# GOVERNING THE TAXATION OF DIGITIZED TRADE


## ABSTRACT

The paper highlights the challenges for international taxation due to digitized trade. Digitization makes it easy to penetrate foreign markets without the need for physical presence in the buyer's country. This phenomenon has generated debates on the salience of source versus residence-based taxation, the definition of permanent establishment, and, the administration of consumption taxes. The WTO has not been able to engage effectively in this area. The paper notes both the inadequacy of unilateral approaches and the need for an international organization for setting and monitoring global standards. It commends the vitality of source-based principles and the traditional conception of permanent establishment. It pleads for increased international cooperation for administering consumption taxes. Digitized trade without globally acceptable standards is likely to lead to double taxation or tax evasion or both.



## KEYWORDS

Electronic commerce, service trade, taxation, international cooperation


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This paper argues that digitization propelled international trade is eroding the fiscal sovereignty of states. Unilateral attempts to fix this problem will lead either to tax erosion or to double taxation. Digitized trade, or the trade in goods and services aided by the Internet and related channels, has made it easy to penetrate foreign markets, without the need for physical presence in a foreign country. This has generated major debates on international taxation, on the salience of source versus residence based taxation, and, the definition of what should constitute permanent establishment.

The WTO has not made much progress towards evolving a regime for digitized products. It is unclear whether the General Agreement on Trade in Services (GATS) regards business to consumer (B2C) sales of intangible products (e.g. digitized books, music or films) as cross border or the consumption abroad mode of service delivery?[1] Second, unresolved definitional debates regarding whether digitally deliverable products are goods or services compounds the confusion?

[1] Cross-border service trade (mode 1) involves service delivery from the territory of one member (of the WTO) to the territory of another. This could include medical consultation by a doctor in the US to a doctor in Brazil. Consumption abroad (mode 2), is service delivery in the territory of one member to the service consumer of any other member. This could include a British national enjoying health and recreation services in Cuba. Mode 3 is commercial presence involving foreign direct investment, and mode 4 involves the movement of natural persons for delivering services to foreign countries (Andre Sapir, 1999).

It is tough to impose customs duties on B2C sales of digitized products. While the zero customs duty moratorium within the WTO remains a political commitment, the agenda of indirect taxation has shifted to unilateral attempts by the EU to impose consumption taxes, and, to the OECD, where a consensus on the administration of consumption taxes is being sought.

The paper draws special attention to the concerns of the US, the EU, Australia and India. The world's two major trading players the US and the EU have opposing concerns. The US is looking for markets and the EU is looking to protect its markets. India is an important country within the developing world and Australia is a major player in the Asia Pacific region. Both countries have a significant service sector with export potential. The paper documents the concerns expressed by these significant players.

The case for global standards is made in three steps. Section 1, points to the impact of the Internet on productivity, and the business practices peculiar to the Internet that have increased US productivity. Section 2, reviews the debates on source versus residence based taxation, permanent establishment, and consumption taxes.

Section 3, concludes by making the case that the problem of international taxation in the digitized world has no unilateral answers. Rather the problem is one of creating global standards that will check both double taxation and tax evasion, and, facilitate compliance. If some countries impose source-based rules and others residence-based rules, this may lead to double taxation. Unilateral adoption of residence-based rules may empower tax havens and lead to massive tax evasion. Unilateral adoption of consumption taxes in the absence of international cooperation, as suggested by the EU, may either kill

the fledgling B2C e-commerce due to high compliance costs, or lead to massive tax evasion.

## 1. THE COMMERCIAL CONTEXT OF DIGITIZED TRADE

Cross-border service trade involving communications services, computer and information services, and other business services conducted over telecommunications networks at $ 375 billion in 1999 constituted approximately 30% of service trade and 5% of world trade. Trade in digitizable media products (film, printed material, video games and recorded information) was worth about $ 50 billion (< 1% of world trade) in 1998 (Mattoo, Perez-Esteve and Schuknecht, 2001, p. 956, 962).[2]

The emerging consensus is that the dramatic rise in the annual growth of US productivity for the period between 1995-2000 (2.5% between 1995-2000, when the same figure for the period between 1974 –1995 was 1.4%) was largely due to the productivity enhancing effect of the Internet. The declining price of semiconductors and electronic devices is at the root of this revolution. Declining costs made this technology available to small as well as large corporations (Varian, Litan, Elder and Shutter, 2002, pp. 11-14, 21-23; Jorgenson, 2001, 1-32).[3] The Internet's ability to transmit high-speed low cost information is transforming business at the global level.

Internet aided business practices are significant for India's software and service exports. E–solutions involving activities like supply chain management, customer

[2] Litan and Rivlin quote a figure between $ 100 billion and $ 200 billion. It not clear to me as to what categories of business this figure includes (Litan and Rivlin, 2001, 7).

relationship management, enterprise resource planning, information management, which is expected to be 69% of IT services spending at $ 180 billion in 2000, is an opportunity for India's software and services sector (BCG-NASSCOM, 2001, pp. 16-17). IT enabled services like back office accounting, medical transcription, call centers, airline ticketing and content development are important service exports for India (Verma, 2002, p. 48).

Australia's opportunity for expanding its IT enabled service exports lies in travel, consulting, betting, selling books and audiovisuals. Information technology has enabled Australia's smaller firms to sell niche products like boots, tags, and clothes, largely to the US market (DFAT (A), 1999; DFAT (B), 1999; Hyndes, 1999, ch. 6).[4] Indian entrepreneurs have successfully sold Indian art, aided by the Internet.

The IT sector downturn in 2000 in the US hurt India and Australia. India's software and service exports grew at an unprecedented slow pace from US $ 4.7 billion in 2000/01 to US $ 5.7 billion in 2001/02 (growth of 21.6%).[5] The comparable figures for Australia are A $ 2.47 billion and A $ 2.46 billion respectively (declined by 0.004%) (Desai, 2002).[6] Trade that uses digitization has promise but needs to be nurtured.

