 Tradable vs. Non-tradable
An Empirical Approach to the Classification of Sectors

Stefan Zeugner

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Purpose:

Another way to look at tradable vs non-tradable

Source: xkcd.com/927
Why 'tradable' matters

- Crisis: Change of environment and expectations
  - Requires reallocation of labour, capital, and output

One important yardstick:
Reallocation from non-tradable to tradable activity: "produce machines, not houses"

Reasoning:
- Export contrib. to GDP; as world imports grow faster than world GDP
- Demand for tradable goods more elastic – i.e. supply expansion reflected in revenue
Why tradable prices should remain more stable

Demand in crisis countries has collapsed

→ Reorient supply towards export markets

Since demand for NT less elastic than for T:

→ Prices of 'tradable' goods should remain stable, and output increase (→ increased revenue)

→ Prices and output in 'non-tradables' should decrease

→ labour cost in both sectors may differ due to specialization and search-matching

→ I.e. in 'tradables': ULCs should decline less, and operating margins increase more, than in non-tradables
Some reasoning behind the quest for tradables

Domestic market – non-tradables

Export market – tradables
### Traditional (Ameco) approach

**Tradables:**
- Manufacturing
- Agriculture & fisheries
- Mining
- Trade, hotels, transport,...
- (Utilities)

**Non-tradables:**
- Construction
- Finance & real estate
- Public services
Traded shares approach

- Instead of separating sectors into T & NT...
- ... assign each of them a 'traded' weight according to their open-ness per country

100% domestic demand 100% foreign demand

Public services
- Trade, tourism, transport
- Manufacturing
- Agriculture
- Construction
Why use a different approach?

Classification by sector? 0 or 100%

- Freight insurance = housing mortgage = non-tradable?
- Little tailor = garment factory = tradable?

By export intensity? (Maya & Paul OeNB)

- Hungary exports many cars, but most inputs are imported
- Little domestic suppliers for exporting firms

⇒ Empirical 'exported value added'

- Ideally, each firm's, worker's contribution towards exports
- Aggregate: 'exported value added' by sector
VA embedded in foreign demand vs. export intensity, 2009

Exports of goods and services, % of GDP
Value added in foreign demand, all sectors, 2009

Legend:
- Exports of goods and services, % of GDP
- Value added in foreign demand, all sectors, 2009
Illustration: ULCs

- Traditional tradable ULC:
  \[
  \frac{\text{Wage sum of tradable sectors}}{\text{Value added in tradable sectors}}
  \]

- 'Traded' ULC:
  \[
  \frac{\text{Wage sum paid for producing 'exports'}}{\text{Value added produced for foreign demand}}
  \]
Traded vs non-traded ULC growth

- Tradable ULC growth 2009 to 2011
- Non-tradable ULC growth 2009 to 2011

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Non-traded ULC growth 2009 to '11
Non-tradable ULC growth 2009 to '11

Traded ULC growth 2009 to 2011
Tradable ULC growth 2009 to '11
Contributions towards ULC growth

'traditional' approach

%  
-5 -4 -3 -2 -1 0 1 2 3 4  
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Non-tradable contribution to ULC growth  
Tradable contribution to ULC growth  
ULC growth 2009 to 2011

'trade shares' approach

%  
-5 -4 -3 -2 -1 0 1 2 3 4  
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Non-tradable contribution to ULC growth  
Tradable contribution to ULC growth  
ULC growth 2009 to 2011
Things to keep in mind

- 'Traded shares' is a slightly different concept than 'tradability' – but used to the same end
- Useful indicator to complement traditional ones on MIP work
- Not limited to ULC: Effectively measures openness of sectors and economies
- Also a useful input for refining other indicators (e.g. cyclically adjusted current account)
Caveats and requirements

- OECD work has limited country range ➔ draw on WIOT to extend to all EU countries
- IO data only available with 3-year time lag ➔ Real time analysis requires 'nowcasting'
- Method requires a consistent set of input tables ➔ Future of world input output tables not guaranteed, but national I-O tables are there