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THE GOVERNANCE OF DIGITIZED TRADE TAXATION

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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 a physical presence in a foreign country. This has generated major debates on international taxation, on the salience of source-based versus residence-based taxation, and, the definition of what should constitute permanent establishment.

It is impossible to impose customs duties on business to consumer (B2C) sales of digitized products such as music, films, books, and gambling services. While the zero customs duty moratorium within the WTO remains intact as 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.

This paper makes the case for global standards in three steps. In section 1, it points to the impact of the Internet on productivity, and the business practices peculiar to the Internet that have increased US productivity. This section also situates the interests of Indian and Australian business in this environment. Section 2, reviews the debates on source versus residence based taxation, permanent establishment, and consumption taxes. It situates US, EU, Indian and Australian concerns, and, documents views expressed by the OECD as a group.

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 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 at the present, 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 was worth \$ 375 billion in 1999. This is equal to 30% of world service trade and about 5% of world trade. Less significant though fast catching up, the trade in digitizable media products (film, printed material, video games and recorded information) was worth about \$ 50 billion (< 1% of world trade) in 1998.¹

The lack of historical aggregate data and statistical techniques make it tough to measure the impact of the Internet on the US economy. It is important to assess the impact of the Internet on the economy as a whole, especially the way in which it has impacted US productivity, by reducing transaction costs and making possible the exploitation of the global division of labor through the use of supply chains, better customer interactivity, and, by reducing the cost of sharing information among employees.²

1. Aaditya Mattoo, Rosa Perez-Estevé and Ludger Schuknecht, "Electronic Commerce, Trade and Tariff Revenue: A Quantitative Assessment," *World Economy* 24, 7 (July 2001): 956, 962. 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. See, Robert E. Litan and Alice M. Rivlin, *The Economic Payoff from the Internet Revolution* (Washington, D.C.: Brookings Institution Press, 2001): 7.
2. Litan and Rivlin (2001), *op. cit.* (fn. 1): ch. 1.

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.³ The declining price of semiconductors and electronic devices had something to with this. Declining costs made this technology available to small as well as large corporations.⁴

According to a BCG (Boston Consulting Group) – NASSCOM (National Association of Software and Service Companies, New Delhi) study, e-solutions, which is expected to be 69% of IT services spending by businesses, is a growth opportunity for India's software and services sector. This \$ 180 billion business in 2000 is likely to be \$ 640 billion in 2005. Areas where e-solutions are in demand include customer relationship management, supply chain management, enterprise resource planning, information management, Internet services, and application service provision.⁵

Australia's big opportunity for expanding its IT enabled service exports lie in travel, consulting, betting, selling books and audio visuals. Information technology has enabled Australia's smaller firms to sell niche products like boots, tags, and clothes, largely to the US market. A fare share of small businesses employing less than 50 people, benefit from digitization.⁶

Thanks to the IT sector downturn in 2000, India's software and service exports grew at an unprecedented slow pace from US \$ 4.7

3. Hal Varian, Robert E. Litan, Andrew Elder and Jay Shutter, "The NET Impact Study: The Projected Benefits of the Internet In The United States, United Kingdom and France," (Unpublished ms: January 2002): 11-14. I am grateful to Warwick McKibbin for providing me with this fascinating study.
4. *Ibid.* : 21-23. This fascinating survey looks at 2065 US and 634 European (from UK, France and Germany) firms.
5. The Boston Consulting Group (BCG) and National Association of Software and Service Companies (NASSCOM), *E-commerce Opportunities for India Incorporated* (New Delhi: 2001): 16-17.
6. Department of Foreign Affairs and Trade (A), *Driving Forces on the New Silk Road* (Canberra: 1999). Department of Foreign Affairs and Trade (B), *Creating a Clearway on the New Silk Road* (Canberra: 1999). Matthew Hyndes, "Emerging Internet Connectivity: Impacts on Cross Border Trade," *MA Dissertation* (Melbourne: Monash University, 1999): ch. 6.

billion in 2000/01 to US \$ 5.7 billion in 2001/02.⁷ The comparable figures for Australia are A \$ 2.47 billion and A \$ 2.46 billion respectively. While Indian software and services exports grew at 21.6% over the period, Australian ICT service exports fell by 0.004% over the same period.⁸ Trade that uses digitization has promise but needs to be nurtured.

1.1 Supply Chain Management & Buying and Selling

Corporate buying becomes easier because buyers can directly approach sellers over the NET. A corporate extranet is approximately 10 times less expensive than the old electronic data interchange (EDI), used for corporate purchases. Moreover, Internet commerce through an extranet can occur independent of any one operating platform. It also offers media-rich marketing and customer feedback, services traditionally unavailable through the EDI.⁹

Supply chain management leads to efficient demand management. Dell is constantly able to spot its suppliers on the Net. It allows suppliers real – time access to its orders over the Net and keeps its parts only for 8 days.

Supply chain management and good resource planning can lead to customization levels undreamt off in the age of mass production. Dell manufactures a computer after the customer has specified the type of processor, memory capacity, hard disk space and display cards, and, the type of screen. The US toy maker Mattel allows customers to design their perfect Barbie doll. Orders are sent to the production line in China, from where the product is shipped to the US. The Norwegian bicycle maker DBS Oegland allows customers to design their own version of the Intruder.

7. These are figures published by the NASSCOM quoted in Ashok V. Desai, "What is this software?" *Business Standard* (New Delhi: July 8, 2002).

8. 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).

9. Catherine L. Mann, Sue E. Eckert and Sarah C. Knight, *Global Electronic Commerce: A Policy Primer* (Washington D.C.: Institute for International Economics, 2000): 9-10.

Operating through the purchase department leads to a proliferation of bad purchases. Centrally planned purchase strategies, where companies negotiate directly with sellers over the NET, cuts the sloth. The Internet allows for precise specifications that are recorded, and, enables 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 have pooled their buying power to create a single purchasing consortium for requirements ranging from energy, to advertising and marketing.

The auto industry, once a traditional practitioner of vertical integration is moving towards horizontal integration, aided by the NET. In the early years of the 20th century, Ford's slogan was "From Mine to Finished Car, One Organization". By 1920, General Motors was not only producing its own engines but also most of its parts. The Internet and B2B commerce in the 21st century has changed all this. GM, Ford and Daimler-Chrysler have established a company called Covisint to handle auto parts transactions from suppliers. The supply chains of these three companies equal \$ 250 billion.¹⁰

Australia is ahead of India in seizing productive opportunities via supply chain management. Using the EDI, Lowes Menswear was able to keep 90% of its Beare and Ley schoolware production in Australia. Bluegum Beef, a cooperative of 21 Queensland beef producers, uses the Internet to benchmark its product against beef from other parts of Queensland and the US, for commercial trading. The Internet provides a cheaper way of doing business with end users and elicits feedback along the supply chain.¹¹

Industrial Galvanizers Corporation employing 700 people produces steel-based products and applies protective coatings. It has two major manufacturing plants in Australia and operations in Vietnam, Malaysia, Indonesia and the US. The firm's web site plays

10. Charles H. Fine and Daniel M. G. Raff, "Automotive Industry: Internet Driven Innovation and Economic Performance," in Robert E. Litan and Alice M. Rivlin, eds., *The Economic Payoff of the Internet Revolution* (Washington D.C.: Brookings Institution Press, 2001): 74.

