

Discussion of:

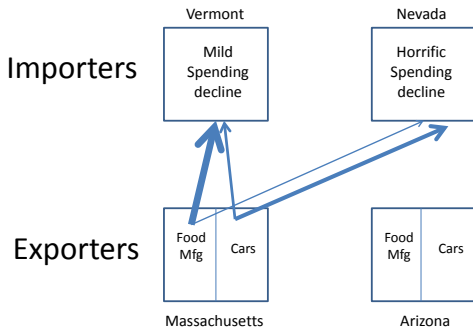
Trade and the Geographic Spread of the Great Recession

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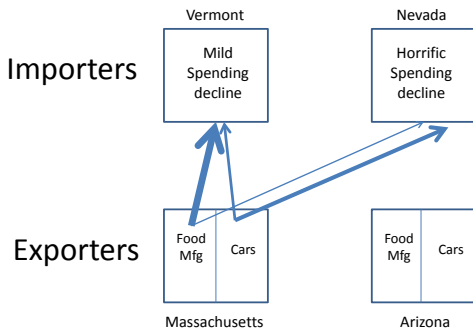
NBER ITM Summer Institute 2014

Basic Idea of (PE) Empirical Exercise



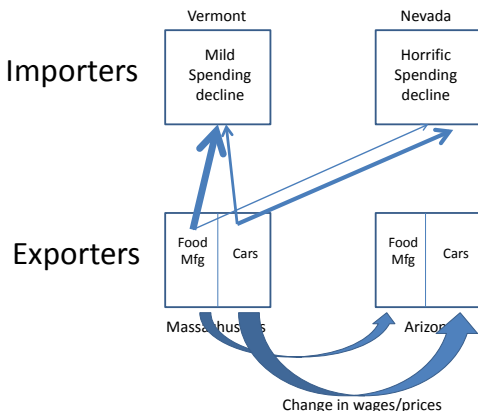
- Does not use data on state-level shipments nor expenditures
 - No data (suggestion: Nielsen)
 - Simultaneity problem
- Regress employment on **trade-share wtd** ave of '06 leverage ratios (Mian/Sufi)

Basic Idea of (PE) Empirical Exercise



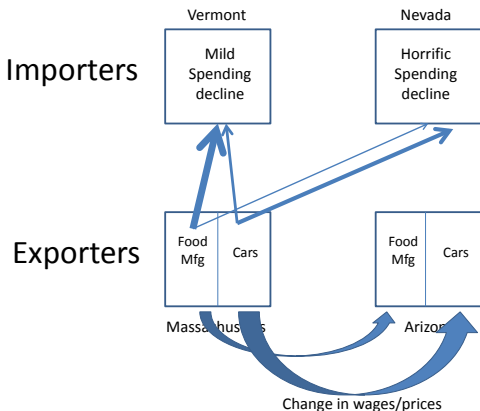
- Instruments for initial trade shares using gravity model
- Runs placebo test using import flows rather than export flows
- Effect strongest for Rauch differentiated goods

Basic Idea of (GE) Model



- DEK-esque expenditure shock (non-mfg tradable good Z)
- $w_{it}^k L_{it}^k = \delta^M \delta \sum_n \pi_{nit}^k \alpha_n^k (W_{nt} L_{nt} + Z_{nt})$

Basic Idea of (GE) Model



- Adjustment in aggregate wages and labor quantities determined from $\eta \frac{L^{1/\phi}}{C^{-\gamma}} = W^*/P$
- Disaggregate wages sticky ($w_t^k = f(w_{t-1}^k, w_t^{*k})$) and sectoral labor and wages linked to aggregates via $L^k/L = (w^k/W)^\nu$

Basic Results

- Empirics: Increase 2006 leverage by 1 s.d. \rightarrow 3 pp reduction in employment growth during 2007-2009
- Theory: Trade alone gets you about 1/3 of distance from model of autarchic state-industries to actual data

Quick Comments

- A few empirical suggestions/quibbles:
 - ① Consumer (final) vs. business (intermediate) purchases
 - ② Results using external trade should be benchmark
 - ③ Employment growth relative baseline (Hurst et al., 2014)
- But, author on top of things, lots of clean, clear, and helpful robustness checks.
- Bottom line: I find the empirical results convincing.

