

Discussion:
'Trade policy and the cost of exporting for
Agri-Food Firms in Selected EU countries'

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Contribution

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- Integrating different modeling tools and data sources to account for production inter-dependencies through GVCs in specific sectors;
- Using a model-based general-equilibrium approach to assess trade policy;
- Providing novel indicators of tariff protection in the agricultural sector aiming to take into account import dependencies via GVCs;
- The proposed approach offers broad scope for trade policy applications

Comments

Description of the GTAP-VA model and its extensions

- The GTAP-VA model is rather complex (e.g. many markets, sectors, countries, agents, I-O linkages, etc.), its features have to be illustrated more clearly to understand the economic mechanisms and channels that may influence the proposed indicators
→ graphical representations? comparison with standard quantitative trade model (e.g. Caliendo and Parro, 2015)?
- Extensions aiming at taking into account I-O production linkages and including specific agricultural productions has to be explained in more details (e.g. relaxation of proportionality assumptions)
→ main differences with respect to standard ICIO tables (WIOD, TiVA, etc.)
- The wording can be simplified (e.g. countries vs regions, products vs sectors, etc.)

Focus on the foreign inputs: value-added accounting (1)

- The foreign-originated component is very important for the analysis
- The three-terms decomposition ($DVA + FVA + DDC$) is incomplete and the labeling may be ambiguous
- The Koopman et al. (2014) offer a more accurate breakdown/labeling

Focus on the foreign inputs: value-added accounting (2)

Following Los and Timmer (2016) and Borin and Mancini (2019):

$$\mathbf{E}_{S^*} = \underbrace{\mathbf{V}_S \mathbf{LOC}_{SS} \widehat{\mathbf{E}}_{S^*}}_{\text{domestic value added (DVA}_{S^*})} + \underbrace{\mathbf{V}_S \mathbf{LOC}_{SS} \sum_{j \neq S} \mathbf{A}_{Sj} \mathbf{L}_{jS} \widehat{\mathbf{E}}_{S^*}}_{\text{domestic double counted (DDC}_{S^*})} + \underbrace{\sum_{t \neq S}^G \mathbf{V}_t \mathbf{L}_{tS}^{\neq} \widehat{\mathbf{E}}_{S^*}}_{\text{foreign value added (FVA}_{S^*})} + \underbrace{\sum_{t \neq S}^G \mathbf{V}_t \mathbf{L}_{tS}^{\neq} \sum_{j \neq S} \mathbf{A}_{Sj} \mathbf{L}_{jS} \widehat{\mathbf{E}}_{S^*}}_{\text{foreign double counted (FDC}_{S^*})}.$$

domestic content (DC_{S*})
foreign content (FC_{S*})

where $\mathbf{L}^{\neq} = (\mathbf{I} - \mathbf{A}^{\neq})^{-1}$

$$\mathbf{A}^{\neq} = \begin{bmatrix} \mathbf{A}_{11} & \mathbf{A}_{12} & \cdots & \mathbf{A}_{1S} & \cdots & \mathbf{A}_{1G} \\ \vdots & \vdots & \ddots & \vdots & \vdots & \vdots \\ \mathbf{0} & \mathbf{0} & \cdots & \mathbf{A}_{SS} & \cdots & \mathbf{0} \\ \vdots & \vdots & \vdots & \vdots & \ddots & \vdots \\ \mathbf{A}_{G1} & \mathbf{A}_{G2} & \cdots & \mathbf{A}_{GS} & \cdots & \mathbf{A}_{GG} \end{bmatrix}.$$

note that $\mathbf{L}_{SS}^{\neq} = (\mathbf{I} - \mathbf{A}_{SS})^{-1} = \mathbf{LOC}_{SS}$

Focus on the foreign inputs: empirical evidence

- Additional descriptive evidence on the foreign component is needed:
→ validation of the ICIO framework used, e.g. showing that the breakdowns of sectoral exports are similar to those obtained with standard ICIO tables (WIOD, TiVA)
- More information on the FVA: → sectors of origin (es. agriculture, energy, manufacturing, etc.), countries/regions of origin (EU vs extra-EU)
- derivation of an additional 'uniform tariff indicator' tailored to the foreign value-added

Economic mechanisms behind the uniform-tariff export indicator

- The relationship between **import tariffs** and **export performance of a specific sector** is complex in a general equilibrium framework
→ the EU context increases the complexity
- Many potential channels with opposite signs:
 - loss of competitiveness due to higher input prices (–, key for the proposed indicators);
 - substitution between domestic and foreign inputs (+, especially for DVA in exports);
 - trade diversion in other EU markets (+);
 - other GE adjustments (changes in relative prices, factor reallocation across sectors, factor prices variations, etc.);
- Additional evidence on the underlying mechanisms may be useful to validate the indicators:
- → e.g. showing the curve that relates the uniform-tariff with agri-exports (and the value-added components, e.g. DVA, direct-DVA, indirect-DVA, FVA).

Summary of the main comments

- The characteristic of the GTAP-VA model and its extensions should be set out more clearly
- Focus on the foreign component of exports: analytical indicators, descriptive evidence and simulation results
- Additional preliminary evidence and simulation results to prove that the propose indicators are suited to measure upstream protection

Thank you