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[3] I am grateful to Warwick McKibbin for providing me with the fascinating study by Varian, Litan, Elder and Shutter. This survey looks at 2065 US and 634 European (from UK, France and Germany) firms.

[4] DFAT stands for the Department of Foreign Affairs and Trade situated in Canberra.

[5] These were figures published by the NASSCOM (National Association of Software and Services Manufacturers, New Delhi) were quoted by Ashok Desai (2002).

[6] The figure for Australia was obtained from the Australian Bureau of Statistic's unpublished data made available electronically by Richard Levy, Desk Officer, Market Development and Liaison Branch, Trade Development Division, Department of Foreign Affairs and Trade (Canberra: August 8, 2002).

The Internet has given birth to corporate *supply chains and markets that facilitate buying and selling*. A corporate extranet is approximately 10 times less expensive than the electronic data interchange (EDI) and is interoperable. It offers media-rich marketing and customer feedback, services traditionally unavailable through the EDI (Mann, Eckert and Knight, 2000, pp. 9-10).

Dell is able to spot its suppliers on the Net and customize its products. It keeps components for 8 days. Dell manufactures a computer after the customer has specified the type of processor, memory capacity, hard disk space, and the type of screen. The US toy maker Mattel allows customers to design their perfect Barbie doll. Norwegian bicycle maker DBS Oegland allows customers to design their own version of the Intruder (Cairncross, 2001, pp. 122, 142-143).

Second, operating through the purchase department leads to bad purchases. The Internet enables the recording of precise specifications, and, allows the concerned corporation to deal with a larger number of suppliers. GE Lighting has cut down costs by 20 per cent. 12 large US companies pooled their buying power to create a single purchasing consortium for requirements ranging from energy, to advertising and marketing. GM, Ford and Daimler-Chrysler have established Covisint to handle auto parts transactions from suppliers, a supply chain worth $ 250 billion (Cairncross, 2001, pp. 137-140; Fine and Raff, 2001, p. 74).

The Internet has facilitated the creation of *virtual markets*. There are virtual *auction sites* for products ranging from steel, advertising space, transportation services, computer services, skilled labor services, to consumer goods. *Virutal brokers* provide referral services that resemble yellow page directories with comprehensive information

and search facility.[7] *E- exchanges* provide services like trading rules, price transparency and centralized clearing.[8] Some virtual markets do not fit into these neat definitions. PlasticsNet runs auctions for some transactions and broker functions for other products (Cairncross, 2001, ch. 6; Lucking-Reiley and Spulber, 2001, pp. 55-68). Worldwide revenues from supply chain management related e-solutions rose from $ 41 billion in 2000 to $ 62 billion in 2001 (NASSCOM & BCG, 2001, p. 83).

The Internet has a unique way of facilitating *customer relationship management* (CRM). If one purchases books on Amazon.com, the book recommendation engine allows the buyer to record its interests on Amazon's Web site. This increases the accuracy of Amazon's future recommendations to the same person (Cairncross, 2001, ch. 5). Aided by customer data, information products can be sold in various versions, each targeted to a specific customer (Bakos, 2001, pp. 70-80). CRM revenues worldwide grew from $ 44 billion to $ 57 billion between 2000 and 2001 (NASSCOM & BCG, 2001, p. 83).

*Enterprise resource planning* facilitates business functions such as accounting, human resources management (payroll), production and distribution. Chem Station, a manufacturer of detergents, found that it was too expensive to ship industrial detergents. It decided to set up separate reconstitution plants with a computerized recipe to mix detergents, and electronic monitoring of the plants (Cairncross, 2001, p. 43). *ERP related*

[7] Examples include, catalogues for office supplies (Iprocure), industrial chemicals (E-chemicals), construction (Buzzsaw) and bakery supplies (Bakery Online).

[8] Examples include exchanges in, almonds (AlmondEx), oil and gas (Altra Energy), telecommunications bandwidth (Arbinet), chemicals (CheMatch), steel (e-steel), and paper (PaperExchange).

*e-solutions revenues worldwide increased from $ 23 billion in 2000 to $ 28 billion in 2001* (NASSCOM & BCG, 2001, p. 83).

*Information Management* involves the creation, structuring and transfer of knowledge for making the relevant knowledge available to appropriate users. According to one estimate, a building project worth about $ 100 million generates 150, 000 separate documents. Mergers and acquisitions can create a paper trail of 30, 000 pieces of paper. London law companies Davis and Co. connect 50 lawyers, 50 accountants, and 50 due diligence specialists working in 12 cities across 9 countries through a secure Web site (Cairncross, 2001, pp. 133-136). With Internet content doubling every year, managing records subject to certain privacy and access specifications has become an essential service. The knowledge management portion of the e-solutions revenues has grown from $ 2 billion in 2000 to $ 4 billion in 2001 (NASSCOM & BCG, 2001, p. 83).

The Internet, by facilitating speedy low cost communication renders the *outsourcing* of services and manufacturing easy. E-business solutions for implementing supply chain management, customer relationship management, enterprise resource planning, information management, legacy application work[9], and banking software is increasingly being outsourced. Cisco Systems certified 32 plants connected with it over the Net for meeting its needs. Nortel, the manufacturer of high performance communications network, sold many of its plants to other manufacturers. (Cairncross, 2001, pp. 142-143, 150-151). In 2001, India was rated the best outsourcing destination by

[9] Programmers attempt to patch the old legacy systems of big firms where data was stored in Java and Fortran, which have been superseded by new programming languages like C + and Java. In 2001/02, out of India's software and services exports of US $ 5.7 billion, legacy applications were the largest category, involving US $ 2.1 billion (Desai, 2002).

the US headquartered Giga Information Group due to cost and quality advantage, over China Ireland, Ukraine, Russia, Canada and the Philippines (Verma, 2002, pp. 48-50).[10]

# 2 THE CHALLENGE OF FISCAL COORDINATION

The business context mentioned above is crucial to understanding why some countries desire certain standards. This section elaborates the debates on global standards regarding source versus residence, permanent establishment, and, consumption taxes. It evaluates proposals made by the US, EU, Australia and India, and notes the progress within the WTO and the OECD. Each section describes the significant proposals in the context of past practice, and, evaluates the merit of these proposals.

