A Primer on the Taxation of Electronic Commerce

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BACKGROUND PAPER | NO. 28
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Introduction

The rapid growth in Internet access and usage has opened up a 24-hour virtual global marketplace for goods and services that is creating a revolution in the way businesses operate. This swiftly changing technology has the potential to fundamentally alter the nature of marketing, ordering, invoicing, billing, and customer service. Because the costs of entry into this new market are relatively low, it is accessible to virtually any business with the desire and creativity to exploit it.

How big is electronic commerce? Electronic commerce is in its infancy and hard data is difficult to come by. Industry estimates vary widely. According to a survey by Nielson Media Research and CommerceNet, almost seventy-nine million people over the age of sixteen used the Internet in the first six months of 1998, up 58 million from the previous nine months. Of those users, 20 million made online purchases—double the figure from the previous nine months. Globally, there were more than four hundred thousand active commercial websites at the beginning of 1998, more than double the amount at the beginning of 1997.

By far the largest component of electronic commerce is business-to-business trade. In the United States, business-to-business electronic commerce is expected to top $17 billion in 1998, more than double the amount in 1997. By 2002, U.S. business-to-business sales of goods using the Internet are expected to exceed $300 billion.

U.S. online retail sales were about $2 billion in 1997. In 1998, they are expected to reach $1.8 billion. The Commerce Department reports that a conservative estimate of the growth of retailing on the Internet put revenue from online commerce at $7 billion in the year 2000 while other estimates have it reaching as high as $115 billion in five to eight years.

Global projections for online commerce and commerce generated by an online presence range from about $1 trillion to more than $3 trillion shortly after the turn of the century. This potential for growth in the use of the Internet to advertise, sell, and deliver goods and services has caused tax administrators worldwide to consider the ramifications of these new business methods on income and sales tax bases and on compliance and the administration of tax law.

Existing tax policy was written for a world in which most commerce consisted of the sale of tangible manufactured goods. This raises a number of issues in its application to electronic commerce:

♦ The fundamental issue concerning electronic commerce is which jurisdiction has the right to tax. The growth of mail order has increased the fraction of commerce performed by remote merchants rather than local vendors. Because states are legally prohibited from compelling out-of-state vendors without sufficient connection with their states from collecting sales and use taxes on products and services sold to their residents, local merchants are at a competitive disadvantage vis-a-vis remote vendors of all kinds, including Internet merchants.

"The fundamental issue concerning electronic commerce is which jurisdiction has the right to tax."

Should remote commerce be subject to sales and use tax collection requirements?

♦ Current sales and use taxes at the state and local level in the United States apply primarily to tangible products. They are selectively applied to services on a widely varying basis. Services are a growing fraction of consumer expenditures. The growth of electronic commerce will only increase the fraction of commerce that escapes sales and use taxation as more consumers go online to purchase services and
intangible products. Should services and intangibles (digital goods) be included in the sales tax base? And if so, how?

♦ In addition to blurring the distinction between tangible and intangible commodities, the Internet blurs the links between economic activity and location. When commerce is concluded or facilitated by the Internet, it is often not clear where the income producing activity occurred. In the borderless world of the Internet, where does a transaction take place? Is it at the customer’s computer? At the company’s website? The server that houses the website? The seller’s computer?

♦ Since the source of income and the location of the sale are important to the determination of which jurisdiction has the authority to tax a transaction or the income resulting from a transaction, it is crucial that there is agreement among taxing authorities worldwide on how to source income and sales to prevent potentially stifling multiple layers of taxation.

Tax administration and compliance are major concerns to all levels of government. If electronic commerce increases non-compliance, it will erode all manner of tax bases, thereby depriving government of expected revenue and shifting the tax burden onto activities unrelated to electronic commerce.

♦ Capital engaged in electronic commerce is highly mobile and may respond quite elastically to changes in tax policy among jurisdictions.

♦ The name and location of a buyer may not be known or knowable to the vendor, making the attribution of sales or income to a particular location practically impossible. Rules for identifying the taxpayer or siting the sale would become necessary.

