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SERIES No. 2004-01**

**Toward a National Tax Policy
for E-commerce**

Peter Lee U



PHILIPPINE APEC STUDY CENTER NETWORK



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Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

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Abstract

The internet has already revolutionized many aspects of modern business and living, and promises to bring even more radical changes in the future. In contrast, tax laws are normally slow to changing realities. This study looks at some of the problems that electronic commerce (or e-commerce) has posed. Since taxation covers a very broad spectrum of activities, this study looks only at income and goods taxation for the Philippines. It is anticipated that trade in tangible (physical) goods with e-commerce will not introduce problems. However, trade in intangible (electronic or digital) goods can be problematic because they will be difficult if not impossible to track. Meanwhile, the Bureau of Internal Revenue is likely to miss out on added income tax collections on the increasing trade in services that can be delivered electronically (especially over the internet) to employers and contractors who may not be registered in the Philippines, especially foreign employers.

Executive Summary

The internet has changed many ways of conducting business, including the process of buying goods, and promises to further change consumers and producers' way of life. While e-commerce is just starting in the Philippines, it has already reached sizable proportions in developed countries such as the US.

Because e-commerce precisely changes—even radically in some cases—it has implications on tax collection. E-commerce can theoretically be both a threat and a boon to taxation. If harnessed well, practices such as electronic filing of taxes could theoretically improve the collection efficiency of the Bureau of Internal Revenue (BIR). On the other hand, electronic transactions may be more difficult to track, in part because of the potentially large volume of transactions. Moreover, e-commerce is less constrained by physical boundaries, and individuals could transact with parties in other countries.

This lack of boundaries in the e-commerce setting poses jurisdictional questions that the old ways of doing business never encountered. Since web addresses do not necessarily reflect true physical addresses, it may not be clear which country's tax authority has the jurisdiction. Moreover, since pure dotcoms are mobile, they can be easily moved and registered in areas that impose the least tax obligations. This is precisely a problem for the federal tax system in the US. Its retail dotcoms have located in states that do not or have the least in-state sales tax rate. This caused some erosion of state tax revenue in many states.

For the Philippines, there is at least a bright side to being a follower in the e-commerce trail. The Philippines has the benefit of observing the e-commerce problems and issues encountered by leading-edge countries, and of learning from them.

Locally, no significant problems on e-commerce transactions involving good old-fashioned tangible or physical goods are expected. It is possible though that there may be some erosion of sales tax revenues when local consumers purchase directly from foreign merchants not registered in the Philippines. Tariffs and

customs duties on such goods, however, could still be collected theoretically at the border. The BIR could also elect to impose the sales tax burden on the local purchaser at this point.

Intangible (electronic or digitized) goods, however, could be problematic. These goods can now be easily bought and sold over the internet and tracking them would be difficult if not impossible for a tax authority, especially if the merchant is a foreign one. Involved here is the issue of rights to privacy.

The internet and e-commerce make trade in services across borders now possible and even at a cheaper cost. Already, Filipinos are sought after for art work (cartoons), programming, medical transcriptions, customer services, and other backroom services that could be outsourced by mother companies abroad. Once again, if these employers are not registered in the Philippines—hence, have no legal obligation to report or withhold income of the Filipino workers—the BIR could stand to miss out on additional income tax collections.

I



Introduction

Information technology and electronic commerce (or e-commerce) are developing at a fast pace around the world. Even the Philippines is jumping into the bandwagon. In particular, it is positioning itself by tapping its comparative advantage: a highly educated English-speaking work force to attract new foreign investments into this new sector.

The internet has provided users a new way of life. Users have the ability to search a wealth of information, goods and services at their fingertips. It is perhaps the diverse uses of the internet that spawned various websites and allowed users to carry out a “normal” life without leaving the comforts of their seats, much less their homes.

The internet’s growth has been amazing. In 1997, an estimated six percent of Filipinos with internet access bought US\$16 million worth of goods and services over the internet, which is projected to rise to US\$38 million by 2002 and the proportion of online Filipinos purchasing on the internet to rise to 30 percent (Lallana et al. 2000). This suggests that e-commerce, if allowed to flourish, could significantly improve efficiency in economies, enhance productivity, improve resource allocation, empower consumers, and increase overall long-term growth.

Because of the tremendous growth potential in e-commerce and the concern over possible erosion of a government’s tax base, it is important to discuss what has to be done. Most literature written on this issue emanate from the G7 countries, especially the United States (US). Revenue agencies in the Organization for Economic Cooperation and Development (OECD), US, Canada and

Australia, for example, have issued their own studies on the challenges of taxation in e-commerce.

Even the US has been lobbying other countries in international fora not to impose new taxes on e-commerce. Of course, the US is said to be a “net exporter” of e-commerce. A 1998 World Trade Organization (WTO) paper states that 85 percent of internet revenue was generated by the US while only 62 percent of the users are located there. This would suggest that the US has a large interest in preventing discriminatory taxation on e-commerce since it stands to benefit the most from unfettered e-commerce.

Even though the Philippines is obviously not as advanced as these countries, it is still prudent to assess the possible ramifications of e-commerce on taxation (and indirectly on fiscal policies as well). This paper seeks to survey current Philippine tax law and tax policies so as to identify areas that are inappropriate for this new market paradigm of e-commerce. It will also look at the main principles and philosophy in Philippine tax law and assess their appropriateness for e-commerce. Only by understanding how e-commerce impacts taxation can one make prescriptions that protect consumer welfare and promote the Philippine firms’ participation in e-commerce.

In its broadest sense, e-commerce is not new. Business has been using electronic media such as telephones and faxes for many years now in the conduct of business. Customers have been transacting with banks through automatic teller machines (ATM) long before they started to send documents by fax. However, the explosion of the internet brought forth new channels of transactions and new business models. It is this new phenomenon that business and policymakers are still trying to come to grips with. Thus, this study will primarily focus on commerce over the internet and its implications on taxation, and consequently, on fiscal policy. This report will use the terms e-commerce and internet commerce interchangeably.

The term internet taxation can refer to many things. It can refer to the taxation of internet access. It could also refer to the taxation of goods transacted and/or exchanged over the internet. (By “over the internet,” those involved could be digital/digitizable

goods such as books, music, software while “through the internet” simply refers to the use of internet to order a good, as one would with the telephone.)

Internet commerce itself has come to be classified into three types:

1. B-to-C – business to consumer (e.g., online stores selling products to final consumers)
2. C-to-C – consumer to consumer (e.g., E-bay)
3. B-to-B – business to business (e.g., businesses involved in job recruitment, online advertisement, credit, sales, market research, technical support, procurement and different types of training); a local example is Bayantrade.

The internet also makes possible the exchange of services. Without the advent of internet technology, trade in services would have been impossible or very costly, requiring physical transfer or transport of either the persons performing the services or the buyer (e.g., tourism). With the internet, where the work is digitizable or converted into electronic format, the service can be done in one country (usually where the labor is cheaper) and simply e-mailed to the buyer or user based in another country.

Examples of such services already being performed in the Philippines are:

1. medical transcriptions
2. customer assistance or service centers (taking orders, responding to emails or calls)
3. cartoon production
4. backroom services (accounting, record keeping)

E-commerce has been widely touted as a possible tool for growth. Before regulating or promoting an activity (and taxation is one tool to do this), one needs to understand the role of such activity in the economy.

II



The Economics of E-commerce

Before one can assess the impact of e-commerce on fiscal policy, it would be helpful to have a theory of how e-commerce will affect the economy. Many studies have considered the benefits of e-commerce and the accompanying changes to the industrial landscape. This section will summarize the main channels. It is also necessary to look at the details of e-commerce transactions and to identify whether any tax leakages may result.

The most obvious benefit of e-commerce is the efficiency gains from reduced transaction costs. These transaction costs can be varied. The combination of the internet and information technology can greatly cut down the time and resources needed to carry out transactions (e.g., reduced paperwork, faster procurement between firms, convenience of shopping online). The internet minimizes the obstacle of physical distance. Indeed, a World Bank study has aptly described the internet as “globalization on steroids.” In the history of mankind, information technology can now truly make the world a smaller place.

For years, the perfectly competitive market has been accepted as the ideal scenario of market efficiency. The usual hindrance to attaining such ideal has had its roots in barriers to entry that limited the effective number of competing suppliers. In the real world, those barriers to entry often took the form of prohibitive costs (in terms of both time and resources) of acquiring information on the existence and product prices of alternative suppliers. Today, for more and more products, the internet allows businesses all over the world to directly advertise their existence in a medium that is literally just a click away from prospective clients. However, one must also credit

the generally more liberalized and open world economy for making it easier to sell across borders, even over the internet.

Thus, there is the potential for the middleman to be cut out in many transactions. In part, cutting out the middleman is what drives the development of B-to-B applications. If companies can source directly from their suppliers, then it saves on the costs of the middleman. The Philippines itself can boast of a few fledgling attempts to establish such B-to-B exchanges that will put firms in direct contact with their suppliers.

The irony is that the explosion of easily accessible information may create a new type of middleman: the “infomediary.” As the world is bombarded with huge amounts of information, people are starkly reminded of a resource whose supply is perfectly inelastic: time. There are only 24 hours in a day, and it is unlikely this will change. One must be able to sift through the ocean of information and narrow it down to what is useful. Infomediaries may arise precisely to fulfill this function. Search engines such as Yahoo and Google precisely fulfill this role although their existence currently rely on advertising revenues rather than on direct user charges.

