#### Discussion of:

"THE MISSING INTERNAL DEVALUATION: NOMINAL AND REAL ADJUSTMENT TO THE GREAT RECESSION WITHIN THE US"

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November 17, 2017

## Internal devaluation

Theory: in an optimal currency area, movements in relative demand are associated with adjustments in relative prices.

- ► E.g. if the relative demand in country A falls with respect to country B, we should expect the *rer*<sub>A,B</sub> to depreciate in country A
- the mechanism goes through the relative adjustment of prices of tradable and non-tradable goods
- ▶ a fall in local demand hits harder non-tradable good producers, such that prices fall more in this sector than in the tradable sector and employment shifts towards tradable sector: internal devaluation

The case of housing price bust during GR: it may be considered as a quasi-natural experiment to study the effects of changes in relative demand across US regions

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## **Summary**

This paper: it exploits MSA level data on changes in housing prices during the GR to explore the changes in *rer* across US regions

- 1. theory: define  $rer_I = (1 \alpha_S) \cdot (p_{I,j} p_G) + \alpha_S \cdot (p_{I,S} p_S)$
- 2. empirics:
  - explanatory variable:  $\Delta log(hp)$
  - explained variables:  $\Delta log(rer)$ ,  $\Delta log(employment)$ ,  $\Delta log(wages)$ ,  $\Delta log(n.firms)$ ,  $\Delta log(laborshares)$ ,
  - expected results: in regions where hp falls the more,  $\Delta log(rer) \downarrow$ ,  $\Delta log(employment) \downarrow$

OLS and IV – using the regional housing supply elasticity as instrument – as  $\Delta hp$  could be driven by unobservable variables

- ▶ In detail:
  - there seems to be no changes in relative prices for goods and services: the elasticity is even negative for services, as their price increased in regions where hp decreased more:
  - as expected, employment fell more in services than in goods :)
  - wages: little response :
  - mark-ups (inverse of labor shares): little response :
  - number of firms: positive correlated, lower net entry in regions where hp fell more: [

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- remind a well-established adjustment mechanism from the theory on optimal currency area
- 2. show a puzzle in the data: empirical results do not match with the predictions from theory
- 3. solve the puzzle: where the missing internal devaluation come from? For the reader, this is the key question

Possible interpretation of the puzzle (to avoid a feeling of non-results):

- is there something wrong with the experiment/data?
- once we rule out any possible issue from data, should we use the experiment to reconsider the predictions from theory? E.g. highlight the channels in data that prevents a match with theory

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- are there alternative measures of relative fall in demand?
- one possible explanation leaning against a decrease in price is that asymmetric information between lenders and borrowers may increase after a house price bust - because of the fall in the value of collateral - raising borrowing costs of firms: would it be possible to use regional-level measures of changes in financial constraints as a control?
- ▶ looking forward to see results using BLS CPI microdata on 69 MSAs from 1980s: has there been a rer appreciation associated with episodes of housing price booms prior to the GR?
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- ► Should we discard the assumption of free mobility across sectors (T-NT)?
- Results go in the right direction for movements in employment and the number of firms, but the reallocation of workers is not enough to generate internal devaluation: is there a counteracting force at the intensive margin that offsets the possible increase in markups determined by the lower competition?

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## Final remarks

- This paper contributes to the literature by :
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  - it explores the consequences of the fall in relative demand on rer, employment, wages, number of firms and finds no evidence of internal devaluation: a key result also for the Euro Area policymakers
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