♦ Since businesses engaged in electronic commerce may be known only by their domain names, their income and sales may avoid taxation altogether.

♦ The growth of electronic cash and encryption raises issues of compliance and tax evasion for all levels of governments as no records of transactions or income may exist.

Efforts at addressing these and other issues regarding the taxation of electronic commerce are underway globally at all levels of government. The OECD has recently concluded a conference that addressed (in part) the global tax issues connected with electronic commerce. The United States government has issued a white paper containing its primary concerns regarding electronic commerce. And a compromise version of the Internet Tax Freedom Act (ITFA) was signed into law on October 21, 1998 as part of the omnibus budget reconciliation package.

This paper outlines the basic tax issues that have arisen with respect to the growth of electronic commerce. In general, the issues are not new, but are extensions of existing issues in tax policy—the erosion of tax bases due to changing methods of doing business and increasing globalization of trade, and compliance and administration issues arising from these same sources.

There is widespread agreement that tax policy as applied to electronic commerce...
should satisfy the fundamental principles of taxation: neutrality, simplicity, and fairness. Economically equivalent transactions and income should be taxed equally. Market forces should determine what is produced, how it is produced, and where is produced; tax policy should not.

State and Local Tax Issues

Internet Access Fees

Eleven states and the District of Columbia tax Internet access fees. The rational for taxing Internet access varies from state to state: in Texas Internet access is considered an information service and in Wisconsin it is considered a telecommunication service. The remainder of the states are prohibited from levying taxes on Internet access for the next three years by the recently enacted Internet Tax Freedom Act. Under this legislation, only states that had imposed and enforced such taxes prior to October 1, 1998 may collect them.

Sales and Use Taxes

Forty-five of the fifty states impose sales taxes on the purchase of tangible personal property. (Many states include some select services in their sales tax bases as well). The tax base for each states sales tax is unique. What is taxable in one state may be untaxed in another. Aggregate state general sales and use tax collections amounted to more than $147 billion and comprised one third of the total tax revenue raised by state governments in 1997. State sales tax revenue grew by 5.5 percent between 1996 and 1997 and over the last ten years has exhibited an average annual growth rate of 6.4 percent (in nominal terms).

In four states, the revenue raised by the sales tax accounts for more than fifty percent of tax revenue raised. In another six, it accounts for more than forty percent of the taxes raised at the state level. In addition thirty-one states authorize local governments (cities and counties) to levy local sales taxes. In total, there are at least 7,000 jurisdictions in the United States that currently levy sales and use taxes. Local sales and use taxes add another layer to the complexity of sales and use taxes. In addition state and local sales taxes are in a constant
state of flux. According to Vertex Inc., 634 taxing jurisdictions changed their rates or added new sales taxes in 1997. Since 1990, the number of jurisdictions that changed their rates or added new sales taxes totals 5,277.10

Sales taxes are generally collected by retailers on the gross price of a sale. In general, a retailer is not liable for collecting sales tax on an out-of-state sale unless the retailer is determined to have "nexus" (defined below) with the taxing state. This prohibition gives remote sellers an advantage over local retailers whether they use traditional mail order or the Internet to market their goods.

"Applying nexus standards rooted in physical presence to remote commerce, whether it is conducted by mail order with catalogs or over the Internet, exempts most of these vendors from the responsibility to collect sales or use taxes on behalf of the states. This gives remote vendors of all types, not just Internet merchants, an advantage relative to local sellers."

To prevent sales to residents from out-of-state businesses from escaping taxation, states that levy sales taxes also impose use taxes on their residents. A use tax is imposed on the value of tangible personal property (and sometimes services depending on the jurisdiction) that is used or consumed in a state and that has not been taxed elsewhere. Most consumers do not know that they are liable for use taxes and, as a result, most use taxes go uncollected.