III



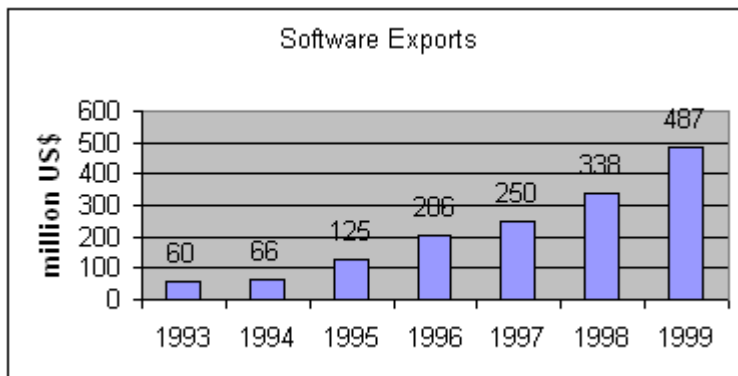
Status of E-commerce in the Philippine Economy

Information technology and the practice of e-commerce are not new to the Philippines. Neil Hortillo of WS Research, a local affiliate of International Data Corp., estimates that there were about 217,000 internet users in the country as of end-1998 (Hebrona 1999). They estimate that by 2005, transactions could reach US\$11 billion each for Singapore, Thailand, and Indonesia; US\$10 billion for Malaysia; and US\$7 billion for the Philippines. For nations with larger values, the amounts presumably include those from B-to-B transactions. Their estimate for the Philippines is not something to sneer at either, considering that the other countries (Thailand and Malaysia, for example) have at least twice or thrice the Philippines' per capita income (Orbeta 2000).

Meanwhile, the Philippines' software exports have been growing steadily with a compounded annual growth rate of 41 percent between 1993 and 1999 (Figure 1). Its programmers earned notoriety when one Filipino released the love bug virus in 1999, which caused extensive damage worldwide. Not as well known perhaps is the fact that Filipino programmers also played a pivotal role in developing the antidote for it (Arroyo 2000). Other multinational companies such as Andersen Consulting can testify to the more positive and beneficial contributions of Philippine programmers. The company already subcontracts a significant amount of its project programming needs to its team of Philippine programmers (Goad et al. 1999).

Theoretically, similar contracting arrangements can be done by freelance Filipino programmers. This is a concrete example of

Figure 1. Philippine software exports (1993-1999)



how the internet and e-commerce have literally made trade in services cheaper. In the past, such arrangement would have been costlier either because it would have taken more time to complete or the parties involved would have to shuttle back and forth. Thus, such arrangement might have never occurred in the past, or at least would have been discouraged due to the cost involved. The arrangements reached by Andersen Consulting certainly contributed to tax revenues: from business taxes generated by this activity to both corporate and individual income taxes of Andersen Consulting and its employees, respectively.

However, such also raises the issue of how the Bureau of Internal Revenue (BIR) could monitor and tax such income earned by freelance Filipino programmers who, in this case, might not have to leave the Philippines to earn it. When a legally incorporated or registered firm (for example, Andersen Consulting's Philippine subsidiary) organizes the local labor component, imposing tax would not be a problem. Because such is a legal entity in the Philippines, it would abide by existing local tax laws and report the income earned by its Filipino employees as well as its own to the BIR. On the other hand, when the contracting party does not have a legal presence in the Philippines, it has no incentive nor requirement to report such income, much less withhold and forward payroll taxes to the BIR. The only consolation here is that the freelance work involved may be relatively small in volume and value.

Infrastructure hurdles

For electronic or internet commerce to flourish, the necessary infrastructure for information technology must first exist. This infrastructure is both physical and “soft” in nature. The physical infrastructure refers to the technology, equipment, wires, network, etc. required to conduct e-commerce over the internet.

The size of the market in e-commerce depends on the number of people connected to the internet. This is a function of the number of personal computers and internet hosts, and thus they can serve as indicators of an economy’s connectivity. Here, the Philippines lags behind its neighbors, Thailand and Malaysia. In terms of internet subscribers, 150,000 subscribers were estimated in 1998 (Table 1).

The growth of internet service providers (ISPs) in the Philippines has been encouraging. From 19 ISPs in 1995, the number quadrupled to 88 in 1996 and hit 160 by the end of 1997. Around 25 of these providers (in early 1997) had a primary connection to the global internet. This small ratio of primary connection is a reflection of the deficient telecommunications infrastructure. Nevertheless, the growth in the number of ISPs itself is an indication of the potential demand. Cable internet was also introduced

**Table 1. Crosscountry comparison
of number of internet subscribers**

Country	Number of internet subscribers (1998)
Japan	5,100,000
Taiwan	800,000
Hong Kong	400,000
China	320,000
South Korea	200,000
Philippines	150,000
India	100,000
Singapore	100,000
Thailand	100,000
Malaysia	60,000
Indonesia	30,000

Source: Connally (1999)

recently in the country. The three main local providers are Destiny Cable, Home Cable, and Sky Internet. All offer the service with regular cable TV programming.

Paul Budde Communications, an industry consulting company, estimates that there is an average of three users per account in the country, which would put the total users at 450,000. However, a survey on internet usage conducted by the Philippine Communications Satellite Corporation (Philcomsat) found that most subscribers were unhappy with their current service due to frequent disconnections, difficulty in accessing (busy signals), and slow downloading times. As for usage pattern, Connally (1999) noted that most of the internet usage in the Philippines is composed of electronic mail (88%), web surfing (60%), internet chat (29%), and newsgroups (17%).

In general, Paul Budde Communications expects Asia's internet subscription to grow faster than that of the United States or Australia because about 50 percent of the Asia/Pacific population is under 25 years old. In comparison, the 25-year old population in the US and Australia is only 26 percent and 28 percent, respectively.

Results from an internet domain survey sponsored by the Internet Software Consortium showed that the number of hosts in the Philippines domain is still relatively small (Table 2).

Payment infrastructure is also vital to the success of e-commerce. In the US, it seems that consumers are initially hesitant to buy online because of distrust in the security of the site for credit card information. Here in the Philippines, another problem precedes even that. Based on this author's conversation with some iAyala executives, for example, the common complaint was the low credit card penetration in the Philippines. The low number of persons with credit cards limited the number of potential buyers since the credit card is the main payment facility employed in e-commerce. On the bright side, though, the situation has prompted firms to explore other forms of electronic cash.

One such popular form is the prepaid card. Customers pay in advance to their account and the firm deducts the cost of services as the customer consumes them. Prepaid cards have caught on in a large way with cellular phone users. They allow users to do away

Table 2. Philippine domain survey

Domain	.ph Domain
Number of hosts	9,942
All hosts	10,019
Duplicate names	77
Level 2 domains	9
Level 3 domains	344

Source: Connally (1999)

with monthly bills. Such cards have also started to proliferate for internet access and even for landline telephone use. However, because prepaid accounts are anonymous, transactions done are very difficult, if not impossible, to trace. This may not necessarily be desirable from a tax authority's point of view.

No less important is the soft infrastructure such as the institutional arrangements and legal frameworks that make these transactions possible. Taxation is one important component of the legal framework.

Taxation is unlikely to be an immediate pressing issue in e-commerce. Whatever the amount of tax revenue gain or leakage from e-commerce, such is unlikely to be significant in the short run. In other words, the Philippines still has time to think through its policies on e-commerce taxation.

IV



To Tax or Not to Tax

Taxation (and tax collectors) has been much maligned in popular literature. Taxes have been immortally associated with other dreaded occurrences such as death (recall Mark Twain's "There are few things certain in life: death and taxes"). Tax collection presumes the existence of an authority that imposes and collects. In most cases, this authority is the state or government.

The political science and history literature is probably the better source for understanding the development of the state and government. Among the economists, Adam Smith, father of economics, recognized that the market would have problems providing certain classes of goods—the public goods—that suffered from the free rider problem. The function of providing he thus ascribed to the state. He, of course, also recognized the need for government to enforce contracts and arbitrate disagreements between men in case of conflicting claims, and to maintain peace and order and national defense (which are also public goods). In modern society, the economic role of the state has expanded to include administration and/or regulation of monetary policy, social services and business (e.g., competition policy and fair trade laws).

The efficiency of free markets is premised on the absence of externalities. The presence of either positive or negative externalities can cause inefficient allocation of resources because agents do not fully internalize the costs or benefits of their actions. For example, polluters may overengage in their pollution activities if they are not made to face the social costs that they impose on others. A (Pigovian) tax is often proposed as one way to correct this. Thus, taxes can theoretically also be used by fiscal authorities to adjust for

externalities or as a revenue source to compensate those harmed by it.

If all accept that a government is needed in society, then such a government needs to be funded. Taxation is the primary way of funding in most countries. Hence, it has also been said that taxation is the price a civilized society must pay.

While different societies agree on the need for a government and taxation, there are many ways to implement taxes. There is wide consensus among economists and social philosophers on the desirable features of a tax system. Among these are:

1. It is equitable. Everyone should pay their fair share.
2. It minimizes distortions in the economy.
3. It is amenable to the pursuit of economic stabilization and growth objectives.
4. Its administration is transparent, fair, and nonarbitrary.
5. Its administration and compliance costs should be as low as possible.

These objectives may go against one another, and tax authorities may sometimes need to trade off the pursuit of one objective for another. For example, public finance literature has long recognized lump sum taxes that do not depend on the level of income are less distortionary than taxes (such as sales taxes) that alter the relative prices of commodities. Moreover, lump sum taxes impose no excess burden on taxpayers.¹ However, lump sum taxes may be perceived as unfair or even regressive, and thus are politically impractical. On the other hand, if lump sum taxes are a function of income, then taxpayers will eventually recognize that such amounts to a tax on labor time and, thus, distorts the price of labor relative to other commodities.

