


***A PRICE INDEX WITH VARIABLE
MARK-UPS AND CHANGING
VARIETY***

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1. Price indexes are important and we have serious difficulties getting international comparable ones
 2. What I liked the much in Demuynck-Parenti
 3. Need more explanations (for dummies) and proofs
 4. Frustration with Denver scan dataset
 5. Going forward with unit-values? (with 3 illustrations)



- Importance of price indexes: example of export performance of EA countries
 - Italy (real exports) lagging behind or not? Higher inflation (export deflator): measurement issue (composition, quality, variety) or real (internal) appreciation?
 - Using nominal exports, which is advocated by BoI given available deflators, Italy performs (performed) relatively better than France for instance
- Lack of homogeneous methodology, superlative indexes (Tornqvist) not used, lack of or heterogeneous treatment of quality, etc.



- Appreciated:
 - A price index that takes theory seriously,
 - A rich decomposition: markups, productivity, variety and demand
 - Study of relationships between those components very promising: for instance demand=>markups (example: to what extent will Trump's protectionism increase prices in the US through increased demand for domestic varieties?)



- Need more explanations
 - Looks a bit magic! Armed with only (equilibrium) prices and quantities the authors (like others in this literature pioneered by Feenstra) are able to separate supply and demand shocks (no extra information on supply), and more
 - They do it convincingly but people like me may still be a bit skeptical, need more pedagogy
 - And maybe comparisons with other approaches, more data demanding



- Frustration:

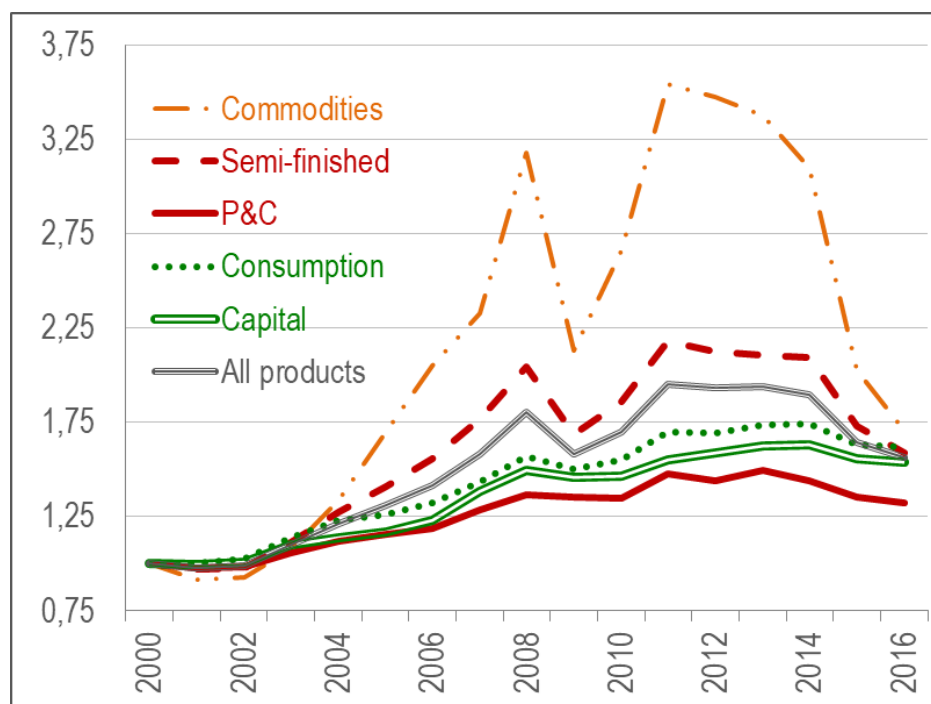
- The empirical application is only an illustration (as said by the authors): OK but sorry I don't care much about grocery prices in Denver in 1994!
- The question is therefore would it be possible to apply it to more policy-relevant data?
- Sebastian Stumpner (BdF) recently studied the US consumers gains from Chinese imports, using large scan-level data (forthcoming paper in AER)
- Could it be possible to use **international trade data**? (readily available at virtually zero cost, for ~200 countries)



- I will try help a little bit the authors answering this question
 - In international trade dataset we got, at a fairly detailed level (exporter*importer*product –thousands of products–), quantities (often in tons) and values (often in USD): prices are not observed, we only have a proxy: unit-value
 - At the six-digit level a product category is for instance: “220300=*beer, made from malt*”, probably aggregates a lot of scan level items found in Denver’s supermarkets!
 - UV are very noisy, dlog UV even more... (I believe that we can tackle this problem, by trimming etc. Others believe that they should be trashed...)
 - I use them for years with colleagues at CEPII, BdF, WB etc.: for instance **Tornqvist** price indexes in WB-ITC-BdF dataset MEC, or work in progress about GVC using deflated trade flows =>
ILLUSTRATION 1

ILLUSTRATION 1: TRADE UNIT VALUE INDICES BY PRODUCTION STAGES

Trade unit value indices by production stages (2000=1, world trade, all products)



Source: Authors' calculations from CEPII's WTFC database.