11. Department of Foreign Affairs and Trade (A) (1999), *op. cit.* (fn. 6): 25-27.

an important role in coordinating the functions of the firm.¹²

The Internet allows for the creation of **virtual markets** bringing together buyers and sellers, facilitated by low start-up costs and broad reach. **Auctioneers** play an active role in setting prices. Examples include, steel (Metalsite), advertising space (OneMediaPlace), transportation services (National Transport Exchange), computer services (Ace-Quote), and skilled labor services (Smarterwork). Following on the footsteps of consumer based auctions sites like e-bay, India's baazee.com has recorded success in selling Bollywood memorabilia, mobile phones, computers, vehicles, travel and electronic goods. Over 500 vehicles and 1000 mobile phones are sold over the NET via Baazee.com in a single month.

Brokers on the NET provide referral services that resemble yellow page directories with comprehensive information and search facility. Sellers place product listings that resemble classified advertisements. Examples include, catalogues for office supplies (Iprocure), industrial chemicals (E-chemicals), construction (Buzzsaw) and bakery supplies (Bakery Online).

E-exchanges provide services like trading rules, price transparency and centralized clearing. Centralized clearing reduces transaction costs as buyers and sellers need only to settle at the day's end, rather than settle each transaction. Examples include exchanges in, almonds (AlmondEx), oil and gas (Altra Energy), telecommunication bandwidth (Arbinet), chemicals (CheMatch), steel (e-steel), and paper (PaperExchange). With products that have variations, the exchanges work like bulletin boards where buyers and sellers post their prices. PlasticsNet runs auctions for some transactions and broker functions that allow some users to place classified advertisements for some products. Metalsite runs single-sided auctions as well as a double-sided exchange.¹³

12. Ibid. : 201-204.

13. These insights are drawn from, Frances Cairncross, *The Death of Distance* (Boston, MA: Harvard Business School Press, 2001): ch. 6.; and, David Lucking-Reiley and Daniel F. Spulber, "Business- to-Business Electronic Commerce," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 55-68.

The creation of *corporate supply chains and e-markets of various kinds can be facilitated through Internet based software service provision by Indian corporates. Worldwide revenues from supply chain management based e-solutions rose from \$ 41 billion in 2000 to \$ 62 billion in 2002.*¹⁴ This is the most significant section of the e-solutions market. The Calcutta based PricewaterhouseCoopers Pvt. Limited provides services in the area of creating virtual markets. Their product Web SD is an e-enabled distribution software for consumer goods industries.¹⁵

1.2 Customer Relations

The Internet has a unique way of gathering customer data, which can be processed and used to target customers. A click can reveal data about customer behavior. If one purchases books on Amazon.com, the book recommendation engine allows the buyer to record its interests on the Web site. To the extent that purchases provide information that increase the accuracy of future recommendations, consumers may face switching costs similar to those induced by loyalty programs such as frequent flyer miles. They may therefore concentrate on one or a few online retailers.¹⁶

In a survey of 1700 Indian corporations, it was found that it is easier to retain a customer than get a new one, and it is easier to sell to a satisfied customer than a prospective one.¹⁷ Information products can be sold in various versions, each targeted to a specific customer. This induces customers to reveal their preferences and to price discriminate. Versioning is likely to become widespread as Internet commerce increases the information content of product offerings.¹⁸

14. BCG & NASSCOM (2001), *op. cit.* (fn. 5): 83.

15. NASSCOM, *Indian IT and Software Services Directory 2002* (New Delhi, 2002): 582. I interviewed Joydeep Datta Gupta at the PricewaterhouseCoopers (P) Ltd. in Calcutta on January 21, 2002.

16. On ways in which customers and corporations benefit from customization in digital trade see, Cairncross (2001), *op. cit.* (fn. 13): ch. 5. See also, Yannis Bakos, "The Emerging Landscape for Retail E-Commerce," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 69-80.

17. Shweta Verma, "Are You Being Served," *DATAQUEST* (New Delhi, Cybermedia, March 31 2002): 86-89.

18. Bakos (2001), *op. cit.* (fn. 16): 70-75.

Customer relationship management (CRM) is important work for Indian software and service producers. Much of India's service sector works on customizing Seibel and Oracle solutions for corporations. This work can be done from distant locations by the Internet and takes less time than implementing customization of the enterprise resource planning work.¹⁹ *CRM revenues worldwide grew from \$ 44 billion to \$ 57 billion between 2000 and 2001.*²⁰

1.3 Enterprise Resource Planning (ERP)

Software services that facilitate business functions such as accounting, human resources management (payroll), production and distribution, traditionally come under the rubric of Enterprise Resource Planning. *ERP related e-solutions revenues worldwide increased from \$ 23 billion in 2000 to \$ 28 billion in 2001.*

Chem Station, a manufacturer of detergents, found that it was too expensive to ship industrial detergents. So, it decided to set up separate reconstitution plants with a computerized recipe to mix detergents, and, electronic monitoring of the plants.²¹

ProjectByNet.com™ (Pune, India) is Compulink's Web-based "Enterprise Project Management" software that combines the functions of Knowledge Management, Enterprise Resource Planning, and Quality Management for small and medium enterprises. It was the only Indian product to be showcased in Microsoft's Fusion 2001 Annual Summit held in Anaheim (USA) in July 2001. Compulink became Microsoft's partner for their Business Tools Division.²²

ERP is a major bread earner for many large Indian software and service companies. Software firms specialize in working with Oracle or SAP. They help their clients abroad to customize these products to

19. Verma (2002), *op. cit.* (fn. 17): 88.

20. BCG & NASSCOM (2001), *op. cit.* (fn. 5): 83. Interview with Mr. Pradeep Gupta, Managing Director: Cyber Media in New Delhi, December 22, 2001. Interview with Mr. Ravi Pandit, Chairman: KPIT Infosystems Limited in Pune, February 1, 2002.

21. Cairncross (2001), *op. cit.* (fn. 13): 143.

22. Interview with Mr. Vishwas Mahajan in Pune on February 2, 2002.

the specific needs of the clients. Much of this work can be carried out over the Net, once a programmer figures out what kind of customization is required.²³ Packaged software integration earned India US \$ 350 million in exports in 2001/02.²⁴

1.4 Outsourcing and IT Enabled Services

The Internet, by facilitating cheap and easy communication at any time, anywhere, makes outsourcing of operations easy. 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. This enabled Nortel to concentrate on its technological niche areas.²⁵

India's a major export earner is legacy application work. Programmers attempt to patch the old legacy systems of big firms where data was stored in Cobol 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 was the largest category involving US \$ 2.1 billion.²⁶

Indian companies have produced software products for the banking and financial industry. This Web enabled service is easily carried out through the digitized trade. Tata Consultancy Services, Infosys, and ICICI Infotech are the big players in this area. Smaller firms like Iflex Solutions have also performed admirably.²⁷

Propelled by the Internet, India is becoming a hub for offshore services like medical transcription, airline ticketing, back office

23. This information is based on interviews carried out in Delhi, Calcutta, Bombay and Pune in Jan-Feb 2002.

24. Desai (2002), *op. cit.* (fn. 7).

25. Cairncross (2001), *op. cit.* (fn. 13): 142-143, 150-151.

26. Desai (2002), *op. cit.* (fn. 7).

27. Interviews with Mr. S. Ramadorai (CEO), Ms. Girija Upadhyaya (VP), Mr. Jayant Pendharkar (VP – marketing), Mr. V. V. Easwaran (VP – Finance) at the Tata Consultancy Services headquarters in Mumbai late January 2002. See also NASSCOM (2002), *op. cit.* (fn. 15): 185, 376, 400, 702.

