Discussion of

The Elusive Pro-Competitive Effects of Trade

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Princeton IES Summer Workshop
June 2012

ACR

- Decomposition of **gains from trade**:

Krugman (1980)

Direct Effect (intensive margin)	**Entry** (new varieties)

Melitz (2003)

Direct Effect (intensive margin)	**Entry** (new varieties)	**Selection/reallocation** (extensive margin)

$$\varepsilon = \sigma - 1 \qquad \varepsilon = [\sigma - 1] + [\theta - (\sigma - 1)] = \theta$$

- ACR's welfare formula (CES + Pareto):

$$\widehat{W} = \hat{\lambda}^{-\frac{1}{\varepsilon}}$$

- Trade elasticity ε:
  - Gravity: $X_{ij} = \delta_i + \delta_j + \varepsilon\tau_{ij} + \nu_{ij}$
  - Micro-level discipline: $\theta/(\sigma - 1)$

ACR

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- (Mis?)-interpretation of the results:
  - Selection effect on welfare is nil
  - Gains from trade are model independent (general approx.)
  - Look outside CES + Pareto for additional welfare effects

ADCR

- What if markups aren't constant? Pro-competitive effects?
- Generalized formula:

$$\mathrm{d}\log W = (1-\eta)\mathrm{d}\log \lambda^{\frac{1}{\theta}}, \qquad \eta = \rho \cdot \frac{1-\beta}{1-\beta+\theta} \in [0,1]$$

- Under what conditions:
  1. Demand: $q_\omega = -\beta p_\omega + \gamma w + d(p_\omega - p^*)$,
     s.t. (i) $\beta = \gamma \leq 1$; (ii) $d''(\cdot) < 0$; (iii) $d(x) = -\infty$, $x \geq 0$.
  2. Pareto

- Interpretation:
  - — Does not imply negative pro-competitive effects
  - — Gains are now model-specific (unlike in ACR),...
    ...but previous formula is an upper bound

Kimball (1996) demand

- Demand aggregator (homothetic and symmetric):

$$\int \Psi(C_i/C)\mathrm{d}i = 1, \qquad \Psi'(\cdot) > 0,\ \Psi''(\cdot) < 0$$

- Demand:

$$C_i = \psi\left(\frac{P_i D}{P}\right) C = \psi\left(\frac{P_i D}{P}\right) \frac{W}{P}, \qquad \psi(\cdot) \equiv \Psi'^{-1}(\cdot),$$