Because the base of the sales tax varies from state to state and rates can vary locally, multi-state corporations that are obligated to collect sales taxes from their customers over multiple jurisdictions face a complex web of rates and bases that adds to their costs of compliance. Even for large multi-state corporations with large legal and tax departments, the wide variance in state and local sales taxes impose high compliance costs. As small and medium-sized businesses expand their reach into new states and localities, they may face the burden of complying with these myriad regulations.

Nexus for Sales Tax Purposes

Precisely because of the heavy burden that would result from collecting sales taxes for so many different jurisdictions with differing and continuously evolving statutes, states have been prohibited by the Supreme Court from compelling most businesses that do not have "nexus," that is, sufficient connection with the state, to collect sales taxes on sales of products in their states.

This constraint on the ability of states to impose collection and remittance on out-of-state sellers of tangible goods is based upon the Due Process and Commerce Clauses in the Constitution.

To satisfy the Due Process Clause constraint on a state's ability to tax a remote seller, there need only be a minimum connection between that state and the person, property or transaction that it seeks to tax. It does not require the physical presence on the part of the taxpayer.

The Commerce Clause imposes a more prohibitive standard on states that wish to tax out-of-state businesses. The seller must have "substantial nexus" with the taxing state. The standard for substantial nexus was most recently established by the Supreme Court in 1992 in the case of Quill v. North Dakota. The Court ruled that the contact that the Quill Corporation had with North Dakota—licensed software and common carrier delivery of merchandise—were insufficient to establish nexus. For the purpose of placing collection responsibility for sales and use taxes on an out-of-state business under the Commerce Clause, substantial nexus requires some physical presence on the part of the seller in the taxing jurisdiction.
This nexus standard was developed for an era of commerce in physical manufactured goods. But the fundamental feature of electronic commerce is that no physical contact of the seller with the taxing state is required. If the delivery of a physical good results, the seller may ship the product via common carrier and remain outside the bounds of nexus requirements.

If the product is intangible/digital in nature—information services, music, books, or downloaded computer software—no physical contact with the taxing state occurs at all. Applying nexus standards that are rooted in physical presence to remote commerce, whether it is conducted by mail order with catalogs or over the Internet, exempts most of these vendors from the responsibility to collect sales or use taxes on behalf of the states. This gives remote vendors of all types, not just Internet merchants, an advantage relative to local sellers.

States and localities have been attempting to apply standards of contact that do not rely on physical presence, including notions of attributional nexus (attributing the presence or activity of another person or entity to a corporation or business) and transactional nexus (a business would have nexus with a taxing jurisdiction if a transaction occurred within that jurisdiction). Under attributional nexus the location of a web server in a state could generate nexus. Attempts to extend nexus have been and continue to be extensively litigated.

The recently passed Internet Tax Freedom Act offers a forum for businesses engaged in electronic commerce to discuss how to resolve the nexus issue without protracted litigation. If the goal is to maintain neutrality in the taxation of commerce, it has been suggested that all sellers, remote and local, be required to collect sales and use taxes in the jurisdictions where they do business. The trade-off on the part of the states would be a simplification of the existing plethora of rates and bases.

The issue of the sourcing of sales will also need resolution. Because electronic commerce is borderless both nationally and globally, the precise location of a sale will have to be determined. In the case of physical goods, the tax can be determined by the location of the delivery. Intangibles—products that are digital or are services—pose a larger problem. For such goods, the seller need not know the location of the buyer and the buyer may use the product anywhere. If the point of contact for electronic transactions (i.e., location of a website or server) were determined to be the site of the sale for tax purposes, businesses would simply relocate their servers to more tax-friendly locations. Such sales may have to be subject to throwback rules and sourced at the location of the seller for tax purposes. Alternatively, as electronic commerce develops, sellers may require some form of digital verification that locates the buyer for the purpose of taxation.

**Digital Goods**

Digital goods are a problem for the sourcing of sales, but they also present another challenge. The sales and use tax bases of most states consist primarily of tangible goods. Most states include some services but this varies widely. There is no widespread agreement on how intangibles and digital products should be classified for tax purposes.

