

# A Practical Guide to Trade Policy Analysis

A joint UNCTAD – WTO publication

<http://vi.unctad.org/tpa>





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1. Analyzing trade flows
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6. Analyzing the distributional effects of trade policies



## Diversity of approaches

- Chapters 1 and 2 present methodologies for the descriptive analysis of a country's trade performance and its trade policy
- Chapter 3 presents the work horse approach for ex post analysis of trade and trade policies
- Chapters 4 to 6 discuss three different ex-ante approaches that can be used to assess various effects of trade policies



## If you want to assess a country's trade performance

Chapter 1 (*Analyzing trade flows*) will:

- Help with key measurement issues (reliability, missing values, etc.)
- List the main indices used to assess the structural, sectoral and geographical composition of trade flows
- Suggest how to display trade data graphically in a clear and appealing way



## If you want an analytical description of a country's trade policy

Chapter 2 (*Quantifying trade policy*) will:

- Show how to present a tariff profile
- Explain how to calculate import coverage ratios and ad valorem tariff equivalents of NTMs
- Suggest how to assess the overall trade restrictiveness of a trade policy stance



## If you are interested in the effect of NTMs on trade (ex post)

Chapter 3 (*Analyzing bilateral trade using the gravity equation*) will:

- Explain the logic of the gravity equation
- Instruct on how to build a gravity database
- Present various estimation methods of the gravity equation
- Explain how to handle zero-trade flows



# If you wish to assess (ex ante) the effect of a sectoral tariff reform

Chapter 4 (*Partial-equilibrium trade-policy simulation*) will:

- Explain how and when to use four ready-made PE models:
  - SMART (single market analysis tool)
  - Global Simulation Analysis of Industry-Level Trade Policy (GSIM)
  - Tariff Reform Impact Simulation Tool (TRIST)
  - Agricultural Trade Policy Simulation Model (ATPS)



If you want to estimate (ex ante) the potential effects of the Doha round

Chapter 5 (*General equilibrium*) will:

- Explain how GE models work and why you may wish to use one to simulate the effect of Doha proposals...
- ...But not provide the tools and the techniques to actually run an economically meaningful GE model





If you want to estimate (ex ante) the distributional effects of a trade reform

Chapter 6 (*Analyzing the distributional effects of trade policies*) will:

- Explain how to think about the transmission of trade shocks to individual households in simple terms
- List the data you will need
- Introduce the statistical techniques used to deal with household survey data



## Into the Practical Guide





## Where is the data?

Detailed instructions on what kind of data each database has and how to access it:

- WTO IDB CTS
- UNCTAD TRAINS
- World Bank WITS
- ITC MACMAP
- World Bank Trade, Production and Protection
- Many other databases



