



The Economic Outlook for Restaurants: Forecasting by using current city comparisons

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Future Changes impacting the Restaurant Business

1. The US Level of Urbanization is changing between large, medium and smaller metropolitan Areas. What is the impact of urban scale?
2. The climate is warming. And it does have impacts on retailing/restaurants!
3. The elderly are coming! And they live, travel, spend differently. What does this mean
4. Internet retailing is still growing 3x as fast as is store sales. Extrapolation is scary. What will retailing look like in 2025?

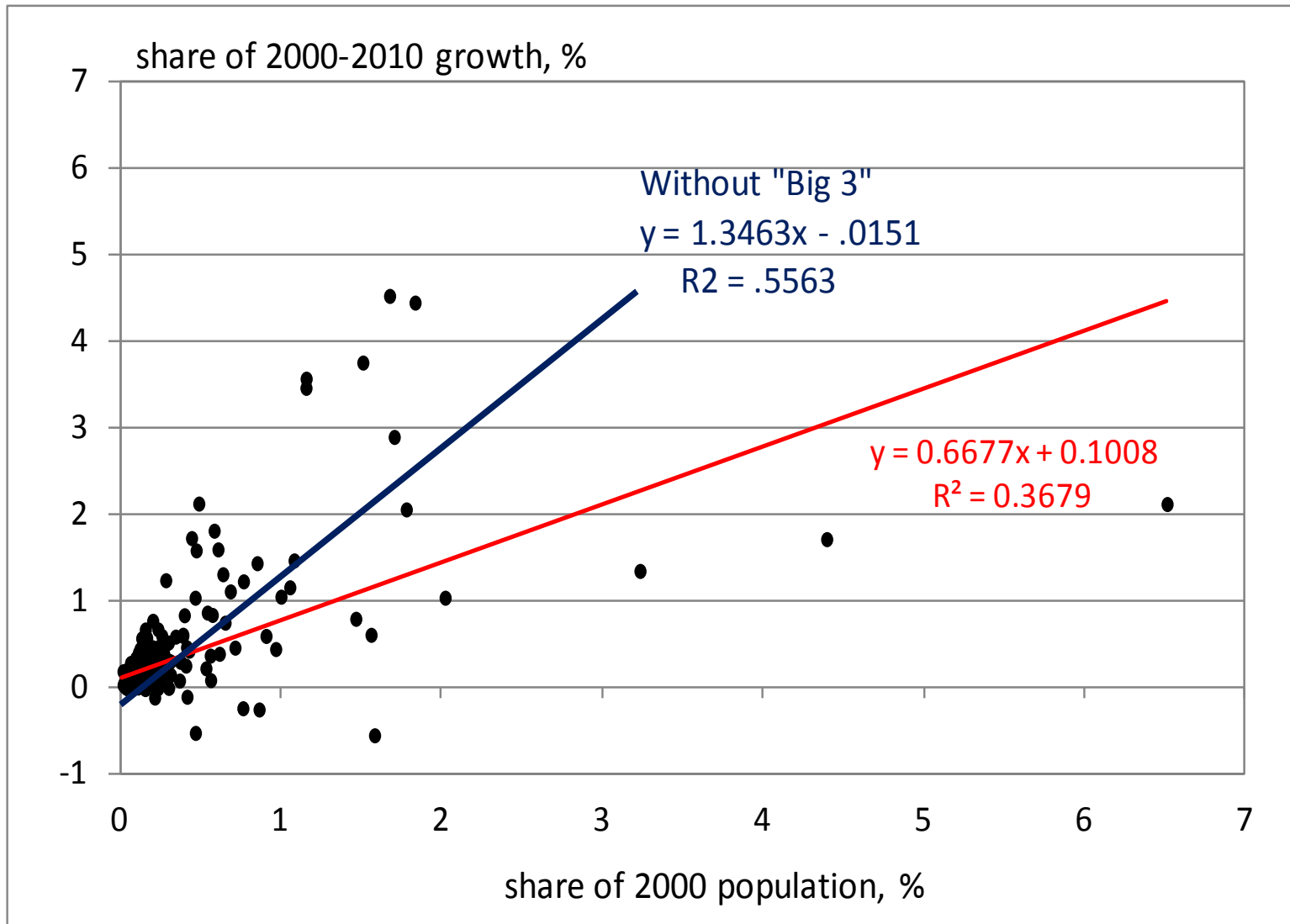


Factors, continued

5. Cities continue to become “Polycentric” – with many sub-centers, necessitating new spatial patterns of retailing. Rising energy costs *accentuate* this trend - *lowering* rather than raising density. How does Density impact restaurants?
6. Looking across 200 US cities to assess the impact of these long run changes on the restaurant industry: Sales, # restaurants, sales/restaurant.