There is a branch in public finance literature that is concerned with how to optimally configure commodity taxation so as to maximize consumer welfare (i.e., minimize excess burden). While one might assume that a uniform ad valorem tax, which preserves

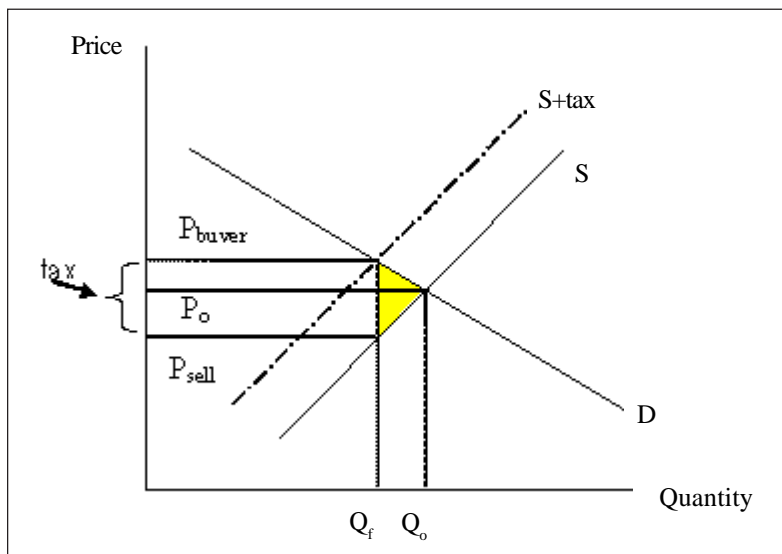
¹ For an elementary treatment of the basic economic theory of taxation, there are a number of excellent textbooks such as Rosen (1992).

the relative prices of commodities, would be optimal, Ramsay (1927) demonstrated early on that such was not the case. In fact, taxes should be levied on commodities in inverse relation to the respective elasticity of demand; i.e., the more elastic the demand, the lower the tax rate (for example, see Rosen 1992, pp. 334-335).

The elasticity of demand and supply is also a critical factor in determining the tax incidence; i.e., whether the seller or the buyer suffers the greater change in price from the imposition of a tax. In general, a buyer/seller with a more inelastic demand or supply will tend to bear the greater tax incidence. The principle is well known and shown in Figure 2. It can be seen here that in general, both buyers and sellers share in the incidence of a tax. By experimenting with differently sloped demand and supply curves, it is easy to establish that steeper (more inelastic) demand curves imply buyers will bear a greater burden (as measured by the difference $P_{\text{buyer}} - P_o$). The same is true for the case of sellers, except that their tax incidence is measured by $P_o - P_{\text{seller}}$.

Figure 2 also demonstrates that a tax always introduces inefficiencies in the form of deadweight loss (shaded triangle). This

Figure 2. Tax incidence, part I



deadweight loss represents consumer and producer surplus that would have accrued to either or both producer and consumer in a tax-free market but are no longer enjoyed with the imposition of a tax. However, this may be the price to pay for a government.

V



Tax Implications of E-commerce

The internet facilitates international trade at an unimagined scale. Now, even ordinary households and individuals can import (or even export) goods and services. Small- and medium-scale enterprises are enabled to reach more markets than before.

The means of delivery of some goods and services will change. One specific issue is thus: what if a software manufacturer elects to sell computer time (i.e., rent or lease) for use of software than actually sell the software. A side-issue here is the switch from a physical product (software on diskettes or CD-ROMs) to digital format. Goods in a digital format may have transactions that are harder to trace. The use of electronic cash may also be untraceable. An example is the use of prepaid phone cards.

Also, the internet does not necessarily provide a physical address. Thus, it may be difficult to determine the tax jurisdiction or tax treaty applicable.

Pure dotcom operations pose other taxation dilemmas as well. One issue concerns the “nexus” or the taxable presence of such an organization. The income of a foreign corporation is taxable if it has a permanent establishment in the Philippines. Examples of what constitutes permanent establishment are the following: a factory, place of management or physical presence, and a branch or an exclusive agent. Internet commerce now allows a foreign corporation to sell to Filipinos without setting up any of the above permanent establishments. Buyers can connect directly to the foreign companies’ websites that are hosted on servers in or out of the Philippines. The question here is whether a website constitutes a permanent

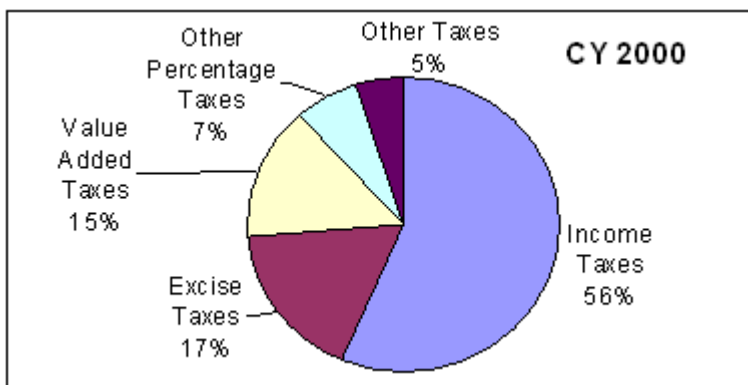
establishment. Some lawyers opine that it does not. That is, since a website is not a person, it cannot be considered an agent.

A related question is whether a webserver constitutes a permanent establishment or not. The opinion of some lawyers is that it may or may not. There is also the issue of whether the server's activity is preparatory or auxiliary.

The most common types of taxes are income taxes (which may be individual and/or corporate income, sales and excise taxes, and estate taxes). In the case of e-commerce, the most likely tax type of concern here is the tax on goods. E-commerce may possibly have ramifications on income tax as well, as when trade in services through the internet generates income for Filipinos.

In the Philippines, the bulk of tax revenues are collected by the BIR (about 78%) while the Bureau of Customs collects around 21 percent. All other government agencies collect the balance, a rather insignificant one percent. Figure 3 below shows the breakdown of the BIR's tax revenue collection by tax category. Income taxes are the most important class of taxes collected.

Figure 3. BIR tax revenue distribution



Source: Bureau of Internal Revenue (BIR)

VI



Income Taxes

There are many forms of income, the most common of which are:

1. Compensation income
2. Gross income from business or the exercise of professions
3. Gains from dealing in property
4. Interest
5. Rents
6. Royalties
7. Dividends
8. Annuities
9. Prizes and winnings
10. Pensions

All citizens are subject to individual income taxes. Resident citizens are taxed on their income from all sources within and outside the Philippines. Nonresident citizens and aliens (whether residents or not) are taxable only on income arising from sources within the Philippines. Domestic corporations pay taxes on all income derived from sources within and outside the Philippines. Foreign corporations, whether or not engaged in trade or business in the Philippines, are taxed only on income derived from sources within the Philippines. Passive income (interests, royalties, winnings, prizes, etc.) is in general subject to a final tax of varying rates.

The principle of taxation is that as long as the Philippines has jurisdiction over either the source of income, the person or the property, then the Philippine government can impose taxes.

VII



Taxes on Goods and Services

Besides the income taxes, this paper will focus on two main taxes on goods and services: the value-added tax (VAT) and the excise taxes.

VAT

The VAT system has been adopted in more than 70 countries around the world. It was introduced in the Philippines in 1988. It has been amended through the years, with RA 7716 of 1994—popularly known as the expanded value-added tax (EVAT)—as the most controversial amendment. Following that, RA 8241 was passed to refine RA 7716, thus further known as the improved value-added tax (IVAT). The Comprehensive Tax Reform Package or RA 8424—the Tax Reform Act of 1997—which amended the entire National Internal Revenue Code, also contained some minor amendments of the VAT.

The VAT taxes only the value added of the firm, or the excess of its sales over purchases of goods from other business firms. The VAT paid by sellers on their purchases from other businesses is credited toward the VAT due on their sales.

The VAT is applicable to all persons who sell goods or services in the course of their trade or business. The VAT applies to those importing goods as well, whether for business or otherwise.

Some sales, however, are subject to a zero percent rate, such as export sales. This is of special interest to entrepreneurs because e-commerce may give rise to Filipinos selling goods to foreigners.

The VAT payable is computed as the excess of output tax over allowable input tax. Output tax is the value-added tax on the

sale or lease of taxable goods or services while input tax is the value-added tax paid on importation of goods or local purchases of goods and services.

The steps in computing the output tax are:

- Step 1: Determine the Total Invoice Amount of taxable goods and services.
- Step 2: Determine “deemed sale” transactions, which are goods taken out of the business for personal use or consumption.
- Step 3: Determine the Allowable Discounts and Sales Returns and Allowances.
- Step 4: Add the amounts in Steps 1 and 2 and deduct the amount in Step 3 to arrive at the net taxable sales/receipts.
- Step 5: Multiply the amount arrived at in Step 4 by 1/11 to determine the output tax.

The computation of the input tax is roughly similar. The steps are:

- Step 1: Determine total purchases of goods and services from VAT-registered suppliers duly supported by VAT invoices.
- Step 2: Determine total amount of allowable purchase discounts and purchase returns and allowances.
- Step 3: Deduct amount arrived at in Step 2 from amount in Step 1.
- Step 4: Multiply by 1/11 the amount arrived at in Step 3.
- Step 5: Determine VAT paid to Bureau of Customs on importations. Include only VAT payments duly supported by the Custom’s official receipts.
- Step 6: Add the amounts arrived at in Steps 4 and 5.

Sales invoices or receipts are critical documents for claiming input tax credit. It is important to note that input tax is allowable only if the following basic information is indicated in the duly-registered receipts or sales invoices:

- a. Name and address of seller
- b. Taxpayer identification number (TIN) of seller suffixed by “V” or word “VAT”
- c. Date of transaction
- d. Serial Number of Sales Invoice/Receipt
- e. Quantity, unit cost and description of merchandise or nature of service
- f. Name, TIN, business style, if any, and address of the VAT-registered purchaser, customer or client
- g. Word “zero-rated” imprinted on the invoice covering zero-rated sales
- h. Invoice value or consideration
- i. BIR authority/permit to print

A cash register machine tape from a machine duly registered with the BIR and issued to a VAT-registered buyer by a VAT-registered seller can also take the place of a regular sales invoice. The name and TIN of the purchaser must be indicated on the receipt and authenticated by a duly authorized representative of the seller.

For B-to-B transactions, the incentives are in place for each business to demand receipts or invoices so as to claim input tax credits later on. It is a different situation altogether with B-to-C transactions. If consumers do not need receipts or invoices, they may not particularly care to demand for one.