Some digital products that have physical analogs, computer software for example, can often either be purchased in boxed
form or, increasingly, they can be downloaded from a manufacturer’s website. Neutrality would require that both are taxed or that both are exempt. States vary in their current treatment of downloadable information and software. Of the 45 states that have sales and use taxes, 27 tax software downloaded from the Internet. The growing number of products that will be available to be downloaded from the Internet in digital form will require some proper treatment to maintain neutrality among traditional and electronic commerce.

**State Corporate Income Taxes**

Each of the fifty states has a unique set of corporate income tax rules. While not as large as the potential burden of the sales tax, these rules involve high compliance costs for both small and large businesses. When a company has sales in multiple states, its income will be taxable in the states where it has nexus. The company’s income is then divided among the states where it has sufficient nexus and each state taxes its share.

Nexus rules for income taxation describe the amount of business activity that must occur before a business must pay income tax in that state. In general, nexus is created for income tax purposes in a state if it earns income from sources within the state, owns or leases property in the state, has employees in the state that do more than seek orders for the company, or has physical property in the state. This is quite a broad definition and in practice different states impose different thresholds of activity before they require an out-of-state company to pay income tax.

Under federal law there is a minimum threshold for the degree of business activity that is required before a business can be subject to a state’s income tax. Under this law, states are prohibited from imposing a tax on or measured by net income when the only connection that a business has with the state is the solicitation of sales or orders for tangible personal property. A business’s income is apportioned among the states with which it has nexus by a formula. Many states follow or base their rules of apportionment on the Uniform Division of Income for Tax Purposes Act. UDITPA uses a three-factor formula to apportion income: sales, payroll, and property are apportioned to the state in which they are located for tax purposes. Income from intangibles such as bonds is taxed where the company is headquartered. Most states also have throwback rules that require that sales to states where a company has not established nexus be apportioned to a business or corporation’s home state.

The sales factor will be the most affected by a firm’s engagement in electronic commerce. Sales of tangible personal property are sourced where the customer is located. If the business has no nexus in the customer’s state, sales of tangible goods are generally subject to throwback rules (they are assigned to the business’s home state). Intangible products are even more difficult to source. The treatment of intangibles is not uniform, and jurisdictions apply varying sourcing rules to such sales. The majority will source them to the seller’s state, basing them where the income-producing activity occurs. The rest source them to the consumer’s location. Online businesses selling digital products have no way of knowing where their customers are located and thus, in most cases, will have to source their online sales in their home state.
National Tax Issues

There is currently no national excise tax on Internet access or usage and no such tax is contemplated. And in the United States, unlike many of its trading partners, there is no national sales or consumption tax. At the national level, government authorities are primarily concerned with how to provide a level and non-restricted playing field for this new method of doing business at the state and local and international levels.

The White House set out its position on economic issues concerning electronic commerce in its white paper: “A Framework for Global Electronic Commerce.” The federal government has declared that the Internet should be a “tariff-free environment whenever it is used to deliver products and services.” It has also asserted that no new taxes should be levied on electronic commerce but rather that existing tax policy should be applied neutrally and consistently at both the national and international levels. In addition, the Framework encourages state and local governments to develop a uniform and simple system to tax electronic commerce based on current tax principles.

The Internet Tax Freedom Act (ITFA), recently enacted as part of the omnibus budget bill, is meant to address the interstate issues regarding electronic commerce. The Act specifically provides for a three-year moratorium during which states or subdivisions thereof are prohibited from levying:

- Taxes on Internet access, unless the tax was generally imposed and actually enforced prior to October 1, 1998; and
- Multiple and discriminatory taxes on electronic commerce.

The ITFA does not prohibit any constitutional forms of taxation that can currently be imposed by the state. States and localities may still require remote vendors (including those who use the Internet) to collect sales and use taxes if they meet the established nexus requirements. States and local governments may also continue to impose income and franchise taxes on businesses over which they have jurisdiction.

More important than the moratorium is the creation of an Advisory Committee on Electronic Commerce. The Committee will be composed of nineteen members: the Secretaries of Commerce and Treasury and the United States Trade Representative (or their respective delegates), eight members of state and local governments, and eight members of the electronic commerce business community.

