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VAT and the Internet

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1 Preface

First of all, I would like to thank Jur. Dr. Paul Lavin who awakened my interest in computers and the Internet and convinced me of writing this thesis. I would also like to thank prof. Sture Bergström for having awakened my interest in taxes and for having been given me an excellent supervision during my work. I appreciate the support I have been given from my family. I also highly value the precious advice I have obtained from Johan Sjöbeck and Ylva Sahlman.

Malmö 6 February 1998

Cristina Landgren

2 Introduction

New technical phenomena like e.g. the Internet, EDI and electronic commerce have changed the way business is conducted. Goods and services can be marketed, sold and purchased all over the world and the network of computers creates the sole limitation to commerce. The computerised society has also created completely new kinds of goods and services. One of today's most sold products is computer software. Internet access services are generating a huge amount of money. Many of these new kinds of goods and services can be delivered straight into the customer's computer and there is no need for any physical transports. Although the economy is changing in this drastic way, the system for taxing consumption remains unchanged. The European VAT as well as the American sales tax were designed decades ago when there was no other way of distributing goods than through physical means.

The aim with this thesis is to explain, why a system of taxing consumption, based on the physical distribution of goods and services, is not suitable in a world where electronic trading in intangibles becomes more and more important. The purpose of this thesis is also to highlight possible solutions of the puzzling situation. The conventional way to solve the problems would be to amend the already existing rules. However, another way would be to question the value of ordinary consumption taxes and invent a completely new method of supporting the tax base. This new method is materialised in the proposal for a ”bit tax”. The bit tax is a tax on the transmission of information and is suggested to replace the VAT on, in the first place, communication and information services. The broader idea is to replace the VAT as regards all intangible goods and services, with a transmission based tax system. The new tax would be levied as a proportion of the intensity of the information transmission, without any relation to the actual economic value. A practical consequence of the bit tax is that it would introduce a costing element in Internet use. This thesis considers specifically what impact a bit tax would have on the use of the Internet.

As this new area is still relatively unexplored, there are not many books written on the topic. The majority of the material I have used is therefore downloaded from the Internet. The proposal for a bit tax, composed by the European Commission in August 1996, awakened my own interest in this issue and has been a starting-point for this thesis.

The thesis is structured as follows. Firstly, I will clarify what electronic commerce is and how it works. Secondly, the present

consumption taxes will be examined. I have chosen to study both the rules of the European Union and the American rules as the two systems are quite different. The American system is particularly interesting as the U.S. has the greatest impact on the Internet and the electronic commerce. Thirdly I will look into the problems that the tax authorities are facing as trade become electronic. Finally, suggested solutions of the problems will be presented. Especially the bit tax proposal will be closely examined.

3 The electronic commerce

3.1 The Internet

The Internet is an advanced web of computers which are enabled to communicate with each other. The Internet evolved from the ARPAnet[1]. The ARPAnet was created by the U.S. Department of Defence in 1969, and the intention was to invent a way of communicating in spite of a nuclear attack. In the 1980´s universities became interested in linking each others´ computer-centers together.[2]

The real boom for the Internet as an every day tool in searching information came in the mid 90´s. Using a computer, a modem[3] and software an individual could suddenly connect to the Internet through his or her local Internet Service Provider (ISP) during one telephone connection. The modem enables the connection to the ISP's server[4]. All the computers linked to an ISP form a network[5] of computers which enables them to communicate with each other. The ISP´s computer is then linked to all other ISPs and their networks and the world´s library of posted information is accessible everywhere.[6] This collection of computer networks constitutes what is known as the Internet[7]. The Internet only makes a part of the global information superhighway. However, the Internet is far more used than any other of the electronic tools for finding information.[8] The number of Internet users is expected to reach over one billion world-wide users by the year of 2002.[9]

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[1] Advanced Research Projects Agency Network

[2] Straight talk: Internet, Tax & Interstate Commerce, p. 2, http://www.itaa.org/P7.htm#Conclusion, downloaded 11-17-97.

[3] A modem is a combined device for modulation and demodulation, e.g. between a computer and a telephone line.

[4] A server, also known as a host, is a storage place accessible via the Internet. The server holds e.g. Internet
e-mail in subscribers' mailboxes.

[5] A network is a number of computers connected together so that by following agreed procedures or protocols, information can be exchanged. The computers communicate with each other by using communication links, e.g. high-speed telephone links or optical fibres.

[6] Smith, Graham, Internet Law and Regulation, p.1, London 1996.

[7] An Intranet is something different from Internet. An Intranet is e.g. an internal network within a company, which can not be accessed from outside the company. The Intranet may have a gateway to the Internet though.

[8] The Internet is to be distinguished from e.g. EDI. EDI, electronic data interchange, was developed during the 1980s. EDI is the transferring of structured information, using agreed message standards. The information is transferred by electronic means from one computer

3.2 Electronic commerce

The Internet is also a commercial forum, like any other marketplace, for exchanging goods and services for money or other value. The term ”electronic commerce” is being used for describing the commercial activity on the Internet. Ordinary business transactions are concluded without physical interaction between the parties. The coverage of computer networks alone determines the commercial boundaries. The Internet is available 24 hours a day, 7 days a week. No attention has to be paid to distances or time zones. The main advantage with the electronic commerce for suppliers, is the global presence. The main advantage for customers is the global choice. The Internet creates new opportunities for enterprises e.g. new ways to advertise, sell and deliver goods and services as well as new ways to communicate and organise their business.[10]

3.3 Different kinds of economic activities on the Internet

A wide range of various economic activities are carried out on the Internet. They may be divided into the following broad groups:[11]

- The sale of goods

Numerous web sites[12] are offering customers to select, order and pay for goods which will be delivered through physical means. The system works like traditional mail ordering. This kind of electronic commerce is called ”indirect electronic commerce”. Goods that can be digitised may be delivered straight into the customers

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application to another computer application. EDI is used to exchange e.g. invoices and payment instructions. EDI differs from Electronic Mail (email) which is the transferring of unstructured information.

[9] Softcare and Electronic Commerce on the Internet, http://www.softcare.com/marketin/pr/lrn.htm, downloaded 10-08-97.

[10] Electronic commerce: the challenges to tax authorities and taxpayers, p. 5-6, http://www.oecd.org/daf/fa/wwwTAX.HTM, downloaded 11-28-97

[11] This part is based on Electronic commerce: the challenges to tax authorities and taxpayers, p. 8.

[12] The site on the World Wide Web works like the seller’s shop window to the world.

computer, via downloading. [13] As this way of trading is completely computerised, it is called ”direct electronic commerce”.

- The provision of services

It is possible to make your plane arrangements and your banking over the Internet, just as well as you can ask a lawyer for legal advice and a doctor for medical advice, among other professional services. Services can, just as goods, be delivered physically or electronically.

- The provision of on-line information

Some companies have specialised in providing updated and computerised information on different topics. LEXIS-NEXIS[14] is one of the largest in this business and provides legal information to subscribers all over the world.

- Global dealing

Financial institutions and multinational enterprises are enabled to 24 hour trading all over the world without any respect of time zones.

3.4 The extension of the electronic commerce

The term ”Internet market” is very difficult to define. The term may be interpreted in a wide or in a narrow way. What is mostly referred to, is the on-line sales of goods and services. Electronic commerce is still modest among consumers. The business-to-business commerce was in 1994 approximately 100 times greater than ordinary consumer commerce ($300 billion to $3 billion).[15] As regards the growth of the electronic commerce, there are many different opinions. Different survey-companies present different reports. The figures vary from $10 billion to $600 billion by the year of 2000.[16] On-line consumer sales are forecast to reach $7 billion by the year of 2000. That is not more than 0.1% of the American consumer spending. Microsoft considers it to be realistic though, that in 30 years time, 30% of consumer activity could be

[13] Two of the most important products in today’s society are software and recorded entertainment products like music on compact disks and videos. As they are digitised, they are particularly well suited for Internet-trading. They can easily be distributed through computer networks. Other products that may be downloaded is e.g. newspapers, magazines and books.

[14] LEXIS-NEXIS has more than 1 250 000 professional subscribers and more than one billion documents available on-line.

[15] Softcare and Electronic Commerce on the Internet.

[16] What is Electronic Commerce, http://www.ispo.cec.be/Ecommerce/whatis.html#A, p. 2, downloaded 10-22-97.

taking place on-line.[17] Lack of security has been a key barrier to the electronic commerce. Rumours about hackers and other persons with questionable motives, stealing credit card numbers have flourished, but this problem seem to be solved as the software industry and the financial industry have now worked out several technologies to protect the privacy of financial data.[18]

3.5 The Internet and its impact on the operation of tax systems

The economy is changing from being based on machines as the most productive economic source to being based on the intellectual capacity of people and computers. The problem is that most of the world´s existing tax systems were designed decades ago, when trade still concerned tangible property.[19] The new economy and the new way of doing business requires a new tax system. The problem is perhaps not urgent yet, but technology and development run fast and in a few years the picture will probably look very different from today. More and more business transactions will be conducted electronically. The tax taps will run dry if nothing is done to adjust the way of levying taxes to the economy.

Tax authorities struggle with an eroding tax base and at the same time it is important to maximise the potentials of the Internet and encourage the development of the new technology. Of course the new technology also opens up possibilities to improve the tax administration. This conflict will be a challenge to tax authorities in the 21st Century.[20]

[17] Taxes slip through the Net, The Economist, 31 May 1997.
[18] Newman, Nathan, The Great Internet Tax Drain, p. 2, http://web.mit.edu/techreview/www/articles/mj96/newman.html, downloaded 11-20-97.
[19] ”Straight talk: Internet, Tax & Interstate Commerce”, p. 3.
[20] Electronic commerce: the challenges to tax authorities and taxpayers, p. 4.

