



# HANDBOOK ON LINKING TRADE AND BUSINESS STATISTICS

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# WPTGS Workshop on Linking Trade and Business Statistics

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- Linking trade and business statistics has long been on the agenda of the Working Party on Trade in Goods and Services Statistics (WPTGS)
  - Important progress has been made to include an increased number of different datasets to produce wide spectrum of rich indicators
- OECD WPTGS 2015
  - Creation of IRG on this topic, organized a workshop on Linking Trade and Business Statistics adjacent to the main WPTGS 2016 meeting
- OECD WPTGS 2016
  - Held WPTGS Workshop on Linking Trade and Business Statistics to underline and address challenges and plan way forward



# WPTGS Workshop on Linking Trade and Business Statistics

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- Summary: Data linking involves important methodological challenges that can impede countries from data linking or prevent publication of the results
  - Challenges are diverse: Understanding data sources in linkage context, linkage procedures, grossing up and imputation of incomplete source data, dealing with large and complex businesses, confidentiality
- Conclusion: **OECD should initiate the writing of a “Handbook on Linking Trade and Business”, in collaboration with WPTGS members and other interested international organisations**



# Why a Handbook on Linking Trade and Business Statistics?

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- Linking Trade and Business Statistics is an increasingly common practice among OECD countries to develop new, policy relevant statistics on economic globalisation
- Handbook offers a snapshot of where we are, of available conceptual guidance, of which compilation challenges can be addressed or partially addressed, of questions that remain open
- Linked Trade and Business Statistics are not only relevant as stand-alone data source, but also leverage available administrative and survey data into new metadata and provide a vital building block for TiVA, Extended SUTs and Integrated International Economic Accounts



# Why now?

Phase 1: Foundation Linking Trade and Business Statistics involving which firms in which industries at which size class were engaged in trade in goods OR trade in services OR were majority-owned MNEs (foreign/domestic)

TEC

- Business register
- Trade in goods data sources (e.g. Customs register, Intrastat, VAT) by industry

SBS

- Business register-based
- Business survey results (grossed up using mass imputation, weights, other)

STEC

- Business Register
- Trade in services survey frame and results (excludes travel services) by industry

