What Determines the Level of Business Property Taxes?

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Outline

I. What are business taxes and how big are they?
II. Conventional wisdom about how gov’ts choose business taxes and an alternative
III. Data about business property taxes
IV. Testing conventional and alternative theories
I. What are business taxes and how big are they?

• Inherent ambiguity in the term “business tax” since burden of all taxes eventually falls on some individual

• Despite this, consensus in applied policy literature that ‘business taxes’ include most taxes with an impact incidence on business.

• Stylized facts from many studies show that business taxes account for nearly half of all S&L tax revenue.
  • For example, Phillips et. al. (2014) find that the business share of total S&L taxes is 44.9%
Among S&L business taxes property tax is the largest.

Figure 1. Composition of total state and local business taxes – FY2013

Note: Figures do not sum due to rounding.
Source: Ernst & Young LLP estimates based on from the U.S. Census Bureau, state and local government finances.
II. Conventional wisdom about S&L business taxes and an alternative

Conventional Wisdom
• Oakland and Testa (1996)…general business taxation should …recover the costs of public services rendered to the business community
  • Without recovery of the costs of business services, voters may not support worthy public services provided to business.
  • [if business taxes are too high] the voting public…may believe business taxes can…subsidize…households

Alternative model
• City has market/monopoly power because businesses are heterogeneous
• Business taxes and services set to maximize decision-maker utility which depends on
  • Business tax revenue
  • Possibly
    • Resident labor earnings
    • Firm profits
III. Data about business property taxes

• Data come from Minnesota Center for Fiscal Excellence 50 State Property Tax Study (payable 1998 to 2013)

• Study covers the largest city in each state and the 50 largest US cities as well as some others

• Simulations of effective property tax rate (ETR) on real estate parcel of designated type and market value taking into account
  • De jure classification rate
  • Assessment/sales ratio
  • Credits etc.

• I study ETRs of median-valued homestead property and commercial parcel worth $1 million with $200K of tangible personal property.
## Descriptive information about business property taxes

Table 1: Effective Tax Rates (ETR) on Property by Year in Large US Cities

<p>| | | | | | | | |</p>
<table>
<thead>
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<tr>
<td><strong>year</strong></td>
<td><strong>Number of cities</strong></td>
<td><strong>Home ETR (mean)</strong></td>
<td><strong>Commercial ETR (mean)</strong></td>
<td><strong>Ratio commercial to home (mean)</strong></td>
<td><strong>Ratio commercial to home (minimum)</strong></td>
<td><strong>City at the minimum</strong></td>
<td><strong>City at the maximum</strong></td>
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<td>1998</td>
<td>51</td>
<td>0.015</td>
<td>0.022</td>
<td>1.76</td>
<td>0.83</td>
<td>Wilmington, DE</td>
<td>6.43 New Orleans</td>
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<tr>
<td>2000</td>
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<td>0.014</td>
<td>0.022</td>
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<td>0.83</td>
<td>Newark, NJ</td>
<td>4.10 New York City</td>
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<tr>
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<td>0.021</td>
<td>1.63</td>
<td>0.83</td>
<td>Manchester, NH</td>
<td>4.14 New York City</td>
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<tr>
<td>2004</td>
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<td>0.014</td>
<td>0.021</td>
<td>1.62</td>
<td>0.71</td>
<td>Portland, OR</td>
<td>5.04 New York City</td>
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<td>2005</td>
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<td>0.015</td>
<td>0.020</td>
<td>1.57</td>
<td>0.83</td>
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<td>0.019</td>
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<td>0.83</td>
<td>Manchester, NH</td>
<td>7.14 New York City</td>
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<tr>
<td>2008</td>
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<td>1.64</td>
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<td>7.36 New York City</td>
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<td>2009</td>
<td>74</td>
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<td>0.019</td>
<td>1.61</td>
<td>0.83</td>
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<td>5.41 New York City</td>
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<tr>
<td>2010</td>
<td>74</td>
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<td>0.019</td>
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<td>0.71</td>
<td>Wilmington, DE</td>
<td>5.01 New York City</td>
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<td>1.55</td>
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<tr>
<td>2012</td>
<td>74</td>
<td>0.015</td>
<td>0.020</td>
<td>1.62</td>
<td>0.83</td>
<td>Newark, NJ</td>
<td>4.97 New York City</td>
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<tr>
<td>2013</td>
<td>74</td>
<td>0.015</td>
<td>0.021</td>
<td>1.56</td>
<td>0.83</td>
<td>Manchester, NH</td>
<td>4.50 Columbia, SC</td>
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</tbody>
</table>

Source: Minnesota Center for Fiscal Excellence (various years) and author’s calculations.
Home ETRs are for the Median-Valued Owner-Occupied House in each city in each year. Commercial ETRs are for a parcel with a nominal market value of $1 million and $200,000 worth of fixtures.
## V. Descriptive information about business property taxes (continued)