4 Electronic commerce and tax issues

4.1 General tax problems as trade becomes electronic

The increasing commerce over the Internet has risen some complicated tax issues. The Internet eliminates geographical borders and people are suddenly able to ”tax-shop” around the world. Countries with a favourable legal system become popular and there is suddenly a new meaning of the expression world-wide competition. Few countries have tax treaties for the exchange of information with tax havens.[21]

There is an issue of jurisdiction and applicable law. When commerce is globalised and boundaries have lost their importance, the law still requires guidelines to solve legal conflicts. Which country has jurisdiction and which laws are applicable when the buyer, the seller and the server are all situated in different countries?

The nature of the Internet is footloose, which results in location and identity problems. The Internet is a globalised system without boundaries and physical locations. It can be extremely difficult to determine the location of a supplier of goods, a service provider, a buyer of the goods or a user of a service. The users of the Internet are generally anonymous.[22] Registration and identity requirements are few. In the same way it may be impossible to determine where an activity takes place.[23] Business-transactions that used to be physical and visible, become virtually invisible when made over the Internet. The traces of goods and services sold and distributed in Cyberspace are few if any. The development of encryption[24] has made it possible to keep transactions made over the Internet totally secret and hidden from the tax authorities.[25]

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[21] Electronic commerce: the challenges to tax authorities and taxpayers, p. 13.

[22] New technologies as e.g. digital certificates can make it possible though to verify the identity of an Internet user.

[23] Electronic commerce: the challenges to tax authorities and taxpayers, p. 6.

[24] Encryption means the converting of data into codes.

[25] An eroding tax base, http://meritbbs.unimaas.nl/cybertax/taxbase.html, downloaded 10-18-97.

The development of an electronic payment system challenges the tax systems.[26] Financial transactions are more difficult to trace. Digital money, e-money, can be transferred inexpensively and instantaneously.

Tax authorities normally use e.g. financial institutions to facilitate the tax collection. Reporting requirements can be imposed on these intermediators to help authorities keeping track of financial transactions. The need for intermediating institutions is more or less eliminated in the electronic commerce, which is a great commercial advantage of the electronic commerce but a problem for tax authorities.[27]

Human labour is not needed that much any longer in the information society. Many human jobs have been replaced by computers. Unemployed people do not pay income taxes, rather the government has to provide them with some kind of income support.[28]

There is a trend to decrease the staffing of supervising authorities, which leads to declining efficiency as regards the tax collection.

Tax avoidance is becoming more and more acceptable among otherwise law-abiding citizens.[29]

4.2 Specific problems as regards taxes on consumption as trade becomes electronic

The taxes on consumption are suffering most when people conduct their trading on the Internet instead of visiting local shops.[30] Both the European value added tax (VAT) and the American sales tax are designed for the latter way of consuming.

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[26] The electronic payment system does not necessarily include electronic money. The electronic payment system is an electronic debt and credit system and ”real” money can be transferred. However, the system can also handle electronic money. With electronic money tokens of value are expressed in digital form. The money may be compared to casino chips.

[27] Electronic commerce: the challenges to tax authorities and taxpayers, p. 6.

[28] Taxing the Internet: The Proposal for a Bit Tax, p. 5, wysiwyg://2http://www.arraydev.com/commerce/JIBC/9702-05.htm, downloaded 10-25-97.

[29] Taxing the Internet: The Proposal for a Bit Tax, p. 5.

[30] The income tax (both for corporations and individuals) may suffer from difficulties but they will be of another kind. People and enterprises will still earn money in the electronic world, but in a different way. Transactions are more difficult to trace when made over the Internet but they still exist and if there is a problem it is an issue of control. Taxes on capital (for both corporations and individuals) do not have to be changed for the same reason. Social security contributions are not affected either. Inheritance and gift taxes for individuals are not affected by the new economy.

The present taxation systems on consumption are not designed for distribution of goods and services through electronic networks. The situation is particularly serious since the VAT and the sales tax, as will be shown further on, are extremely important components of countries tax bases. A common weakness of the two systems for taxing consumption, is the presupposition of physical transactions and physical interaction between people. The systems are based on the illusion that without some kind of physical contact no goods or services can be sold. This illusion is, as everybody knows, long gone in the electronic society. The conclusion is that less physical transactions will result in less revenues from VAT or sales taxes. Governments will have to adjust their tax base in line with the changing economic structure.[31]

When the goods and services we consume are physical, the production, the distribution and the consumption of these are smoothly taxed. The inputs required for production can be measured. The value added generated through the whole chain of production and distribution can be traced. The final value of the good or service consists of the value adding inputs taken together. When the goods consumed instead involve immaterial information transactions, the value chains become invisible. To tax the value added e.g. of a telephone conversation is difficult. The cost of the communication, the cost being VAT levied on the telephone bill, has no relation to the actual value of the communication.[32]

The physical distribution of goods and services attracts VAT at several levels, which can easily be avoided when using computers to deliver what has been purchased.

The traditional VAT system and the sales tax rely on the retailers. They are the collectors of the tax as the last distributors in the chain. The retailers charge the consumer VAT or sales tax and they remit it to the government. Who is going to collect a tax on a transaction that nobody even knows exists?[33]

VAT on different ways of communicating is lost. If a letter is sent, tax will be paid on the stamp. If a special delivery is made, tax will be levied on the delivery bill. If a telephone call is made, VAT will be paid on the telephone bill. If something is ordered by mail, VAT will be paid on the postal costs. A consequence of the decreased physical contact between contracting parties is that fewer telephone calls are made, not many letters are sent etc. This VAT is lost in the electronic world. When using electronic means, the only VAT paid is on the few seconds of telephoning that it takes to connect to the local ISP.

Providers, still using traditional means for distributing their goods and services, become less competitive. They have to pay

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[31]The ”BIT TAX”: the case for further research, p. 2, http://www.ispo.cec.be/hleg/bittax.html, downloaded 05-26-97.

[32] The ”BIT TAX”: the case for further research, p. 2.

[33] An eroding tax base.

taxes on their visible and easily traceable transactions. They still have to pay VAT on stamps and phone bills.

Another issue again is the fact that many products nowadays can be found on the Internet for free.[34] Products that the customer used to have to buy in a store, where he or she of course paid VAT for it, are today available on the Internet for free. Of course there is no such thing as ”free lunches”, not even on the Internet, the companies that put their products there, normally wants the customer to pay for the product sooner or later. The reason behind the free products is commercial. It is considered as fruitful advertising to give good samples of a product which the customer then will find interesting enough to be willing to pay for. The Internet is a perfect market for trying to sell books, newspapers, magazines, music, movies etc. However, as long as the products are in Cyberspace for free, no one will buy them in a store and this VAT is suddenly ”lost”.

There are many illegal products on the Internet like pirated software and music. Particularly intellectual property rights are heavily infringed on the Internet by people who take advantage of the anonymity that the Internet offers. The products are sometimes offered for free. Sometimes the downloader has to provide something in exchange for the obtained product and sometimes the product can be obtained for a small amount of money. It is rather obvious that VAT/sales tax is never thought of in these transactions, but the issue is the availability. If these products were not illegally provided on the Internet, people would have to buy them in stores and pay VAT/sales tax.

The present rules on the European VAT and the American sales tax will now be presented. Thereafter will the specific weaknesses of the VAT and the sales tax in an electronic world be described.

[34] For example the Times has the complete content of the newspaper available on-line for free.

5 Taxes on consumption

5.1 General about consumption taxes

A *general* consumption tax is contrasted with *selective* taxes on consumption (excise duties). Among the general consumption taxes, a distinction has to be made between *single-stage* taxes and *multi-stage* taxes (turnover taxes). Where there is a single-stage tax, tax is charged only once. This can be made on sales from manufactures to wholesalers, or on sales from wholesalers to retailers, or on sales from retailers to consumers. Where there on the other hand is a multi-stage tax, tax is charged each time the product is sold on its way from the manufacturer to the consumer. The multi-stage taxes can be divided into two groups. There are the *cumulative or cascade* taxes, where traders receive no credit for tax paid on their purchases. There are also *non-cumulative* taxes, where tax paid on purchases is generally refunded to the traders who re-sell the products to other traders or consumers.[35] The value added tax, VAT, is a general, multi-stage, non-cumulative consumption tax. The consumption tax in the U.S. is instead a general, single-stage retail sales tax.

5.2 Value added tax

5.2.1 VAT as a sales tax and an indirect tax

The VAT is a tax on consumer spending and is therefore regarded as a *sales tax*. The more consumers spend, the more VAT governments will collect. VAT is charged on the supply of goods and services within a country made by a taxable person[36] in

[35] Messere, K.C., Tax policy in OECD countries, p. 370, Amsterdam 1993.
[36] A taxable person is a person who carries out an economic activity. Every taxable person gets a unique identification number which is used solely for VAT purposes.

exchange for a consideration[37]. In addition to taxable supplies, VAT is also charged on imports of goods and services. The VAT is considered to be an *indirect tax* since it is paid by business firms to the government, rather than being collected straight from the consumers.[38] The VAT applies at each point of exchange of goods or services, at each transaction, from the primary production to the final consumption. However, business firms are allowed to deduct the VAT they have paid on different components to be able to produce the good or service, which means that the actual economic burden of the VAT will be carried by the consumers who are not allowed to deduct the VAT they pay. There is no need for the final consumer to be a private person. Every producer has contributed something that added value to the product. At the final stage, when the consumer buys the product from the retailer, is the price paid by the consumer the same as the sum of the value added to the product by each producer.[39]

5.2.2 VAT in OECD countries

VAT is the most important source of public income in most of the OECD countries, with the exceptions for the U.S. and Australia.[40] About 30 % of the total tax revenues within the OECD derive from VAT or similar sales taxes. Japan has the lowest applicable rate with
3 %. Denmark and Sweden have the highest rates with 25 %.