# Concepts / Constructions / Examples

## Tariffs

- Applied, MFN, bound
- Specific duties, ad-valorem

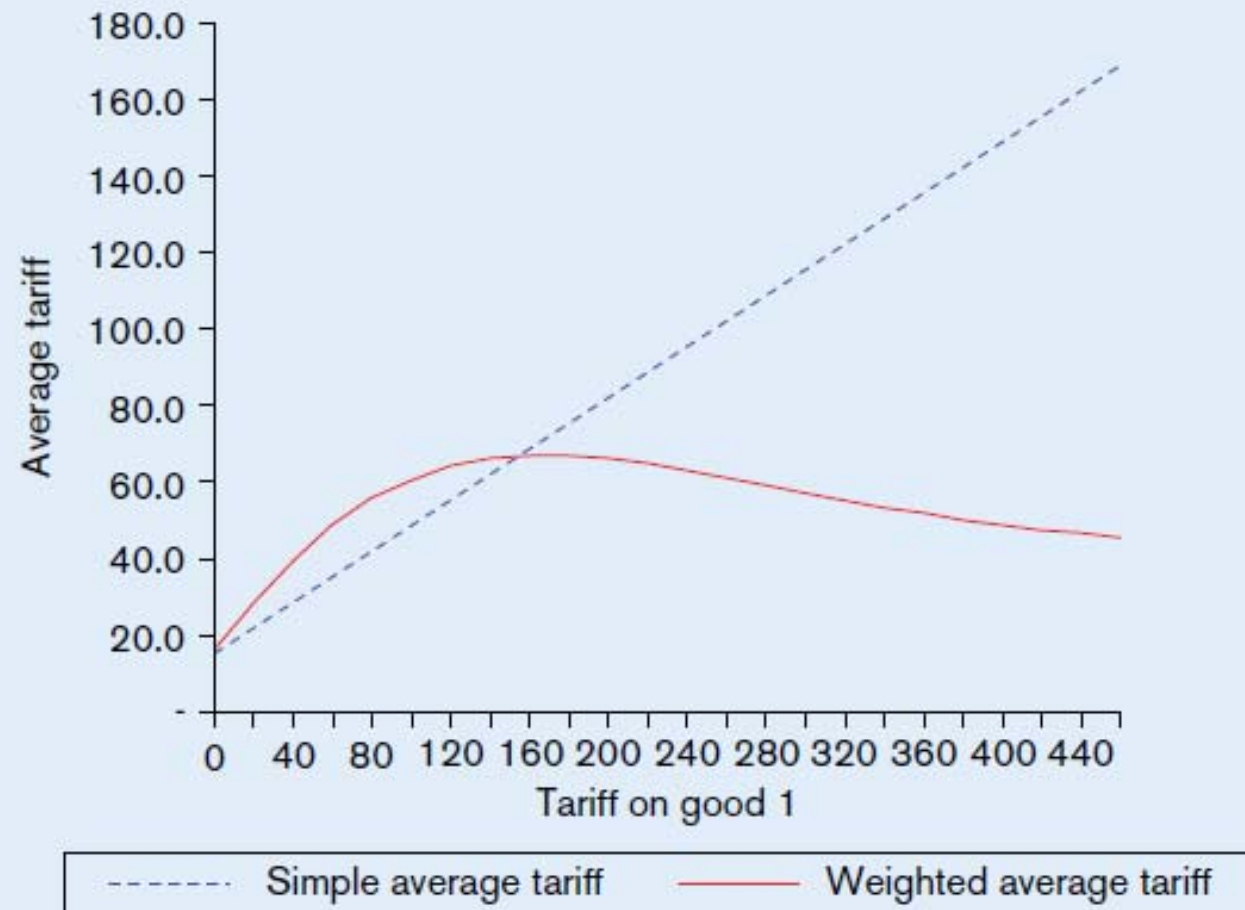
Show how to compute tariff profiles

- Simple / weighed
- Peaks / dispersion
- Effective protection



# Illustration of basic concepts

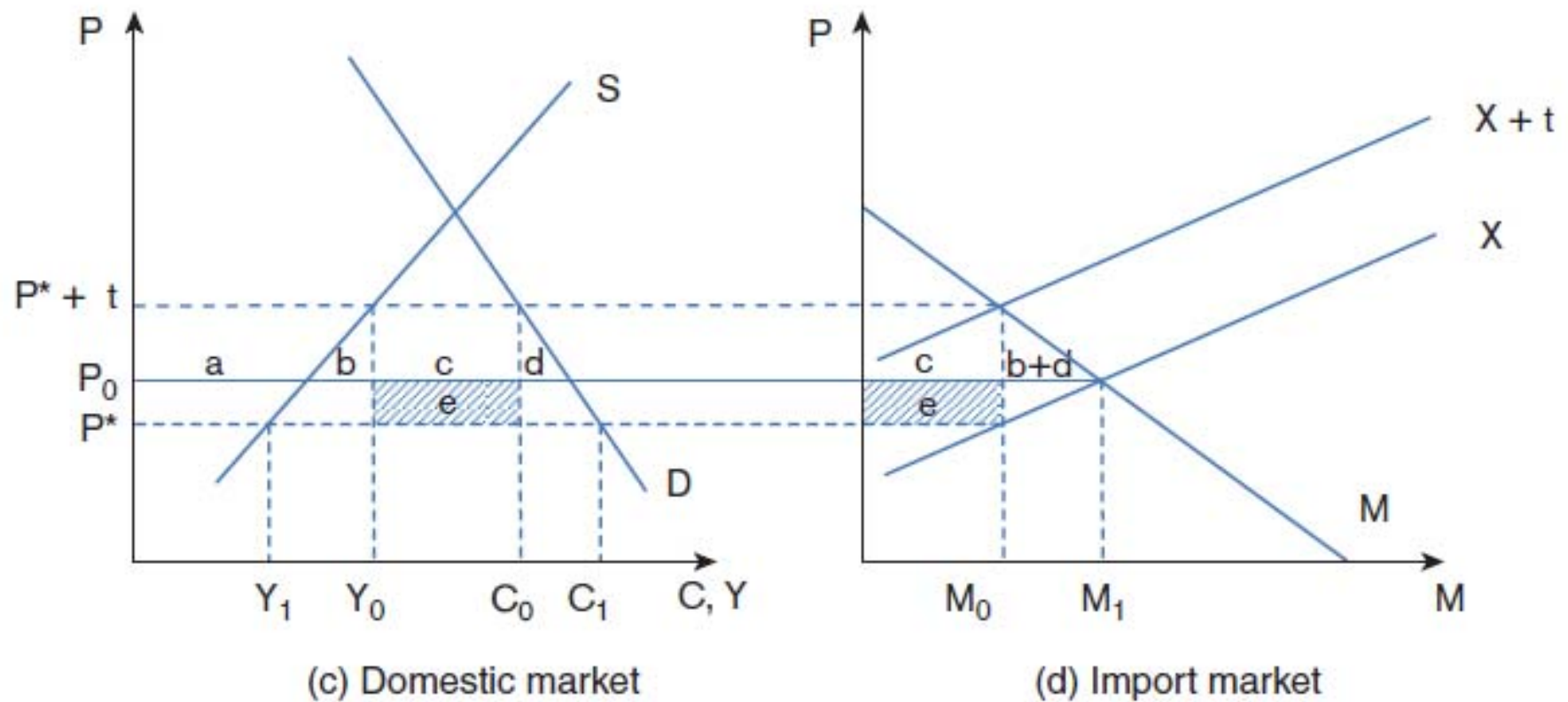
Figure 2.1 Bias of trade-weighted average tariffs





