



Office for
National Statistics
Swyddfa
Ystadegau Gwladol

Item I - Guide to measuring global production - main recommendations

Approaches for handling global production arrangements and MNE Groups

Economic Commission for Europe
Conference of European Statisticians
Special Session for EECCA and SEE countries

Salle VII, Palais des Nations, Geneva, Switzerland
Tuesday, 9th April 2019

Sanjiv Mahajan

Head of International Strategy and Coordination

Office for National Statistics (UK)

Sanjiv.mahajan@ons.gov.uk

Approaches for handling global production arrangements and MNE Groups

An overview

- Scene setting
 - Statistical value chain - UK
 - MNE Groups supply chain management
 - Various globalisation measurement / data related initiatives
 - Economic ownership
- Profiling
 - International and national
 - Profiling techniques.
 - UK profiling process - sequence of steps
- Vision - Evolving strategy for MNE Group data management
- Framework for a coherent picture of the economy - new surveys
 - Annual Purchases Survey (reinstatement)
 - Annual Survey of Goods and Services (SERVCOM)
 - Annual Financial Services Survey
 - International Trade in Services Survey
- Various other initiatives, developments and staying ahead.
- Any questions?



UK integrated process of compiling National Accounts and Balance of Payments

Statistical value chain - UK

Compiled by
Sanjiv Mahajan
March 2014

Business Register (and the statistical unit) + Administrative data

- Data collection, editing and validation processes
- Production and publication of survey results and analysis

- Census and population
 - National Accounts (including non-financial **and** financial accounts)
 - Supply and Use Tables and Input-Output Tables
 - Labour, prices and social statistics
 - Regional Accounts and Environmental Accounts

-
- Balance of Payments (including IIP)
 - Public Sector Finance (including EDP / GFS)

-
- Productivity analyses (labour and capital)
 - Well-being and Tourism Satellite Accounts

-
- Labour Accounts and Social Accounting Matrices
 - Other satellite accounts

-
- Regional, impact and policy analyses
 - CGE and economic modelling

These boundaries covering the compilation of economic statistics in each National Statistical Office differ across countries

ALL DONE IN THESE

Approaches for handling global production arrangements and MNE Groups

MNE Groups supply chain management

Global supply chain - scope of related issues

- Arrangements within MNEs including transfer pricing
- Contract manufacturing and manufacturers
- Factoryless goods production and processors
- Foreign Direct Investments (FDI) relationships
- Good sent abroad for processing
- Intellectual property products (IPPs) - ownership and cross border use
- Internet trading
- Labour movement and remittances
- Limitations of national data collections
- Merchanting of goods and services
- Ownership of property abroad
- Quasi-transit trade
- Special purpose entities (SPEs)
- Toll processing and processors **and ALL contribute to trade asymmetries.**



Different typologies and flows

Classifications of industries and products
Domestic (principle) links to foreign supplier(s)
Ownership of inputs, IPPs and outputs
Legal versus economic ownership
Risk, reward and benefits

Varying degrees of impact on business registers, business surveys and statistics, NA, BoP, Supply and Use Tables, labour market, regional, **productivity** and environmental statistics

Approaches for handling global production arrangements and MNE Groups

Various globalisation measurement / data related initiatives

Examples involving various international institutions (not an exhaustive list)

Framework / classifications	Information / data sharing	Laws	Data reconciliation / asymmetries	Different concepts	Other
LEI / GLEIF	EU Early Warning Signal	Base Erosion and Profit Shifting	Workshops Eurostat / OECD	GNI*	G-20 DGI
UN Global Groups Register	EU GNI MNE Group Pilot	Mini One Stop Shop VAT Scheme	Country specific bi-laterals	Mainland GDP	Various Task Forces, IPPs, IGA, etc.
Euro Groups Register	NORDIC LCU Network	Confidentiality Germany, etc.	Databases, ADIMA, etc.	Globalisation indicators and new surveys	Projects, FIGARO, etc.
EU Profiling	FDI Network			Exclusion of MNE Groups	Expert Groups, SUTs, GVCs, etc.
Statistical units, FGPs, SPEs, etc.	<p>LCUs: Ireland, Canada, Netherlands, etc. have them. UK, Denmark, etc. developing them.</p>				

International data sharing, data exchange and data reconciliation (e.g. UNECE Task Force)

