

Matched worker-firm data for the UK

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Testing Trade Models with Labour Market Heterogeneity

December 5/6, 2008

- ▶ Firm data
 - ▶ Inter-Departmental Business Register (IDBR)
 - ▶ Annual Respondents (ARD)/
Business Structure Database (BSD)
- ▶ Worker data
 - ▶ The New Earnings Survey (NES)/
Annual Survey of Hours and Earnings (ASHE)
- ▶ Trade in goods
 - ▶ The Community Innovation Survey (CIS)
- ▶ Trade in Services
 - ▶ International Trade in Services (ITIS)

The Virtual Microdata Laboratory

Research applications go through four stages:

1. Approved Researcher Application Form
2. Customer Request Form: Detail specifics of the project
 - ▶ MAUS team
 - ▶ Microdata Release Panel
3. Data Access Agreement
4. VML training:
 - ▶ legal background; use of the VML; disclosure control techniques.

VML access:

- ▶ London, Newport, Titchfield, Glasgow and Belfast

Analytical output or statistical tables must go through disclosure control by VML staff members.

- ▶ Intermediate clearance
 - ▶ May only be viewed by approved researchers
- ▶ Final Clearance
 - ▶ For publishable output

Inter Departmental Business Register (IDBR)

- ▶ Key sampling frame for business surveys within ONS
- ▶ Live register of all businesses in the UK since 1994
- ▶ Based on inputs from two main sources:
 - ▶ Customs and Excise (VAT registered businesses)
 - ▶ Inland Revenue (PAYE registered businesses)
 - ▶ 99% of business activity in the UK
- ▶ Enterprises assigned a unique IDBR reference number
- ▶ Facilitates linking of information between different surveys and over time

Business Structure Database (BSD)

- ▶ 1997 - 2005
- ▶ “Snapshots” of the IDBR
- ▶ Changes in ownership and restructuring of businesses:
 - ▶ Birth
 - ▶ Death
 - ▶ Concentration: Merger, Takeover
 - ▶ De-concentration: Break-up, Split off
 - ▶ Changes within an Enterprise: Change of ownership, Trade sale

Annual Respondents Database (ARD)/ Annual Business Inquiry(ABI)

- ▶ 1973 - 2005
- ▶ Census of large businesses, and a sample of smaller ones
 - ▶ turnover, intermediate inputs, investment, employment, location, industry etc.

The New Earnings Survey (NES)/ Annual Survey of Hours and Earnings (ASHE)

- ▶ Collected in April each year *from employers*
- ▶ 1% sample of employees that pay NI
- ▶ Last 2 digits of NI number used to select sample
- ▶ Can be linked to form a panel
- ▶ Information on:
 - ▶ gross weekly pay
 - ▶ age, sex
 - ▶ industry, occupation
- ▶ Firms identified by reference number

Community Innovation Survey (CIS)

- ▶ CIS2 (94-96); CIS3 (98-00); CIS4 (02-04); CIS5 (04-06)
 - ▶ Product, process and wider innovation
- ▶ Establishment export sales
- ▶ Recent papers
 - ▶ Harris and Li (forthcoming) 'Exporting, R&D and absorptive capacity in UK establishments', OEP
 - ▶ Harris and Li (2008) 'Evaluating the Contribution of Exporting to UK Productivity Growth: Some Microeconomic Evidence.' World Economy
 - ▶ Criscuolo, Crespi and Haskel (2008) 'Productivity, exporting and the learning-by-exporting hypothesis: Direct evidence from UK firms' CJE.

The Inquiry into International Trade in Services (ITIS)

- ▶ 1996-2005
- ▶ Firm level transactions in services
- ▶ Arm's length and intra-firm transactions
- ▶ Type of services traded (e.g. “computer services”, “telephone services”)
- ▶ Excludes transport and tourism, some financial services, higher education
- ▶ By country of origin/destination

Table: Number of reporting units

	<i>All firms in ABI</i>	<i>All firms in ITIS</i>		<i>Trading firms</i>		
		Non- traders	Traders	Importers	Exporters	Both
1996	915,685	5,017	3,602	2,409	2,821	1,628
1997	1,483,489	6,363	3,959	2,790	2,929	1,760
1998	1,555,568	6,186	4,153	2,853	3,123	1,823
1999	1,641,523	6,321	4,116	2,785	3,282	1,951
2000	1,669,442	6,079	4,583	3,132	3,574	2,123
2001	1,682,802	14,509	5,838	4,092	4,258	2,512
2002	1,709,648	14,206	6,420	4,528	4,703	2,811
2003	1,758,596	13,299	6,559	4,682	4,850	2,973
2004	1,781,594	11,408	6,985	5,020	5,135	3,170

	<i>Imports</i>	<i>Exports</i>	<i>Net trade</i>
Business Services	5,380	15,297	9,918
Royalties and Licence Fees	3,282	5,182	1,900
Telecomm. Services	2,718	5,224	2,506
Technical Services	1,339	4,699	3,360
Any other trade in services	1,435	2,573	1,138
Trade Related Services	634	1,805	1,171
Cultural services	185	436	251
Leasing	219	218	-1

Table: Broad categories of services traded, 2003, £m

Table: Trade in services by trading region, 2003,
 £m

	<i>Imports</i>	<i>Exports</i>	<i>Net trade</i>
Western Europe	7,803	16,596	8,793
North America	4,320	9,176	4,857
Asia	1,892	5,618	3,726
Caribbean	248	1,412	1,165
Southeastern Asia	154	1,405	1,251
Africa	316	910	594
Eastern Europe	202	581	378
Oceania	176	493	317
Unknown	116	278	162
South America	53	158	105
Central America	6	21	15
Low income ^a	689	1,563	874
Middle Income	873	2,890	2,018
High income ^b	13,561	30,894	17,333

^a Countries with GDP per capita less than 10% of UK.

^b Countries with GDP per capita more than 50% of UK.

Table: Trade in services by 1-digit SIC^a, 2003, £m

		<i>Imports</i>	<i>Exports</i>	<i>Net trade</i>
C	Mining and Quarrying	334	425	91
D	Manufacturing	4,330	7,070	2,740
E	Electricity, Gas and Water Supply	27	27	-1
F	Construction	71	38	-33
G	Wholesale and Retail Trade	1,496	2,622	1,127
H	Hotels and Restaurants	105	15	-90
I	Transport, Storage and Communication	1,703	2,128	425
J	Financial Intermediation ^b	1,125	4,751	3,626
K	Real Estate, Renting and Business Activities	4,884	14,056	9,172
	SIC not known ^c	557	3,054	2,497

^a Excluding sections A (agriculture), B (fishing), L (public admin) M (education) N (Health) O (Community, social and personal services)

^b The ABI does not sample certain industries within this section, notably banking and pension funding.

^c SIC codes are not known if a business cannot be linked to the ABI.







