

Cross-border electronic commerce and international trade statistics

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Introduction

This article describes some issues regarding international trade statistics in the light of growing cross-border electronic commerce (international e-commerce). In particular it focuses on the way goods and services are *delivered* to customers and considers the implications for UK international trade statistics, both in terms of how such transactions might be presented in the statistics, but also how the data might be collected. It draws on a paper by the United Nations Conference on Trade and Development (UNCTAD)¹ and a draft discussion paper by the Interagency Task Force on Statistics of Trade in Services,² both presented at the Organisation for Economic Co-operation and Development (OECD) Trade Statistics Meetings in December 2000.

Classification issues

The issue of classification namely whether electronic transmissions or products shipped electronically (instead of physically) should be classified as goods, services, intellectual property or something else (perhaps intangible goods) is more than a statistical issue and has been the subject of discussion amongst taxation and trade policy experts. For example, if they are regarded as goods, they would be subject to General Agreement on Tariffs and Trade (GATT) rules, which would make electronically shipped products dutiable. If, on the other hand, they were classified as services they would be subject to General Agreement on Trade in Services (GATS) rules and probably not dutiable. Thus the issue of classification has implications for government revenues from Customs tariffs.

Other important differences between GATT and GATS are:

- While GATT's general obligations include most-favoured nation treatment (MFN) and national treatment, GATS includes the

national treatment principle only in negotiated specific commitments and specific services. For example World Trade Organization (WTO) member countries have defined within their schedules whether, for a certain service trade, foreign suppliers will be given national treatment (i.e. they are subject to same rules as domestic suppliers of the same service). Thus, if electronic transmissions fall under GATS rules and if no national treatment is specified imports could be subject to higher taxes than domestically supplied services.

- GATT in general prohibits the use of quantitative restrictions or quotas while they are allowed under GATS. Therefore, theoretically, a country could put (in principle) a limit on, for example, the number of books transmitted electronically via the internet.

There are also domestic taxation issues in that most imported goods are subjected to domestic taxation while in the case of services the level of domestic taxation is usually lower or non-existent.

For certain electronic transactions agreement on how they should be classified is fairly straightforward. For example, goods that have been ordered, paid for or marketed electronically but shipped physically are clearly defined as goods in the traditional sense. Similarly the supply of traditional services such as financial services, accountancy, tourism, computer-related and other office services, educational and telecommunications services via electronic means are clearly defined as services.

The most controversial classification issue concerns electronic transmission of products, which have physical counterparts (e.g. books, music, film and video material and software). In the past these products were shipped physically across borders via a carrier media such as CDs, diskettes and tapes. Hence they were classified as

goods. Increasingly these products are being sent via data files through virtual networks, thereby crossing borders. The data are then downloaded onto a carrier medium, printed or stored in a computer. They could be sent to individuals for direct consumption or to retailers for distribution.

Put simply the debate is:

- Whether, because they are equivalent to a hard copy of a book, CD or videotape for example, they should be classified as a good or;
- whether the transmission of the data itself is a service and thus the 'data' should fall under services or;
- whether there should be a specific category for electronic transmissions containing a mixture of goods and services.

Importance to the UK

Annex 1 shows a list of 'digitizable products' classified using the World Customs Organization's (WCO) Harmonised System (HS) and shows the value of UK exports and imports of such products in 1999.

A comparison of international trade in such products carried out by UNCTAD and based on data in respect of 1999 shows the UK to be a major exporter of Film, Print and Sound and a major importer of Print, Software and Sound in particular. Annex 2 is derived from this analysis and shows the UK's share of World exports and imports of such products.

Current international position

Although there is no international agreement, as yet, on how electronic supply of products across international borders should be classified, it seems more likely that such trade will be regarded as trade in services rather than goods. In fact a number of countries such as US, Canada and the Irish Republic at present include such transactions in trade in services because Customs systems cannot detect them. The OECD taxation experts have agreed that for the purpose of consumption taxes, such electronically delivered digitized products should not be treated as goods.³ In trade policy it is still an unresolved issue globally.

Annex 3 illustrates how international e-commerce and related services might be classified within trade in services and identifies unresolved issues.

Coverage issues

Aside from the classification issue, and because the internet creates opportunities for small firms and individuals to trade internationally, there is a question of whether e-commerce is creating significant international trade that will not be picked up and identified by existing data collection systems. For example:

- The value of the transaction may be below the threshold values set by a country's Customs Authority and therefore not identified as trade in goods.
- Under the European-wide INTRASTAT system for recording movements of goods between EU Member States, data on purchases by private individuals of goods from an EU member state will not be collected.
- With many new and small companies involved in international e-commerce there may be problems identifying them on business registers.
- The location of a web site will often be different from that of the supplier so the purchaser will not necessarily know the residency of the supplier.
- Traditional business surveys for collecting data on trade in services will not pick up purchases of services from overseas by private individuals.

The latest ONS e-commerce inquiry asked UK businesses for the percentage of their sales and purchases carried out using e-commerce. It also asked them for the percentage of e-commerce sales to overseas but not purchases from overseas. Overall the inquiry showed greater levels of e-commerce purchases than sales, implying purchases from overseas.⁴ The ONS is planning to include a question in next year's inquiry on e-commerce purchases from overseas. The results from that inquiry are expected to be available in May 2002.

