

# **Global Competition and the Rise of China**

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# Why is Global Concentration Important?

- Given trade and investment, global concentration captures market structure to a greater extent than domestic concentration
- Similar to domestic concentration
  - Volatility
  - Market power
  - Efficiency



# Largest Revenues: 69 of Top 100 are MNCs

## The world's biggest economic entities

Based on a ranking from Global Justice Now. Data from the Fortune 500 and CIA World Factbook. Compares government and corporate revenues

1. United States
2. China
3. Germany
4. Japan
5. France
6. United Kingdom
7. Italy
8. Brazil
9. Canada
10. Walmart

Source: Global Justice Now, CIA World Factbook and Fortune

## How the 10 biggest corporations compare to economies

Based on a ranking from Global Justice Now. Compares government and corporate revenues. Overall ranking in brackets

1. Walmart (10)
2. State Grid (14)
3. China National Petroleum (15)
4. Sinopec Group (16)
5. Royal Dutch Shell (18)
6. Exxon Mobil (21)
7. Volkswagen (22)
8. Toyota Motor (23)
9. Apple (25)
10. BP (27)

Source: Global Justice Now, CIA World Factbook and Fortune



# Economist v Economist

Europe v America

## From clout to rout

Why European companies have become a fading force in global business

Jul 2nd 2016 | From the print edition



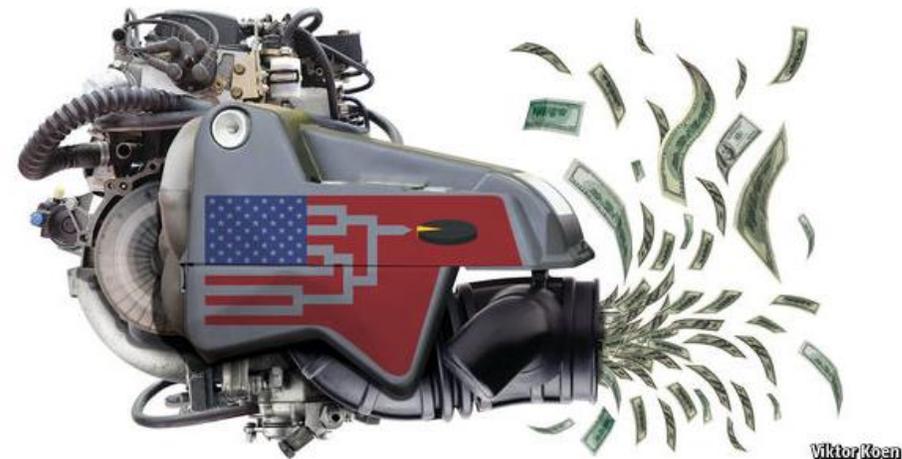
IT FEELS indelicate to raise it at a time like this, but European business has a bigger problem on its plate than Britain's decision to leave the European Union. After a decade of stagnation the continent's firms have suffered an alarming decline in their global clout. Europe's slide down the corporate rankings has been brutal, even before the market rout in the wake of Brexit. Of the 50 most valuable firms in the world, only seven are European, compared with 17 in 2006. No fewer than 31 are American, and eight are Chinese (few other emerging-market firms are really big yet). It's past time that Europe's bosses, investors and governments paid attention.

Business in America

## Too much of a good thing

Profits are too high. America needs a giant dose of competition

Mar 26th 2016 | From the print edition



AMERICA'S airlines used to be famous for two things: terrible service and worse finances. Today flyers still endure hidden fees, late flights, bruised knees, clapped-out fittings and sub-par food. The profit bit of the picture, though, has changed a lot. Last year America's airlines made \$24 billion—more than Alphabet, the parent company of Google. Even as the price of fuel, one of airlines' main expenses, collapsed alongside the oil price, little of that benefit was passed on to consumers through lower prices, with revenues remaining fairly flat. After a bout of consolidation in the past decade the industry is dominated by four firms with tight financial discipline and many shareholders in common. And the return on capital is similar to that seen in Silicon Valley.



# China's Effect on Global Concentration

- Reduce concentration because new superstars take market share from European, Japanese, and American industrial leaders.
- Increase concentration if Chinese firms are somehow different, because of domestic market size, labor pool, or state ownership.