Broader Context (Within-Country vs. Between Country)

- Trade-Comovement Puzzle / Business Cycle Synchronization
- Richer Characterization of Diffusion Process
- Broader Role for Trade than Just Transmission

Is there Trade-Comovement Puzzle Here?

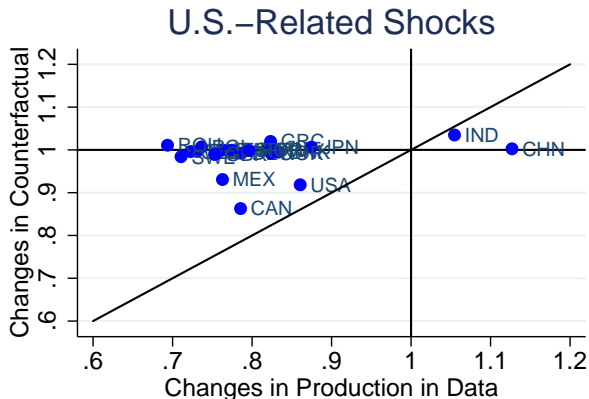
- Extent of transmission in model ($\approx 1/3$) appears stronger than findings in comparable open-economy settings.
- “Trade-comovement puzzle” of Kose and Yi (2006). Large literature on business cycle synchronization.
- More puzzling given lack of connection via intermediates (Johnson 2013)
- Why “appears”? Industry employment, bigger than manufacturing but subset of GDP, is outcome variable.
- Further, exercise not quite the same. But best guess is this model generates massive co-movement.

High Transmission Relative to Open-Economy

- EKNR (2014) looks at change in GDP (not employment) in multi-sector multi-country model with shocks to:
 - Sectoral productivity,
 - Values of stocks of manufactures and structures,
 - Trade frictions,
 - Relative demand,
 - etc.
- Along with DEK (2011), EKN (2013), and others in large literature, closely-related exercise to this paper.

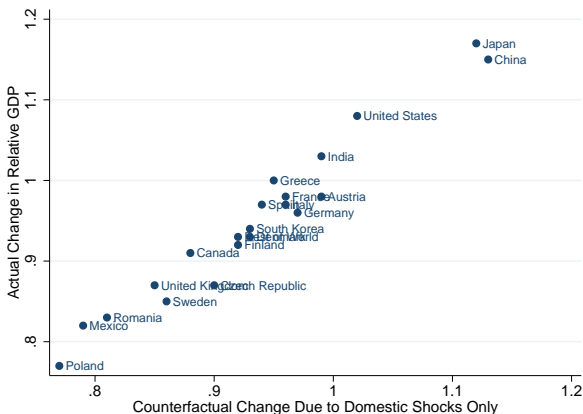
High Transmission Relative to Open-Economy

- We do get interesting transmission, particularly of trade flows and production in certain geographies:



High Transmission Relative to Open-Economy

- But generally, we do not find “foreign shocks” to be nearly as salient for GDP (let alone employment):



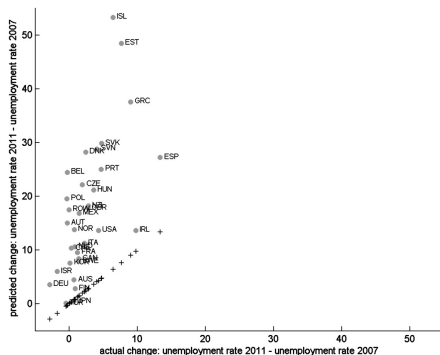
So, Where Does Difference Come From?