5.2.3 VAT in the European Union

Between the late sixties and the mid-seventies the original six signatories to the EC Treaty all moved from their old general consumption taxes to VAT.[41] The European Community has made adoption of VAT a mandatory condition of membership in the Community.[42] VAT has become the first tax deserving the qualification as a truly European tax, because a percentage of the common bases of assessment forms part of the ”own resources”

[37] A consideration is the value of the supply.
[38] Davies, David, United States taxes and tax policy, p. 204-205, Cambridge 1986.
[39] Davies, David, United States taxes and tax policy, p. 203.
[40] Australia, Switzerland and USA remain without VAT.
[41] The Scandinavian countries (Denmark, Norway and Sweden) adopted VAT between 1967 and 1970.
[42] Messere, K.C., Tax policy in OECD countries, p. 368-370.

of the European Union.[43] As the VAT constitutes a general tax on consumption, it was considered as one of the best measures of the contributing capacity of the Member States.[44] Each Member State has to pay a certain amount of money to the Community, which is based on the VAT obtained in the State. The VAT is very important and constitutes a bit more than 50 % of the total revenues obtained by the Community.[45]

5.2.4 Harmonisation

Article 99 of the EC Treaty instructs the Council to take decisions that will harmonise the legislation of the various Member States concerning turnover taxes, excise duties and other forms of indirect taxation, including countervailing measures applicable to trade between Member States.[46] The process of harmonising the indirect taxation, and especially VAT, has been extensive. The Sixth Council Directive (77/388/EEC) on the harmonisation of the laws of the Member States relating to turnover taxes adopted on 17 May 1977, is a landmark in the harmonisation of taxes in the European Union. Paragraph 3 of Article 12 in the Sixth Directive provides for the approximation of VAT rates. ”The standard rate of value added tax shall be fixed by each Member State as a percentage of the taxable amount and shall be the same for the supply of goods and for supplies of services.” Member States are permitted to establish, at the most, two reduced rates. In 1997 did the applicable VAT rates within the Community vary from 0%[47] to 25%[48].[49]

The EC Commission’s desire to harmonise the consumption taxes in the Member States, has as its objective the abolition of fiscal controls at the frontiers, without creating competitive differences within the Community or provoking tax evasions.[50] The purpose is to ensure that appropriate goods and services are subject to VAT, but only once. Under a fully harmonised system, transactions within the Community will be treated in the same way as transactions within the boundaries of a Member States are treated today.[51]

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[43] Dir. 77/388/EEC, OJ L 145, 1977.
[44] Terra, B.J.M., Kajus, Julie, A Guide to the Sixth VAT Directive, p. 100, Amsterdam 1991.
[45] Quitzow, Carl Michael, Pålsson, Sten, EG-rätten, p. 95, Stockholm 1993.
[46] Terra, B.J.M., Kajus, Julie, A Guide to the Sixth VAT Directive, p. 35.
[47] Reduced rate in Belgium, Denmark, Ireland, Spain and the United Kingdom.
[48] Standard rate in Denmark and Sweden.
[49] Kesti, Juhani, Andersen, Peter S., European Tax Handbook 1997, p. 14, Amsterdam 1997.
[50] Messere, K.C., Tax policy in OECD countries, p. 372.
[51] Smith, Graham, Internet Law and Regulation, p. 138.

In order to understand the European Union´s approach to levying VAT on cross-border transactions, within the Community as well as where a state outside of the EU is involved, two important principles have to be studied: the country-of-origin principle and the country-of-destination principle. These principles determine in which country a good or a service is considered to be supplied and which jurisdiction therefore is allowed to collect the tax.

5.2.5 The country-of-destination principle

The principle makes an important distinction between goods and services. As regards goods, the principle considers *where the goods are physically delivered*. If the provider is situated in Denmark, but the delivery of the product is made in Germany, VAT will be charged in Germany, because the supply will be regarded as has taken place there. Exports are therefore exempt from taxes. As regards services, the principle considers *where the supplier belongs*, to determine where the supply is made. A supplier belongs where he or she has some fixed establishment from which the service is supplied. There is an exception for intangible or intellectual services, which instead are taxed *where the customer has a fixed establishment* which receives the service.[52]

5.2.6 The country-of-origin principle

The country-of-origin principle means that VAT will be levied in the country from where the good or service originates, which means the country of the supplier. The supply is considered to take place there. If a Danish company sells goods to a German company, Danish VAT will be levied on the sales price. The German company may then deduct the Danish VAT. When the same products are sold on in Germany, German VAT will be levied on the sales price. If a Swedish private consumer buys a product in England, VAT will be levied on the sales price and no VAT has to be paid in Sweden. The country-of-origin principle allows an economic market without fiscal frontiers, as no tax has to be paid by importation. It means on the other hand that exports no longer are free from VAT. The country-of-origin principle presupposes that the tax rates are almost equal.[53]

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[52] Electronic commerce: the challenges to tax authorities and taxpayers, p. 17.
[53] Westberg, Björn, Mervärdesskatt - en kommentar, p. 268, Stockholm 1997.

5.2.7 The transitional system

Today a common VAT system is applied in all the Member States. The current system is only transitional though. The system became effective as of 1 January 1993, when the fiscal frontiers were eliminated and the internal market established.[54] The purpose was to introduce the country-of-origin principle within the Community, but at this time the Member States could not agree on a consistent introduction of the principle. This is why it was decided to produce the transitional system until the definitive system can enter into force. In the transitional system, the country-of-origin principle is only partly introduced. The country-of-destination principle is kept as regards commercial trade, but individuals who buy products in a Member State shall pay VAT there and nowhere else.[55] The country-of-destination principle also applies to trade between EU-countries and other countries. Importation from outside the EU is therefore subject to the tax while export to such countries is exempt.

The current system means that a Member State can charge VAT in three situations. The first case is when there is an internal supply of goods or services within the country. The second case is when there is an acquisition in the country of goods from another Member State, according to the country-of-destination principle. The final situation is when goods are imported from a country outside the EU.[56] But as stated above, not all export is exempt from VAT. The export of goods and services to private consumers in other Member States attracts VAT, according to the country-of-origin principle. [57]

5.2.8 The definitive system

It was the intention that in the year of 1997 the current country-of-destination principle should be fully replaced by the country-of-origin principle, with respect to intra-Community transactions. This system should be the definitive VAT system. The system means that exportation within the Community, no longer shall be exempt

[54] Directive 91/680/EEC changes and amends the Sixth Directive. The Directive changed some terms used in the Sixth Directive. The term ”import” was replaced by ”intra-Community acquisition”. The term ”export” was replaced by ”exempt intra-Community supply”.
[55] Westberg, Björn, Mervärdesskatt - en kommentar, p. 212.
[56] Compare the Swedish Mervärdesskattelag, 1§.
[57] Smith, Graham, Internet Law and Regulation, p. 138.

from taxation. This system makes it possible to have a common market without any fiscal control at the borders at all. The new VAT system will probably not enter into force until the year of 2000.[58]

5.2.9 VAT and electronic commerce in the EU

As will be shown below, the American states have already taken a position as regards the specific problems concerning electronic commerce and sales/use tax. The Member States of the EU have not been that far-sighted and the situation is unclear. The electronic commerce has not been that widely used yet in Europe as in the U.S., but that is changing and very soon Europe will face serious problems if nothing is done.

5.3 Sales tax

5.3.1 The sales tax as a tax on consumption

There is no general consumption tax at the federal level in the U.S., which means that there is no such thing as VAT.[59] The consumption tax in the U.S. is instead a general, single-stage retail sales tax, which is levied at a sub-federal level. The tax is generally known as the sales tax. The tax is charged only on sales from retailers to consumers, this is why it is a single-stage tax. A retail sale is normally defined as a sale where the buyer does not intend to resell the product. Tax authorities at both state level and local level levies sales tax. [60] State plus local consumption tax vary from 4.25 to 8.25% of the inclusive retail selling price.[61] The retail sales tax is the most important source of state tax revenue. It represents generally about 25%. However, in California as much as 45% of the total state tax revenues derive from sales taxes.[62]

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[58] Kesti, Juhani, Andersen, Peter S., European Tax Handbook 1997, p. 8.
[59] Messere, K.C., Tax policy in OECD countries, p. 393.
[60] Except from the tax authorities in all the different states, there are several local tax authorities within the states. For sales taxes alone, there are about 6 500 different tax authorities in the U.S.
[61] Messere, K.C., Tax policy in OECD countries, p. 395.
[62] Newman, Nathan, The Great Internet Tax Drain, p.2.

Five[63] states do not have any sales tax at all. Most sales taxes are limited to sales of tangible property. Sales of services and intangibles are generally not taxable.[64] Some states tax only a few services. New Mexico and Hawaii tax as much as 155 different services each. Illinois on the other hand taxes only 16 different services and California 19. States that tax services tax different services differently.[65]

5.3.2 The use tax as a complement to the sales tax

A number of the American states introduced the ”use tax” during the 1950´s. The American Constitution prevents the states from levying sales tax on sales that occur outside the own state. What happened was that taxpayers soon realised, that if their sales were conducted in low tax or non-tax jurisdictions, the sales tax could easily be avoided. The use tax was therefore developed by the states imposing sales tax. Transactions which were exempt from sales tax in the state where the transaction occurred, could be taxed in a state where the property was subsequently used. The use tax was therefore meant as a complement to the sales tax.[66]

5.3.3 The mail order exception

The sellers in the foreign state are required to collect the use tax and remit it to the state where the property is used. However, the taxing state is not allowed to require this if there is no minimum nexus between the seller and the state. If there is no minimum nexus the sale must be regarded as interstate commerce and is thus constitutionally out of reach for the state where the property is used. This minimum nexus limitation was first defined in the Bellas Hess case from 1962.[67] In the case it was held that ”seller whose only connection with customers in the State is by common carrier or the…mail” lacked the requisite minimum contacts with the State. The Quill[68] decision from 1992 reaffirmed the principle

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[63] The states are Alaska, Delaware, Montana, New Hampshire and Oregon.
[64] Rosenoer, Jonathan, Cyberlaw: the law of the Internet, p. 259, New York 1997.
[65] The Taxation of Cyberspace: State Tax Issues Related to the Internet and Electronic Commerce - Part II, http:www.caltax.org/andersen/part2.htm, p.1, downloaded 11-13-97.
[66]Beaudrot, Charles R, Current issues in taxation of computer and other high technology companies, p. 5, http://www.com/mmm/mmmComputerTax.html, downloaded 11-24-97.
[67] *National Bellas Hess, Inc. v. Department of Revenue of Ill.*, 386 U.S. 753 (1967). A sufficient physical contact has to be shown.
[68] *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

established in the Bellas Hess case. Quill, a mail order company, had neither outlets nor sales representatives in North Dakota but the state still wanted Quill to collect and pay a use tax on goods purchased for use in the state. It was held that such an obligation would impose an unconstitutional burden on interstate commerce. Quill was considered to lack substantial nexus with North Dakota. The U.S. Supreme Court held that to establish a sufficient nexus the seller must have significant sales operations, such as personnel, inventory or showrooms, within the state.[69] As interstate mail order companies generally lack sufficient nexus in states where its sold property is used, they are exempt from use tax. Intrastate mail order firms and interstate mail order firms with a sufficient nexus are not exempt from sales and use tax.