  implies $\gamma = \beta = 1$ and $d(z) = z + \log \psi(\exp(z))$

  $\Rightarrow$ ACR formula applies for a general homothetic demand

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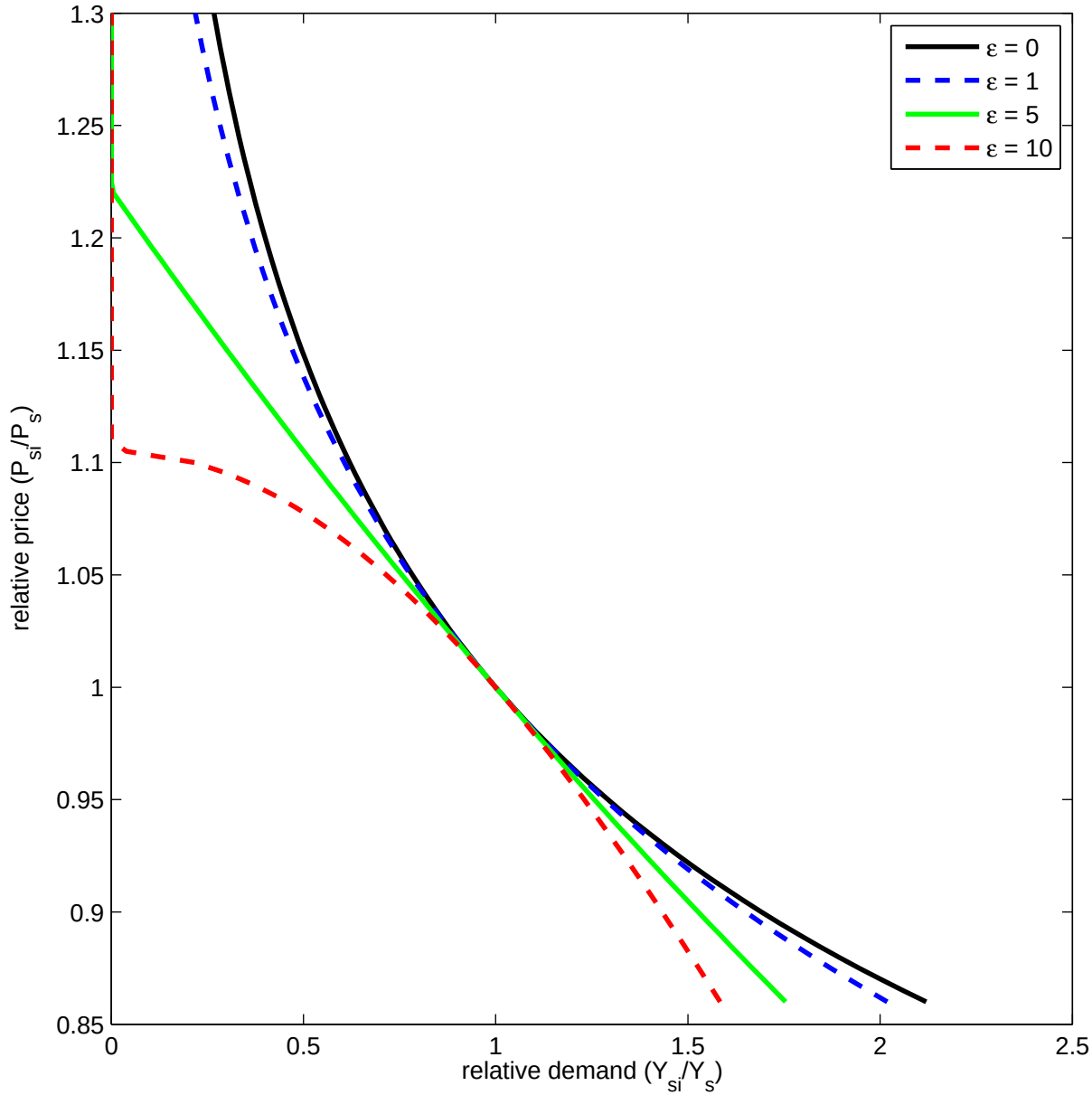
- Klenow and Willis (2006) specification:

$$\psi(z) = (1 - \epsilon \log z)^{\sigma/\epsilon}, \qquad \sigma \geq 1, \epsilon \geq 0$$

  — CES in the limit $\epsilon \to 0$
  — For $\varepsilon > 0$, log-concave and has a choke price $p^* = p - d + \frac{1}{\epsilon}$
  — (σ, ϵ) conveniently parameterizes demand and markup elasticity