accounting, call centers, content development, and collaborative software development and consultancy work. This mode of service delivery reduces the need for work visas to service India's exports, which is a barrier to traditional service trade. *The industry grew from a base of \$ 24 billion in 1999 to \$ 41 billion in 2000.*²⁸ In 2001, India was rated the best outsourcing destination by the US headquartered Giga Information Group due to cost and quality advantage, over China Ireland, Ukraine, Russia, Canada and the Philippines.²⁹

The travel industry in Australia has benefited from digitization. The Great Barrier Reef is an online travel operator specializing in travel management in Northern Queensland. In 1995, frustrated by the stranglehold of large operators, this company went online. Between 1995-1999, the company witnessed 1000% growth. The company maintains a site in the US, and 90% of its clients are from overseas.³⁰

Australian companies like Interactive Knowledge Online, White SW Computer Law and Minarelli Works provide legal and consulting services from Australia, aided by the Internet.³¹ While the business within Australia was most significant, cost advantages led to business in the US, Asia and Europe as well. Centrebet Private Limited is able to globalize its betting games aided by the Internet. Aided by the Internet, AAV Australia is able to produce home entertainment on behalf of multinationals like Fox, Columbia Pictures, Disney and Warner Brothers.³²

QUESTech, the business arm of St. Michael's Grammar School based in Melbourne is spreading quality education through the Internet. They were exploring curriculum exchanges with a sister school in Japan in 1999.³³ The bookseller Open Media operates a web-based enterprise, with 75% of its revenues coming in from the US in 1999.³⁴

28. Shweta Verma, "The Next Big Wave," *DATAQUEST* (New Delhi: Cyber Media, 30 April 2002): 48.

29. *Ibid.* : 48-50. E-mail communication with Mr. Sourav Adhikari, President HCL Infinet, NOIDA, Uttar Pradesh.

30. DFAT, Canberra (1999): *op. cit.* (fn. 6): 311-316.

31. *Ibid.* : 391-407.

32. *Ibid.* : 363-376.

33. *Ibid.* : 274-281.

34. *Ibid.* : 324-329.

Small sellers have captured **niche markets** abroad via the Internet. The Stitching Horse Bootery is the web version on the RM Williams Store in Richmond, Melbourne selling footwear and clothing. Online sales were 15% of the weekly total in 1999, off which 75% went to the US. The small South Australian firm R. Draper and Co. designs and supplies to order leather tags for clothes.³⁵ Their web site opened up Draper to the US market. Milind Sathe founded the Pune (India) based Link Software, and succeeded in the business of designing web sites. From web designing Milind has diversified his work to marketing the works of unknown Indian artists to customers in the US.³⁶

1.5 Information Management (IM)

Information Management involves the creation, structuring and transfer of knowledge with the intent of making the relevant knowledge available to all users at the appropriate time. For corporations, this has the propensity to reduce paper work, drastically cut down delivery charges, and, maintain access and secrecy at the desired level. In itself, this activity has the ability to boost e-trade. For Indian software companies, this can mean business that can be delivered electronically over the NET.

According to one estimate, a building project worth about \$ 100 million generates 150, 000 separate documents. Swinerton and Walberg Builders (USA) reduced by two-thirds the time needed for requests after building a Web site. 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. Boeing's Phantom Works, once the heart of McDonnell Douglas, gathers information from various parts of the company to devise a business strategy. Buying in information by making strategic alliances in different fields reduces the need for producing all the knowledge "in-house". K'Netix, the Web site of the US chemical

35. *Ibid.* : 213-227.

36. Interview with Milind Sathe in Pune, India, on February 3, 2002. See his web site: www.link-software.com.

manufacturer Buckman Laboratories, allows its sales people to guide the company's R & D based on consumer needs. Xerox's Eureka allows its 23,000 service staff to share tips on repairing the company's copiers.³⁷

With Internet content doubling every year, managing records subject to certain privacy and access specifications is an important service. E-records manager based on documentum technologies has over 1100 customers with big players like BP, Amoco, Merck, ExxonMobil, Kodak and Merrill-Lynch under its belt. It has potential for growth in government departments, defense departments, legal departments, and, in chemical, pharmaceutical and Energy industries. Impact Systems (Pune, India) has purchased the technology and proprietary rights of the Records Manager solution from IBM.³⁸

*The knowledge management portion of the e-solutions revenues has grown from \$ 2 billion in 2000 to \$ 4 billion in 2001.*³⁹ According to NASSCOM's (India) Market Intelligence Service, business in the content management area is likely to exceed customer relationship management in the next seven years. Indian companies are being encouraged to seize this opportunity.⁴⁰

2. THE CHALLENGE OF FISCAL COORDINATION

The business context is crucial to an understanding of why some countries want some standards while others desire different ones. This section will elaborate the evolution and contestations on global standards regarding source versus residence, permanent establishment, and, consumption taxes. Each section will describe the recent proposals in the context of past practice, and, evaluate the merit of these proposals. This discussion will lay the ground for

37. Cairncross (2001), *op. cit.* (fn. 13): 133-136.

38. Interview with Mr. Dhananjay Datar (Director: Global Business Development, Impact Systems, Inc) in Pune on 2 February 2002.

39. BCG & NASSCOM (2001), *op. cit.* (fn. 5): 83.

40. See NASSCOM, *Market Intelligence Service*, Issues 7 & 8 (20 & 29 July, 2002). The material can be obtained from research@nasscom.org.

an argument about the need of looking beyond the interests of specific countries, and evolving global standards for avoiding tax evasion and double taxation.

2.1 Source Versus Residence Based Taxation

The debate regarding residence versus source-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. The primacy of source-based taxation owes its origin to four economists from the US, The Netherlands, the UK and Italy, who were commissioned by the League of Nations in 1921 to evolve general principles in order to remove the negative consequences of double taxation. Their work provided the foundation for source-based taxation, which forms the basis for double taxation treaties between countries.⁴¹

The economists disentangled the idea of situs from the idea of origin. Situs is a physical location where property is situated, or where the business transaction takes place. Origin 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 yield or acquisition is due, however, not only to a particular thing but to the human relations which may help in creating them.⁴²

The economists opined that wealth originates through people who reside in a community, and, it would be a mistake not to look at the people who create that wealth. 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

41. *Report on Double Taxation*, League of Nations, Doc. No. EFS 73 F. 19 (1923). My knowledge about this report is from David L. Frost, "The Continuing Vitality of Source-Based Taxation in the Electronic Age," *Tax Notes International* 15, 8 (November 3, 1997): 1459-1462.

42. *Ibid.* : 1460.

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 was or anywhere else), and, the place where the sales agents and the markets were located. All these factors would have to be taken into account and assigned weights to establish the source of income.

For electronic commerce, it is important to note that 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 were mindful of the fact that control was more easily possible from a distance with the advance of transportation and communication technology. The economists concluded that the country of source had the preponderant right to tax such business income. They opined that income from stocks and bonds should be taxed in the country of the domicile (residence).