Excise taxes

Excise taxes are taxes on the following categories of goods manufactured in the Philippines or imported:

1. alcohol products
2. tobacco products
3. petroleum products
4. mineral products
5. miscellaneous articles (automobiles, jewelry, perfumes and toilet water, cinematographic films, saccharine, fireworks, yachts and other vessels for pleasure sport)

Except for petroleum products, the other exciseable goods are subject to VAT as well (i.e., the excise tax is in addition to the VAT).

In general, the following persons are liable for the excise taxes imposed on the above products:

1. Manufacturer
2. Importer
3. Owner/Possessor

Excise taxes may be specific or ad valorem. A specific tax is one imposed and based on the weight, volume capacity or some other physical unit of measurement (e.g., proof liter for liquor or kilogram/pack for cigarettes). On the other hand, an ad valorem tax is an excise tax imposed and based on the selling price or other specified value of the article.

E-commerce is not expected to significantly nor adversely affect excise tax collection. This is because most goods subject to excise taxes are physical goods. Moreover, these goods are taxed upon removal from either the place of production, customs custody or bonded warehouse. For many of these goods, there is a BIR office in the production site and the excise taxes need to be paid before the items are taken out. In fact, for new businesses to register, the BIR requires the submission of blueprints of the plant layout, specifically showing the location of the on-site BIR office. Certification on the calibration or metering devices for the product is also required.

Of all goods subject to excise tax, the only ones that could be digitized are cinematographic films. However, downloading full length films over the internet at current broadband levels takes a disproportionate amount of time, which explains the low traffic for films over the internet.

VIII



Tax Collection and Auditing Mechanisms

The Philippines has adopted a self-assessment voluntary compliance system. This means that the taxpayer calculates the tax himself (possibly with the help of an accountant), fills up the tax return, and files it with the designated tax office. The BIR for its part, may audit returns when it deems warranted. This may sometimes result in additional taxes payable or deficiency taxes in case the taxpayer's self-assessment was erroneous or fraudulent. The taxpayer is then given time to rectify the error and pay the deficiency tax. The following table shows that the bulk of the Philippines collections fall under the voluntary compliance category.

Tax collection under a self-assessment system may be divided into two methods: tellering and collection enforcement. Tellerling refers to designating certain commercial and government banks as authorized agent banks who, together with revenue collection

Table 3. Total BIR collections by source, 1994-1998 (in P billion)

Sources	1994	1995	1996	1997	1998
Voluntary compliance	181.07	202.68	247.36	310.53	335.34
Collection from enforcement	5.18	8.66	8.94	3.86	1.99
Collection from delinquent accounts	0.38	0.14	0.19	0.15	0.32
Total	186.63	211.48	256.49	314.54	337.65
% of voluntary compliance	97.0	95.8	96.4	98.7	99.37
% of enforcement	2.8	4.1	3.5	1.2	0.67
% of delinquent accounts	0.2	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

agents, receive the over-the-counter tax payments of taxpayers. Collection enforcement, on the other hand, is the collection of deficiency and delinquency taxes through audit or investigation.

The self-assessment approach is widely adopted by many countries, including the US. It is a practical approach, given that in most countries, the number of taxpayers is probably far too many for their revenue collection agencies to audit 100 percent. Aguirre (2000) admits as much, pointing out the limited resources of the BIR. She cites, for instance, that from 117,883 taxpayers in 1947, there were 7,555,966 returns filed in 1998.

At the same time, the Philippines also adopts a withholding tax system (also known as Pay-As-You-Earn) on compensation income. The employer withholds a certain amount as partial advance income tax with each paycheck. Come tax time, the employer issues the employee a certification of how much has been withheld (the W-2 form). The taxpayer attaches this document when he files his tax return, and the amount is credited toward the total income tax due. If the tax due is greater than the amount withheld, then the taxpayer pays the difference. If the amount withheld is greater than the tax due, then the taxpayer receives a refund.

The withholding tax system in effect turns employers into collection agents of the BIR and shifts some of the burden of collecting to the private sector. Instead of collecting from all the workers in the labor force, the BIR reduces the collection points to a more manageable number, the employers. This is a process termed as intermediation in the tax literature.

It is an interesting historical note that the BIR did not always collect taxes (Aguirre 2000). When the Bureau was established in 1904, taxpayers were required to file and pay their taxes to their city or municipal treasurers. This practice went on for 56 years before the BIR fielded its first revenue collection agents in 1960. These were posted in the city and municipal halls of the country and took over from the city and municipal treasurers the task of receiving tax payments.

Former President Marcos enacted Executive Order No. 206 on January 9, 1970, which directed the Central Bank to receive tax payments through duly accredited agent banks. The system was

inaugurated in 1971 and originally required taxpayers to file their return first with the appropriate BIR office, where they were issued a revenue tax receipt (RTR) stating the amount of tax to pay. They then took this RTR to an authorized agent bank and paid the required tax. The bank then issued a confirmation receipt (CR) to taxpayers, who then returned to the Revenue District Office of the Bureau for posting of payments. For this reason, the process was also called the RTR/CR system.

In 1991, the RTR/CR system did away with the RTRs and CRs. The New Payment Control System (NPCS) allowed taxpayers to file and pay directly with authorized agent banks. Banks would then validate the taxpayer's return, remit the payment to the BIR through the Central Bank, and transmit all the returns filed with them to the BIR.

It would be helpful to survey how the three largest classes of taxes (income, VAT and excise) were collected even in the old world of "manual" transactions. A look at the manual process would then give some glimpse into how taxation might occur in the electronic world. Note that although the E-commerce Act has technically started the country to accept electronic documentation, the author has not found any BIR documents (besides those listed in the Appendices) that spell out new procedures for auditing electronic transactions. It is presumed that the old manual procedures will still be applied to the electronic processes, and that there will not be any new accounting concepts introduced by e-commerce. Only the medium of presentation will change.

IX



Income Taxes Again

Compensation income

Individual income may be from two sources: compensation or business income. There should not be a problem with the collection of individual compensation income taxes for as long as employers are legally registered domestic businesses. In this case, the employer withholds part of its employees' income as income tax. At the end of the year, the employer issues a W-2 form that the employee, in turn, attaches to his/her individual income tax return as proof of tax withheld. For a person earning purely compensation income of the same amount each month, it is possible to withhold an exact amount of taxes so that he/she does not owe nor will overpay his taxes by tax time.

The problem may exist in cases where the employer is not a domestically registered corporation and consequently, not required to collect withholding taxes from the employees' salary on behalf of the BIR. For example, foreign companies have been contracting Filipino correspondents to report or analyze local developments even before the advent of e-commerce. E-commerce makes such long distance work relationships easier and encourages such transactions. The nature of programming work, for example, makes it very feasible for Filipino programmers now to freelance for employers abroad. Other services that are similarly knowledge-based may apply to such arrangements as well. Unless the employee himself volunteers his income information to the BIR, it is unlikely that the BIR will be able to collect the appropriate income tax in these cases. Furthermore, precisely because these foreign businesses are not registered locally,

it is difficult, if not impossible, to determine their total numbers of local workers or the latter's earnings.

Business income

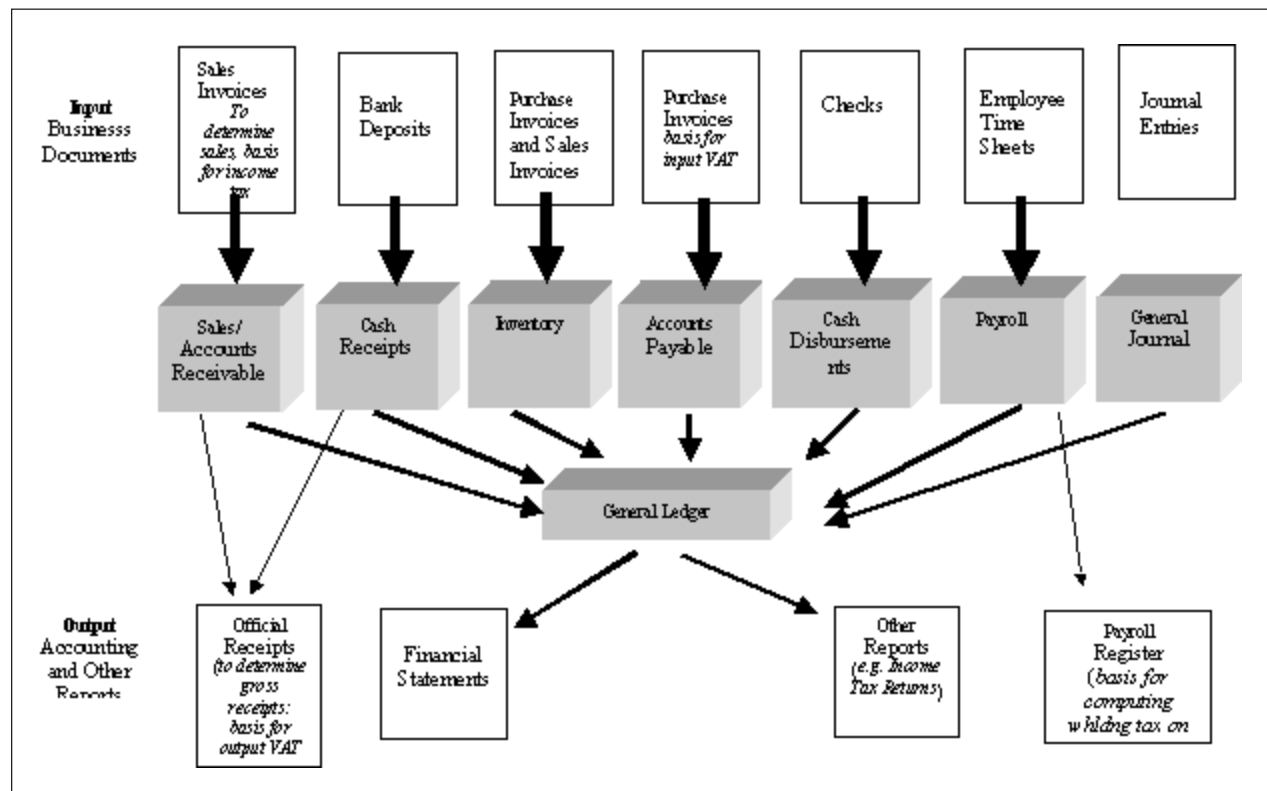
The key issue with regard to business income seems to be whether or not the transactions involve physical goods or intangibles (either electronic good or a service) and whether the company is locally registered or not. It is best to start with a discussion of the business model in the manual world and use that as take-off point in probing the possible complications arising from e-commerce.