Approaches for handling global production arrangements and MNE Groups

Economic ownership

Practical challenges posed for Business Statistics, NA and BoP

- Flow of money and goods and services - historically, equal and opposite.
Now, the flow of money ... leads you somewhere?
but the production / flow of goods and services ... leads you somewhere else !
- Movements of goods
 - Goods crossing the border of the resident economy:
 - **All** cases were included in NA and BoP.
 - **Now**, only those included where there is change in economic ownership.
 - Goods not crossing the border of the resident economy:
 - **All** cases (except merchanting) were excluded from NA and BoP.
 - **Now**, more are included, linked to the change in economic ownership.
- Consumption of services
 - Imports and exports of services (e.g. downloading music, gambling, etc.)
- **Change in economic ownership versus Residence (which is the top criteria?)**

Presents HUGE challenge for structures held on business registers and data collection.
QUALITY - coherency, consistency and comparability of National and International statistics.

Approaches for handling global production arrangements and MNE Groups

UK approaches - focus on “data”

Examples of initiatives

- Classification of units, activities and flows:
 - Less focus on identification and detection of specific units, e.g. FGPs, SPEs, etc.
 - More focus on correct treatment of activities and flows.
- Profiling - national and international.
- Development of an International Business Unit (more than Large Cases Unit)
- New survey questionnaires:
 - Focus on questions and notes, e.g. work done on customer materials, fees paid.
 - Industry and/or business specific questionnaires.
 - Electronic data capture supplemented with what the respondent can provide.
- Adhoc exercises:
 - ESSnet on International Profiling and EU Profiling.
 - EU GNI MNE Group Pilot Exercise and Early Warning System.
 - Asymmetries on goods and services.

Many businesses have mixed activities, some consolidate SPEs, etc.

Most efficient, effective and recommended approach to understanding the business and its activities is through intensive profiling and VISIT the business (regularly).

Approaches for handling global production arrangements and MNE Groups

Profiling - international and national

What is profiling?

“Profiling is a method of analysing the legal, operational and accounting structure of an enterprise group at national and world level, in order to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data.”

(Source: Business Registers Recommendation Manual 2010, annex 3.1, paragraph 19.9)

International profiling

- International groups:
 - MNE Groups on Euro-Groups Register (EGR) - needs to be improved.
 - UK at the forefront of good work done in the ESSnet on International Profiling.
 - Via the international institutions develop a World-wide MNE Group Data Network?
 - Work done on a case by case basis - over 25+ cases completed in the UK.

National profiling

- National groups:
 - Focus on small and large complex groups - more reactive.
 - In the UK, this work is undertaken on a regular on-going basis.