The Committee has an eighteen-month mandate to study federal, state and local, and international tax and tariff issues related to electronic commerce. Importantly, it is directed in particular to study the most contentious issue at the state and local level—the issue of sales and use taxes. Specifically, the Committee is to study model state legislation that would simplify the sales and use taxes by providing for a uniform base for these taxes and it is to review the efforts of state and local governments to compel remote sellers to collect sales and use taxes on sales made to their residents.

At the end of its eighteen-month tenure, the Committee will pass its legislative recommendations, if any, to Congress. Hence, the ITFA opens up the issue of nexus at the congressional level. Because only Congress has the authority to regulate interstate commerce, the ITFA may prompt Congress to overrule the traditional nexus requirements and require all remote sellers—including Internet-based vendors—to collect sales and use taxes in all jurisdictions where they do business.
International Issues

There is general international agreement that existing international tax principles can be applied successfully to electronic commerce in ways that satisfy the principles of neutrality, efficiency, and simplicity. Issues that require international consensus are: the sourcing of income and transactions and the characterization of digital products. International authorities are also very concerned with issues of tax avoidance and compliance. While many of these issues will be familiar to large multinational corporations, they will be new to smaller businesses which, through the global reach of the Internet, may be selling to the world for the first time.

The Jurisdiction to Tax and Sourcing of Income

The primary issue at the international level is the division of the jurisdiction to tax income from electronic commerce. Like nexus standards, international treaties and bilateral agreements were written for a world where commerce consisted primarily of tangible manufactured goods. Often the determination of whether a government may tax an individual or business turns on notions of physical presence within that country’s borders. Electronic commerce allows both firms and individuals to easily reach across borders to conduct transactions. In light of this, both the OECD and the United States government recognize the need to re-examine existing principles governing the jurisdiction to tax.

The apportionment of income for tax purposes is complicated by the wedge that electronic commerce drives between the source of income and its location. Without a consensus among nations on how to source income for tax purposes, there is a high probability that either income will be taxed in more than one jurisdiction or that it will escape taxation altogether. The source rules governing international tax agreements were also developed when most global commerce consisted of the manufacture and export of physical goods.

Income is usually sourced where the economic activity creating the income occurred. Electronic commerce can obscure both the source of income and the nature of income. Businesses engaged in electronic commerce can be located anywhere in the world and their customers will be indifferent and often unaware of the seller’s physical location. Because of this weakening of the links between a type of income and its physical location, the Treasury Department advocates moving toward residence-based taxation (basing the jurisdiction to tax on the residence of the taxpayer rather than the source of the income) because “almost all taxpayers are resident somewhere.”

Indirect Taxes: Value Added Taxes

Unlike the United States, many other nations impose Value Added Taxes (VAT) or a national sales tax. Similar issues arise between the application of VATs to electronic commerce as arise with sales taxes at the state and local level in the United States. If a transaction occurs on the Internet, what jurisdiction has the right to levy a sales tax or a VAT? Who is liable to pay—the purchaser or the seller? Where does the transaction occur?

There is no general consensus on whether a digital product should be treated for the sake of neutrality like its physical
analog, if one exists, or not. The seller of a
digital product will have to remit either VAT
or sales tax depending on the identity of the
customer, the seller’s location, the
customer’s location, and the nature of the
product.

The OECD has proposed that transac-
tions should be taxed in the country where
consumption takes place. This, as it notes,
would require an international consensus
on the definition of the place of consump-
tion. The OECD has also proposed that digit-
tized products not be treated as goods for
the purposes of consumption taxes like the
VAT.

**Transfer Pricing Issues**

The cross-border sale of goods and ser-
voices between related elements of a com-
pany creates some of the most perplexing
problems in international taxation. Assur-
ing that prices for these internal sales are
established according to arms-length prin-
ciples is essential to the measurement of
income and expense. Electronic commerce
adds to this already complex process. Cur-
rently, to apportion income and expenses
among the constituent companies in a mul-
tinational corporation, tax authorities apply
arms-length-pricing rules. Prices for inter-
company transactions are generally set at
the price of a comparable transaction be-
tween unrelated firms.