Traditionally, a single proprietor business would have to register at least with the BIR, Department of Trade and Industry (DTI), and the pertinent local government agencies. Corporations and partnerships must also register with the Securities and Exchange Commission (SEC). To print books of receipts and invoices would first require a permit from the BIR. Moreover, the BIR would require the business to maintain certain accounting books and ledgers comprising an accounting system. These constitute the basic raw material with which the BIR can audit (when warranted) the firm to determine the correctness of tax paid. Figure 4 presents a schematic diagram of this basic accounting system.

It can be seen from Figure 4 that receipts and sales invoices are the workhorses of tax determination. They are the basis for computing the sales revenues of the business. On the other hand, invoices and receipts issued by suppliers are needed to determine the expenses of the firm. In B-to-B transactions (even in non-e-commerce), this serves as a lever for tax collection. Since each business would want to have its expenses deducted for income tax credit purposes, there is a built-in incentive for businesses to demand the proper invoices and receipts. The VAT system provides a business the incentive to keep purchase invoices as these would be needed to compute for the input VAT credit. These incentives are generally not present, however, in purchases by final consumers as the latter generally do not have the option to deduct their expenses for tax purposes or claim input VAT credit.

Similarly, businesses have an incentive to collect the withholding tax on their employees' salaries. Otherwise, such

Figure 4. The basic accounting system



salaries would not be recognized as expenses. This would inflate their income and increase their income tax liability.

From time to time, the BIR may audit the books of the business. This does not generally occur every year and when it does audit, it may not necessarily look at all the books. Given the number of taxpayers and transactions, the BIR understandably audits randomly. Sometimes, it may only review the expenses, other times only the revenue or other account. The auditors may also check a sample of transactions rather than all the transactions.

With the introduction of e-commerce and the passage of the E-commerce Act, firms can now issue these receipts in electronic form.

The BIR is not exactly a newcomer to the digital world. It has in fact been allowing taxpayers to convert their manual books of account into an electronic format for the past 10 years. It sets some minimum restrictions on such computerized accounting systems: basically, it requires firms to conform to generally accepted accounting and auditing principles and the underlying BIR regulations, and provide an adequate back-up system.

While tax leakages due to e-commerce are possible, e-commerce can also help improve the BIR's collection efficiency. The BIR, in fact, has already started to implement its Electronic Filing and Payment System (EFPS). Revenue Memorandum Circular (RMC) No. 24-2001 of May 28, 2001 and Revenue Regulations (RR) 9-2001 of August 3, 2001 spell out the guidelines of the system. Electronic filing and payment can cut down processing time and is more convenient for the taxpayer as well.

The EFPS is the BIR's response to Republic Act (RA) No. 8792 or the E-commerce Act of 2000, which mandated all departments, bureaus, offices, and agencies of the government as well as all government-owned and controlled corporations to issue, accept, and file electronic documents when transacting with the public within two years from the effectivity of the Act. (See Section 37 of Republic Act No. 8792 or the Electronic Commerce Act.) However, the EFPS is limited at the moment to the following:

1. large and excise taxpayers
2. selected nonlarge taxpayers
3. volunteering BIR national office employees, and
4. thirteen BIR returns

X



Taxing the Internet

While the birth of the internet can be largely attributed to the US government's efforts to establish a network of computers for national security purposes, much of the subsequent growth is the result of spontaneous private sector activity. Perhaps this is why the internet evokes such emotional protection from sectors seeking to keep out government fingers. It is said that the two sure things in life are taxes and death. True enough, the center of debates these days is the proper way to tax the internet. On the one hand, governments fear an erosion of tax revenue due to increasing hard-to-track electronic transactions. On the other hand, others fear excessive taxation may nip e-commerce in the bud. Still others would argue that government should not intervene in internet commerce at all.

One government intervention that might be justifiable by economic theory is its role in adjusting for network externalities. Standard economic theory has long recognized the need for government provision in markets characterized by the presence of externalities (whether positive or negative). Its role is to prevent market failure (i.e., when an economically inefficient amount of the good will result).

Information technology has magnified the concept and role of network externalities. Clearly, the utility of much of today's technology increases with the number of people who also possess the same technology. For example, cell phones or email would be absolutely useless if only one person had them. Thus, the social benefits of making information technology more accessible may exceed the private gains reflected by market prices. In some cases,

government regulation may be needed to prevent abuse of network control (e.g., when one internet service provider refuses to interconnect with other providers) and to regulate the operation of critical facilities which may have features of a natural monopoly (e.g., transmission facilities in the case of the power industry).

Some have made the network externalities argument within the context of another classic economic principle: the infant industry argument. This line of thinking argues that internet commerce is a developing industry and should receive protection until it is mature enough to compete. In this case, internet commerce should not be taxed (or at least be accorded preferential treatment) because it is still in its early stages and needs to be nurtured if it is to grow and fully attain the benefits of network externalities.

Meanwhile, there are the proponents of internet taxation. In the US, the brick-and-mortar retailers have been crying foul over the “tax exemption” of internet purchases. They complain that the inability of the law to enforce sales tax collection on most goods bought over the internet constitutes an unfair advantage.

Information technology also has important social equity questions that impinge on the issue of internet commerce. Many fear the emergence of a “digital divide” between the rich and the poor. Since much of the employment opportunities of the future may be generated by e-commerce, it is important to spread information technology to as wide a population as possible. For example, participation in e-commerce will require some level of education. This handicaps the poor who may not in the first place have the requisite education. In a country such as the Philippines, where income distribution is quite inequitable to begin with, it is vital that the poor have access to information technology and the opportunities it provides.

In the meantime, while the poor may still not have equal access to the internet, some proponents of internet taxation argue that exempting the internet taxation would be pro-rich. This might be especially true in the Philippines. Only the well-to-do can afford a computer with internet access, and credit cards to make such purchases. This is reflected in the still relatively low internet access penetration rates presented earlier.

The internet facilitates trade in goods. Very often, this trade takes place even across borders (e.g., Filipinos buying books from Amazon.com). International trade in physical goods poses no problems with respect to taxation. When the goods leave the port of origin or arrive at the port of destination, they can be subjected to the export taxes and/or usual import tariffs (although in the Philippines, imports of books and educational materials are supposed to be tax free). It is trade in digital or intangible goods (e.g., software, music or books in electronic form) that could be problematic. These transactions are harder to track and if not reported by the parties themselves, would be virtually impossible for tax collection agencies to monitor, let alone levy tax on.

The internet also radically changes the environment of B-to-B commerce. It literally shrinks the global marketplace, making it easy for a business to subcontract parts to suppliers from all over the world. This implies that tax laws in multiple jurisdictions (even across countries) often need to be consulted.

XI



The US Experience

The US is unquestionably the frontrunner in the adoption of information technology for e-commerce. Indeed, its e-commerce experience is so advanced than that of the Philippines that it might not be very helpful to Filipinos at the moment. Moreover, the US federal and state taxation system differs from the Philippines' more centralized national taxation system. Such differences in state practice on taxation, specifically sales taxation, brought forth policy debates on the question of how to enforce sales taxes on goods sold through the internet.

In the US, out-of-state merchants who do not have a “nexus” (i.e., have no employees or physical presence) in the state where their products' consumers live, are not required to collect a sales tax. For example, an online retailer based in the state of Indiana without nexus in Illinois but who has Illinois-based customers would not be required to collect and forward sales tax to Illinois. This practice apparently grew out of the rules on catalog selling (Goolsbee 2001).

Thus, as the volume of internet commerce grows, many state governments are beginning to fear that one of their key revenue bases will be eroded. State sales tax may account for a third of state revenues. Worse, the so-called “use taxes” are difficult to enforce. The use tax is the value of the sales tax that would have been collected by a local merchant had the purchase occurred inside the state rather than over the internet with a merchant without nexus in the state. The consumer is supposed to voluntarily (ergo, honestly as well) remit this amount to the state government.

This tax collection arrangement is strange to say the least and seriously fraught with moral hazards. Usually in most tax systems, the merchant or seller has the responsibility to collect the sales tax and forward to the revenue agency. Not surprisingly, the amount of use tax voluntarily paid by internet consumers has been very small compared to the amount of internet transactions.

It is not clear whether this use tax was an issue too in the old days of catalog selling. If it was, it is possible that the amount in question was insignificant to be ignored. However, Goolsbee (2001) cites estimates that show recent tax revenue loss from out-of-state catalog sales is now around 10 times the revenue loss from internet commerce. This suggests that the current fear may be based more on an extrapolation of internet commerce taking on much larger proportions than it currently does.

Many studies for the US (as well as for other countries such as Australia) agree that the short-term impact of internet commerce on taxation will not be all that substantial for the simple reason that the number of people buying online is still proportionately low.

Lastly, there is the US Internet Tax Freedom Act of 1998. It was commonly misconstrued that the act bats for no taxes on the internet. In reality, it merely imposes two moratoria: (1) on new and discriminatory taxes on the internet; and (2) on the application of sales taxes or other taxes on monthly internet access fees. (It is to be noted that in the Philippines, the usual 10 percent VAT is applied to monthly internet access fees.) Goolsbee (2001) rightly points out that since sales and use taxes are neither new nor discriminatory, the Internet Tax Freedom Act does not apply; i.e., no moratorium is created on sales taxes or use taxes.