# Data

- Bureau van Dijk Orbis database
- Financial data from all listed, private, and state-owned companies across countries, 2006-2014
- Includes ownership information
- Industry NACE 2-digit (84 industries)
- Tradables NACE 3-digit (93 industries)



# Chinese Firms Rank Among World's Largest



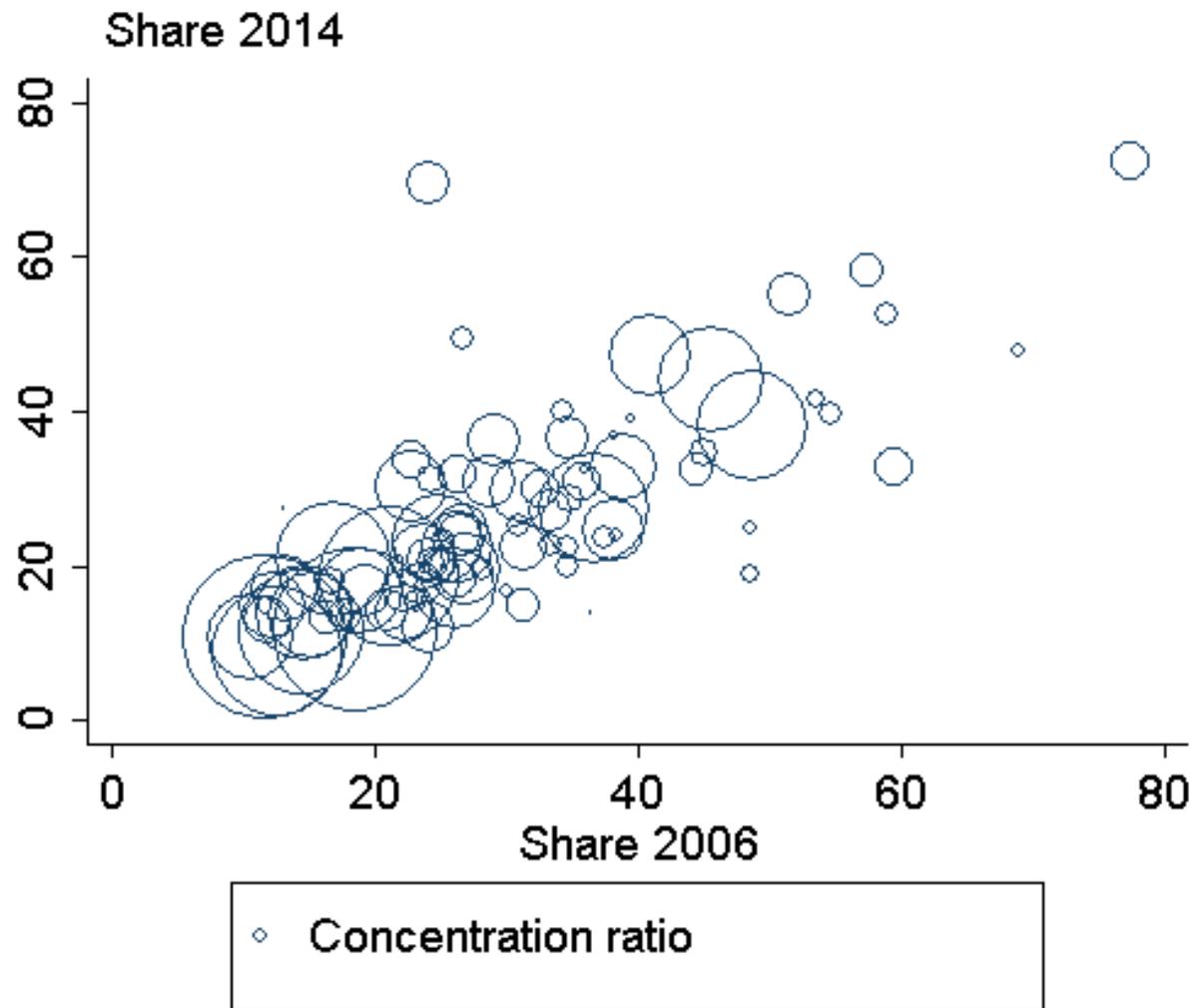


# Measures

- Four-firm concentration ratio.
- Herfindahl index—sum of squares of market shares—reflects the fuller distribution of firms. (Used in anti-trust legislation.)