Kimball (1996) demand

Figure 1: Demand function with real rigidities



Pareto distribution

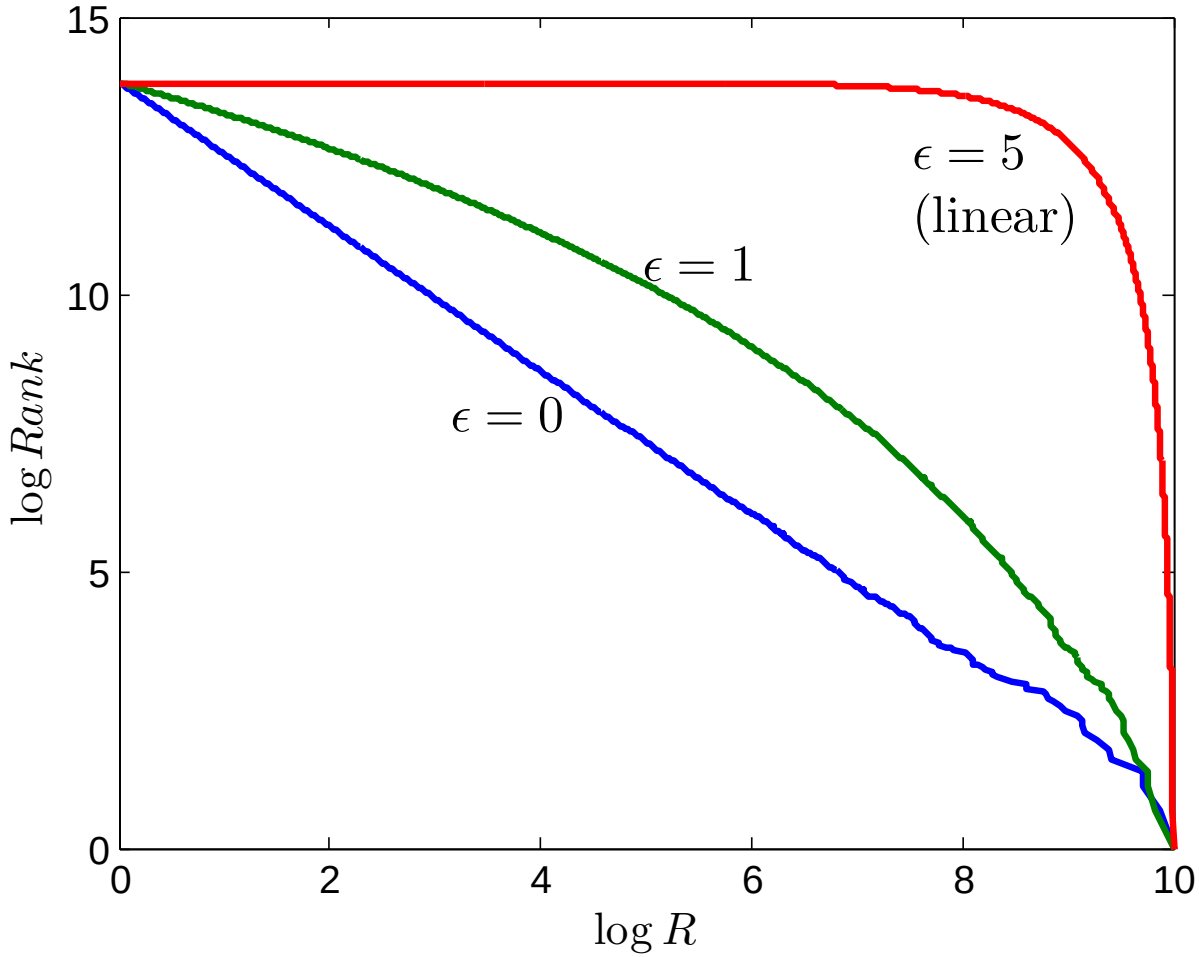
- Pareto is the key assumption (ACDR show it's not CES)

- Why do we like Pareto?
  - Tractability — still the case
  - Firm size distribution — no longer the case

- Without CES, Pareto implies:
  1. non-Pareto size distribution
     - counterfactual
  2. stable distribution of markups, from any country
     - depends only on demand and Pareto shape parameter θ
     - very sharp testable implication