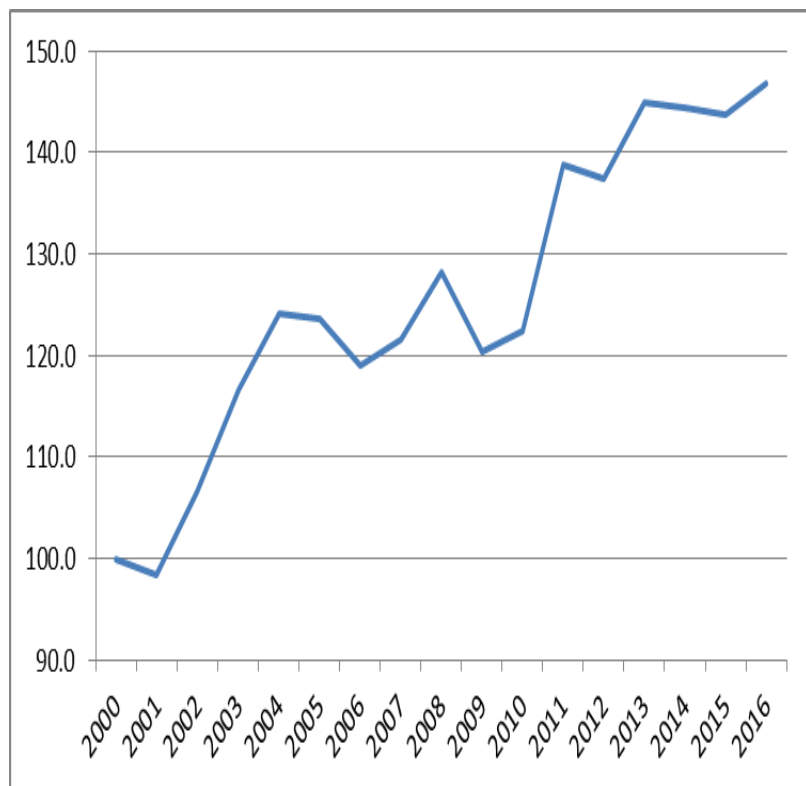
in: "Are global value chains (GVCs) receding? The jury is still out."
forthcoming CEPII's WP with D. Unal and A. Sztulman



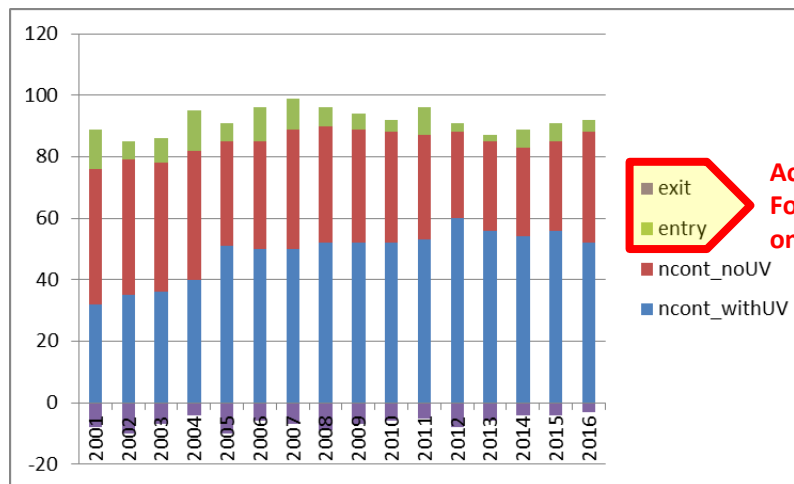
- Varieties in international trade dataset
 - If we take an importer (the US) varieties can be exporters
 - But at least for big and rich countries all possible suppliers at the country level are continuously present
 - Or more precisely entries and exits are by very small suppliers, not likely to have an impact on prices
 - Example of US beer imports => *ILLUSTRATION 2*

ILLUSTRATION 2: US IMPORT OF BEER

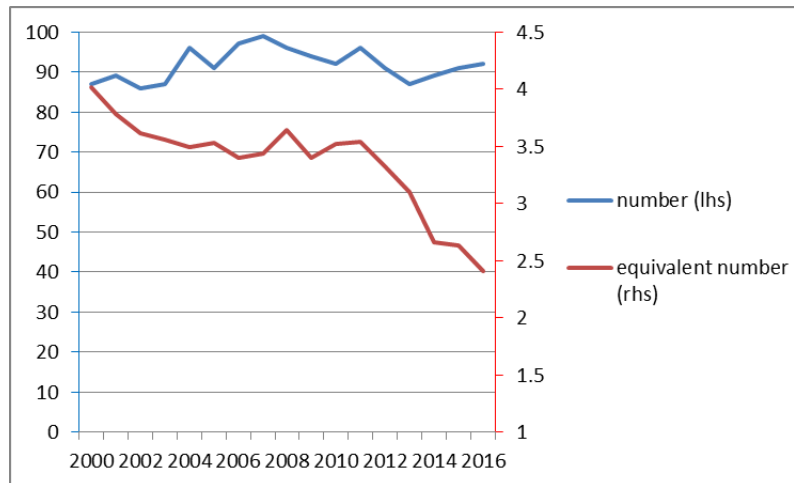
■ UVI for US beer imports



■ Import “Variety”