This is the basis of the present system of international taxation. Taxing rights related to business profits reside in the country of source, and, taxing rights related to more passive types of income like dividends and interest are predominantly assigned to the country of residence. Double taxation is avoided, and an unnecessary burden on commerce is removed.

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.⁴³

What does this legacy of taxation imply for the current debates on the taxation of e-commerce? The US Treasury's White Paper in 1996, which was meant for discussion and critical appraisal only, made the case that e-commerce leads to such complications that ultimately source-based taxation may become obsolete, and, the time had come for shifting to residence based taxation.⁴⁴ This is a significant development because it challenges a 75-year-old system supported by over 1000 bilateral treaties. The Treasury's paper was not contradicted by the White House's Report on Global Electronic Commerce in July 1997.⁴⁵ Joseph Guttentag, the Senior Advisor to the Assistant Secretary (Tax Policy), Department of Treasury in 1996, has upheld the same principle in an article published in November 2001.⁴⁶

What is the US Treasury's view and what are its merits? The cyber world creates a situation where it may become tough to link an item of income to a specific geographical source. 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.⁴⁷

43. Ibid. : 1463-1464.

44. Department of Treasury, *Selected Tax Policy Implications of Global Electronic Commerce* (Washington: Office of Tax Policy, 1996): sections 7.1.1 – 7.1.5. Downloaded from <http://www.treas.gov/taxpolicy/library/internet/txt>.

45. Forst (1997), *op. cit.* (fn. 41): 1458. Walter Hellerstein, "Electronic Commerce and the Challenge for Tax Administration," *Seminar on Revenue Implications of E-commerce for Development* (Geneva: World Trade Organization – Committee on Trade and Development, April 22, 2002): 16-17.

46. Joseph H. Guttentag, "Key Issues and Options in International Taxation: Taxation in an Interdependent World," *Bulletin for International Fiscal Documentation* 55, 11 (November 2001): 551-552.

47. US Treasury (1996), *op. cit.* (fn. 44): section: 7.1.5.

The problems with the Treasury's view are manifold. First, public finance experts and tax lawyers have argued that the question of residence is not settled easily. The US uses the place of incorporation test, while many other countries rely on the "place of effective management", as a test for residence.⁴⁸ According to eminent legal authorities, Doernberg and Hinnekens,

If the definition of residence is artificial and easily manipulated, granting exclusive authority to residence countries is not a good solution.⁴⁹

On the other hand, while it may be tough to locate where a transaction took place (residence) it is not easy to obliterate the human endeavor that led to these transactions (source).⁵⁰

Second, corporations can take advantage of deferral rules. Deferral implies that residence countries do not tax until the income is distributed. This might be a long time and might tantamount to no taxation.⁵¹

Third, tax havens will reduce fiscal sovereignty if taxation is based on residence. Tax havens have benefited due to sovereign control of such havens over fiscal policy in an age of interdependence, when corporations and individuals can easily shift resources to realize gains from low tax locations. According to one estimate 20% of total private wealth and 22% of bank's external assets are invested offshore. The digitized route empowers corporate entities to incorporate themselves in tax havens, and outsource work anytime anywhere.⁵²

48. For guidance on the "place of effective management" for the purposes of e-commerce see, OECD, *Taxation and Electronic Commerce* (Paris: OECD, 2001): 145-157.

49. Quoted in Charles McLure, "Globalization, Tax Rules and National Sovereignty," *Bulletin for International Fiscal Documentation* 55, 8 (August 2001): 335-336. McLure elaborates on this problem in the same article.

50. Forst (1997), *op. cit.* (fn. 41): 1471.

51. McLure (2001): *op. cit.* (fn. 49): 336.

52. On the emergence of tax havens see, Ronen Palan, "Tax Havens and the Commercialization of Sovereignty," *International Organization* 56, 1 (Winter 2002): 151-176. On the relationship between the proposed residence-based taxation of e-commerce and the facilitation of tax havens see, McLure (2001), *op. cit.* (fn. 49): 336; Jinyan Li, "Rethinking Canada's Source Rules in the Age of Electronic Commerce: Part 2," *Canadian Tax Journal* 47, 6 (1999): 1455.

Corporations that make use of information technology can benefit from the global division of labor, no matter where they are located. If residence based taxation leads to prosperity for tax havens rather than resources for public authorities whose utilities were used for source-based activities, this will contradict the benefit principle⁵³, and will lead to reduced fiscal sovereignty for countries of source.

Last but not the least, residence-based taxation may erode the tax base of countries like India and Australia, as the major firms doing business along the digitized route and markets reside in the US, while value is being created outside the US. Section 1 highlights the dominance of US firms as producers and consumers of ICT services. Off the total worldwide software sales in 2000/01 of \$ 440 billion, \$ 219 billion (almost half) occurred in the US. The US consumed 61.1% of India's exports and 39.2% of Australia's exports related to information and communication technologies (ICT) in 2000/01. The next important market for Australia, the EU, consumed only 17.6% of the ICT related exports.⁵⁴

Source-based principles enable taxation where value is being created. Firms incorporated in the US subcontract their work to firms in other countries. If non-US firms are able to work for US customers without the need for significant presence in the US, they will be able to avoid taxation in the US according to source-based principles, and, will be taxed in countries where value is created. Residence-based principles, on the other hand, will lead to the taxation of the same business in the US, and to loss of revenue for source countries.

53. On the benefit principle in relation to e-commerce taxation see, Li (1999), *op. cit.* (fn. 52): 1456; Charles McLure, "Implementing State Income Taxes in the Digital Age," *National Tax Journal* 53, 4 (December 2000): 1287-1305.

54. The figures for the world and India are from Ashok V. Desai, "India's market shares," *Business Standard* (New Delhi: July 15, 2002). 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).

Countries like India and Australia are likely to collect most of their revenues through source-based taxation rather than residence-based taxation.⁵⁵

Indian business interests lie predominantly in the work outsourced to them in the area of software services for legacy application, supply chain management, customer relationship management, enterprise resource planning, information management, and, banking and financial services. Similarly, most of Australian business facilitated by the NET, involves work sourced in Australia rather than work sourced elsewhere but coordinated by companies incorporated in Australia. This includes travel, books, consulting, and ICT services. If Indian and Australian companies are treated in the way Piedras Negras Broadcasting Company was treated by the US (based on source), this will benefit Indian and Australian business and revenue authorities.

Australia, India and South Africa have argued for the continuing vitality of source-based taxation. The Australian White Paper (December 1999) is a significant statement in favor of source-based taxation. It states that Australian jurisprudence begins with the statement by Isaacs J in *Nathan v FC of T* (1918):

The legislature in using the word 'source' meant, not a legal concept, but something which a practical man would regard as the real source of income.⁵⁶

If, in the case of services involving highly specialized knowledge, the result of the performance of a service becomes more important than the location at which the service was really performed, by giving undue emphasis to the place of contract, the place of payment, or even where the services are utilized, then there may be increased scope for locating such activities for tax planning purposes. The assumption

55. On the matter of equity considerations arising out of residence-based taxation, see Forst (1997), *op. cit.* (fn. 41): 1472; Hellerstein (2002), *op. cit.* (fn. 45): 17-18; and, Li (1999), *op. cit.* (fn. 52): 1457.