5.3.4 Where do sales occur

The EU has the country-of-destination principle and the country-of-origin principle to determine which country may levy VAT on an international transaction. In the U.S. it has to be determined in which state a transaction is ”sited” for purposes of sales and use tax jurisdiction. Generally sales will be considered to be sited where the consumer is located. For state sales and use tax purposes the state where the consumption takes place will be relevant. For local sales and use tax purposes the city, town or county where the consumption takes place will be of relevance. Some states instead site sales to where the provider is located.[70]

5.3.5 Sales tax and electronic commerce in the U.S. [71]

The issue of electronic commerce and the taxation problems that follow, is not a new phenomenon in the 50 different American jurisdictions. As the leading nation as regards electronic technology, the United States has also been forced to deal with the consequences before other nations even knew they existed. This means, that most of the American states have already found some kind of solution, more or less efficient, of these problems. In most of the states, solutions have been found in the old rules on sale of goods and services. The old regulations on sales and use

[69] Newman, Nathan, The Great Internet Tax Drain, p. 3.
[70] The Taxation of Cyberspace: State Tax Issues Related to the Internet and Electronic Commerce - Part II, p. 13.
[71] This part is based on Internet Taxation: State Summaries, http://www.vertexinc.com/taxcybrary20/taxchannel70/taxsum_73.html, downloaded 11-06-97.

tax have been made applicable even when products are sold over the Internet. Of course, many of the states, that have set up legal frameworks for the electronic commerce, have also seen the possibility of a huge source of new tax dollars. However, the taxing of the Internet commerce is more or less established in the American states.

As mentioned above, the taxation of consumption of services is extremely varying among the different states. This is also the case when it concerns the taxation of Internet access charges. In New York, Internet access charges are exempt from sales tax as Internet access is considered an unenumerated service, which is not taxable. Internet access is not a telecommunication service either. In Connecticut on the other hand, Internet access charges are subject to sales and use taxes as the service is considered as a computer and data processing service. In Kentucky the legislator has failed to regulate Internet access charges and the service is therefore considered to be exempt by default. Some states tax on-line services like e-mail, games, legal and medical databases, weather reports, airline reservations, software downloads etc. Other states do not tax any electronic services at all. Some of these latter states take the position that the electronic transmission of information could not constitute a sale.[72]

The taxation of goods purchased over the Internet is also varying, but two main opinions dominate. Either the transaction will be looked upon as a transfer of tangible goods or as a transfer of intangible goods.[73] Intangible goods are normally not subject to sales and use taxes. The classification as tangible or intangible do not always depend on whether the good has been delivered physically or via downloading. 41 states treat the sales of goods over the Internet, where the delivery is physical in the same way as sales of tangible personal property through more traditional channels. The transactions will be subject to ordinary sales/use taxes. 11 states consider the downloading of information to be a transfer of tangible property and the transactions are therefore subject to ordinary sales/use tax. 16 states consider the same transactions to be transfers of intangible property and tax will therefore not be levied.

[72] The Taxation of Cyberspace: State Tax Issues Related to the Internet and Electronic Commerce - Part II, p. 7.

[73] An American legal dictionary defines tangible property as ”property, either real or personal, capable of being possessed…”, and intangible property as ”property that does not have value in itself, but that simply represents value…”. These definitions may obviously be interpreted in many ways. Barron´s Law Dictionary, p. 258 and 503, New York 1996.

6 The eroding tax base

It has to be clarified that taxes on consumption come to the fore whenever there is a sale of goods or services. Goods and services are advertised on the Internet and the customer will make an electronic order. The electronic ordering is a common fact for all electronic trading. The goods or services may then be delivered either physically or electronically. There are two situations where Internet consumption taxes may be levied. First of all tax on consumption has to be paid whenever there is a sale of goods or services over the Internet, no matter how the good or service is finally delivered. This tax is therefore a tax on the information provided by the Internet. Tax on consumption also has to be paid on the Internet access fees, which can be said to be a tax on the medium which enables the user to get to the relevant information. Goods or services provided for free do not evoke a tax on consumption.

6.1 The major difference between Europe and the U.S.

There is a difference between the European VAT system and the U.S. sales tax system and the problems these tax systems meet in the new economy. The main weakness of the VAT system, is the need for established service providers when levying tax on services. There is a need for a service provider to belong somewhere. The Internet provides global access to services and the location of service providers is footloose. The tax base in the U.S. is, on the other hand, suffering especially because of the exemption of interstate mail order companies.[74]

6.2 Problems with the European rules on VAT

[74] The ”BIT TAX”: the case for further research, p. 2.

Generally it may be established that what causes problem is the direct electronic commerce, where even the delivery of the good or service is made electronically. The physical deliveries of goods and services ordered on-line are subject to the same rules as apply to traditional trading. The tax authorities will not meet any new problems in this area except from an increased volume of supplies.[75]

6.2.1 The need for an identification of a relevant establishment

Both of the European VAT principles presupposes that it is possible to determine which the country-of-destination is and which the country-of-origin is. How are the country-of- destination and the country-of-origin determined, when there is no physical location of perhaps neither the seller nor the buyer? The country-of-destination principle requires, in the case of goods, that the country of destination/delivery can be determined, and in the case of services that the country where the supplier belongs can be determined. The Internet has meant that many services can be supplied to customers in a country without the supplier having to set up some kind of establishment in that specific country. This raises problems especially when it comes to phenomena as telecommunication services or satellite broadcasting.[76] It has been very popular over the last years among business consumers to buy telecommunication services from non-EU suppliers without any establishment in the EU. Under these circumstances VAT will not be charged in the same country as the consumption of the service takes place, and if the supplier belongs in a country which is considered to be ”tax-friendly”[77], VAT will be charged nowhere.[78]

6.2.2 The need for a clear distinction between goods and services

[75] Electronic commerce: the challenges to tax authorities and taxpayers, p. 21.
[76] When this place-of-supply rule for services was implemented, telecommunication services were generally provided by national institutions.
[77] The expression ”tax havens” means countries where neither taxes on consumption nor ordinary taxes for companies are pertinent, countries that therefore are able to disturb the fair competition. Monaco, Liechtenstein, the Bahamas and the Cayman Islands are all examples of tax havens.
[78] There are anti-avoidance provisions to prevent this situation. These provisions are known as ”reverse charge”, but they have no effect on persons acting in a private capacity. They only apply to business customers who are VAT registered.

The concept of "supply of goods or services" is crucial. However, the distinction between goods and services is diffuse. A supply of services is anything done for a consideration which is not a supply of goods. There has to be a direct link between the service provided and the consideration received.[79] Classification as a good is generally linked to the existence of a physical object. The compact disc or the newspaper which a couple of years ago had to be purchased in a store, and still may be, was definitely a physical product. Today, when the same CD or newspaper is downloaded through the customers computer, is it still a good?[80] The definitions of goods and services do not apply very well to phenomenon like software or audio and video packages either. Software is incomparably the most purchased product on the Internet. [81] The classification should not depend on the way of distribution.[82] However a consistent treatment is difficult to achieve and generally a distinction has to be made between the situation where the product is provided by a physical carrier medium and where it is downloaded. At least in England, software that is downloaded is generally treated as a supply of a service for VAT purposes.[83] Not only the supply of downloaded software will be regarded as supply of a service. Most supplies made over the Internet will be regarded as supplies of services. It may therefore be the case that a transaction over the Internet will be treated in a different way than an equivalent transaction made outside the Internet. If a person buys a book in a bookstore in England, no VAT will be charged. Books are zero-rated in England. If the book instead is downloaded from the Internet, the transaction will be treated as a supply of a service and a standard-rate of VAT will be charged.[84] However, supplies to end-users may be regarded as supplies of goods. In a VAT Tribunal case from England, it was held that the provision of cold food ordered via a computer terminal, was comparable to ordinary provision of food (zero-rated supply of goods). Customs & Excise had tried to argue that the provision instead was comparable to a catering service (standard-rated service)[85]. As long as there will be a confusion around the definitions of good and service, it will tempting for non-EU suppliers to sell what really should be treated as products as services. The country-of-destination principle applies to such transactions and European VAT will not be charged on the supply as the supplier belongs outside of the EU.[86]

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[79] Smith, Graham, Internet Law and Regulation, p. 139.
[80] Electronic commerce: the challenges to tax authorities and taxpayers, p. 19.
[81] Carlén-Wendels, Thomas, Nätjuridik Lag och rätt på Internet, p. 140, Stockholm 1997.
[82] Electronic commerce: the challenges to tax authorities and taxpayers, p. 19.
[83] Smith, Graham, Internet Law and Regulation, p. 140.
[84] Smith, Graham, Internet Law and Regulation, p. 142.
[85] *Emphasis Ltd v HM Customs & Excise* (LON/95/2355A).
[86] Electronic commerce: the challenges to tax authorities and taxpayers, p. 19.