Way ahead of the pack in terms of e-commerce, the US does have a special interest in international fora on internet taxation. Because it has the most number of businesses selling on the internet, it wisely foresees that other countries will be tempted to impose special taxes on internet commerce, which of course would adversely impact on mostly US businesses. In fact, such special taxes could turn out to be a new form of tariff protection. Thus, the US has been lobbying hard in arenas such as the World Trade Organization for agreements to stop special taxes on internet commerce. The US

Internet Tax Freedom Act itself calls on foreign governments to keep the internet free of taxes and tariffs.

The Clinton Administration further released a position paper, “A Framework Global for E-commerce,” wherein the US reiterated its position on taxes for e-commerce. It proposes the following principles on taxation of internet sales:

1. Taxation should neither distort nor hinder commerce. A tax should not distort the incentives by discriminating by type of transaction, electronic or otherwise.
2. The system should be simple and transparent and easy to implement, minimize burdensome record keeping and costs.
3. The system should be able to accommodate tax systems in the US and other countries today.

What principles ought to govern taxation of internet commerce? All existing literature agree on these principles: equitable, simple, effective, flexible and dynamic, provides certainty for taxpayers so that consequences of transactions be known in advance, and avoids economic distortions. The E-commerce Advisory Council of the State of California (EAC 1998) proposes the following principles:

1. Neutrality
2. Lowest rates on the broadest base
3. Transparency
4. Ease of implementation

To be neutral, a tax should not discriminate on the specific channel used. That is, the same rate of tax should apply on a good, whether it was purchased over the internet, over the phone, or during a face-to-face encounter inside a physical store. It should also be applicable to as wide a coverage as possible so that the overall tax rate could be lower. Exempting a specific sector from taxes always means that tax rates have to be higher for other lines to compensate.

The Sacher Report also agrees: “The main concern of the Group² is not that electronic transactions will be subject to tax, but that the tax regime employed is workable and nondiscriminatory.”

² Referring to the Sacher Group.

XII



Philippine Legislation

The landmark legislation so far as e-commerce is concerned is clearly RA No. 8792 (otherwise known as “An Act Providing for the Recognition and Use of Electronic Commercial and Noncommercial Transactions, Penalties for Unlawful Use Thereof, and Other Purposes”) or the E-commerce Act, which was passed on June 8, 2000. Among its salient provisions and objectives are:

1. It facilitates transactions by recognizing the authenticity of electronic documents, giving electronic documents the same “legal effect, validity or enforceability as any other document or legal writing;”
2. Section 27 requires all government offices within two years to accept and issue electronic documents;
3. Section 28 RPWeb requires the government to install an electronic online network of government offices;
4. Section 29 puts e-commerce under the Department of Trade and Industry;
5. Sections 31 and 32 safeguard access and confidentiality; and
6. Section 33 provides for penalties against computer crimes.

It is ironic that a cybercrime may have hastened the passing of the Act. It will be recalled that in the first half of 2000, a Filipino computer student unleashed the famous “Love Bug” virus, causing damages worth millions of dollars to computer files worldwide. While the suspect student was apprehended quickly, Philippine authorities were at a loss as to what crime to charge him. Existing laws at that time did not cover computer crimes. The closest that

authorities could come to pinning down the culprit was a credit card fraud law. The connection was tenuous at best and the authorities had no choice but to release the culprit. The incident underscored the need for a bill that would punish computer crimes such as hacking and fraud.

However, the law does not specify how taxation is to be done on e-commerce transactions. This is probably because lawmakers recognize that existing tax laws suffice and should still (and do in fact) apply in the case of e-commerce. As BIR Assistant Commissioner Bert Pio de Roda puts it, “We are not creating new taxes for the internet. We are only adapting existing taxes to the internet.”

However, the BIR subcommittee of the Information Technology and E-commerce Council (ITECC) Legal Cluster points out a possible loophole in Section 23 of the E-commerce Act regarding tax situs (Appendix 3):

SEC. 23. Place of Dispatch and Receipt of Electronic Data Message or Electronic Document. *Unless otherwise agreed between the originator and the addressee (italics added)*, an electronic data message or electronic document is deemed to be dispatched at the place where the originator has its place of business and received at the place where the addressee has its place of business. This rule shall apply even if the originator or addressee had used a laptop or other portable device to transmit or receive his electronic data message or electronic document. This rule shall also apply to determine the tax situs of such transaction.

As worded, the section would seem to allow parties to specify a place of dispatch and or receipt that would allow tax liability to be circumvented or minimized.

The Implementing Rules and Regulations of the E-commerce Act mentions and emphasizes that the principle of neutrality should apply to e-commerce transactions. This is found in Chapter 1, “Declaration of Policy,” Section 3. It reads:

d. Neutral Tax Treatment. Transactions conducted using e-commerce should receive neutral tax treatment in comparison to transactions using nonelectronic means, and taxation of e-commerce shall be administered in the least burdensome manner.

Disini (2000) reports that Senate Bill 1902 originally had contained the following provision:

Section 27. Taxes on E-Commerce Transactions. Value-added, sales and other appropriate taxes shall be collected on e-commerce transactions by the central and local governments concerned.

Disini notes that “since tax laws do apply with equal force upon electronic transactions, the above-quoted provision was unnecessary and was therefore abandoned during the Bicameral Conference Committee meeting.” This implies that the law’s authors view e-commerce transactions as taxable, if the corresponding old economy transaction would have been subject to tax.

For its part, the BIR already issued Revenue Memorandum Order No. 21-2000, (Appendix 1) pertaining to the issuance of invoices, receipts, and other documents in an electronic format in a computerized accounting system. It also started work on making electronic filing of tax returns possible. At the moment, however, the BIR’s current system allows only large corporate taxpayers and BIR employees to file electronically.

In contrast to the multifarious state sales tax rates of the US due to its federalist government, a flat 10 percent VAT rate on purchases is applied in the case of the Philippines. Thus, the Philippines is not expected to face the tax erosion problem of the US. Despite this, there are still loopholes. When a Filipino consumer purchases a digital good from an American seller, for example, the American seller has no obligation to collect for or remit sales tax to the Philippines (i.e., there is the question of whether the sale took place in the US or in the Philippines). Unless the buyer volunteers the information about his purchase, it is highly unlikely that the Philippine tax authorities will discover the transaction. This is similar to the case with out-of-state internet purchases in the US.

Interestingly, the BIR had at one time considered subjecting over-the-internet purchases of intangible goods to a 10 percent VAT (Appendix 2). Filipino buyers were expected to withhold the tax and remit it to the BIR. This would have been difficult to implement, to say the least. It is hard to imagine Amazon.com, for example,

allowing this to happen. It would likely simply cease shipments of Philippine orders. Furthermore, even if the Filipino buyer is able to and actually withholds the tax, there are insufficient incentives for him to report the same and to remit the tax. He might simply pocket the amount collected. It is in fact, reminiscent of the problem that the US faces with the voluntary nature of state use tax remittance, as described earlier.

The issue is less complicated when it comes to the sale of physical goods. If these goods are part of international trade, they must pass through a port, at which point appropriate taxes can be levied. Because the internet has made it easier to find such goods for sale even from merchants abroad, the volume of transactions is now greater (i.e., increased imports). While only businesses import goods during times of the old economy, the internet now makes it possible for even households to import directly from foreign merchants.

A purely domestic sale (i.e., where both buyer and seller are in the Philippines) can cause particular monitoring concerns, and thus tax collection problems. One of the concerns with B-to-C transactions is the difficulty of an “audit trail.”³ This problem has existed even prior to the advent of paperless transactions. For instance, when a buyer and seller have become familiar with each other and built a certain level of mutual trust, a receipt (whether electronic or paper) may not always be demanded. When no receipts are issued, tax collection becomes very difficult, if not impossible. Thus, it could be said that the internet commerce paradigm may not introduce an entirely new phenomenon of untaxable transactions. While it is not clear whether internet commerce can equally build the same trust that enable parties to dispense with receipts, it is obvious that the volume of transactions will be greater because of the ease of transacting via the internet.

The beauty of VAT taxation is that it institutionalizes incentives for truthful revelation of tax liability. In economists’ parlance, it is

³ Actually, there should be an audit trail in the form of electronic invoices and receipts. However, this type of an audit trail may be more difficult to trace and easier to hide.

incentive compatible with truthful revelation of tax liability. This is because a business offsets the tax it collects against the taxes it pays on its inputs. If it does not issue receipts, then it cannot claim a refund of the corresponding amount on taxes paid for inputs purchased.

A useful way of visualizing where taxes interact with e-commerce is to illustrate the documents flow involved in a journal-documented accounting system. Figure 4 (see page 27) applies even to conventional commerce. The figure assumes that the business is registered with the BIR and highlights some of the main checkpoints that the BIR has on a transaction.

Typically, a transaction starts with the delivery of a good and the sales invoice. Sales invoices determine the amount of sales and serve as basis for income tax. Meanwhile, official receipts are issued to the buyer upon payment by the latter and determine the gross receipts that are the basis for output VAT. Purchase invoices and the receipts received when payment is made by the firm for its purchases are the basis for computing the input VAT. This in turn is credited against the output VAT of the firm.

Meanwhile, on the salary side of the accounting system, a firm operating in the Philippines uses time sheets or cards to calculate the amount of time worked by its employees. These are then forwarded to the payroll register, from where the human resources or personnel department will calculate the wages and relevant withholding taxes. Withheld taxes are then forwarded to the BIR.

These ingredients are present as well in an e-commerce setting. The difference might simply be that the E-commerce Act now makes it possible for many of the aforementioned documents such as invoices and receipts to be in electronic format. The BIR has in fact issued Revenue Memorandum Order No. 21-2000, which provides guidelines on the issuance of receipts (Appendix 1).

XIII



Tax Competition

A survey of e-commerce in a 2000 issue of *The Economist* points out yet another possible area of tax policy that could be profoundly affected by e-commerce. This is the area of tax competition: when countries try to outdo each other in reducing tax rates (e.g., corporate income tax rates), in a bid to lure online businesses to their shores.

