### Discussion of

"From Global to Local: Trade Shocks and Regional Growth in Italy During the First Globalization"

by Matteo Gomellini, Anna Missiaia and Dario Pellegrino

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## The paper

- Research question(s)
  - Economic impact of the First Globalization in Italy
  - Role of trade in the emergence of the Italian North-South divide
- Empirical strategy
  - Exploit provincial variation in trade exposure to explain (ersatz) GDP growth, following Autor et al. (2013)
- Main empirical innovation
  - Allocate (huge) employment in agriculture to different products using labour coefficients from technical literature (Angelini, 1936 and Niccoli, 1898)
- Main findings
  - The South was hit a globalization shock, mostly in agriculture
  - Positive effect of trade shocks on growth, operating through manufacturing
- Overall, great reading (and necessary contribution)

### Major concerns

- Identification
  - Definition and operationalization of 'Trade Shock': X and M
- Measurement
  - 'Breeding' or 'pastoral' sector
- Narrative and framing:
  - The South and 'globalization impact'

## Identification

- Miss-specification of Trade shocks?
  - If simultaneous surge of M and X (e.g., traditional manufactures), you might mistakenly attribute the effect on one to the other
  - This might explain some puzzling results (positive correlations of growth with **both** M and X shocks)
  - Suggestions: compute net M (as in Autor et al., 2013) or enter both M and X as regressors (as in Feenstra et al., 2019)?
- Miss-specification of Trade shocks? attenuation bias?
  - 'Trade exposure' computed using employment in t=2 (1881), when the shock already going on
  - 'Trade exposure' computed without taking into account the size of the non-tradable sectors?
- Endogeneity:
  - (Unobserved) sector-specific domestic shocks impact both trade and employment growth
  - Think of the effects of crop failures (from the M side)
  - Or of the introduction of hydroelectricity (from the X side)
  - If this is the case, spurious correlation between trade and growth
  - Suggestions: IV à la Autor et al. (2013)?

### Measurement

- Main concern: problems with the allocation of agriculture
- Angelini (1936): a great source! though a tricky one to handle
  - 'Breeding' where are pastures?
    - Comparing Angelini (1936) to your Table 1, the livestock employment seems (severely) underestimated (by a factor of 20 to 1!)
    - Moreover, cattle had different uses part of it, draft power, part of it, tradable goods (meet, butter, cheese)
    - It accounted for 25%-30% of agricultural output, so this must be a source of substantial measurement error (e.g., Belluno more specialised in cereals than Bari and Palermo?)
  - 'Specialized vs intercropped' problematic, since areas in ASI 1886 do not make sense
- In general, you ignore (to your own peril!) well-established scepticism on pre-1900 official statistics see Federico (1982)
  - Suggestion: adjustments using first reliable figures (NPSA, 1909-1910)

## Narrative/framing (I)

- Tension between a 'globalization' story and a 'North-South' one
- Globalization:
  - Trade is the main explanatory variable here, but we miss the historical action going on
  - Where is the grain invasion? Where is the phylloxera?
  - Where is the trade war with France
    - Initial exposure to French trade is to me the most beautiful source of exogenous variation in this case you could exploit this!
  - Last but not least, where are tariff barriers???
    - You are replicating Autor et al. (2013), but identification in early 21<sup>st</sup> century is much cleaner than in late 19<sup>th</sup> century, when you have a protectionist backlash

# Narrative/framing (II)

- North-South
  - As the paper proceeds, you shift your focus from the effects of trade (the coefficient of the trade shock) to the interaction with the South dummy
  - But the interpretation is not straightforward:
    - why do Southern provinces react systematically in a negative way to whatsoever shock (M and X)?
    - They tend to capture most of the action...
  - The exploration of mechanism is interesting...
  - ...but the interpretation you provide is not intuitive
    - Mechanization mediates the positive effect of export shocks: isn't this just another way of measuring the same phenomenon (i.e., presence of 'advanced' sectors)?
  - Results of this interactions seem robust, but interpretation remains puzzling to me