6.2.3 The distinction between different services

Broadcasting services are considered to be supplied where the supplier is established, but data processing is supplied in the country of the customer. The Internet provides various kinds of services developed with the new technology. The area of services provided on-line is blurred. The old criteria as tangible/intangible, intellectual/non-intellectual are difficult to apply when determining what kind of services are provided on the Internet.[87]

6.3 Problems with the sales tax

The main problem for the American sales tax is the exception for mail order companies. Another dilemma is the decreasing importance of retailers. These problems are connected. The mail order industry has realised the potentials of the Internet and provides a presentation of their offers on Web sites. The mail order business has grown beyond imagination, and as no tax is paid, the products offered by the mail order companies are cheaper than the same goods would be in ordinary stores. The Internet and the mail order companies have made local retail stores superfluous to some extent.

6.3.1 The exception for mail order companies

In the Quill case the U.S. Supreme Court held that to establish a sufficient nexus, the seller must have significant sales operations, such as personnel, inventory or showrooms, within the taxing state. Mail order companies often lack these requirements and are therefore exempt from sales and use tax.[88] The technical

[87] Electronic commerce: the challenges to tax authorities and taxpayers, p. 20.

[88] Normally the mail order company still has one state as its base, from where the business is conducted. It is usually difficult to avoid taxes in this state. The difference is that a few years ago, mail order companies had to establish some kind of business activity in every other state where it intended to sell its products. The need for these ”extra” establishments has disappeared today. The mail order company still has to collect tax from in state customers though, customers who reside in the ”base state”, which has drawn mail order firms to locate in small states. This way they can maximise the number of sales free from sales tax.

development has made it easier for this kind of companies to avoid a sufficient nexus. Toll-free numbers, computers and faxes eliminate the need to place physical operations within tax collecting states. The Internet and the World Wide Web will take this tendency even further. A single Web page can replace all those thousands of catalogues that used to be sent to people's homes.[89] Many more mail order sales will fall outside the scope of the sales and use tax. The use of the Internet to access these mail order companies reduced state sales tax revenues by over $3 billion in 1995.[90] California[91] alone lost as much as $ 500 million in sales taxes in the year of 1994 because of the mail order exception.[92] These amounts represent retail sales that have migrated to the mail order business.

6.3.2 The importance of retailers and direct shipping

The sales tax is, as a single-stage tax, more dependent upon the retailers than the VAT system. Once upon a time, local governments relied on the local economic development and its capability of creating new local jobs which would enable local employees to spend more money in the local stores. The more money spent, the more local tax revenue the governments would get and the economy could be even further developed.[93] Local governments can no longer rely on sales tax revenues in the same way. By the use of electronic means, the physical retailers can easily be avoided. Ordering, payment and even delivery can be made electronically and suddenly there is no need for intermediaries between the producer and the customers. The mail order companies take over, but they are normally out of reach for tax purposes. At the same time, the tax authorities can just watch their only sales tax collectors run out of business.

The problem of retailers being left out, has taken a special expression in the direct shipping of alcohol in the U.S.[94] Direct shipping of alcohol has been illegal in most of the states for

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[89] Newman, Nathan, The Great Internet Tax Drain, p.3.

[90] Wolfe, Joseph, The Bit Tax, p. 3, http://www.suite101.com/articles/article.cfm/2618, downloaded 10-30-97.

[91] Ironically it is the Silicon Valley, California that helped create the Internet and therefore what has enabled the mail order business to boom. California suffers particularly because of a regulation called Proposition 13, which limits California's ability to raise money through property taxes. The regulation has made California very dependent on sales taxes.

[92] Prop 13 meets the Internet: How state and local government finances are becoming road kill on the information superhighway, http://garnet.berkeley.edu:3333/budget/tax-internet/taxart3b.html, downloaded 11-20-97.

[93] Newman, Nathan, The Great Internet Tax Drain, p. 2.

[94] The concept of direct shipping means exactly the bypassing of wholesale distributors and retailers.

decades. But for many winemakers, direct shipping to the consumers has been the only possibility to survive. The wholesale is simply too expensive for small wineries to afford. The business of selling wine over the Internet has increased enormously in the US the latest years. Direct shipping is illegal but it also includes a loss of as much as $600 million a year in state taxes. The system of collecting sales tax is being eroded when the wholesalers and retailers never really get into the picture. What now happens, is that the old laws about direct shipping are being awakened. Aggressive actions are taking place to nab the wineries that are breaking the law. The states have realised that they are loosing too much revenues.[95]

6.3.3 Difficulties in determining where a sale is sited

Most sales of services are sited to where the service is used, a criterion which is not that easy to establish when e.g. the consumer travels around with a laptop and continuously receive different electronic services. The seller may be unaware of where the customer resides and even more unaware of where the service is used.[96]

[95] Wells, Melanie, Small winemakers fear sour economic future, USA TODAY, August 25, 1997.
[96] The Taxation of Cyberspace: State Tax Issues Related to the Internet and Electronic Commerce - Part II, p. 15.

7 The ”BIT TAX”

”The new wealth of nations is to be found in the trillions of digital bits of information pulsing through global networks. These are the physical/electronic manifestation of the many transactions, conversations, voice and video messages and programs that, taken together record the process of production, distribution and consumption in the new economy. In this new wealth, in this new productivity [there] is a new source of revenues for governments.”[97]

7.1 A tax on the transmission of information

The proposal for a bit tax was first presented by Nobel Prize winning economist James Tobin[98]. Arthur Cordell[99] has been another proponent. He suggested the tax in 1994. The bit tax was then put forward by the High Level Expert Group (HLEG), established in 1995 by the European Commission to advice on the social and societal aspects of the information society, in 1996.[100] Luc Soete[101] chaired the group of experts.

The bit tax would be a tax on interactive[102] digital information[103] transmission. The tax would therefore e.g. introduce a costing element in Internet use.

7.2 The bit as a unit for measuring

[97] Taxing the Internet: The Proposal for a Bit Tax, p. 5.

[98] Since 1947 Mr. Tobin has been Professor at Yale University, Connecticut. He received the Nobel prize in 1981.

[99] Arthur J. Cordell is Special Advisor in the Information Technology Policy Branch of the Canadian Department of Industry in Ottawa.

[100] The final policy report of the high-level expert group was presented in April 1997.

[101] Luc Soete is Professor of International Economics at the Faculty of Economics and Business Administration, Maastricht University. Over the past two years, Soete chaired the High Level Expert Group on the ”Social and Societal Aspects of the Information Society” for the European Commission. Knut Rexed represented Sweden in this group of experts.

[102] It is the interactivity that makes the transaction valuable. A broadcast message does not add value if it is not heard. When the user get something out of the transaction, there is an interactivity. The information must be addressable to be subject to the tax.

transmission intensity

The tax should be levied as a proportion of the intensity of the information or communication transmission. A feasible tool for measuring the intensity would be the bit[104]/or byte[105]. The tax has therefore been cited as the ”bit tax”. The bit/byte has been considered as a more representative unit for measuring the intensity, than for example time or distance. Only in the case of a telephone communication, where bits are transmitted at a constant rate over time, there is a fair relation between the transmission intensity and time. When downloading information from the Internet, bits are transmitted in packages that vary in size[106].

In the bit tax proposal, the number of bits transferred, is the only thing that matters. The actual economic value of the information transfer will be without any importance. Therefore it will not matter whether the Internet user accesses an e-mail from a friend or a financial transaction.

The people behind the bit tax are quite aware of the fact, that it might be impossible in the future to monitor the flow of bits. Alternative measures might therefore become more appropriate than the bit. The belief is though, that there will always be some way of measuring transmission intensity.[107]

7.3 Information in digital form

The information would have to be in a digital form to be measured. With convergence, all information - voice, data and images - could be in digital form. Each digital bit of information would then be subject to the tax. Different kinds of information like foreign exchange transactions, business teleconferences, Internet e-mails

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[103] Information must here be interpreted in its widest way. Everything transmitted in bits would be considered as information.

[104] The word ”bit” is a contraction of the term binary digit. A bit is either of the two digits 0 and 1 used for the internal representation of numbers, characters and machine instructions. The bit is the smallest unit of information and of storage in any binary system within a computer. The speed of information transmission is measured in bits per second (BPS).

[105] A byte is a fixed number of bits that can be handled and stored as a unit by a computer. Characters are often represented in the form of an 8-bit binary code. The byte can be regarded as the storage space required to hold a single character.

[106] Each package contains roughly 200 bytes.

[107] The ”BIT TAX”: the case for further research, p. 3-4.

or file transfers, electronic check clearances or ATM[108] transactions could all be measured in bits. It would not matter in what form the information would be carried. It could for example be carried by a fibre optic cable, micro-waves or by interactive satellite traffic.[109]

7.4 Implementation issues

Cordell has a concrete idea of how to implement the tax. It would be collected by the telecom carriers and it would not be a user pay tax. The High Level Expert Group does not want to speculate too much on how the tax really would be implemented, but it seems like the Experts want it to be a usage based tax, collected straight from the consumers of digital information.

7.4.1 Possible tax collectors

Some proponents of the bit tax would like the size of the tax to be a direct consequence of the individual's usage of information. One of the great believers in usage-based pricing is Brody[110]. He says that "The Internet would instead be metered, with users paying by the message, by the byte, or by the Web page, just as they now pay by the kilowatt-hour for electricity or by the minute for long-distance phone calls."[111] The High Level Expert Group does not give the impression of another opinion. According to their proposal, the bit tax would be a usage based tax. Brody is cited in the proposal and it is said that a bit tax involves the introduction of bit measuring equipment on all communication equipment, which would enable the consumers to monitor the amount of bits being transferred.[112]

However, it would probably be too difficult to let every single receiver of bits assess and remit the tax straight to the governments. It is not even clear whether the receiver or the sender, or both, would be subject to the tax.[113] Telecom[114] carriers

[108] Automated teller machine.
[109] Taxing the Internet: The Proposal for a Bit Tax, p. 7.
[110] Herb Brody is a senior editor of Technology Review.
[111] Brody, Herb, Internet @crossroads.$$$, p. 5, http://web.mit.edu/afs/athena/org/t/techreview/www/articles/may95/Brody.html, downloaded 11-20-97.
[112] The "BIT TAX": the case for further research, p. 3.
[113] Brody, Herb, Internet @crossroads.$$$, p. 5.

would, according to Cordell, be more suitable as tax collectors. The bit tax would therefore not be a user pay tax. The carriers could monitor the bit flow through their networks and automatically collect and remit the tax straight to the national revenue service of the respective country. In order to measure the tax, it would be possible to build on the software already used by the carriers.[115] The telecom carriers would have to remit a certain amount of tax to the governments dependent of e.g. the bit carrying capacity of their lines and in what area they operate. The bit tax would be a tax for the telecom carriers, unvarying and independent of the individual customer's use.