56. Australian Taxation Office, *Tax and the Internet: Second Report December 1999* (Canberra: Australian Government Publishing Service, December 1999): 79.

here is that activities (identified with residence rather than source) can be more easily relocated to tax havens rather than the relocation of the actual performance of a highly skilled service.⁵⁷ 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. To quote the position of Australian law:

.. 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.⁵⁸

The Indian Finance Ministry's Report (July 2001) has expressed concern about the distributional issue involved in the shift from source-based to residence-based taxation even more explicitly. Especially worrying for India's tax authority is the fact that equilibrium in revenue sharing between countries of source and countries of residence is not one of the stated objectives of the OECD or the US. It makes arguments similar to the ones above about the problems of determining residence. It opines that there is no substitute to the "place of effective management test". When the "place of effective management" is difficult to determine after giving due consideration to a variety of factors, source-based taxation should prevail.⁵⁹

The Treasury's position regarding a shift from source-based to residence-based taxation on the ground that this may reduce uncertainty is not tenable if the issue of deciding residence is as tricky as the issue of deciding source. Second, the shift to residence-based taxation may inspire firms involved in digitized trade to locate their headquarters in tax havens, while using information technology to outsource value creation elsewhere. In this scenario, the benefit principle will be compromised, as the authority whose public utilities lead to value creation will be unable to tax corporate entities that

57. *Ibid.* : 91.

58. *Ibid.*

59. Central Board of Direct Taxes, *Report of The High Powered Committee on Electronic Commerce and Taxation* (New Delhi: Ministry of Finance – Government of India, 2001): 60-65.

may have used those very utilities. Third, the shift from source-based taxation to residence-based taxation will lead to greater fiscal powers for countries of residence (where markets lie) and reduced fiscal capacity for countries of source (where value is created). This may lead to a shift in the distribution of revenue in favor of the US.

2.2 Permanent Establishment

The mainstay of the double taxation convention based on the intuition that double taxation will kill international commerce, is the concept of permanent establishment. Consistent with the logic of the League's economists, 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.⁶⁰

Permanent establishment has three key elements: 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. Permanent establishment would not arise if people dependent on the enterprise went simply to set up machines in another country. More involvement on the part of dependent agents or employees at the fixed place is required for the place to be designated as permanent establishment. 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. Permanent establishment generally does not include the use of facilities merely for the purposes of storage, delivery or display of goods. Permanent establishment constitutes the threshold of economic activity beyond which commercial activities of a corporation can be taxed within a country.⁶¹

60. OECD model Treaty, article 5(1).

61. For a brilliant discussion on this topic, see Forst (1997), *op. cit.* (41): 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 physical corporate presence through permanent establishment, states have begun to worry about their ability to tax business. The likelihood of uncertain tax revenues in the age of digitization has led to considerable thinking within the OECD regarding how to adjust the concept of permanent establishment with the special circumstances created by digitization.

The OECD has taken the following 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 a tangible personal property.⁶²

Second, the majority view is that human intervention is not required at the place of permanent establishment.⁶³ This majority view is backed 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.⁶⁴ If automation performed all the functions of human agency, then human agency would not be central to permanent establishment.

Third, 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 that is the property of another company is not good enough for establishing permanent establishment. 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 permanent establishment. For permanent establishment, 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. Merely auxiliary functions

62. Spain and Portugal have taken the opposite view. See OECD (2001), *op. cit.* (fn. 48): 80.

63. *Ibid.* : 81.

64. Forst (1997), *op. cit.* (fn. 41): 1469-1470.

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 sufficient for the server to be deemed as permanent establishment.⁶⁵

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, the servers are an essential part of their commercial activity, which cannot be treated as preparatory or auxiliary. Automated servers for Internet service providers could constitute permanent establishment even 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. Such issues need to be resolved on a case-by-case basis.⁶⁶

Finally, an Internet service provider does not constitute an agent of the enterprise for the purposes of permanent establishment. This is because they do not have the authority to conclude contracts, nor can they do so on a regular basis.⁶⁷

There is a technological problem behind the notion that automated company owned servers could constitute permanent establishment, 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 therefore migrate to low tax locations, thus enriching tax havens. Soon it may be possible to put these devices in satellites that orbit the earth.⁶⁸

65. OECD (2001), *op. cit.* (fn. 48): 82-85.

66. *Ibid.* : 84-85.

67. *Ibid.*

68. Sven O. Lodin, "International Tax Issues in a Rapidly Changing World," *Bulletin for International Fiscal Documentation* 55, 1 (January 2001): 5; Stephen J. Kobrin, "Territoriality and the Governance of Cyberspace," *Journal of International Business Studies* 32, 4 (Fourth Quarter 2001), 694. New Jersey based Internet companies felt discouraged 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, see Hellerstein (2002): *op. cit.* (fn. 45): 12.

Servers as permanent establishment will therefore create uncertainty with respect to fiscal sovereignty. They will empower firms to evade taxes easily by exploiting low tax locations. There may be a need to look at the source of income rather than put undue weight to the server for locating the place where taxation should occur, especially because the source of income cannot migrate to low tax locations as easily as the servers can. Second, servers as permanent establishment will benefit the US most, as the majority of the world's servers are located in the US.

The US Treasury's paper in 1996 had made general remarks about the possibility of extending the concept of permanent establishment to e-commerce. The US Treasury is satisfied with the OECD's work on permanent establishment.⁶⁹ The UK has opposed the possibility that servers may constitute permanent establishment.⁷⁰

The Australian White Paper has reflected on this issue. It deems at least 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 worries about the OECD's ambiguity about the movement of portable servers from one building to another, or from one city to another.⁷¹

It notes the problem of tax havens. It finds that some types of business require permanent establishment while other types do not. In an earlier age, source rules were applicable to a foreign firm until the firm got engaged in sufficient economic activity in a foreign country to require a fixed place of work involving sufficient human intervention (permanent establishment). This led to a fairly equitable sharing of revenue between countries of source and countries of residence, and avoided double taxation. In the world of digitized trade, the residence of servers bears little relationship with the location of business. The Australian taxation Office holds that the way to deal with this problem may be to define taxation in a resident country based on a threshold of economic activity rather than on physical

69. US Treasury (1996): *op. cit.* (fn. 44): section 7.2. That the treasury is satisfied is evident from, Guttentag (2001), *op. cit.* (fn. 46): 552.

70. OECD (2001), *op. cit.* (fn. 48): 82.

71. Australian Taxation Office (1999), *op. cit.* (fn. 56): 98-99.

presence, or to develop specific provisions about treating business profits under electronic commerce.⁷²

The Indian Finance Ministry's Report criticized the definition of servers as permanent establishment for the following reasons. There was no necessary correlation between the location of the server and the country of business, thus creating the possibility that relocation of servers would enrich tax havens. This could create uncertainty with regard to the collection of tax revenues. It suggested the search for an alternative to the concept of permanent establishment within the OECD or the UN. It was concerned that the server as permanent establishment could threaten the existing fiscal equilibrium between countries of residence and countries of source. To avoid this problem, India proposed that when the "place of effective management" was tough to determine, source-based rules should apply.⁷³

The debate regarding whether or not a server should constitute permanent establishment is a debate among countries concerned with the distribution of revenue in a digitized world. All countries worry about an erosion of their tax base if electronic commerce goes untaxed. However, the geographical distribution of revenue in a world where servers may constitute permanent establishment, will redound to the advantage of countries with a high density of servers. The US is the undisputed server abundant country and will benefit in the short-run, if servers could be defined as permanent establishment. Server scarce, rich and poor countries, which may have benefited from source-based taxation, will lose revenues with this definition. This explains the opposition of UK and India to this definition, as well as, the Australian concern with the distributional consequences of servers as permanent establishment. In the long run, however, both countries of source and countries of residence have something to fear from the possibility that servers as permanent establishment will enrich tax havens, as the geographical location of the servers is not intrinsically related to the geographical location of business activities.