## 2.1 Source Versus Residence Based Taxation

The debate regarding source versus residence-based taxation concerns the extent of the ties between people who own, control and manage an enterprise, versus, the location where most business employees, property and activities are situated. Source-based taxation owes its origin to four economists commissioned by the League of Nations in 1921 to evolve general principles for reducing the incidence of double taxation (Forst, 1997, 1459-1462).

The economists disentangled the idea of situs from the idea of origin. Situs (or residence) is a physical location where the business transaction takes place. Origin (source) is the specific place where income is produced. They explained that origin is:

> the place where wealth is produced, that is, the community of economic life which makes possible the yield of the acquisition of the wealth. This

[10] I am indebted to Sourav Adhikari, President HCL Infinet, and NOIDA (India) for making available Giga's findings.

> yield or acquisition is due, however, not only to a particular thing but to the human relations which may help in creating them (Forst, 1997, p. 1460).

In colonial times, the situs (residence) of a corporation trading in tea could be England but the human agencies (source) that help to create the wealth from tea plantations could be in a multitude of countries. The human agencies involved could be the superintendent of the plantation (in the country of the plantation), transport agencies that bring the tea to the market (in the plantation country and market countries), the residence of the chief executive responsible for policy (could be where the situs is or anywhere else), and, the place where the sales agents and the markets are located. All these factors would have to be taken into account and assigned weights to establish the source of income.

The economists divided business income into three categories, 1) business profits closely related to immovable property (e.g., mining income), 2) business profits derived from factories, and, 3) business profits derived from commercial establishments with a fixed head office. The economists, mindful that distant control had become possible with the advance of transportation and communication technology, concluded that the country of source had the preponderant right to tax such business income. Income from stocks and bonds were to be taxed in the country of the domicile (residence). This is the basis of the present system of international taxation geared to avoiding double taxation.

US courts have upheld the principle of source-based taxation, evident in *Piedras Negras Broadcasting Co. v. United States* (1941). The issue was whether a Mexican radio station had US source and should thereby have been subjected to US tax. The operator of the radio station executed all the contracts with advertisers in Mexico and performed all

the services required of the contracts in Mexico. All the broadcasts originated in Mexico as the station's only studio was in Mexico. The taxpayer maintained a US address in a hotel room where it counted and allocated the funds it received each day. 95% of the broadcasting station's income and the majority of the listeners were in the US. In concluding that the source of the taxpayer's income was located outside the US, the Fifth Court looked to the location of the taxpayer's physical and human capital, in deciding what dominated the characterization of source (Forst, 1997, pp. 1463-1464).

This legacy of source-based taxation has significant implications for current debate on source versus residence? The US Treasury's White Paper (1996) meant for discussion and critical appraisal only, made the case that e-commerce renders the determination source very difficult. The time has come for shifting to residence-based taxation (Department of Treasury, 1996, sections 7.1.1-7.1.5). This significant proposition challenges a 75-year-old standard, which has inspired over 1000 bilateral treaties. The Treasury's paper was not contradicted by the White House's Report on Global Electronic Commerce in July 1997 (Forst, 1997, p.1458; Hellerstein, 2002, pp. 16-17). Joseph Guttentag, the Senior Advisor to the Assistant Secretary (Tax Policy), Department of Treasury in 1996, upheld the Treasury's view in an article published in November 2001 (Guttentag, November 2001, pp. 551-552).

What are the merits of the Treasury's view? First, it may be tough to link an item of income to a specific geographical source in the cyber world. Second, residence based taxation would have the advantage of reducing the importance of the distinctions between business profits, royalties and income from services, that are tough to implement and make little economic sense in the cyber world. The Congress's Tax Reform Act (1986)

has adopted residence-based rules for the sale of certain non-inventory property, and, in the case of certain ocean and space activities. Moreover, all taxpayers according to the Treasury's view are resident somewhere. It will therefore be easy to tax US residents (Department of Treasury, 1996, section 7.1.5).

The problems with the Treasury's view are manifold. Public finance experts and tax lawyers have argued that the question of residence is not settled easily either. The US uses the place of incorporation test, while many other countries rely on the "place of effective management", as a test for residence (McLure, 2001, pp. 335-336).[11] On the other hand, while it may be tough to locate where a transaction took place (residence), it is not easy to obliterate evidence of the place where human involvement led to these transactions (source) (Forst, 1997, p. 1471). Contracts can be signed in the high seas but value creation involving human involvement in Silicon Valley, Seattle, Wall Street, or Hollywood, cannot occur in a low tax location.

Tax havens may undermine fiscal sovereignty, if taxation is based on residence. Tax havens have benefited due to sovereign control over fiscal policy in an age of interdependence. Corporations and individuals can easily shift resources to realize gains from low tax locations, aided by information and communications technology (ICT). According to one estimate 20% of total private wealth and 22% of bank's external assets are invested offshore. According to another estimate, a quarter of the US investment went to tax havens in 1994 (Palan, 2002, pp. 156).

[11] For guidance on the "place of effective management" for the purposes of e-commerce see, OECD, 2001, pp. 145-157.