# Simple, graphical intuitions

Figure 4.2 Tariff reduction in the large country case





## Trade-related indices

- Trade over GDP
- Import content of exports and external orientation
- Trade in intermediate goods
- Offshoring
- Vertical specialization
- Intra-industry trade
- Export diversification
- Regional Trade



## Step by step approach

- Intuition / what the index is useful for
- How to / Formulas

$$GL_k^{ij} = \frac{|X_k^{ij} - M_k^{ij}|}{X_k^{ij} + M_k^{ij}}$$

$$SI^{ij} = \left[ \frac{GDP^i}{GDP^i + GDP^j} \right]^2 - \left[ \frac{GDP^j}{GDP^i + GDP^j} \right]^2$$

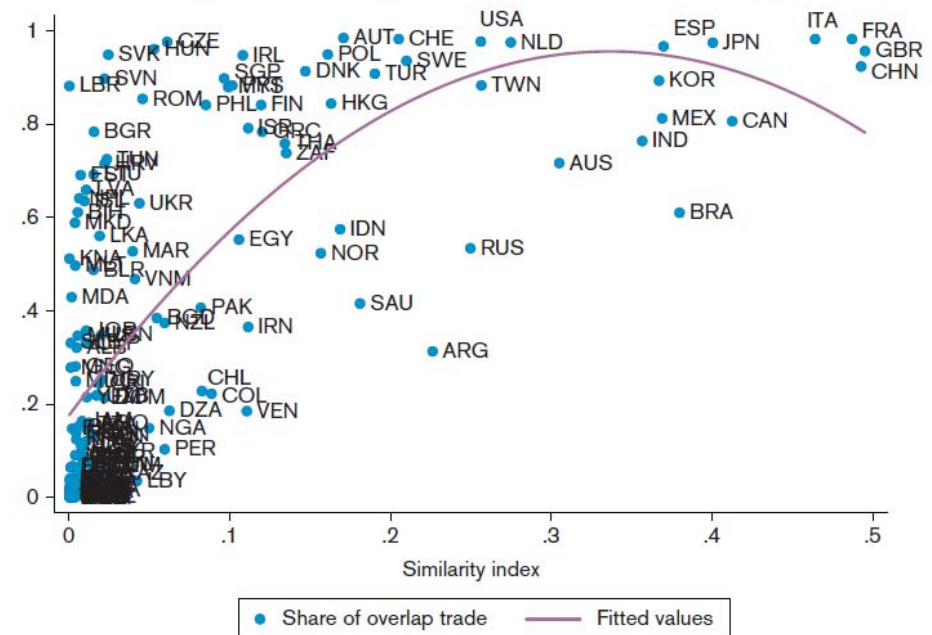




# Step by step approach (ct'd)

## ■ Plots / interpretation

Figure 1.2 Overlap trade and country-similarity index vis-à-vis Germany, 2004



## ■ STATA commands

```
use "overlap.dta", replace
twoway (scatter overlap simil_index, mlabel(partner))
*/      (lfit overlap simil_index),
*/      title("Overlap trade and country-similarity index vis a vis Germany,2004")
*/      legend(lab(1 "Share of overlap trade")) xtitle ("Similarity index")
```