72. Ibid. 107-110.

73. Central Board of Direct Taxes - India (2001), *op. cit.* (fn. 59): 64-75.

2.3 Consumption Taxes

Consumption taxes pose a problem for the business to consumer (B2C) segment of e-commerce in intangible products. When goods cross borders; the rules for taxation are well established. Customs agents can charge customs duties with relative ease. When intangibles cross borders, tax authorities are not be able to tax at the border. They have jurisdiction over consumers, but will find it efficient to collect consumption taxes from sellers rather than from a multitude of consumers. The challenge for authorities implementing a consumption tax is, the jurisdiction of transnational sellers of intangibles will be outside the country where the tax authority of the consumer resides.

This section discusses 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. I will also discuss developments within the OECD, and, Australian and Indian views with respect to these developments.

United States of America (US)

The non-taxation of intangibles sold via the Internet in the US has its origins partly in a peculiar American problem that makes it tough to tax cross-border sales. 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. The "use tax" is charged at the appropriate rate for the product in the state where the resident lives.⁷⁴ To give one example,

74. See Hellerstein (2002), *op. cit.* (fn. 45): 27-28. McLure (2000), *op. cit.* (fn. 54): 1287-1305.

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. Suppose a customer in New York purchases a book from Amazon.com based in the state of Washington. The New Yorker will not pay taxes, unless it voluntarily remits the "use tax" to the State of New York, as there is no law regarding the registration of a book in New York. This transaction may be even tougher to trace if the book is a digital version rather than a hard copy. Unless the out of state vendor has a 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. Thus, minus physical presence in a state, consumption taxes cannot be charged to out of state vendors who conduct business in either tangibles or intangibles.⁷⁵

This administrative problem is further complicated by the complexity of consumption taxes in the US. According to the Final Report of the National Tax Association's study on the Taxation of Electronic Commerce and Telecommunications, there are 7600 jurisdictions in the US that impose local sales or use-taxes. Moreover, these rates 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 a compliance burden that can act as a deterrent for e-commerce. Moving to a single rate, while desirable for the taxation of e-commerce, is fraught with political difficulty, as any rate will entail revenue reallocation among states.⁷⁶

75. Hellerstein (2002), *op. cit.* (fn. 45): 29-30. McLure (2000), *op. cit.* (fn. 54).
76. Kendall L. Houghton and Gary C. Cornia, "The National Tax Association's Project on Electronic Commerce and Telecommunication Taxes", *National Tax Journal* 53, 4 (December 2000): 1351-1371.

These administrative difficulties 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 to address this issue. The ITFA put a three-year moratorium on any new Internet taxes, and created the Advisory Commission on Electronic Commerce (ACEC). The ACEC was given time till April 2000 to recommend the appropriate 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.⁷⁷ The temporary moratorium on customs duty on digitized trade within the WTO was first accepted as a political commitment in the Geneva Ministerial (1998).

Should there be consumption taxes on digitized trade in the US? There seem to be two views. 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.⁷⁸

While the Internet has affected conventional retailing, some of this empowers the consumer over the reasonably well to do producer. 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.⁷⁹ This meant losses for retailers but Britannica access to everyone who can access the Internet. Second, the section on the

77. Alan E. Wiseman, *The Internet Economy: Access, Taxes, and Market Structure* (Washington, D.C.: Brookings Institution Press, 2000): 89-92.

78. Ibid. : 92-93. Charles McLure, "Electronic Commerce and the Retail Sales Tax," *International Tax and Public Finance* 6, 2 (1999): 197.

79. Cairncross (2001), *op. cit.* (fn. 13): 103-106. Bakos (2001), *op. cit.* (fn. 16): 75-77.

Commercial Context of Internet Trade highlights how small sellers of goods and services in India and Australia have been empowered by the Net. 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.⁸⁰

In the short-run, the US can ignore the tax implications and concentrate on growing and consolidating commerce on the NET. Business to consumer (B2C) commerce is probably less than 10% of e-commerce, and the B2C sales of intangibles are a tiny fraction of that.⁸¹ The BCG – NASSCOM study (2001) estimates that despite about 35 million online users in India by 2005, Internet related retail sales are likely to be less than 1% of total retail sales.⁸² The Australian Taxation Office also holds that the lack of consumption taxes on digitized products has not affected tax revenues to a significant extent.⁸³ 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. Today the worth of each of these companies is far more modest.⁸⁴

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 2004.⁸⁵ Robert Cline and Thomas Neubig,

80. Sulin Ba, Andrew B. Whinston and Han Zhang, "Small Companies in the Digital Economy," in Erik Brynjolfsson and Brian Kahin, eds., *Understanding the Digital Economy: Data, Tools, and Research* (Cambridge, MA: The MIT Press, 2000): 184-200.

81. Guttentag, *op. cit.* (fn. 46): 552.

82. BCG & NASSCOM (2001), *op. cit.* (fn. 5): 14.

83. Australian Taxation Office (December 2000): *op. cit.* (fn. 56): 160.

84. Cairncross (2001), *op. cit.* (fn. 13): 101-102.

85. Austan Goolsbee, "Implications of Electronic Commerce for Fiscal Policy," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 13-23.

and, Mattoo, Perez-Esteve and Schuknecht, separately arrive at figures that do not ring alarm bells. The suggestion from these studies is 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. By that time revenue losses due to the Internet will become significant.⁸⁶

The Gilmore Commission dedicated to the question of Internet taxation, after considering both sides of the debate, could not gain the required two-thirds majority to recommend a course of action. The majority of the commission's members recommended that the same principles continue for another five years. For 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. In April 2000, the Commission sought a domestic Internet tax moratorium for five more years up to 2006. The Congress was 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.⁸⁷

Four important factors have prompted US policy makers to refrain from imposing consumption taxes on digitized trade. The most important factor is the US's perceived benefit from allowing this trade grow, as its firms are competitive on a global scale. Second, the US's tax system which prohibits taxation on out of the state products, would require a major restructuring if out of state vendors were to be taxed.

86. Mattoo (2001), *op. cit.* (fn. 1): 958-959. Cairncross (2001), *op. cit.* (fn. 13): 178-181. Wiseman covers both sides of the debate, see Wiseman, *op. cit.* (fn. 77): 98-99.

87. US Treasury, *Retooling With Electronic Commerce* (Washington, D.C.: March 1, 2002): 80-81. Wiseman, *op. cit.* (fn. 61): 90-92. US Treasury's positive attitude on 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 Affairs – US Treasury, November 16, 2001). The statement can be viewed at the US Treasury's web site.

Third, the US suffers from a dense network of tax jurisdictions, which would be a deterrent to any 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.

European Union's (EU) Interests

The story within the EU is just the opposite. Value added taxes (VAT) comprise 30 per cent of the revenue in many countries. In the US, consumers generally pay sales tax on tangible property and not on services. It accounts for about 12 per cent of the state and local government revenues, although in states like Texas the figure is higher. Business inputs are generally exempt from tax. 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 finally pays the tax. Some businesses like financial institutions find it tough to get credit for VAT and pay it themselves. 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.⁸⁸

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. There is political weight behind these rules despite technological and administrative challenges.