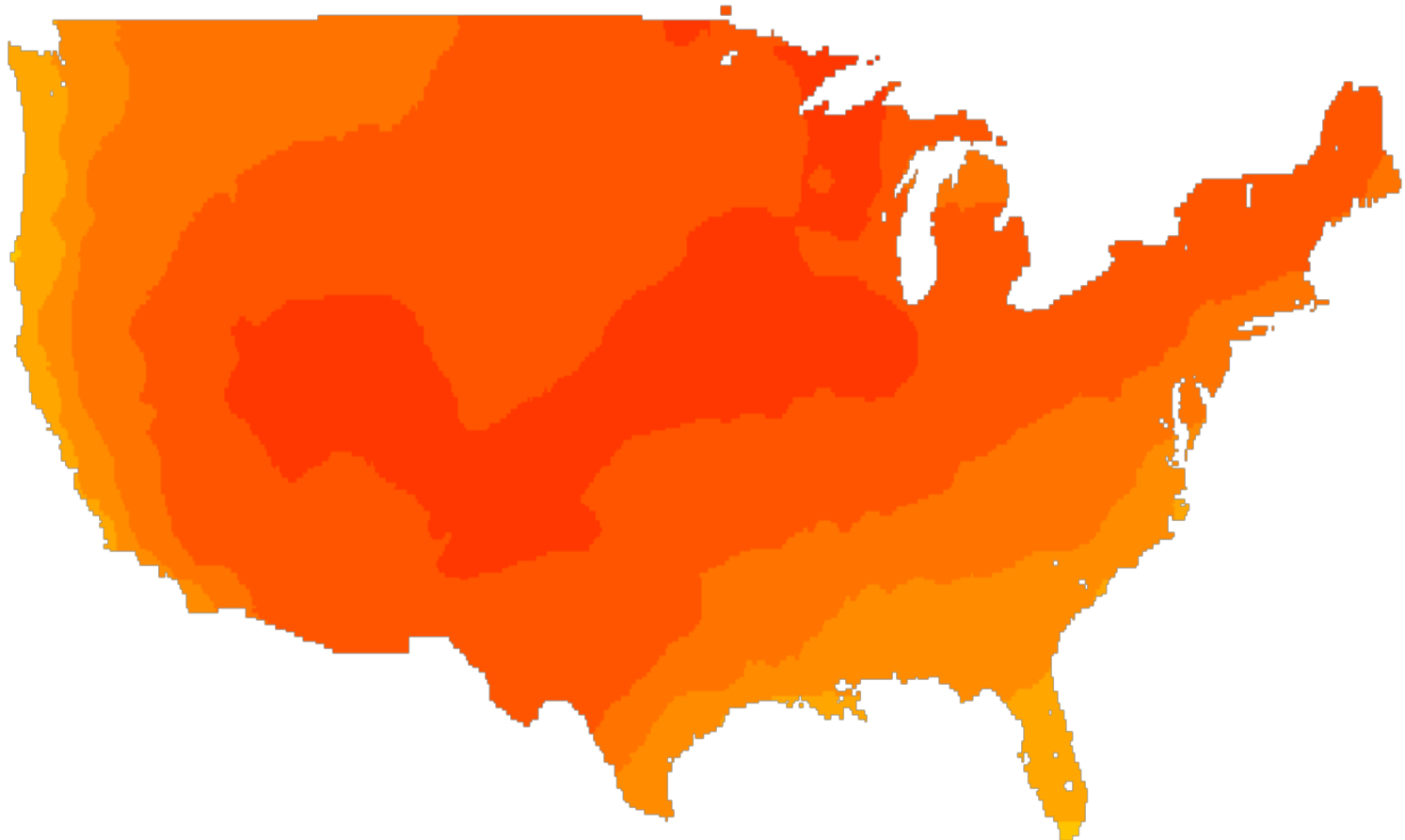
Is the US Re- or De- Urbanizing?