Approaches for handling global production arrangements and MNE Groups

Profiling - techniques

Distinction in terms of their intensities

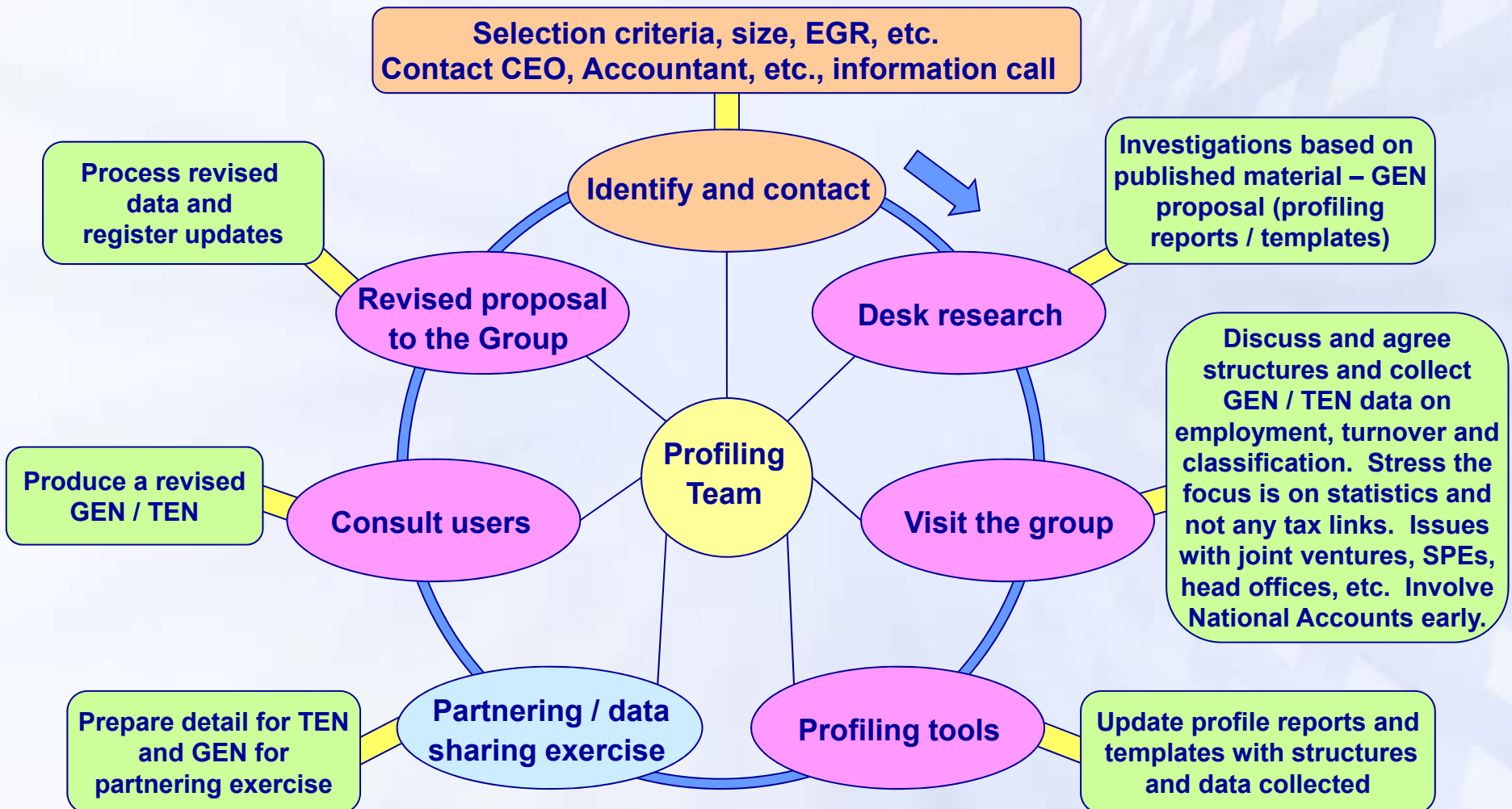
- Manual "intensive" profiling
 - Covers the activity of sending staff to the headquarters of a large business (group) to discuss the delineation of statistical, reporting and observation units on the basis of the operating structure of the business.
- "Manual "light" (or "desk") profiling
 - No visit is carried out to the business and just public information (annual reports, business' website, etc.) plus survey information is used.
- Automated profiling
 - Procedures run by nationally defined automated rules by making use of data from national business registers and EGR on enterprise groups that operate on administrative units or legal units in order to delineate enterprise groups.

Best practice for delineating enterprises in enterprise groups for **small, and large complex MNE Groups** is of course, **manual "intensive" profiling.**