What will change after July 1 2003? Today, EU sellers pay VAT for digitized service exports (except certain telecommunication services) in the country where the services are produced. They pay taxes in Europe no matter where the customers are. Non-EU sellers do not pay taxes on sales of digitized products within Europe. While US sellers do not pay taxes either in the US or in Europe, the EU sellers pay taxes in Europe for their exports to the US. This VAT system in the EU discriminates against EU sellers.

88. Cairncross (2001), *op. cit.* (fn. 13): 86-90.

Under the new directive, non-EU companies will pay taxes in Europe where the customers reside. Therefore, EU sellers will pay taxes only for EU sales and not US sales of European products. The EU directive does not include sales of digitized products to business buyers, as these companies already self-impose VAT on purchases of these kinds of products. What Europe wants to protect in the consumer segment includes

- 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 have to register as a VAT identity in at least one of the EU countries, and, the country of registration will remit the appropriate tax collected to the customer's country, consistent with that country's VAT rules. It will be possible to streamline this task online. The original proposal talked about taxation on revenues greater than Euro 100, 000/- but no such mention is made in the current directive. Moreover, it is not known whether there will be a minimum threshold set by each country-or not. The 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.

There is the possibility that the physical product may be taxed less than its digitized counterpart. The EU wants its VAT items such as sales of radio and television broadcasting and the above-mentioned

digitized products to be treated as services because VAT on services is generally higher in the EU than the VAT on goods. If this happens, it will challenge the principle of tax neutrality.⁸⁹

Today customer identification is not possible. If using credit card companies as third parties is a way out, this may raise problems regarding the privacy of private firms. Why will private organizations willingly part with confidential information to another private organization? Moreover, credit card companies may not be willing to take up this responsibility. It will be a nightmare for the foreign seller to maintain tax records in detail sufficient enough for the state where the consumption is taking place, to determine that the value added tax return is correct. This may result in substantial compliance costs for the seller, and will act as a barrier to trade.⁹⁰

How may VAT be enforced on sellers? Non-EU firms offering telecom services must register in one member state for the purposes of VAT. This principle may not be effectively applied in the case of relatively small sellers who need access to a telephone line to the same extent as the consumer. Why will foreign firms willingly submit themselves to the jurisdiction of another country, in case the tax authority discovered that compliance was not optimal? The US treasury has expressed displeasure, and as so has the American Chamber of Commerce. The Chamber found the idea that a US seller will submit to a EU jurisdiction suspect.⁹¹

OECD

The OECD has taken a view in that the benefits of consumption taxes outweigh its problems, despite the many administrative bottlenecks. Taxation at the place of consumption will promote

89. This material was obtained from, David Hardesty, "European VAT on Digital Sales," downloaded from <http://www.ecommercetax.com/doc/030302.html> (3 March 2002). See also, European Council, *Council Directive amending Directive 77/388/EEC* dated 12 February 2002.

90. Mann & Knight (2000), *op. cit.* (fn. 13): 83-90. Goolsbee (2001), *op. cit.* (fn. 85): 13-15.

91. Hardesty (2002), *op. cit.* (fn. 89): 6. Hellerstein (2002): *op. cit.* (fn. 45): 25.

certainty. Suppose a US firm signs a contract with a UK firm for supplying a digitized product, which will be consumed in a branch office in Japan. The OECD takes view that taxation should be at the place of consumption, which in this case is Japan.⁹²

Various methodologies to solve these problems have been suggested. First, self-assessment or reverse charge depends on the recipient's remitting the tax to their domestic authorities. While this works for B2B transactions, it does not work for B2C transactions. Second, as the EU has suggested, a non-resident business could be asked to register in the jurisdiction of the consumer for the purposes of taxation. Identifying non-resident sellers, and, imposing registration requirements and obligations will not be easy. Third, the use of thresholds will pose problems for tax neutrality and for determining whether the threshold has been crossed. Fourth, the tax at source option would impose an obligation on the exporter to remit the tax to their domestic authority, from where it would be forwarded to the revenue authority in the country of consumption. This would require international consensus on the need for consumption taxes, which does not seem likely at the moment. Fifth, a variation of this model is the suggestion that a trusted third party such as a credit card company could collect and remit the tax to the relevant jurisdiction. Such participation as mentioned above can only be voluntary. It will raise privacy issues that will be tough to resolve, and, will raise the question as to whether private organizations are well equipped to perform public functions. The Technology Tax Advisory Group within the OECD has asserted that there cannot be any stand-alone technology based solutions. Technology can only assist tax collection mechanisms.⁹³

Considering these problems, the Interim approach, according to the OECD could be to continue reverse charge or self-assessment for business to business (B2B) transactions, and, to simplify registration procedures for B2C transactions. There is also the suggestion, if sellers have made adequate efforts to comply in good faith, this should be considered enough. Producers within the EU want VAT for sellers of

92. OECD (2001), *op. cit.* (fn. 48): 20, 24-29.

93. *Ibid.* : 29-36.

digitized products outside the EU. US producers desire a zero VAT rate. Given the coordination problems in collecting consumption taxes from non-residents, monitoring and ensuring collection will be impossible to implement without international cooperation. The above discussion reveals that the OECD view on consumption taxes at the moment is closer to the EU's view than the US's view.⁹⁴

Australia

A General Sales Tax replaced Australia's Wholesale Sales tax in July 2000. This renders the taxation of digitized products in Australia relatively easy. However, the Australian Taxation Office's Report of December 1999 held the view that digitized transactions have not become significant enough for taxation to be implemented yet. The revenue loss due to tax advantaged computer programs was A \$ 200 million.⁹⁵

Australia's stated position is that it will work closely with the OECD on sorting out the administrative problems facing consumption taxation. Reverse charge or self-assessment works well for B2B transactions. There is no practical way of collecting consumption taxes on B2C intangible products. It stresses the need for international cooperation in this area for successful implementation of consumption taxes.⁹⁶

India

The Report of the Central Board of Direct Taxation (2001) did not take a position on consumption taxes.⁹⁷ The Central Government has recently introduced a service tax keeping in view the 7.9% per annum growth of the service sector between 1990-1998. Services constituted about 46% of India's GDP in 1999-2000. The tax rate is a moderate 5%. 83% of the tax collection is from telephones, non-life insurance and stockbrokers. While contribution of the services tax to

94. Ibid. : 37-41. For evidence that the US view is different from the EU – OECD view see Guttentag (2001), *op. cit.* (fn. 46): 552.

95. Australian Taxation Office (December 1999), *op. cit.* (fn. 56): 159-161.

96. Ibid. : 162-165.

97. Central Board of Direct Taxes – India (2001), *op. cit.* (fn. 59).

the Union tax revenues is a paltry 1.2%, revenues have grown rapidly from Rs. 4.1 trillion to Rs. 20.7 trillion between 1994/95 and 1999/00.⁹⁸

A uniform central tax makes it relatively easy to implement consumption taxes for digitized goods within India. India would still be disinclined to impose consumption taxes on digitized products as suggested by the EU, for the following reasons. First, India's B2C segment is rather small, and tax collection will not be significant. Second, India's service sector's export of software services, movies and music, will suffer from consumption taxes abroad. Moreover, consumption taxes abroad, as suggested by the EU or the OECD will entail compliance costs, which will deter trade along this route, killing India's business potential. Third, while the administrative problems regarding implementation of consumption taxes domestically will pose less of a challenge to India than in the case of the US, the challenges to international taxation mentioned above are considerable for all countries.