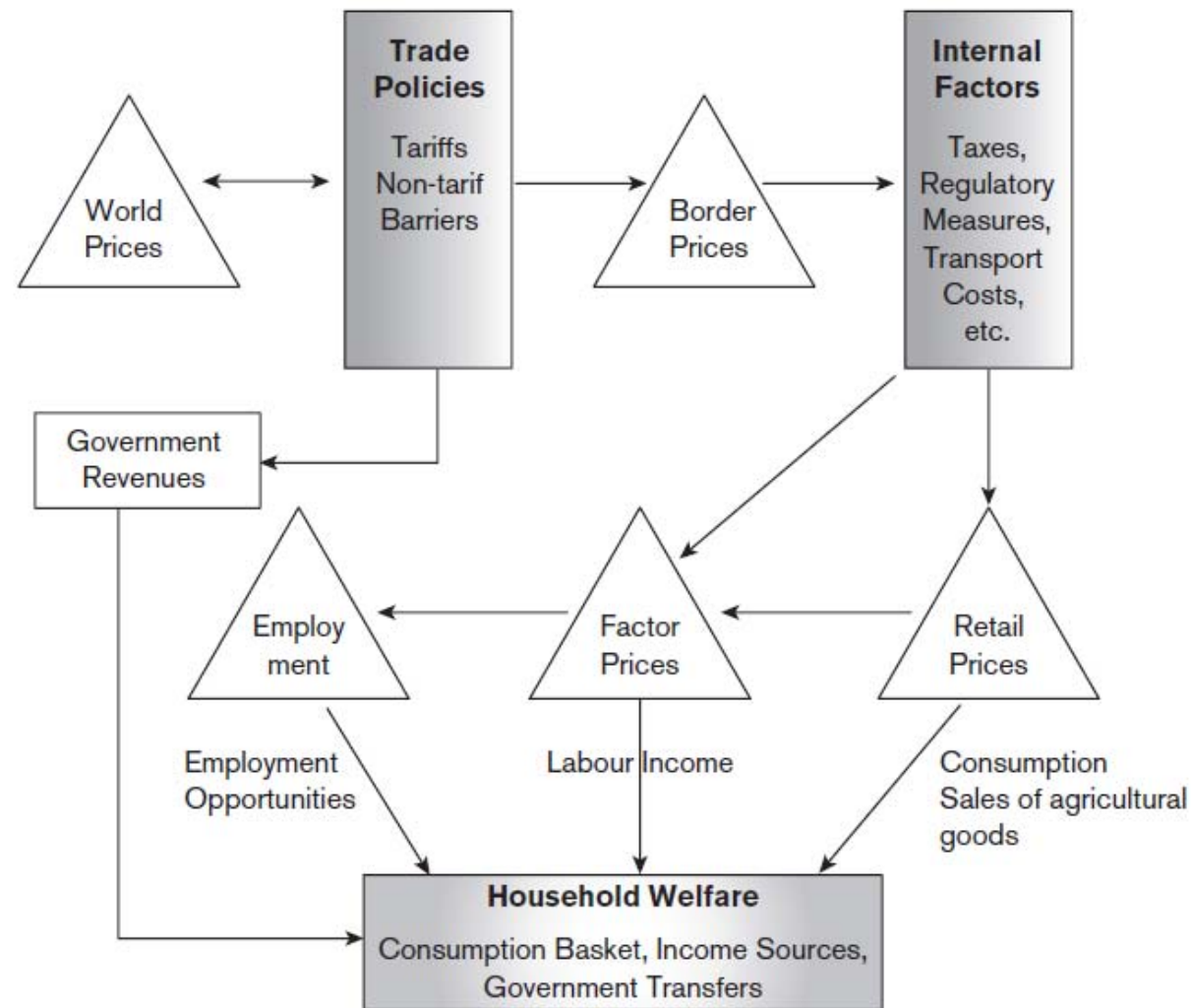
## Advanced topics: gravity

- How to set up a gravity database and estimate the model
- Step by Step approach with examples:
  - Where to get the data
  - Basic theoretical foundations
  - Setting up the model
  - Running the model in STATA
  - Understanding the results
  - Translating the results into policy