- 1 Simplest possibility is simply differences in “openness” π_{ni} .
 - How open are states on average?
 - How does the distribution compare to international experience?
 - Useful to explore this in counterfactual calibrations to see if this is the whole game

So, Where Does Difference Come From?

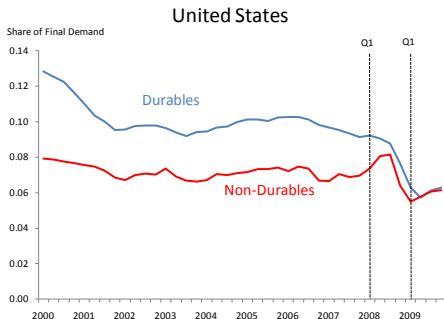
- 1 Simplest possibility is simply differences in “openness” π_{ni} .
- 2 Rigid wages?
 - Justifiable relative to open-economy given flexible FX
 - Vary ρ and λ ?
 - Exercise in EKN (2013) gives extreme version of this:

Figure 6. *Actual and Predicted Change in Unemployment from Fixed-Wage Model*



So, Where Does Difference Come From?

- 1 Simplest possibility is simply differences in “openness” π_{ni} .
- 2 Rigid wages?
- 3 Fixed expenditure shares?
 - Cobb-Douglas assumed throughout so spending shares fixed.
 - Evidence suggests spending shares varied dramatically:



So, Where Does Difference Come From?

- 1 Simplest possibility is simply differences in “openness” π_{ni} .
- 2 Rigid wages?
- 3 Fixed expenditure shares?
- 4 Perfectly segmented asset markets, discount rate perfectly correlated with shock?
- 5 Size of non-traded sector?

So, Where Does Difference Come From?

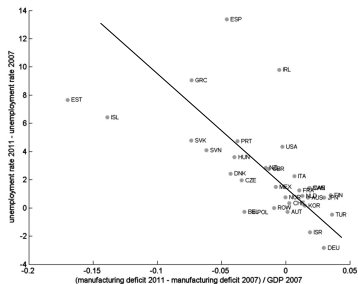
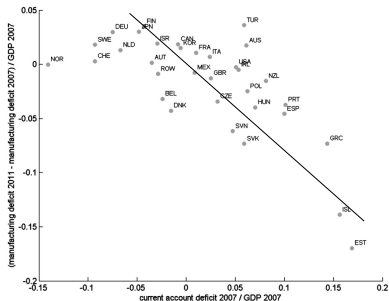
- Trade appears to generate more co-movement here
- It is because of either:
 - ① Different calibration of common model features
 - ② Different environment
- Which is it?
- If (2), is this assumption more justified in domestic than international setting?
- And if (1), how convinced are we? For instance, say that sticky wages are doing the work. Then belief in results about transmission equivalent to belief that this calibration gets sticky wages correct.

Speed of Transmission and Dynamics

- Author studies on 2-year horizons only, but better carving out of dynamic path is useful. Where shorter, where longer?
- Consider comparison of 2007-2008 and 2008-2009 with intensity of shipping times by industry.
- Might plants in U.S. adjust location (presumably not internationally). Census info on establishments?
- US trade/GDP and unemployment in 2012 still far off trend. Use 2012 CFS?

What Caused the Recession? Did Trade only Transmit?

- Essentially takes the answer from Mian-Sufi, no exploration.
- And I agree that initial borrowing/leverage seems to have mattered (See EKN 2013 in int'l context):



What Caused the Recession? Does Trade only Transmit?

- But use model structure to evaluate productivity or trade-friction shocks.
- Many unexplored moments – relationship of wage dispersion and price dispersion with tradability
- Can positive Z shocks generate “open economy relative multipliers” as large as in Namakura-Steinsson (2014)?

Conclusion

- Nice and convincing reduced-form empirical results. I buy it.
- Deep-dive comparison with international results. Difference in calibration or model structure? If latter, justified?
- Generalize model and impart more intuition. Leverage shocks and chosen moments good places to start, but consider speed, relative prices, etc.