Residence-based taxation with digitized empowers corporate entities to incorporate themselves in tax havens, and, outsource work anytime anywhere (McLure, 2001, p.336; Li, 1999, p.1455). Revenue collection will shift to low tax locations. This will lead to revenue losses for public authorities whose utilities were used for the human endeavor that generated profit, and will contradict the benefit principle (McLure 2000; Li, 1999, p. 1456). If residence based taxation leads to the empowerment of tax havens in an era of digitization, this will affect revenue collection in the US.

Residence-based taxation will erode the tax base of countries like India, Australia, Ireland, China, Phillipines, Russia, Ukraine and Canada, which are involved with value creation, when the major firms doing business along the digitized route and markets reside in the US. Section 1 highlights the dominance of US firms as consumers of ICT services. Off the total worldwide software sales in 2000/01 of $ 440 billion, $ 219 billion occurred in the US. The US consumed 61.1% of India's exports and 39.2% of Australia's ICT related exports in 2000/01 (Desai, July 15 2002).[12]

The US as the dominant country of source will gain from source-based taxation. According to one estimate US e-tailers served 20% of the West European market and 14% of the Asian market (Cairncross, 2001, p. 123). Given the US dominance in financial, software, publishing, and entertainment services, sourced-based taxation has the potential of substantial revenue potential for the US.

Australia has argued for the continuing vitality of source-based taxation. To quote from the Australian White Paper:

> .. Unless income is derived from property used in Australia or from acts done in Australia there would seem little likelihood that an Australian court would find that the source of the income was in Australia (Australian Taxation Office, 1999, p. 79).

The White Paper noted, if the result of the performance of a service becomes more important than the location where the service was really performed, by giving undue emphasis to the place of contract, the place of payment, or even where the services were utilized, this could encourage tax planning. The suggestion is that residence can be more easily relocated to tax havens than the relocation of the actual performance of a highly skilled service (source) (Australian Taxation Office, 1999, p. 91). One may conduct deals related to supply of high end embedded software in tax havens, but such software may actually only be produced in Silicon valley.

The Indian Finance Ministry's Report (July 2001) expressed concern about the distributional consequences involved with the shift from source to residence-based taxation. Especially worrying for India's tax authority was the fact that equilibrium in revenue sharing between countries of source and countries of residence was not one of the stated objectives of the OECD or the US. It stated the problems of determining residence. It opined that there was no substitute to the "place of effective management test". When the "place of effective management" was tough to determine after giving due consideration to a variety of factors, source-based taxation should prevail (Central Board of Direct Taxes, 2001, pp. 60-65).

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[12] The figures for Australia are from Australian Bureau of Statistic's unpublished data made available to me by Richard Levy, Desk Officer: Market Development and Business Liaison Branch, Trade Development Division, Department of Foreign Affairs and Trade, Canberra (August 8, 2002).

## 2.2 Permanent Establishment (PE)

The mainstay of the double taxation convention for avoiding double taxation is the concept of permanent establishment (PE). Article 5 (1) the OECD Model Treaty justifies permanent establishment due to the need for a certain threshold of commercial activity, which requires:

> a fixed place of business through which the business of the enterprise is wholly or partly carried out.

PE traditionally involves three requirements: 1) the existence of a place of business; 2) the fixed nature of this place of business; and, 3) conducting the business of the enterprise through this fixed place (i.e.: agents who are dependent on the enterprise conduct its business through this fixed place). Economic allegiance must involve having people working for the enterprise in another country through a fixed place of business.

PE constitutes the threshold of economic activity beyond which commercial activities of a corporation can be taxed in a foreign country. PE would not arise if people dependent on the enterprise went simply to set up machines in another country. If an enterprise merely leases industrial, commercial or scientific equipment, buildings or intangible property to an enterprise of another state, this does not constitute permanent establishment of the lessor. PE generally does not include the use of facilities merely for the purposes of storage, delivery or display of goods (Forst, 1997, p. 1467).

Digitization enables corporations to engage in commercial activities abroad without the need for them to operate through a fixed place of business with dependent agents at work. Since, the threshold of economic activity in the age of digitization has less to do with the physical corporate presence, states have begun to worry about the significance of the traditional threshold. The OECD has done significant work regarding

the adjustment of the concept of PE with the special circumstances created by digitization.

The OECD has taken a position on Article 5 of the OECD Model Tax Convention. The majority view within the OECD is that a web-site hosting arrangement does not constitute permanent establishment, as it does not constitute tangible personal property (OECD, 2001, p. 80). An Internet service provider does not constitute an agent of the enterprise for the purposes of permanent establishment because it does not have the authority to conclude contracts (OECD, 2001, pp. 80, 84-85).

The majority view is that human intervention is not required at the place of permanent establishment. This view is supported by a case in German law, where the German Supreme Tax Court held that a German stretch of an automated underground pipeline owned by a Dutch company that supplied oil to German customers, constituted German permanent establishment (OECD, 2001, p.81; Forst, 1997, 1469-1470). If automation performed all the functions of human agency, then human agency would not be central to PE.

If a web site uses a server hosted by an Internet Service Provider (ISP), these contracts do not result in PE. Merely using scientific, commercial and industrial equipment of another company is not good enough for establishing PE. However, if a corporation using a web site has a server at its own disposal, i.e. if it owns the server, then this could lead to PE. For PE, the server would have to be fixed in a certain place for a sufficient amount of time. The business operation needs to be wholly or partly carried out at the location where the server is present. Auxiliary functions performed by the server such as providing a communications link, advertising goods and services, relaying

information through a mirror server for security and efficiency purposes, gathering market data for the enterprise, or supplying information, is not good enough for the server to characterized as PE (OECD, 2001, pp. 82-85).

The core functions of the enterprise would have to be determined on a case-by-case basis. For example, for Internet service providers that host web sites or other applications, servers being an essential part of their commercial activity, could constitute PE without the involvement of human agency. On the other hand, if an e-tailer is using its own server at a given location, this is not enough to conclude that the activities being carried out by the server have crossed the threshold of preparatory or auxiliary activities. Automated servers owned by e-tailers need to be examined on a case-by-case basis for establishing PE (OECD, 2001, pp. 84-85).