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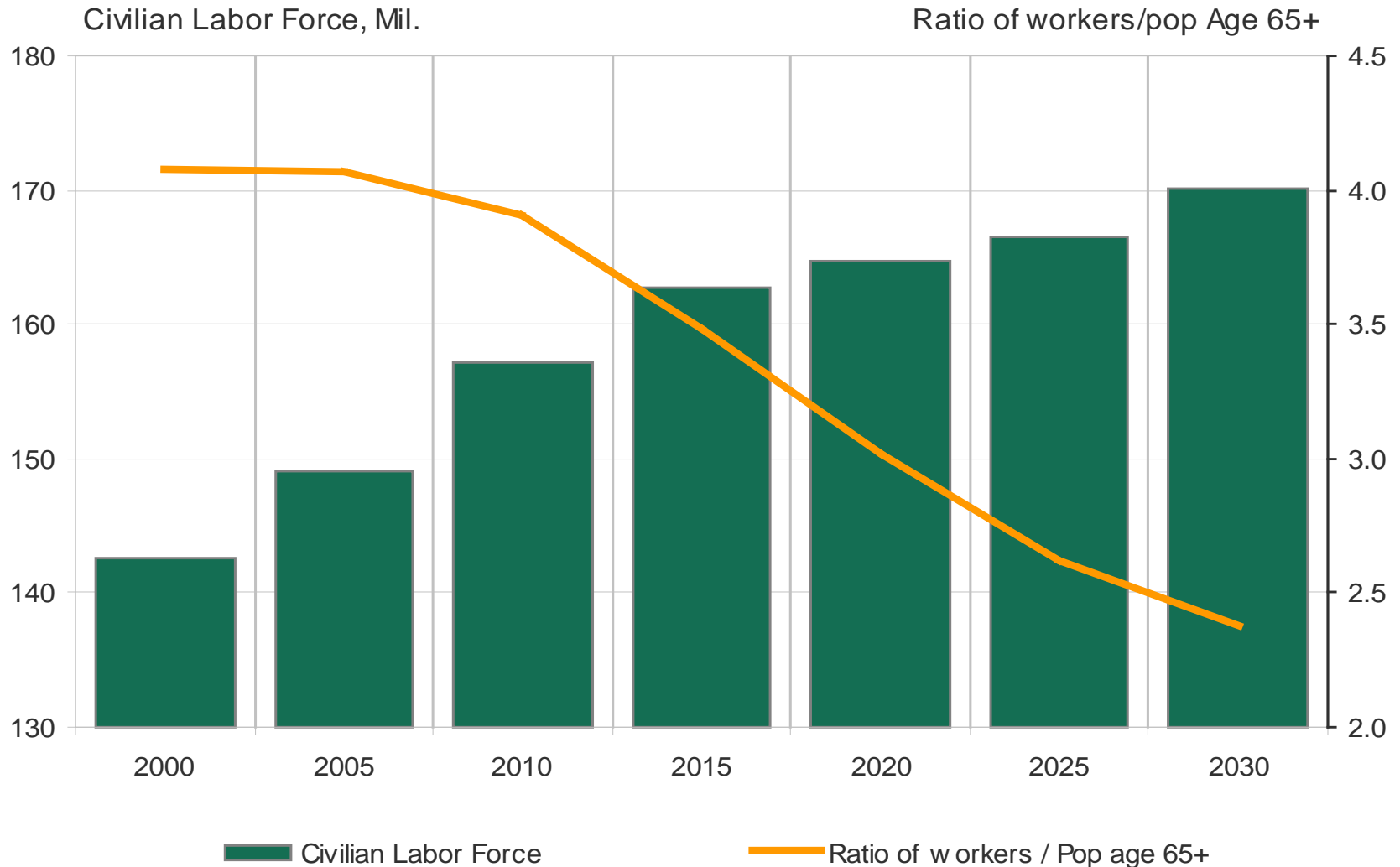
Where the US is likely to warm the most: a 50 year Outlook



Climatewizard.org. ESRI, Dark red +10, yellow +2:



A US Labor Force shortage looms with BB Retirees: workers/population plummets



Moving South or Aging in Place?

(Yearly mobility rates 2010, CPS)

<u>Age</u>	<u>Same State Move</u>	<u>Out of State</u>
25-64	10.2%	1.55%
65+	2.8%	0.8%
65+(1990)	3.8%	0.9%



The Elderly do not like to travel

(Average yearly vehicle miles traveled: 2009 NHTS)

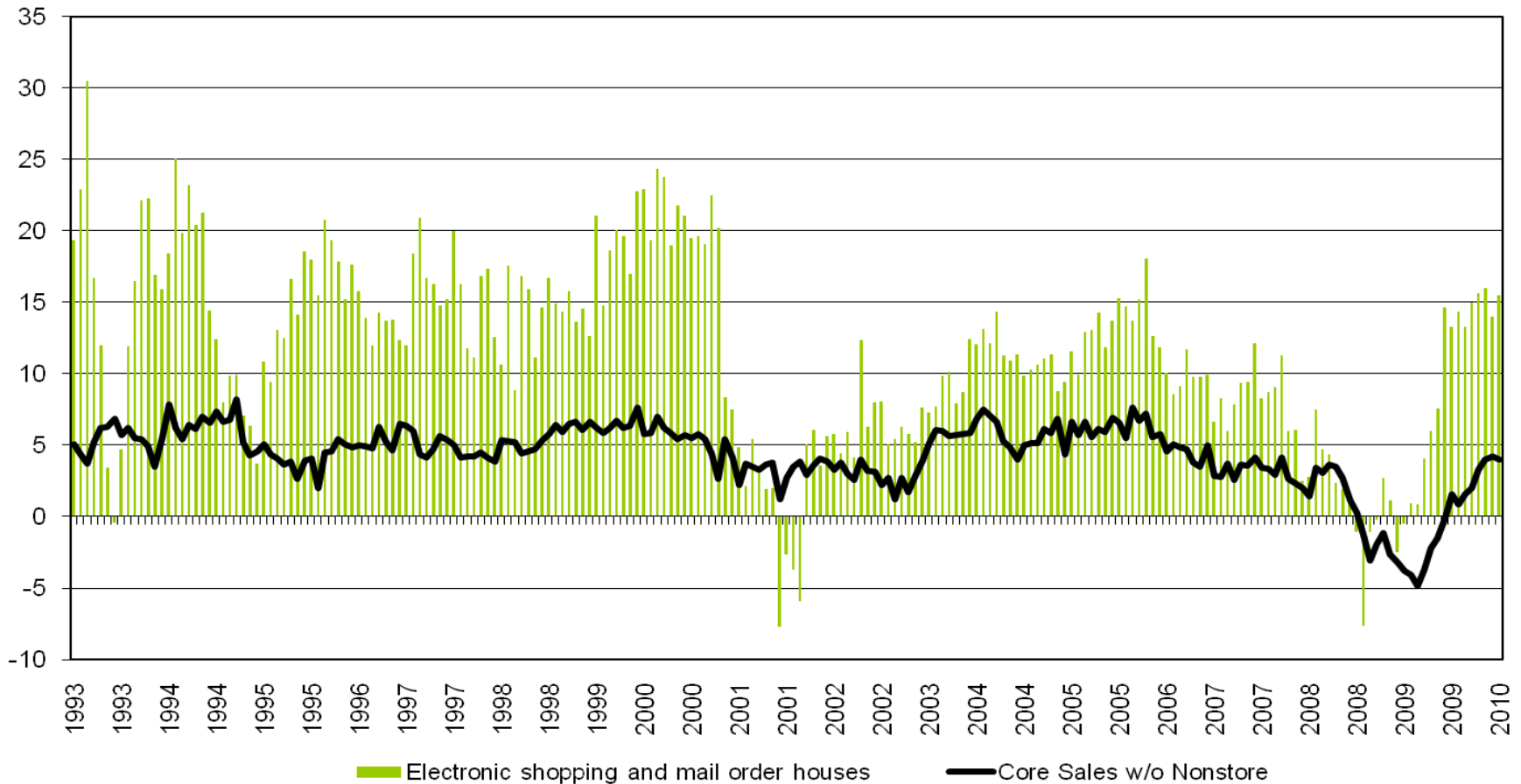
<u>Age</u>	<u>Total VMT</u>	<u>Non-Work VMT</u>
25-64	18,200	12,100
65-75	11,000	8,500
75-85	6,900	6,100
85+	4,400	4,200