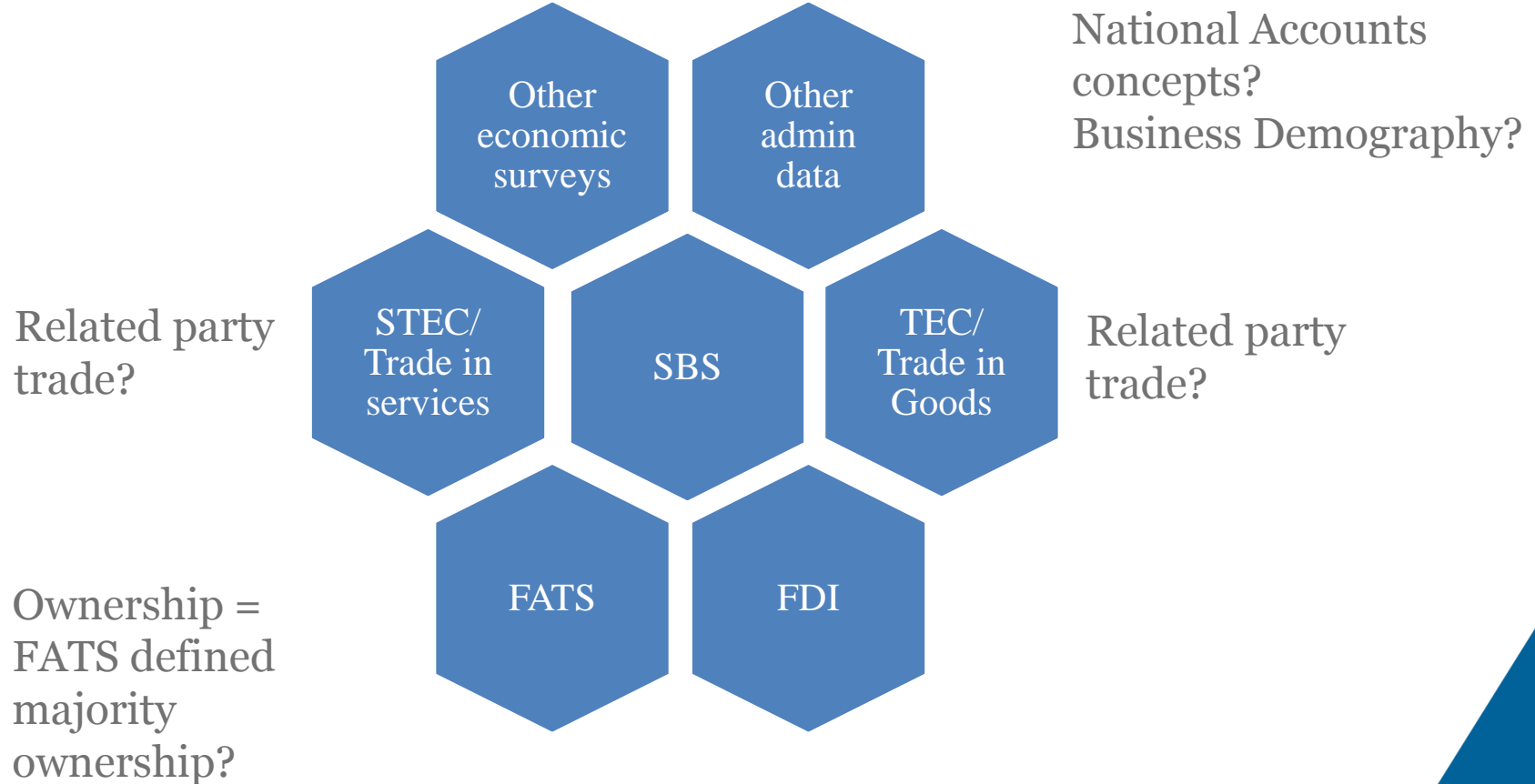
FATS

- Business register
- FDI survey frame and results
- Corporate ownership database



# Why now?

Phase 2: Compound/Integrated Linking trade and business statistics involving which firms in which industries at which size class are engaged in trade in goods **AND** Trade in services **AND** are majority-owned MNEs (foreign/domestic)





# Introducing the **Handbook on Linking Trade and Business Statistics**

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- The OECD Handbook on Linking Trade and Business Statistics summarises the infrastructure, key challenges and solutions relating to the micro-data linking of international trade and business data sets.
- The Handbook identifies the main statistical challenges that are encountered in this data linking process and provides suggestions and concrete examples for overcoming these, considering the variability in national practices and resources.



# The Process

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- Annotated table of contents provided to Reflection Group on Linking Trade and Business Statistics work based on previous WPTGS documents and country presentations, then to WPTGS delegates
- Members of the Reflection Group include Bureau of Economic Analysis, Statistics Canada, Banque de France, NSI-Spain, Statistics Netherlands, and Statistics Denmark
- Next steps
  - Incorporate WPTGS 2017 feedback
  - Incorporate specific country contributions from Reflection Group and WPTGS
  - Begin dissemination of Chapters to Reflection Group, integrate further country contributions
  - Present draft chapters to Taskforce on International Trade Statistics (TFITS) in October 2017 for approval
  - Present draft chapters to WPTGS March 2018.





# Proposed table of contents (1)

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## **Chapter 1. Introduction**

*Motivation behind OECD Handbook on Linking Trade and Business Statistics and outline of Chapters*

## **Chapter 2. Initiation: Statistical infrastructure**

*Business registers; main globalization-related datasets involved; units and classifications*

## **Chapter 3. Compilation challenges: data linking practices**

*Record linking; linkage practices in absence of common identifiers*



# Proposed table of contents (2)

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## **Chapter 4. Compilation challenges: Statistical units and classifications**

*Dealing with large/complex businesses (e.g. consolidation); exploiting information on group structures; assigning indirect trade to enterprises; 'creative' classifications*

## **Chapter 5. Compilation challenges: Imputations and grossing up**

*Post-hoc recalibration of grossing up factors; employing logistics and other regressions for imputations; shrinking the universe (e.g. only produce statistics for large firms)*

## **Chapter 6. Compilation challenges: Designing statistical systems with data linking in mind**

*From data linking project to developing an enriched statistical system: new stratification variables for other official sources; new survey frames; positive survey coordination.*



# Proposed table of contents (3)

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## **Chapter 7. Data dissemination: confidentiality concerns**

*Strategies for dealing with confidentiality: obtaining explicit or implicit consent from respondents, coefficients of variation; ‘smart’ aggregations; using sample frame size.*

## **Chapter 8. Data dissemination: Policy relevant indicators derived from linked trade and business statistics**

*Examples of indicators and policy messages that can be derived from these indicators (focus on firm size, ownership, trading status).*

## **Chapter 9. Data dissemination: Using linked trade and business data to enhance statistics on firm heterogeneity in Global Value Chains**

*Use of linked trade and business data to refine GVCs analysis: extended SUTs and examples of ongoing empirical projects.*



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# Thank you for your attention!

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