Technology poses a challenge to the notion that automated company owned servers could constitute PE, if they fulfilled the core functions of the firm. The geographical location of a server in a particular country is not central to locating the business activity in that country. Servers will migrate to low tax locations, enriching tax havens. Soon it may be possible to put these devices in satellites that orbit the earth (Lodin, 2001, p. 5; Kobrin, 2001, 694).[13] Servers as PE will lead to uncertainty with respect to revenue collection in countries of source. This will benefit the US in the short run, as the majority of the world's servers are located in the US.[14] In the long run, the US

[13] New Jersey based Internet companies were displeased when they learned that if a company put its server for hosting its data in New Jersey, this would constitute business presence in the state (Hellerstein, 2002, 12).

[14] Off the 67, 000 secure servers of the OECD, 70% were in the US in March 2000 (Cairncross, 2001, p. 123).

being an important source of value creation, may lose from the migration of servers to tax havens.

The UK has opposed the possibility that servers may constitute PE (OECD, 2001, p. 82). The Australian White Paper deemed six months as being time enough for a server to be considered fixed. While movement within a building may constitute no deviation from the fixed place, it worried about the OECD's ambiguity about the movement of portable servers from one building to another, or from one city to another (Australian Taxation Office, 1999, pp. 98-99).

The Australian Taxation Office noted the problem of tax havens. Some types of business require PE while other types do not. In an earlier age, source rules led to fairly equitable sharing of revenue between countries of source and countries of residence. In the world of digitized trade, residence of servers bears little relationship with the location of business. The way to deal with this problem could be to define taxation in a resident country, based on a threshold of economic activity rather than on physical presence, or, to develop specific provisions about treating business profits under electronic commerce (Australian Taxation Office, 1999, pp. 107-110).

The Indian Finance Ministry's Report criticized the definition of servers as permanent establishment for the following reasons. It noted the problem of enriching tax havens and consequent uncertainty with regard to the collection of tax revenues. It suggested the search for an alternative to the concept of PE within the OECD or the UN. It was concerned that the server as permanent establishment could threaten the existing revenue distribution equilibrium between countries of residence and countries of source. To avoid this problem, the Finance Ministry proposed that when the "place of effective

management" is tough to establish, source-based rules should apply (Central Board of Direct Taxes, 2001, pp. 64-75).

### 2.3 Indirect Taxes

The WTO's lack of success in incorporating digitized trade within GATS and the difficulty of charging customs duty on digitized intangibles deliverable via the Internet, has led to a shift in regulatory activity to the OECD, influenced by the US and European approaches. This section describes the tension between the US's urge to prevent consumption tax in the present versus the EU's desire to tax this segment of commercial activity. Administrative and competitive concerns propel the US towards a no tax regime in the immediate future. The EU's desire to impose taxation is due to the same reasons but with opposite consequences. The EU is better positioned administratively to tax e-commerce, and feels threatened by the competitiveness of US firms. This section discusses developments within the WTO and the OECD, and the US, European, and Australian positions with respect to consumption taxes for digitized trade.

#### WTO

Digitized products have created confusion within the WTO. First, it is not clear whether products that can be supplied through the Internet are to be defined as goods or services, or, which digitized products are services (Drake and Nicolaidis, 2000, pp. 407-411, Panagariya, 2001). The treatment of goods within WTO is different from the treatment of services. The moratorium on customs duty, which was born as a result of US efforts in the Geneva Ministerial (1998), makes sense only if there is a consensus that digitized products are goods. Second, even if there were a consensus that digitized products are goods, it would be very difficult to administer customs duties on products

invisible to customs officers (Mann and Knight, 2000, pp. 87-88; Cairncross, 2001, p. 180).

Alternatively, if digitized products were services, which one of the four modes of service delivery would characterize digitized products? It is not clear whether digitized products should be construed as cross border service trade (mode 1), from the territory of the supplier to the territory of the buyer, or as consumption abroad (mode 2) in the territory of the seller. Mode 1 commitments were more restrictive than mode 2 commitments because countries wanted to encourage foreign suppliers to set up commercial presence (mode 3). Mode 2 commitments were relatively liberal because it is not easy to check one's nationals from consuming services abroad (Drake and Nicolaidis, 2000, pp. 411-414).

If digitized products were viewed as cross-border trade, and, if governments could somehow control this trade, the illiberal commitments for cross border trade (mode 1) would restrict it. If, on the other hand, the same assumptions held for consumption abroad (mode 2), then countries may have over committed themselves in an era when they did not view digitized imports as being defined as consumption abroad. If a new mode 5 was created just to deal with digitized products within GATS, this would ghettoize global electronic commerce, and it would be tough to draw the boundary between mode 1 and 5.

That agenda making has shifted from the WTO, was evident from a paper submitted to the Committee on Trade and Development of the WTO entitled, Electronic Commerce and the Challenge for Tax Administration. The author, Walter Hellerstein did not make even a passing mention the developments within the WTO (Hellerstein,

2002).[15] The arena for decision-making has shifted to the US and the EU, and, to deliberations within the OECD.

**US**

The non-taxation of intangibles sold via the Internet in the US has its origins in a peculiar American problem. When states first enacted the retail sales tax (RST) during the great depression, they were worried that their merchants would lose business if their residents shopped in neighboring low tax states. Therefore, under the Commerce and Due Process Clause of the American Constitution, it was proposed that one state might not impose sales tax on residents in another state. Rather a "use tax" is imposed on the use, storage or consumption of tangible personal property or selected services in the state where the consumer resides (Hellerstein, 2002, pp. 27-28; McLure, 2000, p.1287-1305). To give one example, if a New Yorker buys a car in Washington, it pays the tax in New York where the car is registered. Washington State does not tax this sale.