# Advanced topics: distribution

Figure 6.1 Trade policies and households' welfare

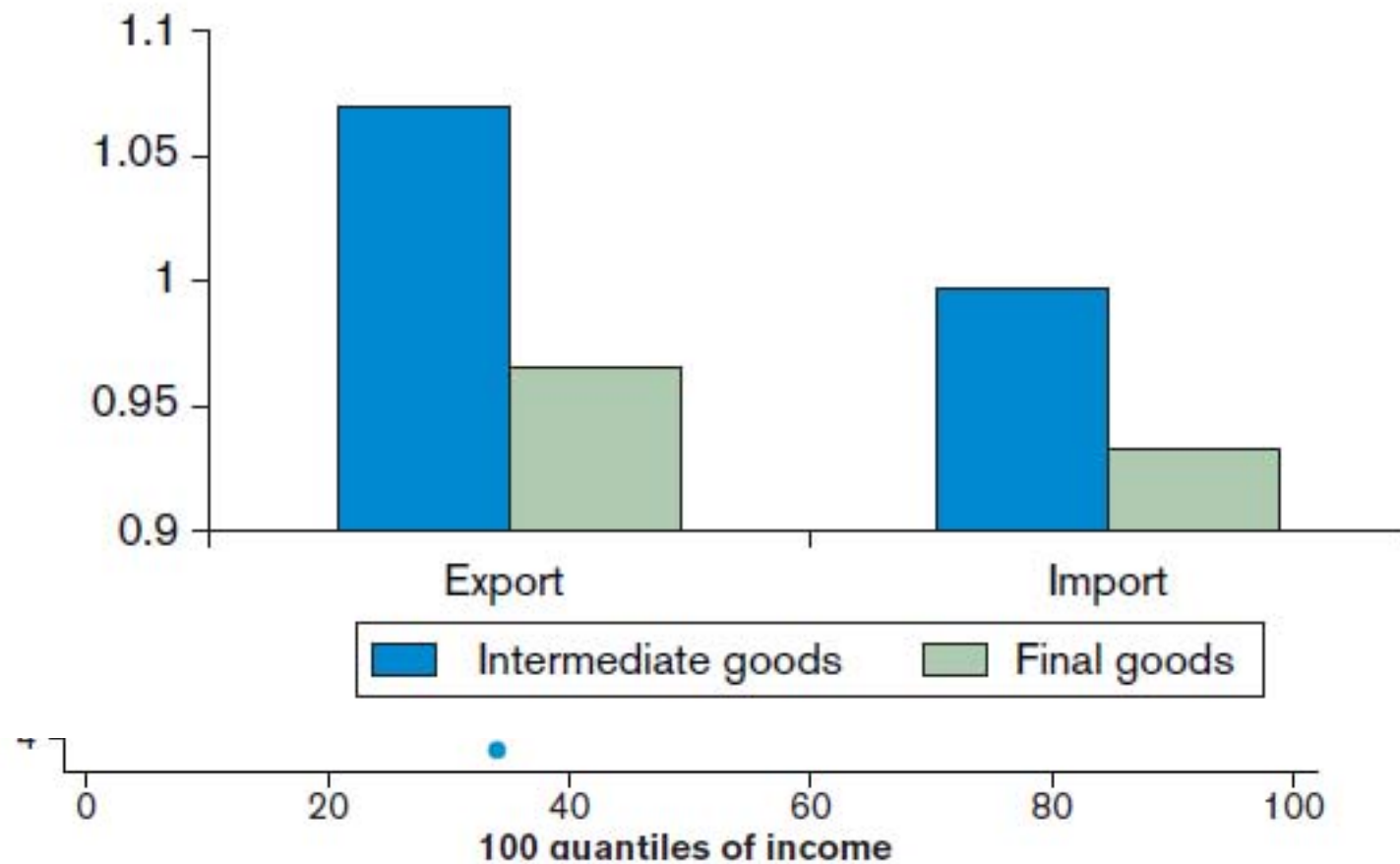




# How to illustrate the results

Figure 6.6 Tariff on consumption

Figure 1.6 EU Regional intensity of trade indices with the CEECs





## A user-friendly [website](#) and DVD

- STATA do files for all applications, exercises and Figures / Tables of Chapters 1, 2, 3 and 6 are provided
  - Solutions to applications and exercises of Chapter 4 are also provided
- Datasets are also provided
- All the material is easy to download (with a little help from the friendly [user guide](#))