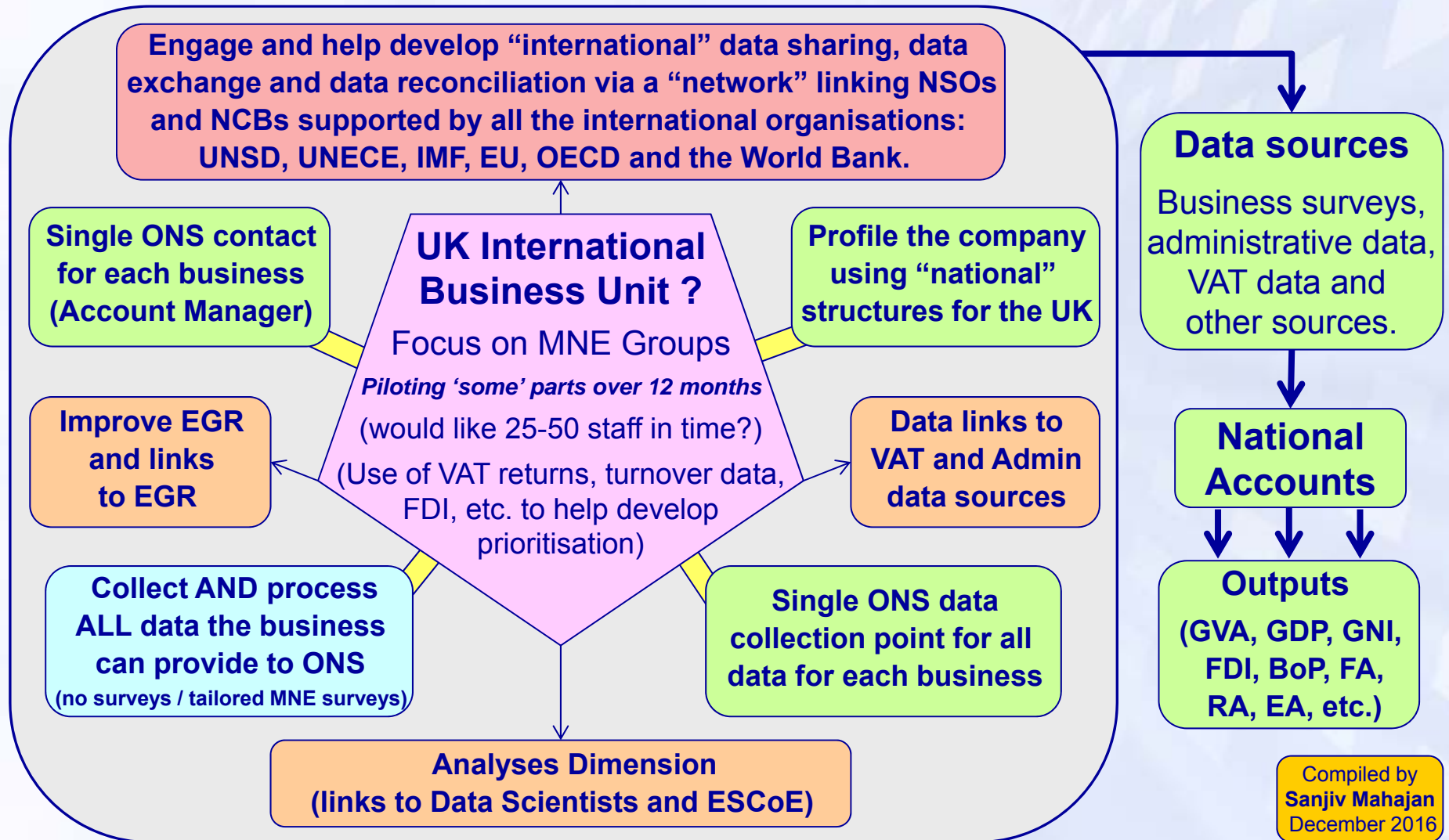
Approaches for handling global production arrangements and MNE Groups