Taxation becomes complicated with the mail order and the Internet. If a New Yorker purchases a book from Amazon.com based in the state of Washington, it will not pay taxes, unless it voluntarily remits the "use tax" to the State of New York. This transaction may be even tougher to trace if it is a digital book. Unless the out of state vendor has considerable nexus within the state, states within the American federation lack the constitutional power to collect taxes from that vendor. In *National Bellas Hess, Inc. v. Department of Revenue* (1967), the US Supreme Court held that Commerce and Due Process Clauses of the Federal Constitution prohibited Illinois from imposing a "use tax" collection obligation on a mail order seller with no physical presence in the state. In 1992, in *Quill v. North Dakota*, the same principle was affirmed. Minus physical

[15] I downloaded this paper from the WTO web-site.

presence in a state, consumption taxes cannot be charged to out of state vendors (Hellerstein, 2002, pp. 29-30; McLure, 2000).

This administrative problem is further complicated by the complexity of consumption taxes in the US. There are 7600 jurisdictions in the US that impose local sales or use-taxes, which keep changing from time to time. The inter-state vendor will have to keep a track on items being sold in 7600 tax jurisdictions within the US leading to exorbitant compliance costs. Moving to a single rate, while desirable for the taxation of e-commerce, is fraught with political difficulty (Houghton and Cornia, 2000, pp. 1351-1371).

These implementation problems inspired the Internet Tax Freedom Act (ITFA, 1998). In 1997, when state and local governments concerned with consumer migration to the Internet were moving towards legislation that would impose "use taxes" on digitized transactions, Representative Christopher Cox (R-California) and Senator Ron Wyden (D-Oregon) introduced the ITFA. The ITFA put a three-year moratorium on any new Internet taxes, and created the Advisory Commission on Electronic Commerce (ACEC), which was given time till April 2000 to recommend a course of action. Wyden and Cox also introduced a legislation requesting the World Trade Organization to enact a permanent global moratorium on the taxation of Internet commerce, which resulted in the temporary moratorium on customs duty on digitized products within the WTO in 1998 (Wiseman, 2000, 89-92).

There are two views about consumption taxes in the US. One view held by Charles McLure suggests that not taxing Internet based transactions amounts to treating it like an infant industry. As infants never grow up, this protectionism will not help the

industry mature. Moreover, empowering those who use the NET may amount to a transfer of wealth from the poor to the rich. It will put many conventional retailers in a significant position of disadvantage (McLure, 1999, p. 197).

The reduced importance of retail intermediaries in digitized trade empowers the consumer. Retailers selling Encyclopedia Britannica for a fortune had to bow down to competition from Microsoft's Encarta. Britannica was subsequently posted free on Web, and depended on advertisements for revenue (Cairncross, 2001, pp. 103-106; Bakos, 2001, pp. 75-77). This meant losses for retailers but Britannica access to everyone with access to the Internet. Second, small sellers of goods and services in India and Australia have been empowered by the Net (Section 1). What favors the small seller along the digitized route is easier access to foreign markets, but what kills the small seller at times is the lack of a brand name. It has been proposed that intermediaries that assure for quality like www.BizRate.com could do the trick for small sellers (Ba, Whinston and Zhang, 2000, pp. 184-200).

In the short-run, the US can ignore the tax implications and concentrate on growing and consolidating commerce on the NET. B2C commerce is probably less than 10% of e-commerce, and the B2C sales of intangibles are a tiny fraction of that (Guttentag, 2001, p. 552). Moreover, after the downturn in the software sector, companies that use digitization for serving the B2C segment have taken a hard knock. At its peak in 1999, Amazon.Com's capital value was greater than all of the America's off-line bookstores combined. Yahoo was more valuable than Boeing. America Online had a value greater than General Motors and could buy up Time Warner. These companies are worth much less after the downturn (Cairncross, 2001, pp. 101-102).

According to calculations made by Goolsbee based on figures available in 2000, the loss of revenue was $ 612 million out of total sales tax revenue of $203 billion, or just 0.3 per cent. This figure could rise to 2.3 per cent in 2004 (Goolsbee, 2001, pp. 13-23). Mattoo, Perez-Esteve and Schuknecht, separately arrive at figures that do not ring alarm bells (Mattoo, et. al., 2001, pp. 958-959; Cairncross, 2001, pp. 178-181; Wiseman, 2000, pp. 98-99). These studies suggest that the current US framework of no taxes be continued, so that network externalities promote commerce, productivity and growth. Once, Internet commerce is more widespread, taxation should be introduced.

The Gilmore Commission dedicated to the question of Internet taxation could not gain the required two-thirds majority. The majority of the commission's members recommended no new Internet taxes for another five years. For the purposes of tax neutrality, their tangible equivalents in the form of goods (e.g. Cassettes, videos, books, floppies and CDs), should also be tax exempt. The Congress worried about domestic and international taxes that could hurt digitized trade. On November 28, 2001, President Bush signed the Internet Tax Non-Discrimination Act, H. R. 1552, which extends the moratorium on new, special, and discriminatory Internet taxes through November 1, 2003. The US Treasury's Office of Tax Policy has hailed this as a positive event (Treasury Acquisition Institute, 2002, pp. 80-81).[16]

Four important factors prompted US policy makers to refrain from imposing consumption taxes on digitized trade. The most important factor is the US's perceived benefit from nurturing Internet trade in its infancy, when its firms are competitive on a

global scale. Second, the US's tax system, which prohibits taxation on out of state products, would require restructuring if out of state vendors selling digitized products were to be taxed. Third, the dense network of tax jurisdictions in the US would entail compliance costs for a seller of digitized products. Last but not the least, the US is not yet losing much revenue due to lack of consumption taxes on digitized trade.