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What about Internet Sales?

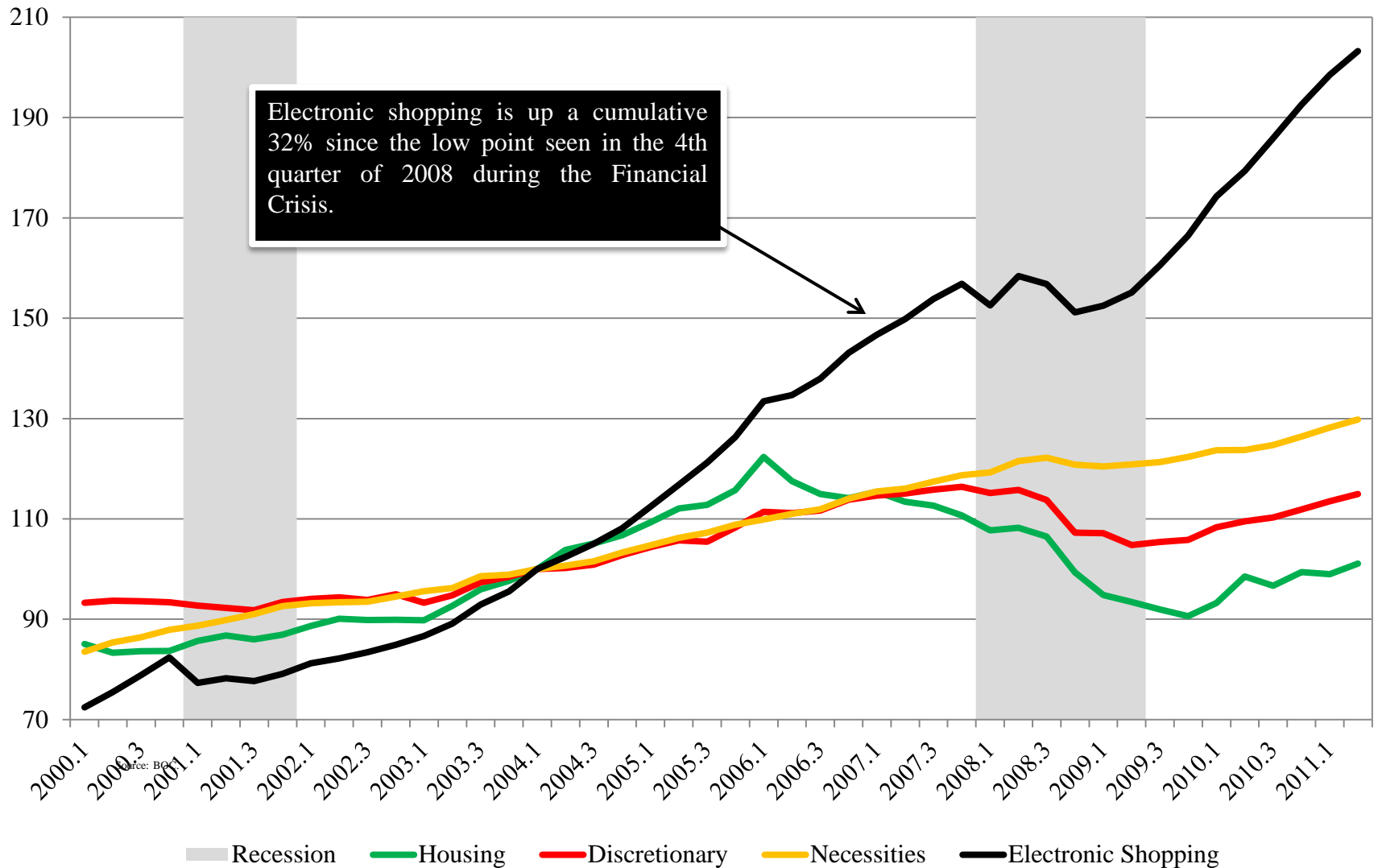
Fully recovered to growth rates of the 1990s while store sales still struggle.