Profiling - UK process and sequence of steps

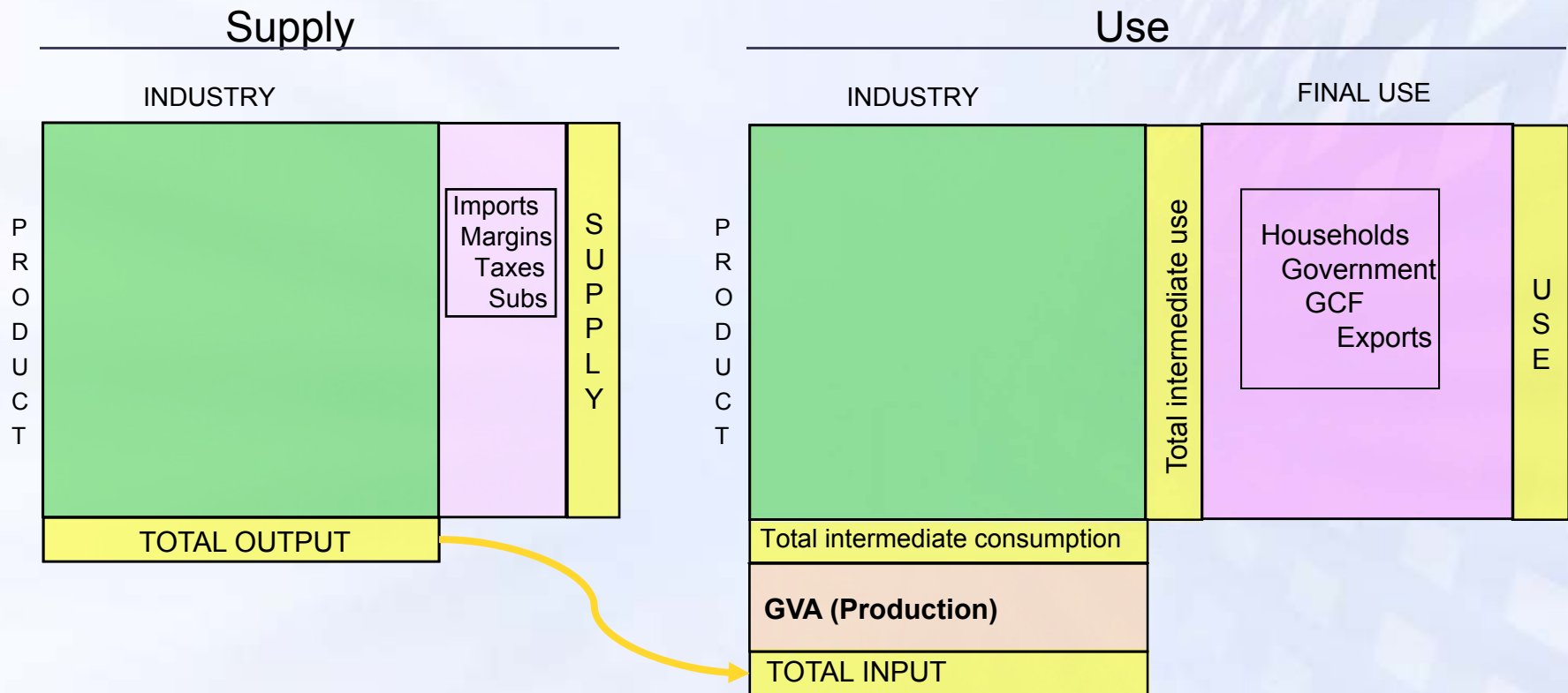


Developing an International Business Unit in the United Kingdom

Vision - Evolving strategy for MNE Group data management

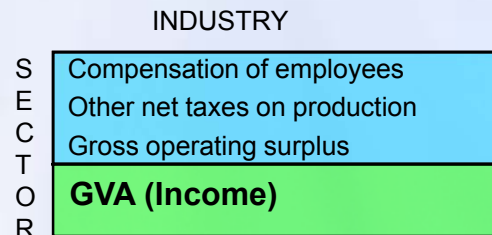


Framework for a coherent picture of the economy



Sources:

- Business surveys
- Other government departments including administrative data
- Other sources (any source)



Approaches for handling global production arrangements and MNE Groups

Annual Purchases Survey (reinstatement)

Background

- Data collected on purchases for intermediate use:
 - Since 1950s but separate quinquennial surveys held between 1974 and 1989.
 - Manufacturing industries only.
 - Materials and fuels only.
 - Linked to rebasing GDP every five years and GVA / PPI weights.
- Various options utilised thereafter:
 - In 1994, integrated within the then SBS equivalent survey (ACoP).
 - Rotating five-yearly basis (1/5 of production industries with some every year).
 - Rotating three-yearly basis with some industries annually.
- Annual all-industry all products survey from 1998:
 - 512 form types - customised detailed purchases questions to specific industries.
 - Sample peaked at 29,000 in 2000.
 - Last validated survey data used for reference year 2004 (sample: 14,000)
 - Stopped in 2007, data not fully validated, reference year 2005 (sample: 10,000).
- Limited detail collected since:
 - Annual Business Survey (equivalent of the SBS).



Approaches for handling global production arrangements and MNE Groups

Annual Purchases Survey (reinstatement)

Today's picture



- New survey:
 - All industries (except agriculture, financial and general government).
 - All intermediate products used up in producing the outputs.
 - Data collected for reference years 2015 and 2016 (2017 being processed):
 - Sample size: 31,000; 109 questionnaires; 10 month lag; and 80% response rate.
- Challenges:
 - Questionnaire development - **questions and notes review**.
 - Results - focus on proportions and not values.
 - Lots of year on year changes (e.g. reclassifications of businesses).
 - Need to develop consistent time series and for SUTs, alignment with 2004 data.
 - Reviewing methodology:
 - Imputation - item and unit non-response.
 - Treatment of outliers.
- Developments:
 - Coherence with the ABS.
 - Analysis of UK and non-UK data.
 - Regional purchases estimates.