**EU**

The EU is rushing to impose consumption taxes on digitized trade. Value added taxes (VAT) comprise 30 per cent of the revenue in many EU countries, when the same figure is about 12 per cent for most American states (except Texas). In Europe, VAT is a tax on supplies and goods at all stages of production. It is charged by the suppliers and credited by the users of inputs. The final consumer not being a VAT registered entity, generally pays the tax. VAT is designed for within state transactions. Importers are assessed for tax but exporters get a rebate. Services tend to be taxed higher than goods (Cairncross, 2001, pp. 86-90).

The EU made the political decision to charge VAT on digital sales of radio and television broadcasting, and electronically delivered products and services in June 2000. The decision to approve the new rules was made in a VAT directive of February 12, 2002. The rules are scheduled to be in place after translation into EU's 11 languages and consultation with the European Parliament by July 1 2003.

What will change in 2003? EU sellers pay VAT for digitized services (except certain telecommunication services) in the country where the services are produced. They

[16] US Treasury's support for extending the moratorium on Internet taxes is evident from Assistant Secretary Mark Wienberger' s *Statement on the Passage of the Internet Tax Moratorium* (PO-802, Office of Public

pay taxes in Europe no matter where the customers are. Non-EU sellers do not pay taxes on sales of digitized products within Europe. Therefore, while US sellers do not pay taxes in Europe, EU sellers pay taxes for selling in Europe. This VAT system in the EU discriminates against EU sellers.

Under the new directive, non-EU companies will pay taxes in Europe where the customers reside. The EU directive does not include sales of digitized products to business buyers, as these companies already self-impose VAT on purchases of these products. The items that Europe wants to protect in the business to consumer segment include:

- Web-site supply, web-hosting, distance maintenance of programs and equipment;
- Supply of software and updating thereof;
- Supply of images, text and information and making databases available;
- Supply of music, films and games, including games of chance and gambling games, and of political, cultural, artistic, sporting, scientific and entertainment broadcasts and events; and,
- Supply of distance teaching.

Non-EU firms must establish their tax identity within the EU to determine which tax rate applies. The suppliers will register as a VAT identity in at least one of the EU countries. The country of registration will remit the appropriate tax to the customer's country. Sellers will be able to fulfill all their obligations online without the need of physical presence or a representative in Europe. The original proposal talked about taxation of revenues greater than Euro 100, 000/- but no such mention is made in the

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Affairs – US Treasury, November 16, 2001). See the US Treasury's web site.

current directive. Sellers will have to comply with the rates of the country where it is registered, as well as, comply with the provisions of the state where the services are consumed (Hardesty 2002).[17]

Customer identification is not possible. Credit card companies, as tax collectors may violate the privacy of private firms. Why will private corporations willingly part with confidential information to another private organization? Second, credit card companies may not be willing to take up this responsibility. Third, maintaining tax records for filling an appropriate tax return will entail substantial compliance costs for the foreign seller. This will act as a barrier to trade (Mann, Eckert, and Knight, 2000, pp. 83-90; Goolsbee, 2001, 13-15).

How may VAT be enforced on sellers? How will the EU identify small sellers who need access to a telephone line to the same extent as the consumer? Second, why will large foreign firms willingly submit themselves to the jurisdiction of a foreign authority? The US treasury has expressed displeasure about this European initiative, and as so has the American Chamber of Commerce (Hardesty, 2002; Hellerstein, 2002, p. 25).

**OECD**

The OECD has taken the view in that the benefits of consumption taxes outweigh its problems, despite the administrative bottlenecks. Taxation at the place of consumption will promote certainty. For example, a US firm may sign a contract with a UK firm for

[17] See also, European Council, *Council Directive amending Directive 77/388/EEC*, dated 12 February 2002.

supplying a digitized product, which will be consumed in a branch office in Japan. The OECD takes view that taxation should occur in Japan (OECD, 2001, p. 20, 24-29).

Various methodologies to solve these problems have been suggested. First, self-assessment or reverse charge, which depends on the recipient's remitting the tax to revenue authorities, works for business-to-business (B2B) transactions. Second, the OECD noted, that any attempt to use the registration obligation will be tough to implement. It recommended the simplification of registration procedures for B2C transactions. If sellers have made efforts to comply in good faith, this should be considered adequate (OECD, 2001, pp. 29-41). [18]

**Australia**

A General Sales Tax replaced Australia's Wholesale Sales tax in July 2000. This takes care of the administrative difficulty due to multiple jurisdictions. However, the Australian Taxation Office held the view that digitized transactions have not become significant (Australian Taxation Office, 1999, pp. 159-161). It pledged to work closely with the OECD. It noted that while reverse charge or self-assessment worked well for B2B transactions, there was no practical way of collecting consumption taxes on B2C intangible products. It stressed the need for international cooperation for the successful implementation of consumption taxes (Australian Taxation Office, 1999, pp. 162-165).

## 3. GOVERNING DIGITIZED TRADE TAXATION

There is no international body to coordinate international taxation in the age of digitization. Decision-making with respect to digitized B2C e-commerce has shifted

[18] For evidence that the US may be different from the EU – OECD view, see (Guttentag, 2001, p.552).

away from the WTO because it is tough to charge customs duties on digitized products. Second, GATS does not have an unambiguous criterion for classifying digitized products. The political commitment to zero customs duties for B2C intangibles continues within the WTO. But, the EU has acted unilaterally to impose consumption taxes, when the debates on standards are yet unresolved within the OECD.

The League of Nations did pioneering work on the taxation of business profits, which is incorporated in bilateral double taxation treaties among countries. The OECD has taken over some of the League's role. Digitized trade is pushing countries to evolve standards that will govern international taxation. This section draws on the insights of the previous section to cull out the reasons why policy coordination is essential for maintaining fiscal sovereignty.