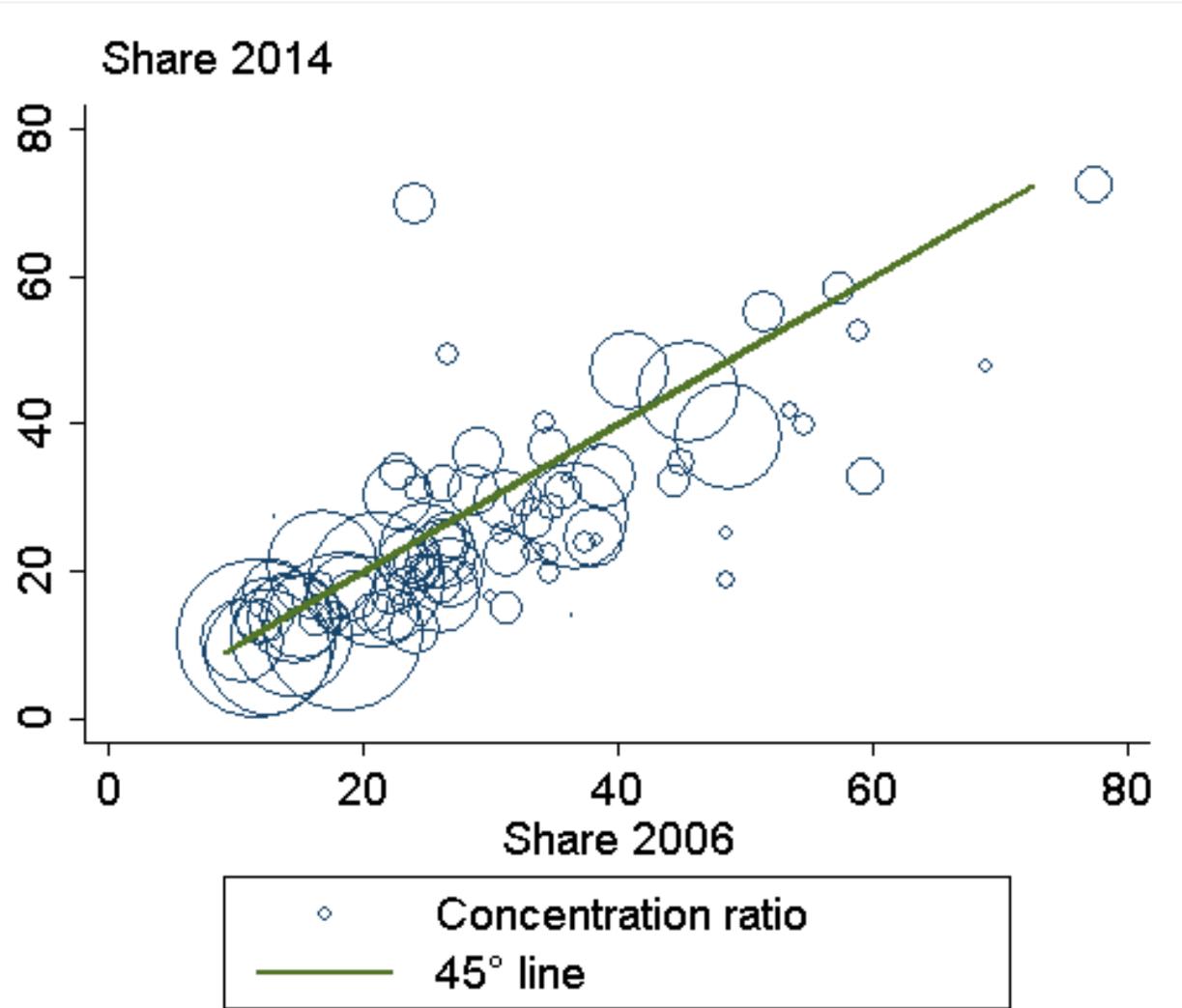


# Four-firm Revenue Shares (percent)



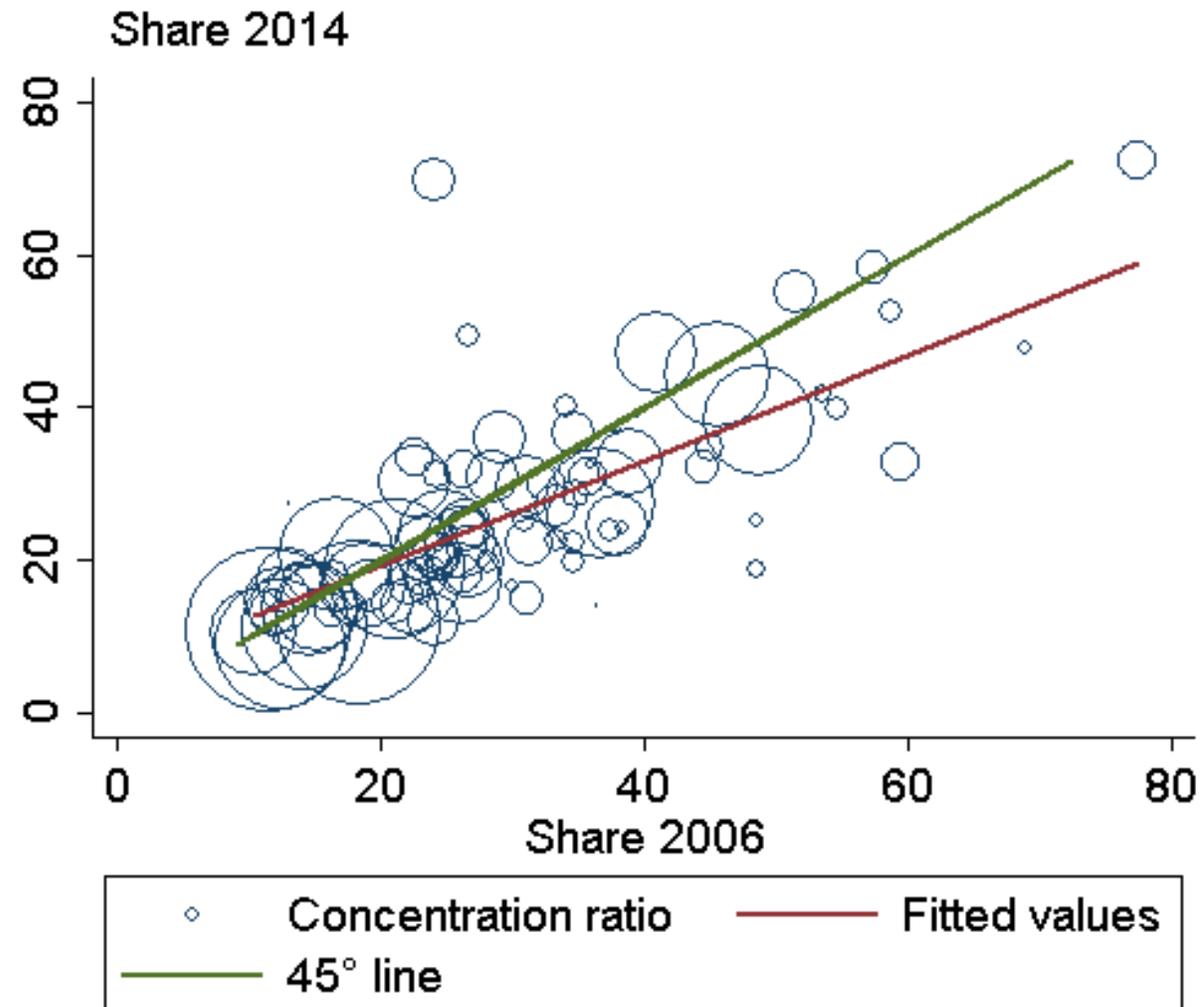


# Four-firm Revenue Shares (percent)