There is no reason to believe that the telecom carriers would absorb the costs of a bit tax. The tax would be passed on to the consumers in one or the other way. A generally raised price on telecommunication services is imaginable. If the carriers do not want their customers to be collectively punished by the tax, they would have to decide on how to raise the price on an individual basis. However, it is obvious that the final burden of a bit tax would fall on the consumers.

7.4.2 A possible tax rate

As far as telecommunications are concerned, Cordell divides the digital information traffic into three categories. The bit tax rate will vary depending on in which category the flow of bits fits:[116]

1. Long-distance lines. These are generally public. The tax could be directly proportional to digital flows between major long-distance nodes in the country. Usage patterns would therefore determine the rate of the bit tax.
2. Leased lines.[117] These are private lines. The bit tax could be at a fixed rate dependent on the bit-carrying capacity of the line. The rate would be determined in percentages.
3. Local traffic. The average digital traffic in a specific area (e.g. within an area code, a state or a nation) could be measured and provide the basis for determining the bit tax rate in that region.

The tax remitted to the governments by the telecom carriers will vary depending on the collective usage of the networks. By increased usage, the bit tax rate would be higher in the whole

[114] It is also proposed that the carriers of satellite networks and cable system could collect the tax, but it is not stated exactly how that would work.
[115] Taxing the Internet: The Proposal for a Bit Tax, p. 8.
[116] Taxing the Internet: The Proposal for a Bit Tax, p. 7.
[117] It is rather common that American companies lease 1-800 lines for carrying on transactions.

area. The rate will therefore vary between different areas within nations.

Cordell suggests a possible rate of .000001 cents per bit. What does a rate of this size mean to governments, companies and individual users? Here will be given a few examples. In the summer of 1996 Di Rupo, the Belgian Minister for Telecommunications revealed that the amount of additional government tax revenues would be some $10 billion, if all the bits transmitted in and out of Belgium would be measured. Hewlett-Packard has an intranet, which in the summer of 1996 transmitted about 5 terabytes a month. If those bits were to be measured, the company would have to pay a bit tax bill of some $5 million[118]. For the individual Internet user it could be of interest to know that the bit tax for downloading Pamela Anderson's latest swimsuit pose would be less than half a cent.[119] It has been said that during peak periods in North America, 1 trillion bits per second are transferred on telephone networks. When using fibre optic networks in the future, the capacity will be extended to a peta[120] bit per second. The rate will therefore have to be adjusted for changing times.[121]

The High Level Expert Group has suggested that the bit tax rate instead should be based on an average Internet user's present telephone bill. If it was determined how much VAT an average user today pays on his phone bill, the tax could be set at a rate which would be equivalent to that sum. The average user would in that case neither suffer nor benefit from the bit tax. This way of setting the rate would be more in line with the High Level Expert Group's idea of the bit tax as a substitute for all VAT on communication and information services.[122]

7.5 The reasons for a bit tax

7.5.1 The bit tax as a solution of the problem with an eroding tax base

The High Level Expert Group has concentrated on the bit tax as a substitute for VAT on information and communication services. Their proposal is focused on the transmission of information on

[118] The profit of Hewlett-Packard was in 1995 estimated to $5 billions.
[119] The "BIT TAX": the case for further research, p. 3.
[120] A peta is a very large number. A 1 followed by 18 zeros.
[121] Taxing the Internet: The Proposal for a Bit Tax, p. 8.
[122] The "BIT TAX": the case for further research, p. 4.

the Internet, even though it is not limited to this specific kind of transmission. The bit tax fits within a broader idea to replace value added tax systems on all immaterial goods and services, with a transmission based system. The VAT is not suitable when the economy is based on the production, distribution and consumption of intangibles more than tangibles, particularly because it is difficult to determine the value added but also because the role of retailers as tax collectors is being eroded.[123] ”In the case of trade in intangible information services, where notions of value are difficult to estimate or to monitor, taxation may well have to be based on the intensity of electronic transmission, for example by means of a ”bit tax”.”[124] When the Internet user connects to the ISP, VAT will be paid on the telephone bill. But this small cost does not reflect the possible value of the information received. The bit tax would consider the amount of information received, measured in bits, instead of the time it took to receive it.

Cordell sees the bit tax as a way for governments to capture the productivity of the new information society. The productivity has to be captured, otherwise governments will not be able to maintain the social and physical infrastructure they have created.

As well The High Level Expert Group as Cordell say that the bit tax must be regarded as part of a shift in the tax base of society. The new economy requires new taxes.[125]

7.5.2 The bit tax as a way of distributing incomes

Cordell believes that people will not be needed that much in an automated world and there is no doubt that information technology is superior to human labour. We will be seeing what he calls ”jobless growth”. He does not see the necessity in creating new jobs, instead he stresses the importance of incomes. The situation arises, where unemployed people need money. It would be fair to distribute some of the gains[126] from the new economy to these people, to remain the national welfare. The tax could solve the dilemma of increasing productivity and declining employment, which of course also means less revenues from income taxes. The bit tax is one way to get at the productivity of information technologies. Governments just have to realise where today’s wealth creation is taking place.

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[123] The ”BIT TAX”: the case for further research, p. 2-3.

[124] Building the European Information Society for us all, p. 25-26, http://www.ispo.cec.be/hleg/Building.html, downloaded 10-19-97.

[125] See Taxing the Internet: The Proposal for a Bit Tax and The ”BIT TAX”: the case for further research.

[126] New and better goods and services developed by the new technology, lead to gains like e.g. time-saving.

This argument has also been strongly argued for by the High Level Expert Group.[127]

7.5.3 Distribution systems have always been taxed

There has always been a taxation of distributing systems. The global networks constitute the new distribution system in a new economy, and there is no reason why the ”Information Highway” should not be taxable.[128] ”As in the case of the automobile, where taxes on petrol and bridge tolls are paid on physical highways, on the information superhighway digital traffic is taxed per unit of electronic transmission, e.g. per bit.”[129]

7.5.4 Congestion and information pollution

The tax is also justified as a compensation for the external negative effects, that the information transmission brings forward, like information pollution and congestion. The Internet has become popular over the years, much more than was ever expected, and the transmission capacity has been found to be far below the demand of the Internet users.[130] The excessive use of the Internet has slowed the electronic speed down. There is a traffic jam on the Internet.[131]

The Internet constitutes a valuable resource and when access to a valuable resource remain unrestricted, the resource will be excessively exploited. This situation is in economic terms called ”the tragedy of commons”. A higher price on the consumption of this resource will get the consumption in line with society’s objectives. The theory is that if people have to pay for what they do, they tend to do less.[132]

The bit tax would be a mechanism to force users to weigh the costs and benefits of their Internet activity. Only packages of high value will be sent. The bit tax will also target those users who are most responsible for the congestion. To download pirated software and multimedia files, requires a considerable amount of

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[127] The ”BIT TAX”: the case for further research, p. 1.
[128] Taxing the Internet: The Proposal for a Bit Tax, p. 6.
[129] Building the European Information Society for us all, p. 26.
[130] In January 1997, a class action law suit was filed against America Online Inc., one of the world’s largest ISP’s, by seven million of its customers. AOL made the mistake to sign up too many customers, the customers then used the Internet more than the company could ever predict. The Internet got terrible congested and the service failed.
[131] Wolfe, Joseph, The Bit Tax, p. 1-3.
[132] Wolfe, Joseph, The Bit Tax, p. 7-8.

bits and time, the tax will therefore affect these kind of transactions more. If the congestion on the Internet would be reduced, there would be more bandwidth[133] for space requiring programs such as distance learning and tele-medicine. By exempting schools, universities, hospitals and libraries from the tax, more valuable ways of using the Internet, from the society's point of view, would be encouraged.[134]

The bit tax would also help reducing the information pollution. The ease and low cost of putting information on the Internet, makes people send off information before having considered the value of their messages. Useless and irrelevant information is therefore flourishing on the Internet. The bit tax would function as a disincentive.[135]

IBM holds a very aggressive attitude towards the bit tax and has particularly responded to the congestion argument. IBM says that there is no reason why the free market should not be able to adjust prices to resource availability. Besides is the problem of a technical character and new taxes will not eliminate the issue.[136]

7.5.5 The bit tax as a way of limiting the criminal activity on the Internet

The tax could help reducing the criminal activity on the Internet. Intellectual property rights are heavily violated on the Internet. The constant uploading and downloading of copies of digitised products could discourage owners of intellectual property rights from selling their products on-line. Even if the violations can not be stopped, the revenues from a bit tax could to some extent go back to the proper owners and compensate them for their losses.[137] The tax would also make it more expensive for violators to continue their criminal activity. Much of the pirated software is bigger than forty megabytes and a tax on all those bits would help making it true that crime does not pay.[138]

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[133] The term bandwidth refers to the Internet's electronic pipeline, through which data from one computer to another flow.
[134] All the proponents for a bit tax are considering exemptions from the tax, in the same way as certain activities today are exempt from VAT.
[135] The "BIT TAX": the case for further research, p. 5.
[136] Multi-jurisdictional taxation of electronic commerce, p. 2-3, http://meritbbs.unimaas.nl/cybertax/ibm.html, downloaded 10-18-97.
[137] The "BIT TAX": the case for further research, p. 7.
[138] Wolfe, Joseph, The Bit Tax, p. 3.

7.5.6 The bit tax as a way of avoiding complex moral issues

Some experts say that the one and only reason behind the replacement of the taxation system, would be the obvious fact that a tax system based upon honesty will not work. To keep the VAT system would mean that the selling company would have to figure out where a customer lives, levy the VAT on the invoice and then transfer the VAT to the appropriate authority in the other country. Sellers will not take all this trouble, only to help foreign governments to collect their revenues.[139] A bit tax is just an efficient way of keeping an eye on the taxpayers and the money they generate.