This kind of competition has always been present to some degree, and large multinationals have always tried to play one country against another to obtain the best package of income tax holidays and investment incentives before locating. Philippine and Thai investment agencies each tried to lure General Motors with attractive investment incentive packages. General Motors eventually decided to locate in Thailand, although an important part of their decision had to do with Thailand's more developed network of auto parts suppliers.

E-commerce by nature has production facilities that are typically more mobile. They may consist mainly of computers, a database (which probably resides in the computer or a server anyway), and the server. These kinds of businesses are more likely to "vote with their feet" in deciding where to set up shop. The figure of speech, "voting with their feet," was first coined and popularized by the economist Charles Tiebout in the public finance literature to refer to the possibility (may be more theoretical than real) of Americans making choices of residence based on the tax and government services being offered by various geographical districts.

But as Tiebout originally argued and as *The Economist* survey reminds its readers, tax competition may not be a bad thing. It

forces governments to be more efficient in their provision of government services and gives taxpayers a wider choice of regimes to be subject to.

XIV



The Economic Impact of E-commerce

Forecasting technology or the rate of its adoption is always a risky process. New technology, when it does not flop, often goes through a period of rapid adoption followed by more mature growth rates. In other words, its growth path may be highly nonlinear initially, and projecting such growth (and impact on the economy) can thus be widely off the mark. Such is the case with e-commerce. While it is not a major force for the Philippines at the moment, it is likely to grow in importance in the future.

One indisputable benefit of e-commerce is its ability to reduce transaction costs. For consumers or buyers, this is most likely to take the form of lower search costs and better information on products and prices. There could be drastic savings in production and delivery costs of electronic or digital goods as well.

Buyer search costs are very difficult to estimate. First, buyer search costs probably consist primarily of time spent searching or canvassing prices and products. Actual historical data on this probably do not exist as buyers do not keep records on time spent searching for information on goods and prices. Moreover, it does not have a corresponding explicit monetary value, although one might be able to justify using the buyer's wage rate as a proxy for the opportunity cost of the person's time.

Furthermore, B-to-C is acknowledged to be smaller in magnitude than B-to-B. In the Philippines where personal computer and internet penetration is low, B-to-C transaction volume is not likely to be significant initially.

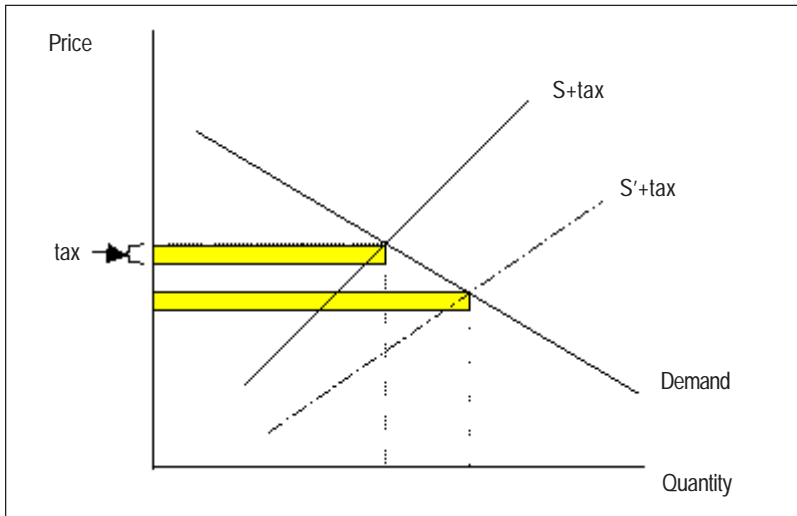
As a theory, the effect of cost savings to producers/suppliers is clearer. If the cost saving is approximately a per-unit cost savings,

this could be modeled by a lower supply curve representing lower marginal costs of supplying the good (Figure 5). A greater quantity of the good will be bought and sold at a lower price. However, since the tax per unit stays the same, this redounds to an increase in tax revenue (note the bigger shaded rectangle in Figure 5).

The figure shows a reduction in the cost of producing and delivering either a physical good or an intangible one. In the latter's case, the figure implicitly assumes that the demand for the good is unchanged. This may or may not be true of some intangible goods that were previously delivered as physical goods. In the case of electronic books, a survey conducted in the US shows that only 4 percent of internet users were "very likely" to buy an e-book and 20 percent were "somewhat likely" (Bandler 2002). Consumer preferences are probably slower to change in this case and even the availability of electronic devices that display electronic text may not immediately change many readers' preferences for the paper version of a book. This may not be the case for other goods such as music.

Several studies have already quantified the possible cost reductions due to e-commerce and the application of information

Figure 5. Tax incidence, part II



technology for some countries, mostly for developed ones such as the US, Canada and Australia. Unfortunately, no similar study has yet been conducted in the Philippines.

Current studies find significant cost savings associated with e-commerce. For example, the Australian Tax Office cites a study that indicates banking transactions done via ATM and electronic fund transfers are only one-third the cost of over-the-counter services involving human bank tellers. While this is not strictly e-commerce as defined in this study, this finding should be comparable to the costs of internet transactions.

Revenue Canada cites a 1996 study by Cyber Management Inc. that estimates electronic processing costs to range from one-tenth to as much as one-fifth the paper/human cost for the following common transactions:

Table 4. Cost differences between paper and electronic processes

	Paper/Human Cost	Electronic Processing Cost	Savings Factor
Producing and processing an invoice	US\$100	US\$10	10
Average retail banking transaction	US\$1.50	US\$0.15-0.25	6-10
Answering a customer request	US\$15-25 (call center)	US\$3-5 (internet self-service)	5
Mortgage application	1% of value	0.2% of value	5

Source: Revenue Canada. *E-commerce and Canada's tax administration* (1998), p. 7

Lucking-Reiley and Spulber (2001) also cite other evidence of cost reduction: British Telecom estimated that costs fell from US\$113 to US\$8 per transaction when it moved its external procurement functions to e-commerce. Mastercard's cost of processing purchase orders were cut from US\$125 to US\$40 when processing time was shortened from four days to 1.25 days. Lehman Brothers estimates that a financial transaction through a teller costs US\$1.27 but is **only US\$0.27 when done through an ATM and US\$0.01 via the online channel.**

It is always difficult to compare crosscountry estimates and cost savings for the Philippines may or may not be close to the estimates for developed countries. One might argue that because labor costs are lower in the Philippines, the cost savings of electronic versus manual transactions may not be as significant.

Infrastructure deficiencies may also nullify supposed gains of electronic transactions. The experience of a procurement manager of First Philippine Holdings (which, as part of the Lopez conglomerate, is one of the founders and shareholders of Bayantrade, a local B-to-B exchange) seems anticlimactic when compared to the estimates cited above. He observed that because transmission speeds were sometimes slow, electronic processing of a purchase order sometimes seemed to take as much time as the manual process. According to the manager, if the operational problem of access speed was addressed, there is great potential for cost reductions from electronic processing.

XV



Summary and Conclusions

It could be argued that e-commerce for the most part will not require new tax principles. Existing principles still apply if old ways of doing things are digitized (e.g., electronic invoices/receipts, tax filings). The support needed here may be to simply accord e-commerce the same weight and importance as the old world process. The E-commerce Act has already provided for this.

However, the internet and e-commerce certainly introduce new business models and products that would not have been possible with old technology. In some cases, new laws may be required or old laws amended. Trade in intangibles or goods that are in digital format tend to be the main problem area. These goods are easily moved electronically across the internet. By its nature, parties to such transactions are likely to come from disparate jurisdictions. Establishing tax situs in these cases may be problematic.

The amount of e-commerce transactions in the Philippines is at present still low. There are infrastructure constraints that limit the number of Filipinos who can shop online. There is also the low per-capita income to hurdle. Although there is no reason Filipinos cannot sell goods and services over the web to nonresidents, e-commerce is not likely to significantly impact on the Philippine economy in the short term.

In any case, it is impossible to anticipate every possible loophole or leakage that can result from a new development. The history of tax collection is more often than not one of action-reaction. Authorities observe how taxpayers avoid taxes under the old laws

and then create the remedy to close the loophole. This will likely continue to be the case.

One needs to recognize that although there are problematic transactions from a tax perspective, such transactions would not have been possible or would certainly be costlier in a world without the internet. That is, some of these transactions (especially those involving services) might not have occurred in the first place without the internet. There could certainly be lost *potential* tax revenue if authorities fail to monitor them.

E-commerce will certainly impact on taxation. For one, there will unquestionably be some changes in the composition of the tax base (for example, if people take to downloading electronic books, music, and software rather than purchasing the physical counterparts).

There will be efficiency gains from e-commerce (example, in logistics for wholesale and retail trade) as well. E-commerce would free up resources in the economy that could be applied elsewhere, thus increasing national output and theoretically, the tax base, too. While some tax losses may happen at the start, the long-run benefits could outweigh such losses.

Appendices

Appendix 1

Revenue Memorandum Order No. 21-2000

Revenue Memorandum Order No. 21-2000, issued August 3, 2000 prescribes the policies and procedures in the processing and approval of taxpayer's Application for Permit to Adopt Computerized Accounting System (CAS) and its components. The components of a CAS are: (1) general journal, general ledger and other subsidiary records; (2) sales, purchases, accounts receivable, accounts payable, inventory, payroll, ledgers and other accounting records; (3) generation of official accounting documents such as official receipts (OR), sales and cash invoices, cash vouchers, journal vouchers, billing statements, sales tickets, etc.; and (4) generation of reports as required by the BIR. A Computerized System Evaluation Team (CSET) shall be created for the National Office and Regional Office to conduct appropriate evaluation and recommend approval of the taxpayers' application to adopt CAS or its components. Evaluation shall be undertaken and completed within 30 days from receipt of the application and complete documentary requirements. Request for the approval of CAS shall be open to all taxpayers, whether classified as regular or large taxpayer. The taxpayer requesting approval for a Computerized Book of Accounts with computer-generated accounting records, whether the accounting system to be used is off-the-shelf or customized, need not apply for an authority to print (ATP) invoices and receipts. However, the taxpayer requesting approval for a Computerized Book of Accounts without computer-generated accounting records shall need an ATP for their official receipts, invoices and the like. The permit to adopt CAS shall be deemed revoked whenever there are changes or modifications introduced into the approved CAS, or upon full consumption of the pre-approved range of serial numbers for the computer-generated official receipt or sales/cash invoice. Any such changes or modifications shall require a new permit. On the other hand, computer-generated accounting records with no pre-

approved range of number of invoices and receipts prior to actual generation shall be reported to the Chief, Large Taxpayers Assistance Division, or the Chief, Excise Taxpayers Assistance Division or Revenue District Officer for proper recording and notation of the range of numbers of official receipts and invoices that have been consumed, as well as the range of numbers which have been cancelled during the immediately preceding taxable year within 30 days from the close of such taxable year. With the favorable recommendation of the CSET, the approval and signing of the permit to adopt CAS shall be the responsibility of the Assistant Commissioner of the Large Taxpayers Service or Excise Taxpayers Service for large taxpayers, and the Revenue District Officers for regular taxpayers.