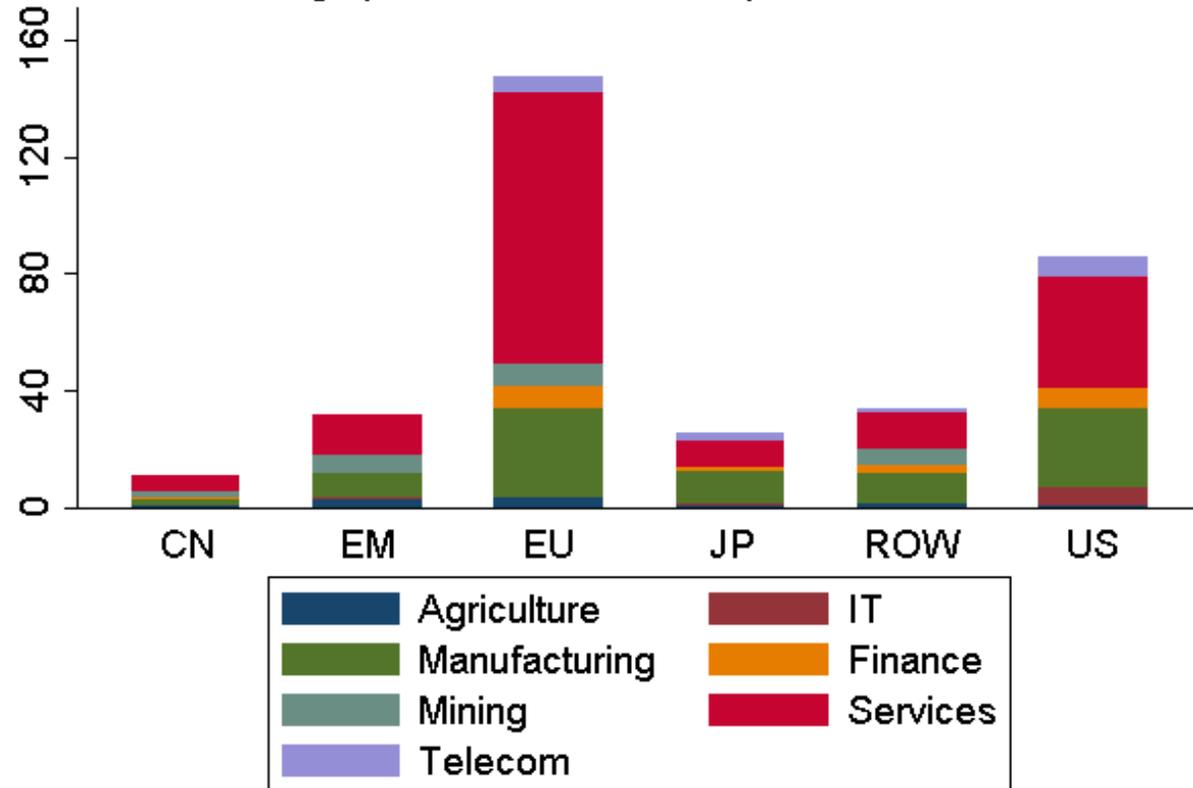
# Industrial Concentration is Declining



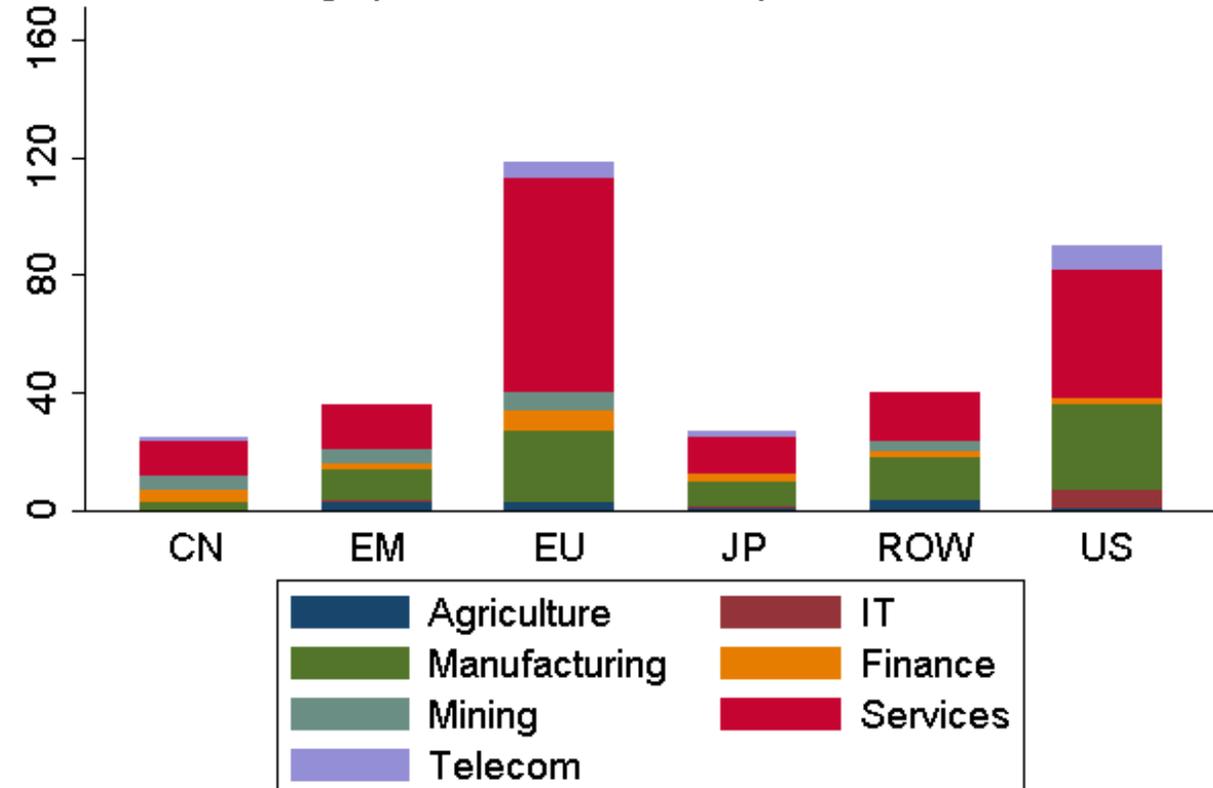


# Superstar Nationality

Geographical distribution of top 4 firms in 2006



