The Response of State-Owned Enterprises to Import Competition: Evidence from Chinese Manufacturing Firms

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Research Seminar, Kyiv School of Economics, 9 April 2019

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Return with me to 1989 and then 1991….

- Fall of the Berlin Wall
- Socialism collapses, capitalism and neoliberalism triumph: “The end of history”
- The main thing left to debate: Shock therapy vs. gradualism
  - Spontaneity of institutional design (*cf.* US in Iraq 15 years later)
  - Jeffrey Sachs in Poland: “Faster!”
- The secondary debate: Privatize everything, but how?
  - Vouchers?
  - Investment funds?
  - Auctions?
  - Loans for shares?

Many lessons learned!

- Ability of insiders to control the process
- Creation of the “oligarchs” -- in many countries!
- Large scholarly literature: Did privatization increase efficiency?
  - Generally yes, by a variety of measures
  - Some caveats: presence of good institutions as well as sectoral competition make a difference
- BUT life may not be so simple. Maybe we got distracted by being “present at the creation.”
- Let’s step back: Should ALL state-owned enterprises (SOEs) be privatized?

In the fine print…

- Remember the qualifications from the empirical studies: privatization works in the right contexts (e.g. Vickers and Yarrow, *Privatization: An Economic Analysis*, 1988)
- Economic theory: Privatization may not be superior to public ownership in presence of strong risk aversion, financial constraints, and inability to write and enforce complete contingent contracts, especially for socially important goods and services (cf. Sappington and Stiglitz, “Privatization, information and incentives”, 1987
- THUS government ownership of “public utilities” remains widespread
- THUS many countries retain some government ownership in non-utilities sector, e.g. China

Why does government ownership persist?

- Sure, policy inertia, rent seeking, and corruption
- BUT ALSO…
- For public utilities, imperfections in regulation (and inability to commit to allowing either high profits or bankruptcy -- UK experience with “price caps”)
- For other firms, social goals
  - Employment
  - Local economic development
  - Use of local inputs
- Better achieved directly? Sure, but not always possible.
- Bai, et al., “A multitask theory of state enterprise reform”, 2000

Other issues addressed by paper

- Effect of globalization on domestic labor
  - Economists' default preference is for "free trade"
  - BUT increased awareness that lower trade barriers create losers as well as winners
  - In developed economies, labor may be loser, especially low-wage labor
  - Effect on labor in less developed economies less studied
  - Again, first-best policies may involve compensation for losses -- but first-best policies not always available

Other issues addressed by paper (continued)

- Efficiency wage theory
  - Empirical evidence that firm market power raises wages as well as profits
    - "Rent sharing" with workers
    - Effect of unionization (Weiss, "Concentration and Labor Earnings", 1966)
  - Empirical evidence that higher wages yield higher productivity
    - Incomplete contracts, costly monitoring, unobservable "effort"
    - Cf. literature on incentives in contracting: principal must pay agent to reveal private information (Laffont and Tirole, *A Theory of Incentives in Procurement and Regulation*)
    - Stiglitz, "Theories of wage rigidity", 1984: "Competitive equilibrium is consistent with a situation in which there is an excess supply of laborers. The law of supply and demand has been repealed."
  - This may be especially important in capital-intensive industries
    - Lower labor effort has multiplicative impact through effect on capital stock

Thus our hypotheses

- A competitive shock reduces the demand for labor
- This reduction in demand works through both the quantity (employment) and price (wages) channels
- HOWEVER …
- In state-owned enterprises, the effect is demonstrated less through the employment level and more through the wage level than in other firms
- In capital-intensive enterprises, the effect is demonstrated less through the wage level and more through the employment level than in other firms

Empirical testing

- The data
  - Panel of Chinese manufacturing firms, 1998-2007, from National Bureau of Statistics
  - Dropped firms with missing variables, fewer than 8 employees, equity holdings greater than 100%, and firms that export (to isolate effect of WTO accession on firms facing import competition)
- The identification strategy
  - China's accession to WTO in December 2001 as competitive shock
  - "Output import tariffs" -- protection for firm's end products -- in 1997 as measure of exposure to import competition
  - Equations test labor outcomes as function of OutputImportTariff1997*WTO*StateOwnership and OutputImportTariff1997*WTO*CapitalIntensity

Overall impact of competitive shock on wages and employment

Table 3: The impact of import competition on log per person wage and log employment

	Log real wage per person	Log real wage per person	Log employment	Log employment
	(1)	(2)	(3)	(4)
WTO	0.868***	0.768***	-0.088**	-0.364***
	(0.01)	(0.02)	(0.03)	(0.02)
WTO*Output import tariff in 1997	**-0.002***	**-0.002***	**-0.001***	**-0.001***
	(0.00)	**(0.00)**	**(0.00)**	**(0.00)**

Impact of competitive shock in SOEs and in more capital intensive firms

Table 4: The impact of import competition on log per person wage and log employment: The role of capital intensity and state ownership

	Log real wage per person	Log real wage per person	Log real wage per person	Log employment	Log employment	Log employment
	(1)	(2)	(3)	(4)	(5)	(6)
WTO*Output import tariff in 1997	**-0.001* (0.00)**	**-0.004** (0.00)**	**-0.003** (0.00)**	**-0.001* (0.00)**	**-0.005** (0.00)**	**-0.004** (0.00)**
WTO*Output import tariff in 1997*State equity %	**-0.002** (0.00)**		**-0.001** (0.00)**	**0.004** (0.01)**		**0.005** (0.01)**
WTO*Output import tariff in 1997*Log capital intensity		**0.003* (0.00)**	**0.003* (0.00)**		**-0.002* (0.00)**	**-0.002* (0.00)**

Summary of results

- Shock of increased import competition -- China's WTO entry -- reduced both wages and employment in firms producing for domestic sale
  - Magnitude of effect smaller than those found in more developed economies
- However, SOEs reduced employment less, and wages more, than other firms
  - Support for "multitask" theory of SOEs
- However, capital-intensive firms reduced wages less, and employment more, than other firms
  - Support for efficiency wage theory
- Principal empirical weakness: unable to control for changes in worker skill levels