Chapter 11 Firm heterogeneity related to globalisation > linking micro data
Why linking anyway?

FIGURE 3
Explaining the uptake of evidence into the policymaking process by adapting it to the concept of car gears.
Dynamics and interconnectedness of (inter)national active enterprises & institutions and their impact on welfare, well-being and habitat.

**Functional statistics**
- Environment/sustainability
- Traffic & transport, mobility
- Infrastructure & land use
- Houses & Buildings
- Education, Healthcare
- ……

**Business statistics**
- Trade & production structure
- Financial structure
- Firm dynamics and globalisation
- Investment & innovation
- ……

**Social statistics**
- Household characteristics
- Person characteristics
- Population dynamics
- Welfare & well-being
- ……

**Regional impacts**
- Mobility and Public Transport
- Education & labor market
- Housing
- Healthcare

**Sustainable entrepreneurship**
- NL Distribution & Logistics

**Job creation, destruction & dynamics**
- Income, pensions, equity
- Economic growth/productivity
Chapter 11, Business Functions

Outline of the BF part of this chapter

1. Introduction > presentation Tim yesterday (why BF, statistical purpose); BF in EU setting
2. Concept International Orientation
3. Types of heterogeneity
4. Data sources
   - BR, IGTS, FATS (basic)
   - ISGVC (Europe 2017 forthcoming)
Core business function
- 1.1 Production of goods (for the market)
- 1.2 Production of services (for the market)

Support business functions
- 2. Transport and distribution support functions
- 3. Marketing, sales and after sales services
- 4. ICT services
- 5. Administrative and management functions
- 6. Engineering and related technical services and R&D
  • 6.1 Engineering and related technical services
  • 6.2 Research & Development
- 7. Other support functions
## International orientation

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Global Trader (intra- and extra EU-trade)</th>
<th>Extra-regional trader (extra-EU trade only)</th>
<th>Home-regional trader (intra-EU trade only)</th>
<th>Non-trader</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Domestically controlled without foreign affiliates</td>
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<td>Domestically controlled with foreign affiliates</td>
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<td>Foreign controlled with/without foreign affiliates</td>
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<td>Total</td>
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Firm heterogeneity

Focus on firm heterogeneity:
- Traders vs non traders
- Type of trader: two way/exporter only/importer only
- Domestic vs foreign controlled enterprises
- SMEs vs large enterprises
- SMEs: Dependent and independent

But you might also go into other classifications, e.g.
- Type of investor?
- Type of innovator?
- High growth, born globals, sustainable, etc?
Main outstanding issues

1. How to capture “blurred” production arrangements: Both services and manufacturing activities for the market?
2. How to capture emerging business models arrangements such as Factoryless Goods/Services Producers?
3. Introduce a hierarchical structure of BF?
Ch. 11 Micro data linking (MDL)

1. Introduction
2. The concept of international orientation of enterprises
3. Types of firm heterogeneity
4. Data Sources
5. Micro Data Linking
   - Basics of micro-data linking > 11.5a
   - Methodological issues of micro-data linking >11.5b
   - Compilation issues of micro-data linking >11.5c
6. Measurement of new types of international organization of production
   - Factory less Goods Producers
   - Business Functions
7. New Standardized Surveys
   - New standardized enterprise surveys needed for Global Value Chain analysis
   - New enterprise surveys needed for extended national accounts and SUTs
Micro data linking, sharing knowledge

- 10 European countries involved
- Coordination by Danmark Statistik and CBS
- Distributed Micro Data Research
  - Harmonised data sets
  - Centrally developed SAS-syntax
- All partners run syntax on their national data → aggregated results sent to DK and NL for analysis
- Micro data does not leave the country
- Joint European publications
11.5a basics MDL

• Enterprise backbone
  • *Should cover all economic actors?*
    • *Relation SBS Business Economy <> SNA Sectors*
    • *Group structure and dynamics e.g. cross-border M/A?*
  
• International and global business statistics
  • *Getting grips on decision making? Investment, innovation, labor conditions, sourcing? > follow the money?*
11.5b methodological issues MDL

**Enhancing Business Register**
- International recommendations for Statistical Business Registers
- Integrated economic statistics and a centralized SBR
- SBR variables needed for extended SUT
- Global Value Chain mapping and improved SBRs

**Creating Consistent classifications**
- Developing an Industry-Neutral Value Chain Reference Model
- Economic Activity – ISIC
- Products – CPC and HS
- Business Functions
- Global Value Chain analysis and consistent classifications
11.5c Compilation issues

- Types of matching
  - Direct linking? Fuzzy matching?
- Types of sources
  - Surveys, administrations, registers, private data sources, profiling data, big data,
- Hierarchy of matching (enterprise groups, enterprises, jobs, persons)
- Cross-sectional and longitudinal databases
- Coping with error in data and missing information
It’s MDL party time.... Thanks
Supply & Use official statistics

- Complex & Specific use
- Simple & generic use

- Academics/Planning offices
- Certified use MDL
- Media, targeted audiences
- Public use data
- General information

- Maximum detail & minimal security
- Joint co-operations
- Remote Access DIY
- Articles/storytelling
- NSI official tables
- Basic information website

- Minimal detail, Maximum security

Users

Supply