Geographical distribution of top 4 firms in 2014



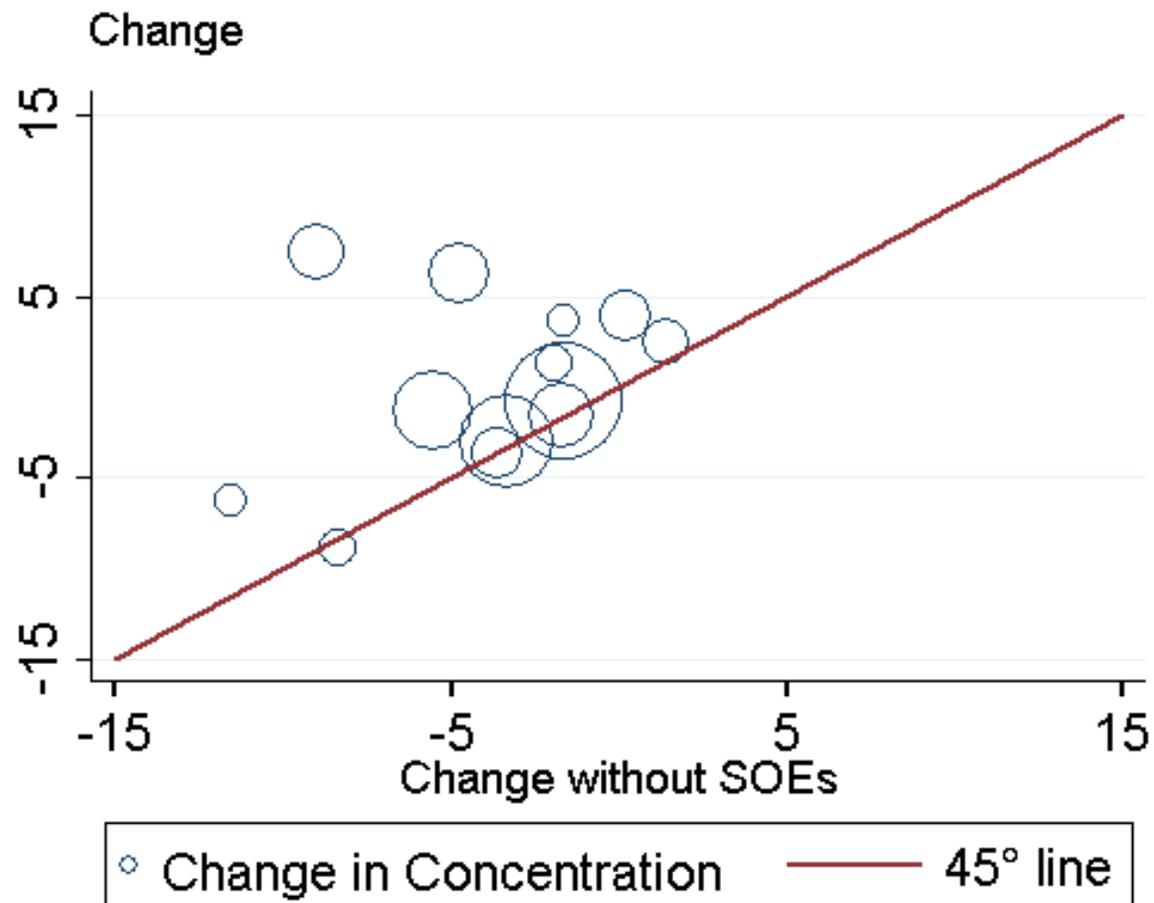


# Relationship between Concentration and China's Rise

- 10 additional EM firms reduce concentration by half of one percentage point.
- An additional Chinese SOE in the top 4 increases concentration by 5 percentage points.