[139] Odebrant, Per, USA vill ha total skattefrihet på nätet, Datavärlden nr. 3 1997, p. 32.

8 Opponents of the bit tax and their arguments

The bit tax proposal has generally not been that well received. The resistance is strong and the reasons behind the scepticism differ.[140]

8.1 The European Commission

The European Commission has formally rejected the bit tax, although the High Level Group of Experts was establish by the Commission. The idea of a bit tax was opposed by the European Commissioner Mario Monti[141] already in April 1997 at a conference in Bonn. The European Commission stressed that VAT already applies to electronic trade in goods and services. Therefore there is no need for the introduction of new forms of taxes, like the bit tax, within the EU. Instead, governments should concentrate in solving the issues of tax avoidance and erosion, issues that are raised because of the specific speed, untraceability and anonymity of electronic transactions.[142]

8.2 The Global Information Infrastructure Commission (GIIC)

The Global Information Infrastructure Commission (GIIC) has given recommendations for promoting the use of electronic commerce. The recommendations were laid forward in September 1997. The Commission suggests that no new taxes should be imposed on transactions made over the Internet. ”Usage or Bit taxes based on the number of bits transmitted to or downloaded

[140] The Italian finance ministry’s monthly magazine, Tributi, has rejected the bit tax and compares it to medieval taxes on windows.
[141] Monti is Commissioner for the single market and taxation.
[142] EC member knocks notion of a bit tax, http://www.techweb.com/se/directlink.cgi?EET19970414S0017, downloaded 10-25-97.

by a user should be avoided as an burdensome and inappropriate methodology for taxation;"[143]

8.3 A bit tax would be to tax what is already taxed

The transmission of information is already taxed. VAT/sales tax is paid on the purchase of the necessary equipment, computers, modems etc. Tax is also paid on the telephone calls to the local ISP's server.[144] The latter argument would fall according to The High Level Group of Experts as the bit tax would replace the VAT on information and communication services.

8.4 A bit tax would threaten the principle of neutrality

The principle of neutrality is a fundamental principle in the law of taxes. The taxation shall lead to the same consequences independent of in what way the individual chooses to act. Different possibilities of acting shall have the same order of precedence after, as well as before the tax has been levied.[145] The principle requires that the tax system treats transactions equally, regardless of whether they are made through electronic means or through already existing channels of communication. Intangible products sold and delivered over the Internet should be treated in the same way as intangible products bought and delivered off-line. Tangible products sold over the Internet but delivered in a physical way should be treated in the same way as ordinary mail orders. A bit tax is a tax exclusively levied on the electronic way of transferring information and would therefore make the choice of electronic communication less favourable compared to the choice of

[143] GIIC Recommendations for Promoting the Use of Electronic Commerce: Part I of II, p. 3, http://www.gii.org/egi00258.html, downloaded 11-05-97
[144] Oppose the Euro Bit Tax, http://www.personal.u-net.com/amiga/EuroBitTax.html, downloaded 05-26-97
[145] Lodin, Sven-Olof, Lindencrona, Gustaf, Melz, Peter, Silfverberg, Christer, Inkomstskatt, p. 35, Lund 1997.

traditional communication.[146] The European Commission stands behind this argument.[147]

8.5 Implementation issues

A bit tax would encourage different ways of trying to avoid the tax, like the compressing of data or keeping data in an analog form. It may also be that companies develop intranets instead of using the Internet. Trying to count the bits would cost more than the revenue raised. Another question is if the whole world would agree to implement the tax. If the bit tax would not be implemented on a world-wide basis, jurisdictions without the tax would get the pleasure to handle all on-line transactions and the bit tax would be a tax in vain.[148]

8.6 A bit tax would make it difficult to distribute certain kinds of products

Certain kinds of products like computer software and recorded entertainment can easily be distributed through computer networks. As these products are made for computers the direct delivery into the customers computer is convenient. A bit tax could force distributors of these products to use traditional ways of distribution because it would be cheaper. This seems irrational.

8.7 A bit tax would hinder the growth of the Internet and the electronic commerce

[146] To send a message by e.g. facsimile transmission (fax) is not taxed in the same way.
[147] EC member knocks notion of a bit tax.
[148] Positive and negative aspects of taxing transmissions, http://meritbbs.unimaas.nl/cybertax/aspects.html, downloaded 10-18-97.

A bit tax would discourage the development and usage of the Internet. This would result in economic inefficiencies. The Internet is a huge job generating invention. The Internet created 1.1 million jobs world-wide in 1996. This development would be threatened by a bit tax.[149] Cordell has given an answer to this argument. ”Did the imposition of the gasoline tax slow the development of the automobile industry?”[150]

8.8 The bit tax would not solve the relevant problems

The main taxation problems that the electronic transactions and content raise, are related to jurisdiction and control. Companies that supply goods or services are always required to levy the relevant VAT rate or explain why it has not been levied. This requirement does not change only because the transactions made were electronic.[151]

8.9 The bit tax would have negative environmental consequences

The Internet is environmentally friendly as it e.g. reduces the use of paper. A bit tax would discourage the use of the Internet and thus have negative environmental consequences.[152]

[149] ITAA Backs Intent of Internet Tax Freedom Act, http://www.itaa.org/script/prelease.cfm?ReleaseID=82, downloaded 11-23-97
[150] Taxing the Internet: The Proposal for a Bit Tax, p. 8.
[151] An eroding tax base.
[152] Positive and negative aspects of taxing transmissions.

8.10 The bit tax would be an infringement of the freedom of speech

The Internet is today's cheapest and most convenient way of searching and providing information. The accessibility and availability is world wide and people all over the planet can easily express their opinions and, most important, others can take part of what they want to say. This function of the Internet would be heavily eroded if a bit tax would be imposed on the flow of information.[153]

8.11 The bit tax will not distinguish between bits

According to the bit tax proposal, a bit is a bit. The bit tax is a quantity tax. The size of the flow of information would be the only thing to determine the bit tax. There will be no distinguishing as concerns the content of the information transferred. The size of a document has often no correlation to the actual value of the information received. The information in one recent edition of the Wall Street Journal is a lot more valuable than all the information in the U.S. telephone books for 1982. A video-clip sent to a friend has no commercial value but contains a lot of bits. A commercial database may be of high economic value but could contain fewer bits than the video-clip.[154] Different information also have a different value to different people. A farmer may have no interest in the Wall Street Journal, but the Farmers' Journal may be of great importance to him.[155] Many on-line goods and services are for free, like the browsing through a book store's catalogue, and there is no reason to tax such goods and services.[156]

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[153] Oppose the Euro Bit Tax.
[154] Positive and negative aspects of taxing transmissions.
[155] Taxing the digital economy, p. 1, http://www.nua.ie/making_it_work/current.html, downloaded 12-29-97.
[156] An eroding tax base.

8.12 The bit tax would mean that Europe would lag even more behind the U.S.

The U.S. already has a long lead to Europe in terms of Internet development. If the bit tax was implemented on a world-wide scale it would hinder the European development and make that long lead even longer.[157]

8.13 The U.S

8.13.1 The Internet tax freedom act

As has been showed above, the American tax authorities have all found different solutions to the problem of taxing the Internet. Such an incoherent situation is of course puzzling.[158] In March 1997, a new bill was introduced, cited as the ”Internet Tax Freedom Act”. The purpose behind the Act is to establish a consistent and coherent national policy regarding the taxation of Internet activity. The Act states that ”…no State or political subdivision thereof may impose, assess, or attempt to collect a tax directly or indirectly on – (1) the Internet or interactive computer services; or (2) the use of the Internet or interactive computer services.”[159]

The conclusion is that no new taxes may be imposed on the Internet. This restriction is limited though. The intention is that over a two year time-period an examination of the US domestic and international taxation of the Internet shall be undertaken by the Executive. The examination shall result in appropriate policy recommendations. It would probably be fair to say that the American solution has been considered to be the only way out of the mess. The giant problems of taxability, jurisdiction, collection and enforcement were found to be overwhelming and the easiest

[157] Europa riskerar bli ett digitalt Afrika, http://www.idg.se/cs/news/news654.htm, downloaded 11-28-97.

[158] The seriousness of the problem is underlined by the fact that the hottest selling software in the spring of 1997 in the US was software to help entrepreneurs and companies figure out various State tax policies.

[159] S. 442, the Internet tax freedom act, Section 3 (a), http://jya.com/s442.htm, downloaded 11-06-97.

way out would simply just be to ignore these issues and freeze the situation.

At the time when there will be a rational tax policy applicable in the US, American businesses will still have difficulties in competing oversea if there would be a different policy in every other country. The third part of the bill therefore directs the Executive to seek an international agreement making the Internet a duty-free zone.[160]

8.13.2 The Clinton statement

On the 1 of July 1997 President Clinton, USA, unveiled a white paper on the electronic commerce. The taxation of the Internet was one of the addressed issues. "…the United States will advocate in the World Trade Organization (WTO) and other appropriate international fora that the Internet be declared a tariff-free environment whenever it is used to deliver products or services… In addition, the United States believes that no new taxes should be imposed on Internet commerce."[161]

As regards the bit tax proposal, it is clear that Clinton does not want any new taxes, which is exactly what the bit tax is, to be imposed on the electronic commerce. The American rejection of the bit tax proposal is therefore not questionable. However, the intention of the statement is not to promote for an electronic commerce completely without taxes. What is being suggested, is the avoidance of tariffs[162] on electronic deliveries and the invention of new taxes to be levied on the electronic commerce. There is nothing in the Clinton statement that intends to limit the application of sales taxes/VAT.[163]

Clinton expresses some concern over the confusion already created within the U.S because of all these different solutions in all the different tax jurisdictions. "The uncertainties associated with such taxes and the inconsistencies among them could stifle the development of Internet commerce."[164]

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[160] S. 442, the Internet tax freedom act.

