drawn from an analysis of compliance and administration costs relative to tax revenue collected, based on studies by: C Evans, K Ritchie, B Tran-Nam, and M Walpole, *A Report into the Incremental Costs of Taxpayer Compliance* (AGPS Canberra 1997) and *A Report into Taxpayer Costs of Compliance* (AGPS Canberra 1997); J Pope, R Fayle and M Duncanson, *The Compliance Costs of Personal Income Taxation in Australia 1986/87* (ATRF Sydney 1990); CT Sandford, *Tax Compliance Costs Measurement and Policy* (Fiscal Publications Bath 1995).

⁷⁴ When a value-added tax is introduced this is one of the common arguments for its introduction. It was widely used in the campaign for the introduction of the Australian version of value-added tax.

⁷⁵ See J Wickerson, “The Changing Roles of Taxpayer Audit Programs: Some Recent Developments in the Australian Taxation Office” (1994) 4 Rev LJ 125.

⁷⁶ An issue crucial to the multinational. See, for example, Yamanouchi, above n 47.

a withholding tax is applied when funds are transferred to a licensed EMP from an unlicensed EMP outside the participating jurisdiction, the tax should be creditable.⁷⁷ That does not mean that double taxation will not occur, but it is not necessary.

As a method of collecting tax, ETC is not tied to a particular technology and should therefore have the capacity to adapt to technological and commercial developments.⁷⁸ The flexibility of ETC is a major strength in that it provides different jurisdictions with the continued capacity to provide incentives or disincentives to different types of electronic transaction. That capacity is an essential tool in national economic management.⁷⁹

ETC complies with the basic principles set out by the OECD, EU and the US, as discussed in Part 1. It also goes some way towards making the existing substantive rules more workable in an electronic commerce environment. It can give effect to a wide range of rules. It does not matter whether a system taxes transactions on the basis of the location of the vendor, the place of supply, the location of the purchaser, the place of delivery, or use of an EMP.⁸⁰

ETC also provides the opportunity for jurisdictions to work towards applying uniform general rules to govern the taxation of electronic transactions in the context of financial sector regulation. These concepts are not anti-competitive. Rather, they make tax collection simple and efficient, minimising transaction costs.

Administration

A major advantage of automated information systems is that they produce standard information where the form, content and scope is pre-determined. ETC does this and goes a step further. The ETC program allows collection of the appropriate amount of tax across jurisdictional borders. It provides all relevant information to allow both taxpayers and the tax authority to monitor compliance. Automation also allows safeguards to be built into the system and reduces the likelihood of human error. Information exchange of this kind is much more likely to gain international acceptance than individual requests for information, which face legal, language, technical and other barriers.⁸¹

The European Commission has responsibility for the administration and operation of the VAT systems of the EU. It is a highly complex task and the EU example highlights the importance of a number of key administrative requirements for any international arrangement to collect taxes. It is vital that any collection arrangement is not overly resource intensive. Audit and verification should concentrate on high-risk areas. ETC's automated approach allows the use of computerised audit, data matching and risk

⁷⁷ In the situation where participating jurisdictions choose to impose this requirement to deter tax avoidance, as discussed above under "International Implications".

⁷⁸ Ottawa, above n 18 at 7.

⁷⁹ S James and C Nobes, *The Economics of Taxation* (Prentice Hall Europe 1998) ch 4.

⁸⁰ Variations on traditional taxing points are discussed in Hellerstein, Harvard Symposium, above n 6 at 12.

⁸¹ Discussed in Bentley, above n 57 and in V Tanzi, *Taxation in an Integrating World* (1995 The Brookings Institution Washington DC) ch 6.

assessment techniques. The EU provides an example of the need for tax collection to be streamlined and capable of dealing with small transactions. Customs agencies now assess manifests provided by international carriers to determine what should be taxed. It would be simpler to use self-assessment and run automated checks to identify anomalies. This would be possible under ETC. ETC also helps to overcome the micro-transaction problem facing customs authorities, which are often supposed to assess all imports, but cannot physically do so. Self-assessment and subsequent monitoring is a superior method for encouraging compliance.⁸²

Use of a taxpayer identification number may help to overcome some of the substantive issues facing tax administrators.⁸³ Currently, the mingled definitional issue of establishing location, residence, nexus, permanent establishment and other such factors is a problem. To obtain a taxpayer identification number, there would have to be a nexus with some jurisdiction and, arguably, where that nexus is established, taxing rights would follow for ETC.⁸⁴ There would still be issues of transfer pricing. Taxpayers would still seek to avoid tax by migrating, even if only contractually, and establishing a nexus in a low taxing jurisdiction (albeit a participating ETC jurisdiction). But at least the jurisdictions involved would be able to establish rules to deal with such migration and the taxpayer would be traceable.

Tax avoidance is always a problem.⁸⁵ However, the provision of services electronically is more difficult to hide than the traditional cash transaction, simply by virtue of the electronic transfer of information.⁸⁶ This leaves a trail and electronic audit techniques and programs are usually able to find evidence of hidden transactions: erasing a trail completely is costly and time consuming, even where it is possible. Although the professional tax evader and criminal will always have the time and money to attempt to do so under any system, the barriers of time, expertise and cost provide greater impediments than is the case with the cash economy. Tax evasion is less likely where there are strong disincentives. If all electronic transactions are subject to ETC, then there will be strong commercial imperatives for taxpayers to work within the system.

Businesses could avoid ETC by engaging in barter. That would not avoid the liability to tax. ETC only gives effect to the normal tax rules if there is an electronic transfer of funds. Barter would not involve electronic funds transfers. Accordingly, the rules for non-electronic transactions would apply and the barter transactions should be caught by the relevant anti-avoidance rules. For example, consumption taxes usually apply a market value rule to the property bartered to calculate the tax payable.

⁸² Wickerson, above n 75.

⁸³ Ottawa, above n 18 at 14-15 focuses on the need for tax authorities to identify taxpayers for this reason.

⁸⁴ Ibid, at 15.

⁸⁵ Discussed in the electronic context in N Warren, *Tax and the Internet --An International Perspective*, Background Paper presented at ATO/TIA Conference on Tax & the Internet, Melbourne, 11 November 1997, 8.

⁸⁶ Tyree et al, above n 33, Part 4.

In most jurisdictions ETC would be self-assessed with subsequent monitoring by the tax authorities through monitoring and audit processes. The normal rules governing self-assessment could apply. The form of regulation implementing ETC would be very similar to existing regimes that deduct tax at source in nearly all jurisdictions.

Conclusion

ETC is based on the successful approach used both domestically and internationally of deducting tax at source. Criticisms of the model tend to focus on the operation of the substantive rules that lead to double taxation. There is little criticism of the model itself. A deduction at source model is widely acceptable and capable of adoption by all jurisdictions. As shown above, it can apply to the wide range of transactions that can occur electronically. Substantive rules and rates of taxes are unaffected by ETC, which is simply a mechanism that gives effect to those rules.

The analysis suggests that ETC would fit within the financial regulation proposed for electronic commerce. Although the particular applications may not yet have been developed, the technology is in place to develop the appropriate programs. From a revenue perspective, ETC offers a model that meets the criteria required for such a system. It also offers opportunities for participating jurisdictions to prevent the flow of electronic funds into low-tax jurisdictions. A system that protects the revenue base is immediately attractive.

Most important, ETC is a model that fits within the principles that should apply to collection of taxes on electronic commerce. As with any new idea, ETC needs further discussion to determine its acceptability. However, on its face it appears to offer significant advantages.