<table>
<thead>
<tr>
<th>State, City</th>
<th>Ratio commercial to home ETR</th>
<th>Number of years with data</th>
<th>State, City</th>
<th>Ratio commercial to home ETR</th>
<th>Number of years with data</th>
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</thead>
<tbody>
<tr>
<td>Alabama, Birmingham</td>
<td>2.14</td>
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<td>California, Fresno</td>
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<td>New Jersey, Newark</td>
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<td>California, Long Beach</td>
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<td>0.01</td>
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<td>1.23</td>
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<tr>
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<td>0.01</td>
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<td>New York, Buffalo</td>
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<td>California, Sacramento</td>
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<td>0.01</td>
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<td>North Carolina, Charlotte</td>
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<tr>
<td>California, San Diego</td>
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<td>0.00</td>
<td>9</td>
<td>North Carolina, Raleigh</td>
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<tr>
<td>California, San Francisco</td>
<td>1.01</td>
<td>0.00</td>
<td>9</td>
<td>North Dakota, Fargo</td>
<td>0.92</td>
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<tr>
<td>Illinois, Chicago</td>
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<td>0.63</td>
<td>13</td>
<td>Texas, Austin</td>
<td>1.08</td>
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<tr>
<td>Illinois, Naperville</td>
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<td>0.00</td>
<td>1</td>
<td>Texas, Dallas</td>
<td>1.20</td>
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<td>Indiana, Fort Wayne</td>
<td>2.87</td>
<td>0.00</td>
<td>1</td>
<td>Texas, El Paso</td>
<td>1.01</td>
</tr>
<tr>
<td>Indiana, Indianapolis</td>
<td>2.10</td>
<td>0.59</td>
<td>12</td>
<td>Texas, Fort Worth</td>
<td>1.04</td>
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<tr>
<td>Iowa, Des Moines</td>
<td>1.84</td>
<td>0.17</td>
<td>13</td>
<td>Texas, Houston</td>
<td>1.22</td>
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<tr>
<td>Kansas, Wichita</td>
<td>2.25</td>
<td>0.08</td>
<td>13</td>
<td>Texas, San Antonio</td>
<td>1.01</td>
</tr>
</tbody>
</table>

**Total**                  | 1.61                         | 0.91                      | 871                   |

Source: Minnesota Center for Fiscal Excellence (various years) and author’s calculations. Home ETRs are for the Median-Valued Owner-Occupied House in each city in each year. Commercial ETRs are for a parcel with a nominal market value of $1 million and $200,000 worth of fixtures.
Cities w/o state sanctioned (i.e. de jure) classification have ETR ratios tightly clustered around 1.
Cities w state sanctioned (i.e. de jure) classification have ETR ratios ranging from 1 to 6
IV. Testing conventional and alternative theories

• The within—city, over—time variation in ETR ratios is small in many cities
• Additionally within-state effects may be important in some cases.
• Effective sample size may be much smaller than nominal sample size
• Hence, we have modest hopes for definitive hypothesis tests.
Classified Cities with a higher share of spending on schools have lower ratios of business to residential effective property tax rates.

Consistent with conventional wisdom:

Relative business taxes are inversely related to the share of spending on schools.
Classified Cities with higher productivity may have higher ratios of business to residential effective property tax rates

Consistent with alternative theory:

Business taxes depend (at least in part) on a city’s degree of leverage
Classified Cities with higher populations may have higher ratios of business to residential effective property tax rates

Consistent with alternative theory:

Business taxes depend (at least in part) on a city’s degree of leverage
Conclusions

1. Contrary to much public discussion business property taxes are unequivocally the largest S&L business tax—and for a variety of reasons probably much more important factor in economic competitiveness than S&L business income taxes

2. Effective commercial property tax rates average 1.6 times homestead tax rates with considerable cross-city variation.

3. Cities’ high reliance on business taxes is
   A. somewhat puzzling because cities compete for business and
   B. inconsistent with conventional economic theories of business taxation which suggest that business taxes should be the minimum necessary to cover the cost of gov’t services provided to business
Conclusions

4. If
   A. certain cities are particularly attractive to certain businesses and
   B. if decision-makers value labor income and tax revenue,
   C. we can rationalize business taxes exceeding the cost of business services.

5. Empirical study is of variation in commercial ETRs is hampered by the lack of within-city over-time variation

6. Available evidence suggests
   A. Consistent with conventional theories:
      i. there is some tendency for relative business tax rates to vary inversely with share of spending on schools (a primarily residential service)
   B. Consistent with alternative theories:
      i. High value-added cities have somewhat higher business property taxes
      ii. High population cities (with presumably more market power) have somewhat higher business property taxes