No let up: retail “clicks” replacing “bricks”

Index, 2004 q1 = 100





Retailing in 2025: What the Internet does!

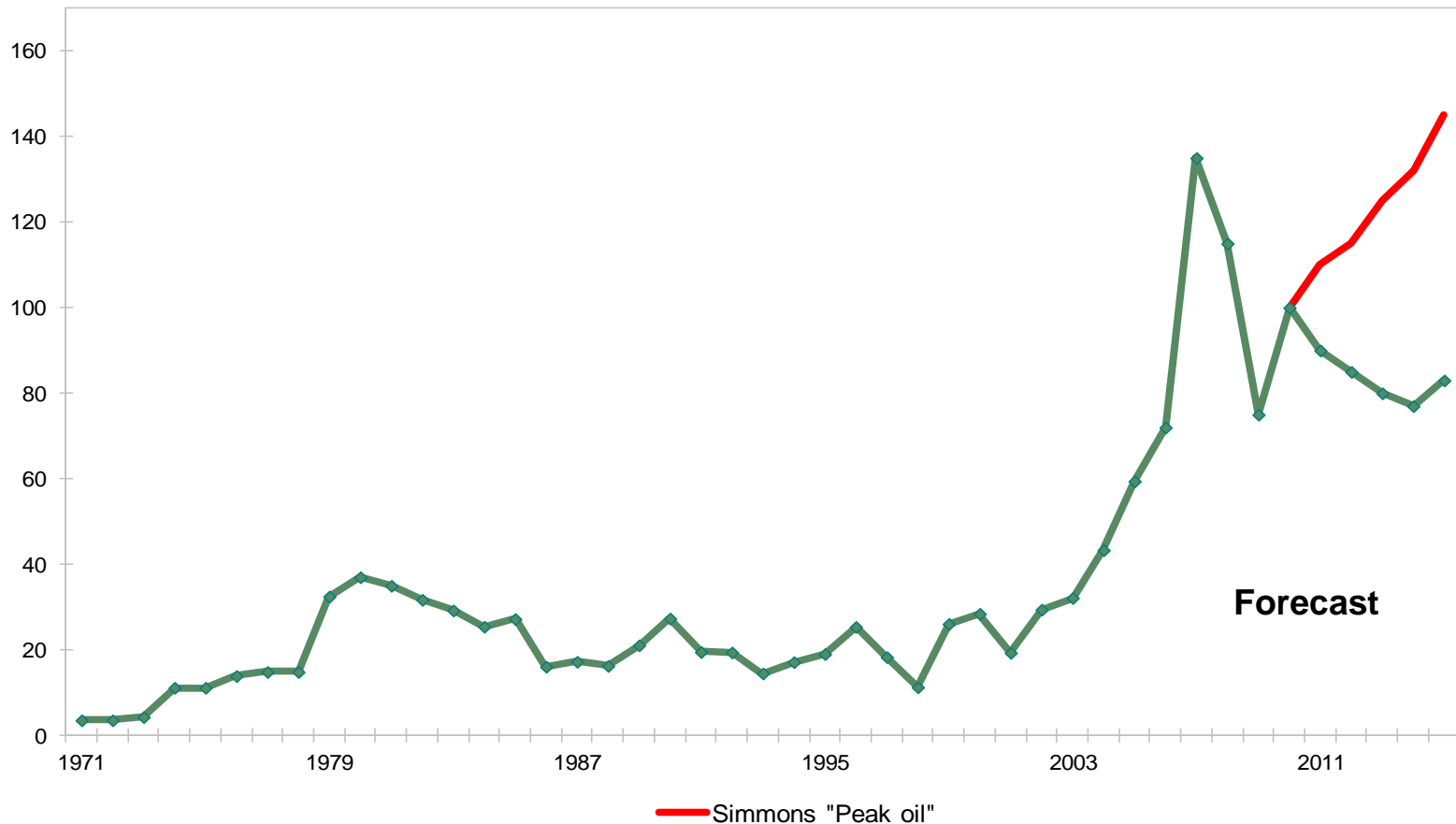
- Creates greater price competition between retailers. Competition lowers margins (and rents ?).
- Stores become smaller “display centers” where clients examine, size, color – which are then order-delivered.
- Inventories move from retailer (back) to warehouses.
- Smaller stores allow retailers to disperse into local targeted areas rather than sparse regional centers.
- Malls face the most pressure, N&C centers expand their retail mix.
- How will “local” shopping differ from “Mall” excursions?



Energy Costs

The future: "Back to city centers"?