To sum up, the governance of consumption taxes will pose a problem if the EU proposes the tax without significant producer countries willing to bow down to EU's jurisdiction. The small size of trade in digitized intangibles in the B2C segment, and, the exorbitant compliance and monitoring costs, will inspire producer countries to oppose this move. Such taxes may act as a barrier to trade, which may kill it before it takes off. Not surprisingly therefore, the producer coalition in the US has opposed this move. Australia is silently watching till trade becomes significant, and, India still does not have a stated position. The likelihood is that India's emerging competitiveness in this area will inspire it to go along with the producer coalition led by the US. The OECD, which seems more inclined towards the EU view than the OECD view, must continue to engage

98. Directorate General of Service Tax, *An Overview of Service Tax in India* (Mumbai: Department of Revenue – Ministry of Finance, Govt. of India), downloaded from <http://www.servicetax.gov.in/servicetax/overview1.htm> on August 8, 2002: 16, 19-20. I am grateful to Raghendra Jha for educating me about this tax.

governments, business and consumer groups, to arrive at a policy that can be implemented. B2C in intangibles will need to be taxed at some point when the trade becomes mature.

3. THE PROBLEM OF GOVERNANCE

There is no international body to coordinate the taxation of digitized trade. Decision-making with respect to digitized B2C e-commerce has shifted away from the World Trade Organization (WTO) because customs duties cannot be charged on digitized products.⁹⁹ The political commitment to zero customs duties for B2C intangibles continues within the WTO, but the EU and the OECD have taken initiatives to determine how consumption taxes may be charged on e-commerce. The League of Nations had done pioneering work on the taxation of business profits, which is incorporated in bilateral double taxation treaties among countries. This work has now been taken over by the OECD. Digitized trade is forcing countries to evolve standards or norms 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.

Section 2, on The Challenge of Fiscal Coordination, highlighted the relationship between the rise of digitized trade and the uncertain future of fiscal sovereignty. The standards proposed for digitized trade taxation for ensuring fiscal sovereignty in three vital areas of international taxation namely, source versus residence-based taxation, permanent establishment, and, consumption taxes, have distributional consequences. They are hotly contested. Can the conflict of interest be overtaken by the common interest in preserving fiscal sovereignty for revenue collection and trade promotion?

99. To review the special problems of incorporating digitized trade within the trade regime, see Emad Tinawi and Judson O. Berkey, "E-Services and the WTO: The Adequacy of the GATS Classification Framework," downloaded from www.oecd.org on June 6, 2002. See also, William J. Drake and Kalypso Nicolaidis, "Global Electronic Commerce and GATS: The Millennium Round and Beyond," in Pierre Sauve and Robert M. Stern, eds.; *New Directions in Services Trade Liberalization* (Washington D.C.: Brookings Institution Press, 2000): 399-437.

TABLE I
STANDARDS FOR TAXING DIGITIZED TRADE

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

The Internet makes it easier for countries where valuable ICT services are being produced, to penetrate US markets, without the need of a permanent establishment in the US. The US suggestion to shift from source-based taxation to residence-based taxation seems to be motivated by the US's perceived uncertainty regarding revenue

collection via the source-based route in the Internet age. The argument that the administration of source-based tax collection is tougher than residence-based collection seems facile due to the absence of a widely accepted standard governing the definition of residence.

Defining residence as the principle of taxation, will lead to a shift in revenue sharing in favor of market countries like the US. India and Australia are predominantly countries of source. They have pleaded for the continuing vitality of source-based taxation.

There are three benefits from this approach. First, while the US is the major market it is also a major creator of value in ICT services. There is reason to believe that value creation sourced in the US and propelled by giants like Intel, Microsoft, Dell, and Amazon, and Cisco, among others, will protect US revenues, if source continues to be the principle for taxation. Second, this is much cheaper than negotiating numerous bilateral treaties based on residence all over again. 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. Since, the US is a major source of value creation in the ICT sector, its tax authorities in conjunction with other major source countries, should thwart the ability of havens to exploit source-based taxation.

Revenue authorities in market countries can continue to monitor their revenues. The perceived uncertainty of fiscal authorities in market countries 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 the standard, the standard must guard against the easy use of the residence principle.¹⁰⁰

100. B. Peter Rosendorff and Helen V. Milner, "The Optimal Design of International Trade Institutions: Uncertainty and Escape," *International Organization* 55, 4 (Autumn 2001): 829-857.

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. A fixed place of business, with human intervention, where commercial activity takes place over a period of time, is the conventional threshold beyond which the taxation of a foreign company is said to occur. The current definition rules out the need for human intervention. The US as the most server abundant country is happy. Automated fixed servers performing the core functions of a firm, as permanent establishment, will help to tilt the distribution of revenue derived from ICT services in favor of the US.

Server scarce countries have opposed this, as this will amount to residence-based taxation through the back door. Servers as permanent establishment will redistribute revenues away from server scarce to server abundant countries. 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.

Server rich countries will not gain in the long run as a server can easily migrate to tax havens or even to the outer space in the not so distant future. Like residence, permanent establishment via an automated server is easier to relocate, than a particular skill set dependent on human capital and attendant externalities necessary for service production. It is cheap to produce a certain kind of software in Silicon Valley and another kind in Bangalore, because of a combination of wages, skill sets, and externalities present in these two locations. These will not easily migrate to tax havens. The migration of source to tax havens, being less likely than the migration of servers to tax havens, source-based taxation should remain the mainstay of taxation. Source-based taxation, with the possibility of escape from it in case of serious injury to a country's revenue, seems to be a viable standard.

Should there be consumption taxes on digitized trade? The EU has proposed it, the OECD is working on it, and, the US does not like it. No one questions whether a country should have the right to tax

consumption within its borders. The debate here is, when should this begin for B2C e-commerce in intangible products?

The US opposition to the EU's proposal has some merits. This trade has suffered a knock due the IT sector downturn. Second, it is still a miniscule proportion of service trade (< 1% of service trade). Third, tax administration is very tough presently, as foreign sellers will have to submit themselves to the jurisdiction of tax authorities in the country of consumption. Fourth, compliance costs may be an insurmountable barrier to trade. The US proposal therefore is to allow this trade to grow before reaping the benefit from taxation.

Considerable work needs to be done to tax B2C e-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 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. Second, the unilateral adoption residence-based principles may empower tax havens and lead to massive tax evasion. 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 legitimated by sovereign governments, tax collection will not be easy 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.¹⁰¹

101. On how the WTO brought an end to US unilateralism, see Jagdish Bhagwati, *Free Trade Today* (New Jersey: Princeton University Press, 2002): 95-98. The US promoted the WTO because the gains from multilateral trade cooperation outweighed the gains from unilateralism. For arguments in favor of a World Tax Organization, see McLure (2001), *op. cit.* (fn. 49): 340; Vito Tanzi: "Globalization and the Work of Fiscal Termites", *Finance and Development* 38, 1 (March 2001); and, Kobrin (2001), *op. cit.* (fn. 60): 697-701.

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