Source: BIR (2000)

Appendix 2

Draft Revenue Regulation (Section 2, Paragraph 2.3)

Exposure draft

Dec. 17, 2000

Republic of the Philippines
Department of Finance
BUREAU OF INTERNAL REVENUE
Quezon City

REVENUE REGULATIONS NO. ____

SUBJECT: E-commerce Transactions

TO : All Internal Revenue Officers and Others Concerned

SECTION 2. Electronic Commercial Activities

2.3 *Treatment of Digitized Information Products for VAT Purposes.*

Digitized information products shall be treated as intangible personal property right. Any payment to a nonresident of the Philippines as a consideration for any digitized information product such as, but not limited to, music, computer software, graphics programs, books, movies, or databases which the said nonresident owner downloads to the personal computer of a resident of the Philippines, whether a VAT or a non-VAT registered person, for the latter's use shall be imposed with the creditable 10 percent VAT withholding, pursuant to the provision of Section 113 (C) of the Code, as follows:

“xxx Provided, further, That the payment for lease or use of properties or property rights to nonresident owners shall be subject to ten percent (10%) withholding tax at the time of payment. For this purpose, the payor or person in control of the payment shall be considered as the withholding agent.

The value-added tax withheld under this Section shall be remitted within ten (10) days following the end of the month the withholding was made.”

The digitized information product shall be treated as the intellectual property or property right of the aforesaid nonresident person. The aforementioned resident person shall, in turn, be treated as the lessee or licensee with respect to the lease or use of the said intellectual property or property right of the said nonresident who shall, accordingly, be considered as a withholding agent in respect of the 10 percent VAT due from the said nonresident. The aforesaid resident person shall, before making payment, withhold and remit the 10 percent VAT due thereon by filing a VAT return in his capacity as a withholding agent, for and in behalf of the said nonresident-payee.

- (a) If VAT Withholding Agent Is A VAT Registered Person. The 10 percent VAT so withheld and remitted to the BIR shall be treated as the said withholding agent's input tax which shall be available for credit against his output taxes.
- (b) If VAT Withholding Agent Is A Non-VAT Registered Person. The 10 percent VAT so withheld and remitted to the BIR shall be treated as the said withholding agent's cost or expenditure for income tax purposes:

Provided, however, that whether or not he may be allowed to claim the same as deduction for income tax purposes shall depend on whether or not the corresponding requisites for its deductibility, under the income tax law and regulations, have been complied with.

Appendix 3

Initial Progress Report of the ITECC legal Cluster, BIR Subcommittee

March 21, 2001

Makati City, Metro Manila

Introduction

The taxation issues brought about by e-commerce are diverse as they are complex. On the international level, it is a balancing act between the right of a state to exercise its sovereign power over actors and activities within its jurisdiction and the right of individuals and companies to be free from double taxation and undue interference. On the local level, it involves the application of existing taxation regimes to newfangled business models and heretofore inexistent goods and services. Apart from identifying the proper tax statute to apply, the local tax authority faces the prospect of tax collection and administration in the new electronic environment.

The BIR Subcommittee aims to address some of the more pressing issues affecting the taxation of e-commerce by providing assistance to the BIR. Efforts are underway within the Bureau on several fronts and the Subcommittee is happy to report that the members of the Bureau's internal task force on e-commerce have welcomed the participation and inputs of the ITECC Legal Cluster.

Challenges

In particular, the following are the challenges facing the BIR Subcommittee:

E-taxation. As mentioned, the taxation of e-commerce is a complex issue and one that does not lend itself easily to a resolution. Many of the problems and challenges are in fact beyond the government's power to address and require the cooperation of the international community. Nevertheless, the Subcommittee, in light of its recent coordination with the Bureau, has identified two broad areas of concern.

Tax Situs Rules. The Tax Situs Rule mentioned in Section 23 of the E-commerce Act has given rise to serious concerns. The Bureau feels that it is a license for parties to an e-commerce transaction to avoid paying taxes in the Philippines (or anywhere else for that matter) by mere agreement. The Bureau has already proposed the repeal of the relevant portion of the E-commerce Act. The Subcommittee has already submitted its comment upon the amendatory bill.

The BIR has not yet submitted its proposal for the repeal or amendment of the relevant provision in the ECA although it has prepared a draft bill in this regard. Said draft bill is awaiting the signature of the BIR Commissioner and Secretary of Finance.

Application of tax code to E-commerce. The Bureau is also faced with the specter of applying the Tax Code to emerging business models, as well as new products and services. While the Bureau formulates its stand, e-commerce companies are likewise concerned about their potential tax burden and responsibilities. The current regulatory gap impacts not only upon the planning process but may also determine the viability of a prospective business. Hence, it is imperative that the Bureau provides some clarity as to its position in order to promote stability and predictability.

Within the joint committee level (BIR taskforce and ITECC-LC BIR Subcommittee), the BIR had reiterated its stand that no new taxes are being imposed on electronic transactions. However, the BIR has drafted proposed Revenue Regulation addressing the application VAT on digital or digitized products. Regardless of this stand, the application of VAT and any form of taxation on electronic transactions shall result in negative reception by e-commerce players. It may also result into a negative perception in the international community. It is proposed that a moratorium on the application existing taxes or the imposition of new taxes be held in abeyance until such time that it can be determined that e-commerce in the country has reached a stable and profitable stage, or that a timeframe be identified for the moratorium to be in effect.

E-retention. The E-commerce Act allows persons to keep records in electronic form. In the context of the Tax Code, this means allowing taxpayers to keep their records, receipts and tax

returns in electronic form. In addition, the Bureau must also consider the situation where taxpayers will maintain its records in both paper and electronic format. Finally, the Bureau must also address the issue of third-party providers that taxpayers may engage to outsource their bookkeeping processes (ASP) or digitize their paper documents (digital imaging companies). RMO21-2000 dated July 17, 2000 addresses the processing of the applications to be filed by end-users to allow the use of Computerized Accounting Systems (CAS). The RMO21-2000, through the use of CAS, allows the generation of underlying electronic accounting records (invoices, official receipts, journals, etc.) as well as the retention of such records. Said RMO also allows the conversion of existing paper-based accounting records into electronic form. The mode of delivery of such record—in particular, invoices and official receipts—remains in paper form since the subject RMO provides for the “Authority to Print” said accounting records. Existing retention rules will still apply on electronic records, that is, for three years or until such time that the BIR is able to complete its audit of the records. The following proposals has been put forward in one of the meetings between the BIR Task Force and the ITECC-LC BIR Subcommittee:

- a. to instead accredit commercially available accounting applications
- b. to formulate the rules or guidelines on electronic delivery (that is, no printing by seller will be required while buyer has the option to print) of underlying electronic accounting records.

E-filing. The advent of the internet in the Philippines, coupled with the mandatory provisions of the E-commerce Act, are driving the Bureau’s project to allow taxpayers to file their tax returns online. The project is slated for a dry run this tax season with more than 730 large taxpayers and 2000 voluntary Bureau employees. It has come to the Subcommittee’s attention that the Bureau intends to accredit a certification authority (CA) as part of its project in order to assure the identity, integrity and nonreputability of documents filed.

E-invoices and E-ORs. Electronic invoices and official receipts (ORs) are vital in enabling a proper electronic audit of any taxpayer. The interaction between invoices inherent in self-administering value-added tax (VAT) must be preserved if the Bureau is to maximize the benefits of new technologies.

Other comments

RMO-21-2000 defective provision. One of the documentary requirements for the application to use a Computerized Accounting System is a statement by the vendor that the said Computerized Accounting System is tamper-free. This may be extremely difficult, if not impossible, to obtain since no vendor or software maker is willing to issue such statement.

Activities

Comments on proposed revenue regulation on e-commerce. The Subcommittee has already finalized its comments upon the proposed revenue regulations respecting e-commerce. The formal transmittal of the comments will be undertaken through the ITECC.

Tax Situs. One of the more contentious issues respecting the proposed revenue regulation involves the tax situs rules included therein. The Subcommittee has taken the position that this has multi-jurisdictional dimensions and should not be addressed at this time. From a policy standpoint, the regulation, if passed, may have deleterious effects upon efforts to make the Philippines an attractive site for investment and e-commerce. If the Bureau intends on pursuing the passage of the regulations, the Subcommittee will petition the ITECC to take a similar stand to dissuade the Bureau from proceeding.

E-retention. The Subcommittee will formulate and propose a comprehensive regulation respecting the retention of electronic tax records. Currently, research is being conducted as to approaches taken in other countries.

E-filing. The Subcommittee is already coordinating with the Bureau personnel in charge of the project. Rules and regulations are forthcoming and are awaiting its release for the Subcommittee's review and comments.

Call for support

The Subcommittee hereby calls for the support of all interested taxpayers to help in the work ahead. Currently, the Subcommittee is composed of a small but dedicated number of persons from the private sector. Representatives from a broader spectrum are subscribed to the Cluster mailing list (ecomm-irr) and the Subcommittee routinely posts updates of its work.

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