Implications for UK data collections

In most cases, the existing International Trade in Services (ITIS) surveys run by the ONS will already be picking up these types of transactions. However, the notes accompanying the questionnaires will be reviewed to make specific mention of electronic transmission if necessary.

ONS is currently improving the coverage of its ITIS inquiries in order to capture sectors of industry and sizes of business, which might not historically have traded in services internationally. These improvements should ensure that new electronic trade is picked up in future from smaller businesses and sectors traditionally associated with goods – such as the manufacturing, retailing and wholesaling sectors.

ONS household surveys do pick up consumers' purchases but do not currently distinguish purchases from overseas. There are no plans to ask them to do so on the grounds that they are unlikely to know the true origin of their purchases. Nevertheless it may be possible to use data from these surveys, in conjunction with data from the other surveys mentioned above, to make estimates of goods and services transmitted direct from overseas to consumers in the UK.

References

- 1 Teltscher S. Tariffs, Taxes and Electronic Commerce: Revenue Implications for Developing Countries, UNCTAD Study Series on *Policy Issues in International Trade and Commodities*, No. 5. UNCTAD/ITCD/TAB/5. Geneva (2000).
- 2 Draft Annex to the Manual on E-commerce and international trade in services (which can be found at <http://www.oecd.org/std/tradhome.htm>)
- 3 Electronic Commerce: Taxation Framework Conditions - A Report by the OECD Committee on Fiscal Affairs 1998.
- 4 Williams M. E-Commerce Inquiry to Business 2000. *Economic Trends*, No. 572, July 2001. London: The Stationery Office (2001), pp. 29–36. Also available on the National Statistics website at <http://www.statistics.gov.uk/ecom>

Annex 1 UK merchandise trade in digitizable products in 1999

£million			
Harmonised System (HS) code	Description	Exports	Imports
37	Film (Recorded)	59.0	17.5
3705	Photographic films	30.7	12.0
3706	Cinematographic films	28.3	5.5
49	Printed matter	1,978.8	1,260.4
4901	Books	1,095.7	660.2
4902	Newspapers	393.3	205.0
4903	Children's books	10.4	22.6
4904	Music	11.5	6.1
4905	Maps, atlases	17.3	8.0
4906	Plans	4.5	3.3
4907	Unused stamps	134.1	66.6
4908	Transfers	23.0	22.6
4909	Postcards	66.4	30.3
4910	Calendars	10.4	12.7
4911	Commercial catalogues, pictures, designs	212.2	233.0
8524 (part)	Sound & media	466.2	492.1
852410	Records	39.3	15.4
852432	CDs	171.7	120.5
852439	CDs	173.9	269.8
852451	Tapes	5.7	6.6
852452	Tapes	1.7	2.1
852453	Tapes	21.6	7.8
852460	Cards	4.5	2.8
852499	Other(recorded disks)	47.8	67.1
8524 (part)	Software	374.1	649.5
852431	Discs for laser reading systems for reproducing phenomena other than sound or image	120.3	198.5
852440	Magnetic tapes of instructions for use in ADP machines	31.9	99.2
852491	Other recorded media bearing instructions for use in ADP machines	221.9	351.8
950410	Video games	103.3	200.9

Annex 2 UK share of world merchandise trade in digitizable products in 1999

Exports			Imports	
	Percentage Share	Ranking	Percentage Share	Ranking
Film (recorded)	11.4	4	3.9	7
Printed matter	12.4	3	8.5	3
Sound & media	9.0	5	8.3	3
Software	6.3	5	11.5	1
Video games	3.6	5	5.4	5
All digitizable products	9.7	3	8.6	2

Annex 3 Illustrative allocation of e-products and related services

Balance of Payments Trade in Services Account component	Sub-component	E-products
Transportation		
Air transport		
	Passenger	Airline tickets
Travel		On-line hotel reservations ; car rentals; tours
Communication services		
Telecommunication services		Internet telephony; e-mail & voice-mail; internet access provision
Insurance services		
Life insurance & pension funding		On-line life insurance services
Other direct insurance		On-line direct insurance services
Financial services		
Financial intermediation (except investment banking)		Electronic banking services to consumers ; electronic banking between financial institutions
Services auxiliary to financial intermediation		Financial information, quotation ; currency & securities on-line trading ; payment services
Computer & information services		
Computer services		Customised software; remote data processing; web page design, web-site hosting & maintenance; IT/e-commerce solutions
Information services		
	News agency services	Digital transmission of news agency services
	Other information provision services	On-line news (including sports news); newspapers; magazines; on-line database services, mailing lists & directories
Royalties & license fees		
Other business services		
Merchanting & other trade-related services		
	Merchanting	
	Other	
Miscellaneous business, professional & technical services		
	Legal services	Legal advice & documentation
	Accounting ,auditing, book-keeping & tax consultancy services	Remote accounting, book-keeping & taxation services
	Advertising, market research & public opinion polling	Web advertising (bannering)
	Research & development	Remote research & development
	Architectural, engineering & other technical services	Engineering consultancy; draughtsmanship & design
	Other	Translation of documents; photographic services
Personal, cultural & recreational services		
Audio-visual & related services		
Other personal, cultural & recreational services		
	Educational services	On-line or e-mail based courses
	Health services	Teleconsultancy, telediagnosis & distant patient care
	Other	Gambling (virtual casinos) Other entertainment

Unresolved issues are Digital transmission of books, games; Web-TV & radio transmission; On-line standard software; Digital transmission of films, videos & music and Domain names.