# TABLE 1
# STANDARDS FOR TAXING DIGITIZED TRADE

| Recommendations | Pros | Cons |
|---|---|---|
| Source-based Taxation | 1A) Benefits all source countries - consistent with benefit principle | 1A*) possible erosion of tax base in purely market countries. Need for a moderately costly "escape clause". |
| | 1B) Avoids enriching tax havens. | |
| | 1C) Current equilibrium in revenue distribution between source and market countries unaltered. | |
| Server not PE | 2A) Consistent with traditional source-based principles. | |
| | 2B) Will check disparity of revenue-sharing between server-scarce and server abundant countries. | 2B*) May lead to revenue erosion in purely market. countries. Need for a moderately costly "escape clause". |
| | 2C) Tax havens discouraged. | |
| No Consumption Tax Now | 3A) Allow trade to grow | 3A*) Tax neutrality foregone in the short-run[19] |
| | 3B) Compliance problem solved in short-run. | 3B*) Need to solve compliance problem in the long-run. |

[19] If there are taxes on the physical counterparts of digitized products (e.g. books) but not on digitized intangibles (e.g. digitized books), this will violate tax neutrality. Tax neutrality suggests that both must be taxed similarly.

The US suggestion to shift from source-based taxation to residence-based taxation seems to be motivated by its worry regarding revenue collection via the source-based route in the Internet age. This is unlikely, as the US's market share in the retail sector, the dominance of Wall Street, Hollywood, Silicon Valley and Seattle, will enable the US to collect substantial revenue via the source-based route.

Australian and Indian proposals pleading for the continuing vitality of source-based taxation deserves serious consideration. First, the suggestion that source is tougher to determine than residence due to digitization seems improbable because of the absence of a widely accepted standard governing the definition of residence. Moreover, source is less elusive than residence, because it is impossible to take Silicon Valley to Monte Carlo. Second, it is cheaper to continue with an established standard (source) than negotiating numerous treaties based on a new one (residence). Third, residence-based taxation is likely to empower tax havens. This will erode the fiscal sovereignty of all source countries of which produce goods and services that benefit due to digitization.

Revenue authorities should monitor tax collection. The perceived uncertainty regarding the global distribution of revenue can be guarded through an "escape clause", in the case of drastic shortfall in revenues as a result of unforeseen happenstance. Escape clauses need to be moderately priced, so that the cost of escape avoids both defection, and, easy escape. For source-based taxation to be an enduring standard, "escape" must guard against the easy use of the residence principle (Rosendorf and Milner, 2001, pp. 829-857).

Permanent establishment is the threshold of commercial activity beyond which a firm can be taxed in a foreign country. The OECD has defined automated servers, using a fixed location for a certain period, and performing certain core functions of the firm, to be a candidate worthy of permanent establishment. The traditional understanding is that human intervention is required in addition to the above requirements. While the new definition may benefit server abundant US in the short-run, it will lose in the long run if automated servers migrate to tax havens. PE based on substantial human and financial investment in a foreign country will leave fewer incentives for firms to indulge in tax planning, compared with a situation where automated servers can constitute permanent establishment.

Server scarce countries are likely to oppose automated servers being defined as permanent establishment. India and the UK have opposed this move. Australia, while cautious in its judgment, has noted the lack of connection between the physical presence of servers, and the magnitude of revenue.

Source-based taxation along with the traditional definition of permanent establishment continues to be relevant in the digital economy. The possibility of “escape” from these standards, in case of serious injury to a country’s revenue, may be a safeguard worth considering.

When should there be consumption taxes for B2C e-commerce in intangible products? The US opposition to the EU’s proposal for rushing ahead with consumption taxes has merit. First, this trade has suffered a knock due the IT sector downturn. Second, B2C e-commerce in intangibles is still in its infancy (< 1% of service trade). Third, tax administration is very tough for two reasons. It may difficult to monitor small sellers of

digitized products. And, foreign sellers may submit themselves to the jurisdiction of tax authorities in the country of consumption. Fourth, compliance costs may act as a barrier to trade.

Considerable international cooperation is a pre-requisite for the taxation of B2C commerce in intangibles. The period of trade creation should be utilized to do the groundwork for evolving common acceptable rules. First, the US has to set its internal house in order, so that it can tax out of state transactions in B2C intangibles within the US. Second, global standards for taxation will need to evolve, which will give a foreign tax authority the legitimate right to tax foreign sellers. Compliance will be tough without legitimacy. Unilateral moves towards taxation in the present, as suggested by the EU, is likely to precipitate both non-compliance and tax evasion.

Unilateralism will promote both double taxation and tax evasion. Unilateralism may lead to double taxation, if some countries follow source-based principles while others follow residence-based principles. The adoption of residence-based principles may enrich tax havens, as firms will have the incentive to incorporate themselves in low tax locations, and, outsource economic activities elsewhere. Automated servers as permanent establishment may lead to the migration of servers to tax havens, and, will earn them revenue. Third, the unilateral imposition of consumption taxes in the EU may either kill e-commerce due to high compliance costs, or may lead to tax evasion.

The need for standards on the basis of a global consensus is acute. Without standards acceptable to sovereign governments, tax collection will be tough in a digitized world. These standards could be based on source-based principles. They need to guard against tax havens, and, evolve “escape” rules for countries hurt by the altered

distribution of revenue as a result of digitized trade. Such rules may be moderately costly, so that with "escape", it is neither too expensive to stay within the fold, nor too cheap to free ride on the global consensus. The WTO being an organization based on sovereign equality, which has achieved considerable success in checking unilateralism, may provide some guidance for fiscal cooperation among national tax authorities in the digitized age. The crucial question is, when will states learn that benefits from cooperation outweigh the losses from unilateralism.[20]

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[20] On how the WTO brought an end to unilateralism, see (Bhagwati, 2002, 95-98). For arguments in favor of a World Tax Organization, see (McLure, 2001, p. 340; Tanzi, 2001; Kobrin, 2001, 697-701).

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