Approaches for handling global production arrangements and MNE Groups

Annual Survey of Goods and Services (SERVCOM)

Old survey

- Small services turnover survey run every 2-3 years.

Driver for change

- Lack of detail on products for over two thirds of the UK economy.

New survey

- Coverage:
 - All service industries except agriculture, financial and general government.
 - Collects detailed sales of goods and services by product (aka PRODCOM).
 - Reference year 2016 and sample of 40,000 (response rate: 78%).
 - Some analysis published - many more off-diagonals for service industries.
- Process:
 - Contracted out to external company (two years).
 - Data is collected on-line.
- Next steps:
 - Data for 2017 being processed and comparisons against 2016.
 - Publication in summer 2019.
 - Continuous **review of questions, notes**, methods and results.



Approaches for handling global production arrangements and MNE Groups

Annual Financial Services Survey

Old basis

- UK has a large, diverse, rapidly changing and complex financial corporations sector and financial industries.
 - Significant parts are highly regulated, e.g. banking, pensions, insurance, etc.
- Use of surveys and administrative data.
- Suite of ONS financial surveys:
 - 25 financial surveys (1 monthly, 14 quarterly and 10 annual).
 - Covering Pensions; Insurance; Trusts (Unit, Property and Investment); Credit granting; and Securities dealers.



Drivers for change

- Improvements needed moving to ESA 2010.
- UK stakeholders such as Bank of England.
- Recommendations for improvement from the *Independent Review into UK Economic Statistics* (Bean).

Approaches for handling global production arrangements and MNE Groups

Annual Financial Services Survey

New survey

- Structure comprises two questionnaires:
 - Balance sheet financial assets and liabilities data.
 - Income and expenditure data.
- Coverage:
 - Expanded from 4 to 20 NACE Rev. 2 classes based on IDBR.
 - Does not cover banking, investment, insurance and pensions.
 - Covers institutional sectors:
 - S.125 other financial intermediaries;
 - S.126 financial auxiliaries; and
 - S.127 captive financial institutions and money lenders.
 - Covers shadow banking activities.
 - Includes Northern Ireland businesses.
- Other points to note:
 - Income and expenditure survey changed from annual to quarterly.
 - New processing system.
 - **Review questions, notes** and improve underlying methodologies and results.
 - Continuous improvement plan including the IDBR and utilising other sources.



Approaches for handling global production arrangements and MNE Groups

International Trade In Services Survey

Improvements to existing survey

- Annual sample - circa 15,500 increased to 16,500.
- Quarterly sample - circa 1,100 doubled to 2,200.
- **Review questions and notes.**
- Improved industry selections.
- Improved geographical breakdowns.
- Optimisation by industry, by product and by country.
- Improved imputation by product and by country.
- Better linking with goods surveys (Intrastat and Extrastat) and FDI Survey:
 - Merchanting.
 - Goods sent abroad for processing.
 - IPP flows.
- Lots of work on asymmetries (both goods and services):
 - Bilateral meetings, OECD Workshops, etc.



Approaches for handling global production arrangements and MNE Groups

Various other initiatives, developments ... and staying ahead

- Bidding for more monies from HM Treasury to fund developments:
 - Via the Comprehensive Spending Review.
- Microdata: investing and pushing the boundaries (use of administrative data)
- Globalisation: understand and measure changing business operations.
- Measuring the impact of 'Digital': sharing economy, prices, etc.
- Missing capitals: natural, human, etc.
- Intangibles: within and outside the production boundary.
- Beyond GDP: broader measure of understanding, e.g. household production.
- Big data, data science campus, early indicators, etc.



Each of the above **WILL** lead to much improved, high-quality economic statistics
(striving for progress not perfection)

.... and keeping the most uncertain change to last **BREXIT !**

Approaches for handling global production arrangements and MNE Groups

Challenges



An ambitious programme of work ...,



Communication of significant and complex change involving producers and users ...,



These are small steps on a long journey ...,

Approaches for handling global production arrangements and MNE Groups



Any questions?

Sanjiv Mahajan

Head of International Strategy and Coordination
Office for National Statistics (UK)

sanjiv.mahajan@ons.gov.uk