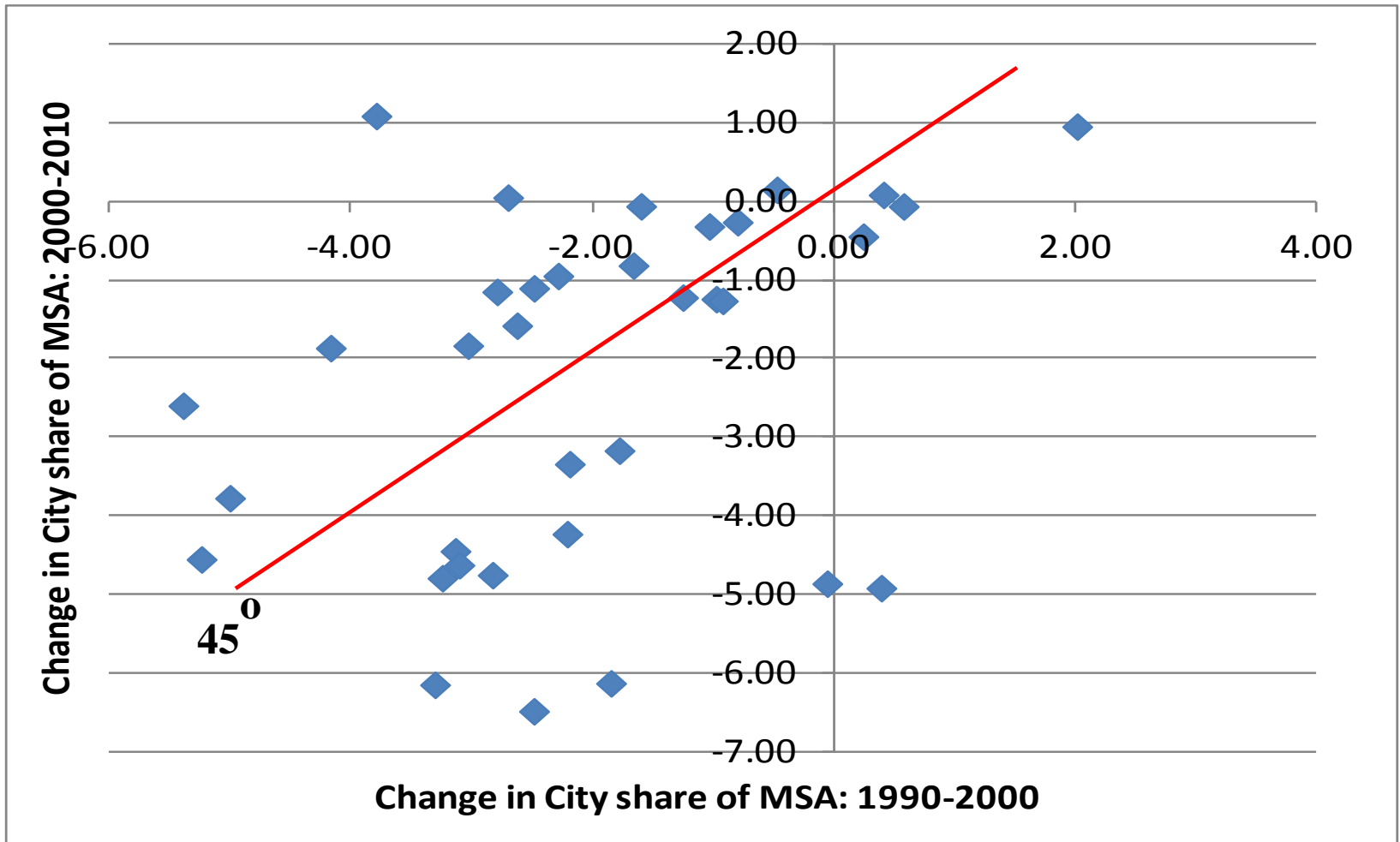
Oil Price: Current Dollars



Source: IMF, Economy.com



Not yet, Center Cities continue to loose population share: No improvement in 2000-2010