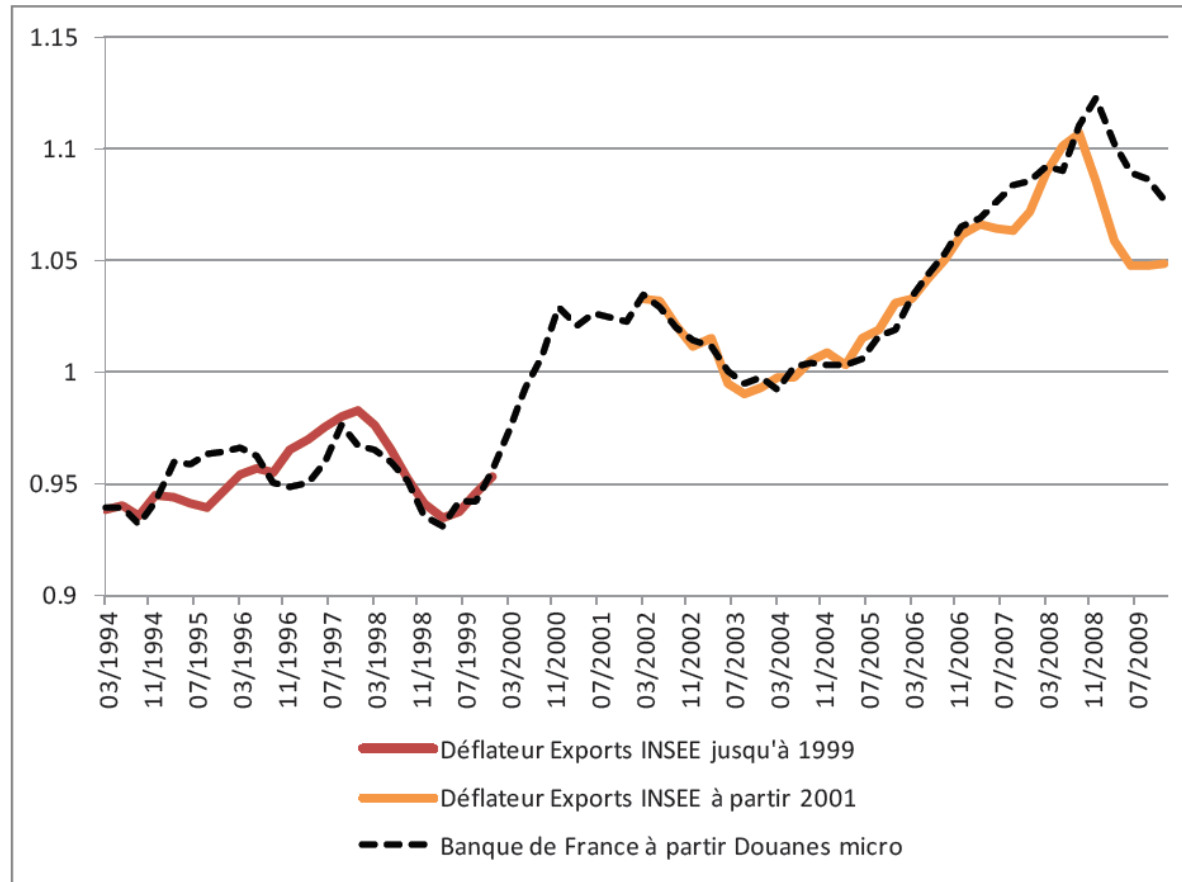
Account together For <1% d IMP on average





- Need to use firm-level data?
 - In that case varieties can be firms (country*firm if one considers that foreign subsidiary of a firm sale different products)
 - Contrary to country-level data those data are rarely used (to my knowledge)
 - A decade ago (unpublished work) I discovered that the official French export deflators (computed using surveys rather than UV since early 2000s) can be relatively well tracked with a firm level UV index => *ILLUSTRATION 3*

ILLUSTRATION 3: UV INDEX (TORNQVIST! WITH FIRM LEVEL CUSTOMS DATA) AND OFFICIAL FRENCH EXPORT DEFLATOR



Sources : INSEE et DGDDI, calculs des auteurs

<https://www.tresor.economie.gouv.fr/Ressources/File/334943> (2011)