Size distribution of firms

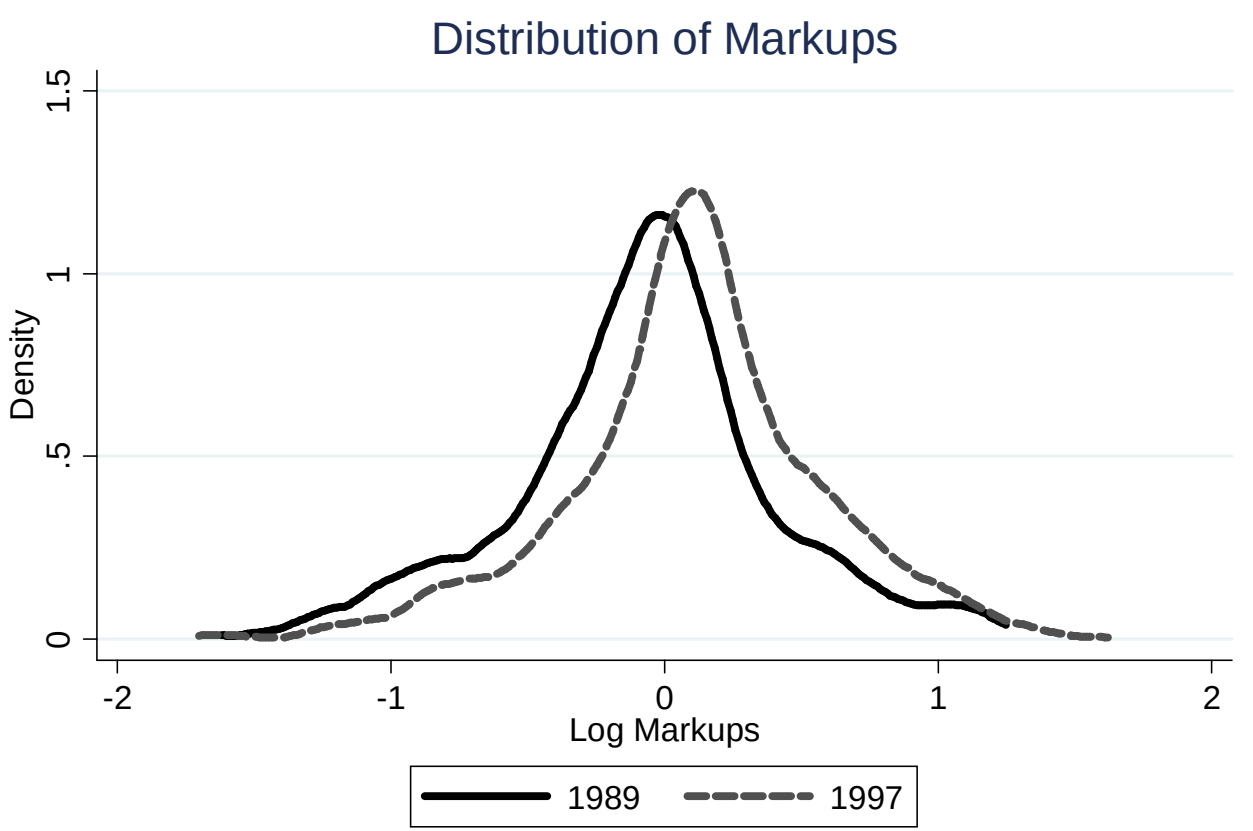
Pareto and Kimball demand



$\epsilon = 1$ (w/$\sigma = 5$): very mild markup variability, pass-through 80%

Markup distribution shift

From DGKP (2012)



Sample only includes firm-product pairs present in 1989 and 1997.
Observations are de-meaned by their time average, and outliers above and below the 3rd and 97th percentiles are trimmed.

Alternative Market Structures

- Two recent papers provide examples of very large pro-competitive effects:
  - de Blas and Russ based on BEJK
  - Edmond, Midrigan and Xu based on Atkeson-Burstein (2008)
- What is different?
  - Nested CES ($\infty \geq \rho > \eta > 1$)
  - Large change starting from autarky in EMX
  - Oligopolistic comp. in EMX and Bertrand limit-pricing in dBR
  - Large firms (so not Pareto!)
- Mechanism:
  - huge markup reduction for domestic firms from foreign competition
  - moderate markup increase for exporting firms
- Is it large firms or simply a departure from Pareto?
  - easy to check in a simple calibration

Conclusion

Two ways to interpret results:

1. Elusive pro-competitive effects
2. If you want to study pro-competitive effects, you have to depart not just from CES but also from Pareto assumption