As most electronic commerce is cur-
rently conducted between businesses using
both the Internet and via private, company-
rn Intranets, it will become increasingly
difficult to apply standards like arms-length
pricing to transactions between divisions of
multinational corporations. This is because
it becomes more difficult for tax authorities
to determine exactly what transactions oc-
curred. Further, to the extent tax authori-
ties are aware of the transaction and can
categorize it, it may not be possible to de-
termine if there is a comparable transaction
among non-related enterprises.

**Digital Products**

At the state and local level in the United
States, sales of digital products can escape
taxation as sales and use tax statutes were
written for a world of tangible goods. Digital
products also pose challenges at the inter-
national level for much the same reason.
There is not yet a consensus on how to clas-
sify digital products for tax purposes. In-
formation that can be transformed into a
digital format is, in general, protected by
copyright law. Payments made for the use
of copyrights are royalties. Yet, many digi-
tized products have physical analogs, i.e.,
digital books v. tangible books, and neutral-
ity would have them taxed equally regard-
less of their form. The OECD proposal to
treat digitized products differently from
their physical analogs would eliminate this
neutrality.

**Administration and Compliance
Issues**

Soon, electronic forms of money may be
fairly common for conducting transactions
over the Internet. Electronic money may
pose many of the same problems for tax
administration and compliance as does cash
currently. To the extent that non-traceable

"Electronic money may pose many of the
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electronic cash is used for transactions,
there will be opportunities for tax evasion
and avoidance through under-reporting or
non-reporting of income. As encryption
technology improves, it may be possible to
transfer large amounts of electronic money
without a trace throughout the world. How-
ever, technological constraints may limit the
growth of electronic cash for many consum-
ers who may desire the consumer protec-
tion and payment terms present in more
conventional payments.

Tax administration and compliance de-
ends in large part on record keeping and
the ability of tax authorities to verify transactions. Although records are currently kept on computer files by most companies, there is still often a corresponding alternate paper record of transactions which can verify the authenticity of electronically stored data. In transactions using the Internet, independent paper trails such as invoices and orders will not exist—again creating the potential for tax evasion. The development of encryption technology will add greatly to the difficulty that tax authorities may face in obtaining this information.

And finally, companies engaged in electronic commerce may only be known to tax authorities by their domain names. If their physical location and income can not be ascertained they may be able to evade all taxation. With the ease and low cost of entry for businesses conducting electronic commerce, web-based enterprises may be able to arise and disappear before coming to the attention of tax authorities.

Conclusion

The potential of electronic commerce to transform the ways in which business takes place is enormous. Its exponential growth is evidence of its efficacy. The challenges it poses for tax policy at all levels of government are not, for the most part new or unique. They largely stem from the need to apply tax policy rules that were developed for a world where transactions were largely in physical goods to a world of global trade assisted by and sometimes conducted over the Internet. With care and national and international consensus, existing tax policy can be applied to global electronic commerce in ways that avoid multiple layers of taxation and yet preserve neutrality between electronic and traditional forms of commerce.
Endnotes

1 Press Release, Nielson Media Research and CommerceNet, August 24, 1998, http://commerce.net/news/press/19980824.html. Internet usage is based on projections from survey answers of individuals who were online in the month before the survey and who still had access to the Internet at the time of the survey.


10 Ibid.

11 The Federation of Tax Administrators tracks the taxation of services. In its 1996 study it reported that all but one state taxed some of the 160 services it tracks, with half taxing less than 50 of these. Tax Administrators News, Federation of Tax Administra-

tors, December 1996.

12 For some states the software must be identical to prepackaged software. For a detailed description of state tax policy with regard to downloaded software and information see “Internet Taxation: State Summaries,” Vertex Inc., http://www.vertexinc.com/taxcybrary20/Cybertax_Channel/taxtable_72.html.

13 This information can be found at http://www.ecommerce.gov/framewrk.html.