# Concentration with and without SOEs





# Chinese SOEs and Concentration

## Sectors most affected by Chinese SOEs

<b>Broad Sectors (Contribution &gt;4%)</b>	<b>Tradables (Contribution &gt;5%)</b>
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Civil engineering	Forging, pressing, stamping of metal
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Mining support	Manufacture of railways
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Mining of coal and lignite	Support activities for oil and gas extraction
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Professional services	Transport equipment
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Petroleum and natural gas	Extraction of crude petroleum
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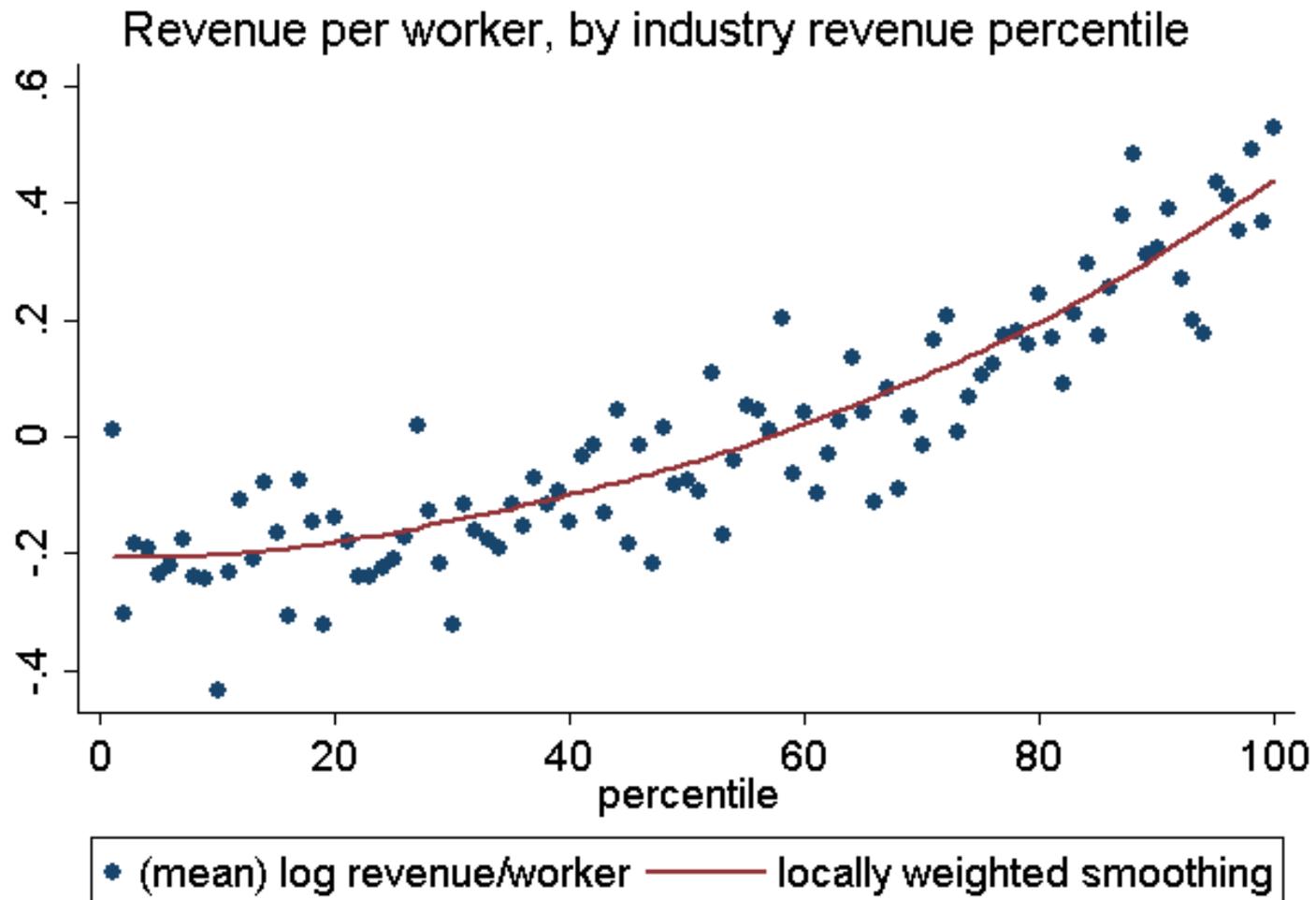


# Concentration and Efficiency

- Are more productive firms larger?
- Is productivity growth correlated with firm size growth?
- Is global allocative efficiency higher in tradables?
- Are SOEs different?