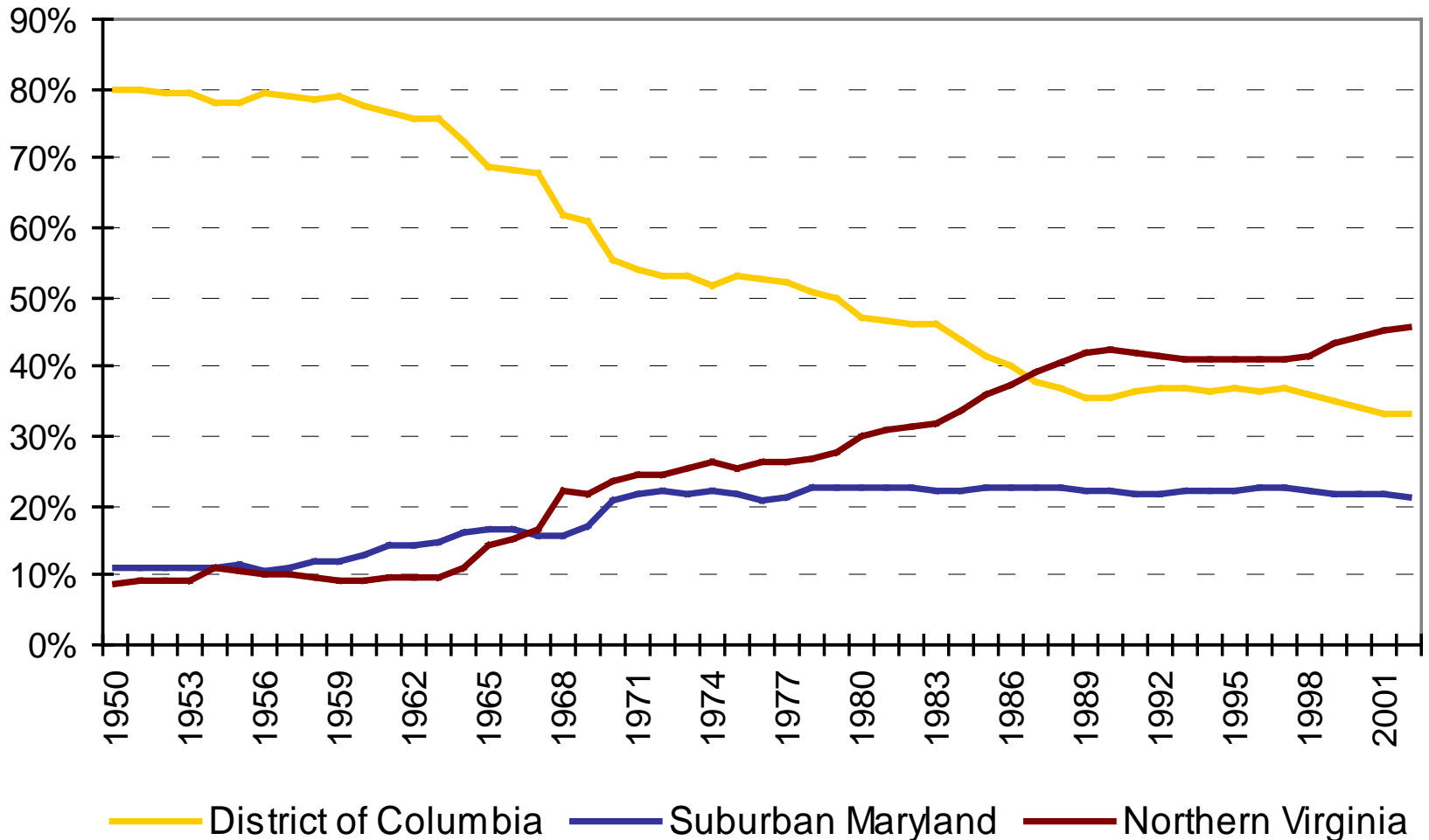
Because in 21st Century Cities: workplaces are *decentralized* and cities are not single centered!

- Firms have dispersed to the Suburbs to be nearer to their workforce.
- Studies show the motivation is that they can take the saving in worker commuting costs and pay lower wages to their workers!
- Suburban workers “turn over” less as well
- Cities are hence becoming “Polycentric”
- This leads to *lower overall density*



Washington D.C.: City and Suburban Office Space

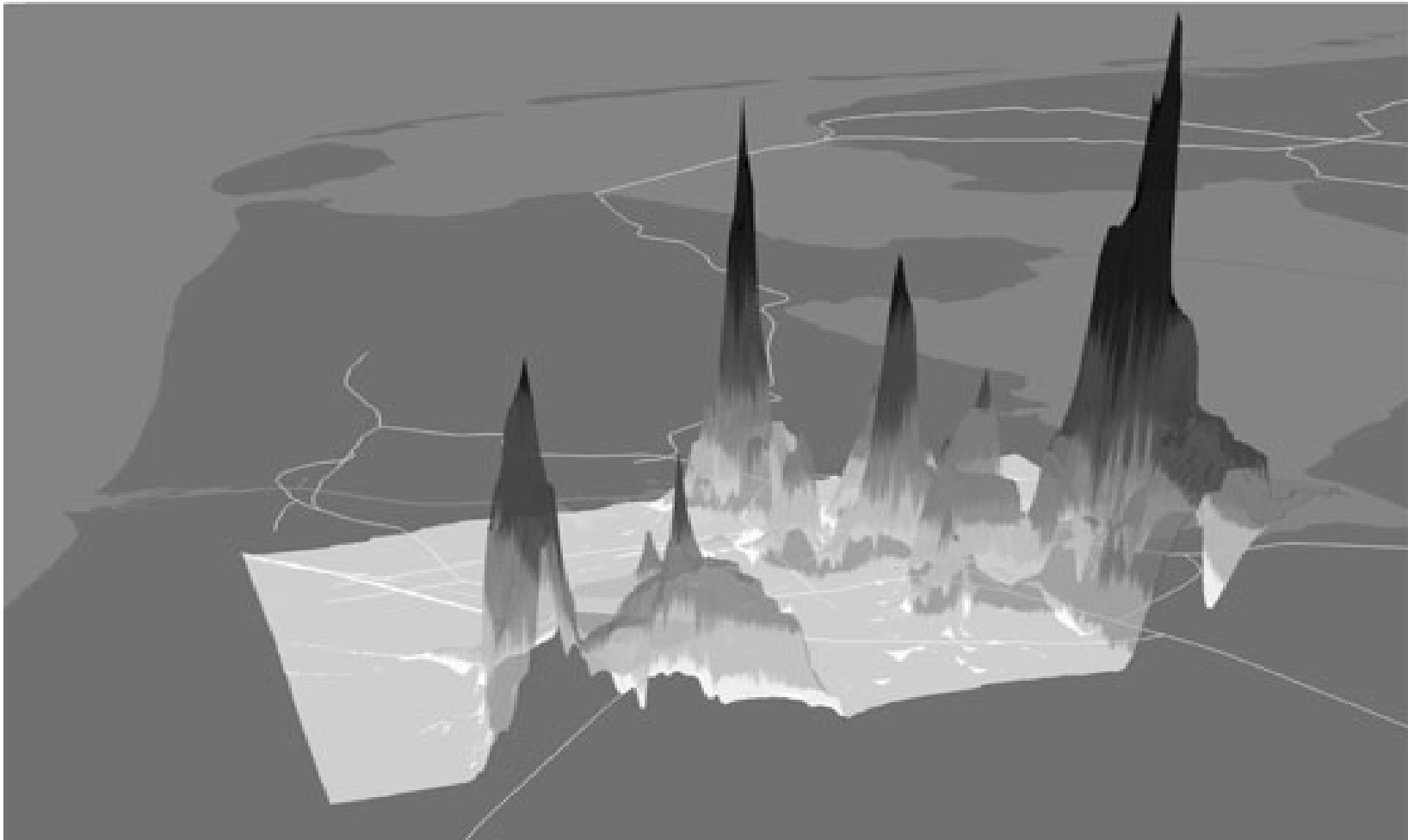
Percent Share of Metropolitan Office Market