[161] Clinton, William, Gore, Albert, A Framework For Global Electronic Commerce, p. 5, http://www.iitf.nist.gov/eleccomm/ecomm.htm, downloaded 10-25-97.

[162] Tariffs are taxes on imported and exported goods. The reason behind the dislike of tariffs is rather practical. "Thus, while it remains possible to administer tariffs for products ordered over the Internet but ultimately delivered via surface or air transport, the structure of the Internet makes it difficult to do so when the product or service is delivered electronically." Clinton, William, Gore, Albert, "A Framework For Global Electronic Commerce", p. 5.

[163] Electronic commerce: the challenges to tax authorities and taxpayers, p. 22.

[164] Clinton, William, Gore, Albert, "A Framework For Global Electronic Commerce", p. 5.

8.13.3 A possible reason behind the U.S. position

The main reason behind the Clinton statement, is to facilitate the growth of electronic commerce. The praising of the Internet is endless and a picture of Cyberspace as a huge, money generating machine is outlined. But why does the U.S. take all the trouble to protect the electronic commerce. Why is it that important to the U.S. that the Internet remains duty-free and that no new taxes are imposed on the electronic commerce? The answer to this question is obvious. The U.S. has far more to loose than any other country if the Internet would be taxed in these ways. Of the 35 million people currently using the Internet, 13.5 million are Americans. A duty-free Internet will therefore gain the American consumer most.[165] Concerning media and information services on the Internet, the US is the most prominent state in the world. In 1995, US exports associated with licensing fees and royalties earned over $25 billion. The corresponding import totalled only $6.5 billion. America produces the entertainment products most in demand throughout the world. Today's problems when these products are physically sent, like content quotas and high tariffs, will disappear if the Internet is declared a duty-free zone. This will of course gain the distribution of these products. As the availability increases, the American entertainment industry will grow and generate even more money.[166]

[165] Cox, Christopher, A global free trade zone on the Internet, p. 1, http://www.house.gov/republican-policy/global.htm, downloaded 10-27-97.
[166] Cox, Christopher, A global free trade zone on the Internet, p. 1.

9 Alternatives to the bit tax

The bit tax proposal is a suggestion for a completely new kind of taxation, a tax on the transmission of information. It is a radical proposal, which purpose is to adjust the tax system to the new economy. If the bit tax is too radical, another way to go would be to adjust the already existing tax rules to the information society.

9.1 A common solution - reduce the importance of consumption taxes

The best way to solve the problems would be to reduce the importance of VAT and sales tax. Consumption taxes are not designed for Internet shopping across regions and national frontiers and can not be relied upon as much as they used to be. Raised income taxes could replace the consumption taxes. The advantage of the income tax is its progressiveness and the fact that it applies no matter how the money is spent.[167]

9.2 Alternatives for Europe

One option to solve this problem would be to widen the definition of fixed establishment. That way it would be enough for the supplier to have a very limited involvement in the country of consumption to create an establishment. This solution raises the question whether the widening of the definition should be limited to Internet related services or have a general application.

Another alternative would be to change the place-of-supply rule to where the customer is established. If the place of receipt determined the place of supply, there would be no supplies of VAT-free services within the Community. This solution would raise a problem as concerns non-business consumption. Private persons would have to self-assess and report the VAT. Another

[167] Newman, Nathan, The Great Internet Tax Drain, p. 4.

issue would be the fact that it would be difficult to confirm that the customer is the one who really uses the service, which would raise problems if the customer and the user belongs to different jurisdictions.[168]

The electronic commerce questions the introduction of the European country-of-origin principle as suppliers are difficult to trace in the footloose Cyberspace. The country-of-origin principle would require that both in the case of goods and services the product could be traced to originate from a specific country.

In March 1997, the EU ruled that VAT must be imposed on all telecommunication services delivered to customers within the EU, regardless of whether the services are based in the EU or not.[169] The EU ruling affects ISPs as well.[170] The new place-of-supply rule became effective as from 1 July 1997. If the customer is a business it has to self-supply the tax. If the customer is a private person, the supplier needs to be registered for VAT in the country of consumption.[171]

It would be possible to trace e-money. Suppliers of goods and services could be given a unique tax registration numbers, which would be kept in a central data bank. Before financial institutions deliver a payment to a supplier outside the EU they would be required to check the register. If the validation would not be successful the bank would withhold the tax. Telecommunication operators and ISPs could also act in the role as tax collectors. They have a possibility of monitoring the sales of goods and services over the Internet. Software producers could build control systems in their browsers[172] and electronic commerce software.[173]

9.3 Alternatives for the U.S.

The states of America will have to adjust their sales tax systems in order to get at the mail order business. The constitution prevents them from levying sales tax out of the own state, but are there any

[168] Electronic commerce: the challenges to tax authorities and taxpayers, p. 18.
[169] Hayward, Douglas, Europe Rejects ”Bit Tax”, http://www. Techweb.com/wire/news/apr/0408tax.html, downloaded 10-25-97.
[170] Kallback Press Release, http://www.kallback.com/announce/press6.html, downloaded 10-27-97.
[171] Electronic commerce: the challenges to tax authorities and taxpayers, p. 19.
[172] Browsers, like Netscape and Internet Explorer, are used for searching and viewing web sites.
[173] The argument, http://meritbbs.unimaas.nl/cybertax/argument.htlm, downloaded 10-18-97.

other ways to stop the sales tax revenues from continuing to fall?[174]

No state is allowed to levy an out-of-state sales tax, but there would be no constitutional barriers for a national sales tax. The mail order companies could be obliged to collect the tax and remit it to the states where its purchaser reside. This requirement would however constitute a heavy burden on the companies.

Another alternative again would be to let the states where the customers reside collect some kind of use tax from the residents. A state is always allowed to tax its inhabitants so this solution would not be unconstitutional. However, the use tax would be based on the customers honesty as they would have to account for all their purchases, in the same way as they account for their income, which would require an enormous amount of bookkeeping. An unconventional way to collect the tax, instead of letting the customers self-assess it, would be for the states to supervise individual credit card and checking account records.[175]

The trend in the U.S. has been to shift responsibilities from the federal level to governments at a state and local level. But since such an important part of today's commerce is conducted on a national and even international level, the new information society require a more centralised tax collection. Global commerce requires global solutions and revenue sources.

9.4 Global consensus

The U.S.[176] as well as the EU[177] have realised that a legal regulation of the Internet, including taxation, needs to be global. The nature of the Internet is global without geographical boundaries. To achieve predictable results and avoid unfair competitiveness, international agreements need to be attained. It is imaginable that this development will take some time.

[174] This part is based on Newman, Nathan, The Great Internet Tax Drain.
[175] In some states e.g. in California this way of collecting the tax would be impossible as the guarantees for privacy are too strong there.
[176] Clinton, William, Gore, Albert, "A Framework For Global Electronic Commerce", p. 4.
[177] A European Initiative in Electronic Commerce, http://www.cordis.lu/esprit/src/ecomcomx.htm, p. 2, downloaded 10-25-97.

10 Conclusion

Michael Faraday discovered the basic principles of electricity in 1831. He was asked by a sceptical politician what electricity was good for: ”Sir, I do not know what it is good for. But of one thing I am quite certain, some day you will tax it.” Luc Soete has said something similar about information technology. ”This is a new system of communications, and the assumption that we should be able to use it without any taxation is ridiculous.”

The information society has exploded the last few years. A PC and accessibility to the Internet has become a natural part of peoples’ daily lives. Private users as well as companies have realised the potentials and advantages of a computerised society. The Internet provides its users with more information than any library could ever hold, and best of all, it costs you almost nothing to obtain what you need.

As long as the use of the Internet and electronic commerce was limited to a privileged group of users, the tax difficulties were negligible, but the increased use has led to an eroding tax base. Especially the consumption taxes have been hit hard by the electronic commerce. They do not apply to some kinds of electronic commerce and are difficult to apply as it comes to other kinds. The VAT and the sales tax have been stretched and adjusted many times already, to fit new commercial phenomena, but now the proponents of the bit tax consider it to be time to question their position in the new economy.

The bit tax proposal is controversial as it suggests the implementation of a completely new kind of taxation, a tax on the transmission of information. Although the bit itself may not be the most suitable unit for measuring the tax, the reasoning behind the proposal makes sense. The main reason for introducing a bit tax, according to the High Level Expert Group, is that it is no longer appropriate to discuss, what is the value added of every transaction. Cordell has compared the bit tax to the gasoline tax or paying a toll on a bridge. These current excise and indirect taxes apply by amount of gas used or by weight of truck, not on the economic value of the items carried by the truck. The bit tax, in its shape of a quantity tax, is justified for the same reason.

What is interesting is not the specific theories of how to implement the bit tax, questions about who is going to collect the tax and at what rate it will be. The thrilling part is the fact, that <u>some</u> kind of a new tax is being considered. Even though the main arguments behind the proposal are slightly different, they all derive from the fact, that we have created a society, which provides its inhabitants with several social benefits, and taxes are

needed to support the system. The value of digital information transmission has been underestimated for a long time, but companies in the information technology business, as well as tax authorities have an interest in that people pay for what they are provided with. The prices on digital information in all its different forms, will be raised at the same time as suppliers realise that people have become dependent on the technology and are willing to pay a decent amount of money for it. An example of this is the Swedish ISP Tele2, which is now introducing Internet via satellite. The company states that communication via satellite is a fast but expensive way of transmitting information, and therefore will the pricing of the service be related to the amount of information transmitted. A monthly fee of 195 kronor will include the downloading of 100 Mb, and any additional Mb will cost 5 kronor. Also taxes must better reflect the value of the information society's capability, and if this can not be done by levying a tax on the exact economic value of a transaction, a quantity tax will be a step in the right direction.

The present consumption taxes were created for the distribution of iron and steel. Now it is time to consider how we are going to tax the most valuable and important product in today's society - information. The whole idea of taxing the Internet is, understandable enough, unpopular with users of the Internet, but on the other hand, who would imagine to get electricity free from tax today?

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