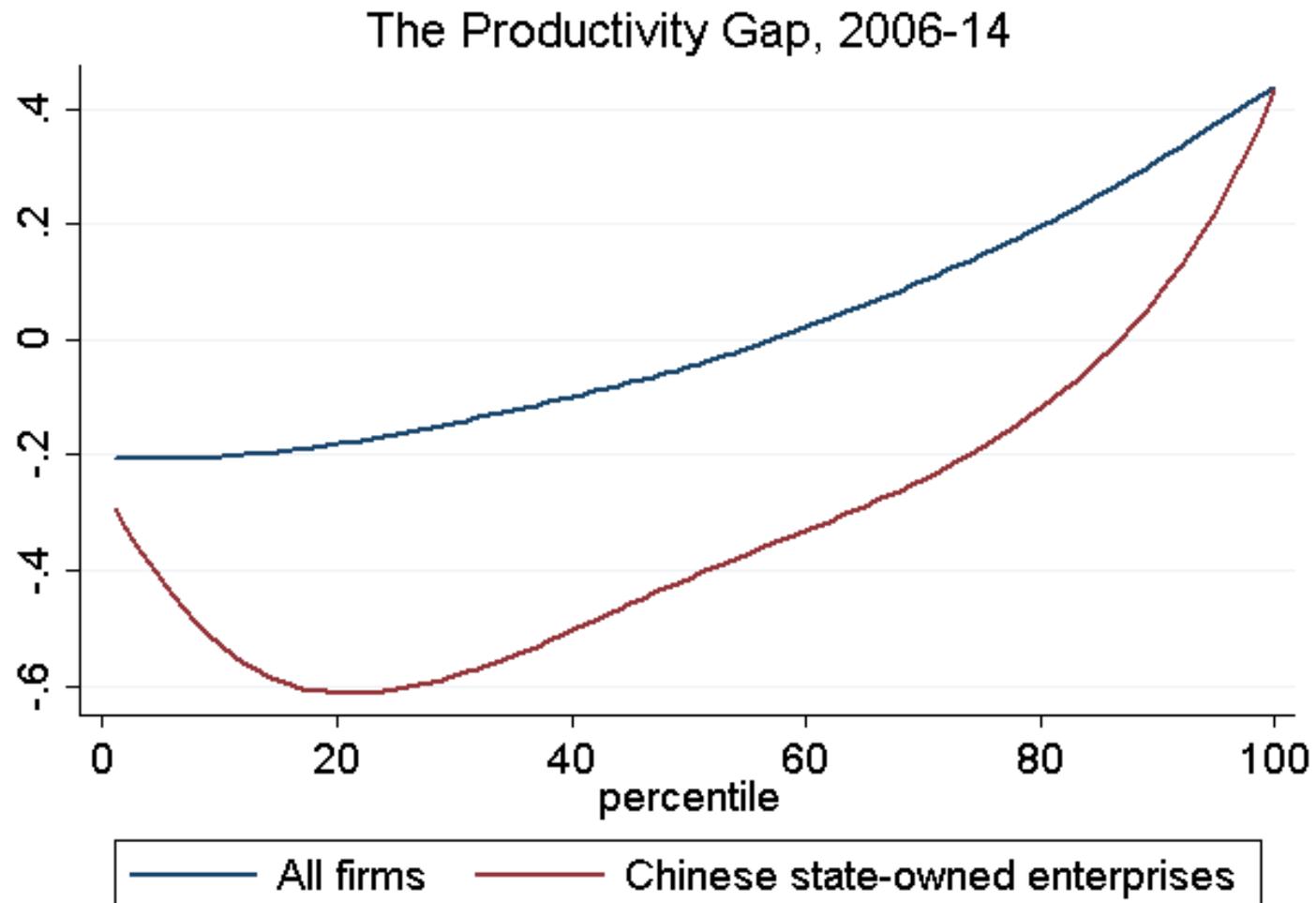


# More Productive Firms are Larger





# SOEs are Less Productive





# Empirical Analysis on Allocative Efficiency

- More productive firms (revenue or value added per worker) are larger and grow faster.
- Especially in tradables.
- Chinese SOEs are too large and growing too fast given productivity.



# SOE Results in Context

- The results are for a handful of sectors in 2006-2014.
- Lardy (2014) also finds that for some products SOEs remain important, and there is a recent resurgence.
- OECD finds that share of sectors, with high concentration, fell from 1998-2008. But, 21 sectors with high concentration & majority state ownership remain.
- Huang (2008) & Hsieh and Zheng (2016) discuss privatization & consolidation of large SOEs.



# Conclusions

- In aggregate, global concentration is falling, partly as a result of rising emerging market firms.
- Chinese SOEs raise global concentration in a handful of industries.
- Evidence that global allocative efficiency is strong, but SOEs are distorting it.