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Employment not evenly distributed, but clustered into “nodes” or subcenters: Non US cities too
(Amsterdam office density)





How Polycentric “Balanced Use” Cities react to rising Travel Costs

1. Firms move more to where their workers live: Suburban office/shopping development reduces commuting.
2. Workers get less picky about residential locations and switch residences to be closer to their suburban jobs.
3. Residential development downtown generates a nearby workforce for firms and also helps eliminate commuting.
4. The result: Cities where jobs and population are better balanced spatially. *Live where work – work where live*
5. Balanced (mixed) Land Use actually supports “New Urbanism”. Ironically higher transport costs *can lower density* rather than forcing us to live in Hong Kong like cities.



Studying the Restaurant Industry across 200 US Metropolitan Areas.

- I. Examine for each MSA:
 - a. Restaurant Sales per capita.
 - b. Restaurants per capita.
 - c. Divide and get sales/restaurant.
- II. How the factors mentioned (and income) drive Sales, Restaurant entry and eventually Restaurant revenue:
 - 1). MSA size
 - 2). MSA climate
 - 3). MSA Population age (workers/population)
 - 4). MSA Broadband access
 - 5). Density



200 US Metropolitan Area Study (continued)

- 1). Climate. A 25 degree difference in average January temperature (e.g. 40 \rightarrow 65).
 - increases restaurant sales/pop by 16%
 - decreases restaurants/pop by 10%
 - increases sales/restaurant by 26%

- 2). Age. Decreasing the ratio of workers/population from .55 to .45 (what is expected from US aging in the next 20 years)
 - decreases restaurant sales/pop by 11%
 - decreases restaurants/pop by 6%
 - decreases sales/restaurant by 5%

(each variable result holds all other variables fixed)



200 US Metropolitan Area Study (continued)

- 3). Broadband access. A 30 percentage point difference in the fraction of households with high speed access (e.g. 45 -> 75)
 - increases restaurant sales/pop by 4%
 - increases restaurants/pop by 5%
 - decreases sales/restaurant by 1%
- 4). Urbanization. In a MSA with a population of 3m versus one of .5m.
 - decreases restaurant sales/pop by 0.6%
 - decreases restaurants/pop by 7.6%
 - increases sales/restaurant by 7.0%



200 US Metropolitan Area Study (continued)

- 5). Density. In a polycentric MSA with a density of 3000 ppsm (e.g. Dallas) versus a more monocentric 12000 ppsm (e.g. Boston).
- restaurant sales/pop increase by 7.0%
 - restaurants/pop decrease by 5.0%
 - sales/restaurant increase by 12%
- 6). Income. A doubling of average per capita income (e.g. \$24,000 to \$48,000)
- increases restaurant sales/pop by 55%
 - increases restaurants/pop by 41%
 - increases sales/restaurant by 14%



Restaurant Sales per capita and revenue per capita can be :

1. Almost 2x higher in wealthier cities, that also are warmer, better wired, less dense, and with younger populations .
2. 50% of this difference is due to being wealthier.
3. 50% is due to the compound effects of being warmer, better wired, less dense, and younger.
4. The future is: warmer, wired, less dense but older and (hopefully) wealthier.

William Wheaton, PhD

William Wheaton is Principal at CBRE Econometric Advisors and Professor at the Massachusetts Institute of Technology (MIT) in the Economics Department and the Department of Urban Studies and Planning. He helped found and served for many years as Director of the Center for Real Estate at MIT. The first economist to apply economic methods to the forecasting of commercial real estate markets, Dr. Wheaton's innovative perspective and integrated econometric modeling provide a framework for decision-making that other, more traditional analyses cannot. Dr. Wheaton attended Princeton University for his undergraduate degree and received his Ph.D. in Economics from the University of Pennsylvania. Dr. Wheaton co-authored the highly acclaimed textbook *Urban Economics and Real Estate Markets*, hailed as groundbreaking in the real estate economics field.

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