Beating the Great Recession:
A National Analysis of Home Values in TODs from 1996 - 2013

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Dr. John L. Renne, AICP
LITERATURE SUMMARY ON HOME VALUES NEAR RAIL STATIONS
Going back to 2004, and each year since, Transit Oriented Development (TOD) has been rated as one of the best investments in real estate.
FINDINGS

The Impact of Railway Stations on Residential and Commercial Property Value: A Meta-analysis

• Across 42 studies, residential properties within ¼ mile of a railway station showed an average price premium of 4.6%

Hedonic Price Effects of Pedestrian- and Transit-Oriented Development

• Cervero et al. found housing located within a ¼ to ½ mile of rail transit stations had 6.4% and 45% premium

• Duncan (2008) found in San Diego light rail multifamily premium of 16.6% compared to 5.7% for single-family

• Atkinson-Palombo (2010) found TOD zoning is accompanied by a 37% premium for condos located in mixed-use areas
<table>
<thead>
<tr>
<th>Authors</th>
<th>City</th>
<th>Property Type</th>
<th>Tranist Type</th>
<th>Period of Observations</th>
<th>Number of Observations</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atkinson-Palombo</td>
<td>Phoenix</td>
<td>Condo &amp; single family residential sales</td>
<td>Light rail</td>
<td>1995—2007</td>
<td>12,537</td>
<td>For houses and condos within walking distance to transit, those in mixed-use neighborhoods receive premiums of 6 percent and 28 percent, respectively; those in residential-only neighborhoods receive a 12 percent—13 percent discount.</td>
</tr>
<tr>
<td>Duncan in press</td>
<td>San Diego</td>
<td>Condo sales</td>
<td>Light rail</td>
<td>1997—2001</td>
<td>3,374</td>
<td>Condos 0.3 km from the station in neighborhoods with good pedestrian quality receive a 15.3 percent ($19,404) premium; those 0.3 km from the station in areas with poor pedestrian quality receive a —7.6 percent (~$9,962) discount.</td>
</tr>
<tr>
<td>Ryan and Weber</td>
<td>Chicago</td>
<td>Residential assessed values</td>
<td>N/A</td>
<td>1993—2001</td>
<td>1,227</td>
<td>In economically distressed neighborhoods, houses located in traditional neighborhood developments (TND) received a 21 percent —27 percent price discount compared to other infill projects.</td>
</tr>
<tr>
<td>Song and Knaap</td>
<td>Portland, OR</td>
<td>Single-family residential sales</td>
<td>N/A</td>
<td>1999—2000</td>
<td>48,070</td>
<td>Houses in New Urbanist neighborhoods receive a $24,255 premium compared to houses in conventional suburban neighborhoods.</td>
</tr>
<tr>
<td>Tu and Eppi</td>
<td>Kentlands, MD</td>
<td>Single-family residential sales</td>
<td>N/A</td>
<td>1994—1996</td>
<td>2,155</td>
<td>Houses in the Kentlands receive a 12 percent price premium over houses in conventional suburban neighborhoods.</td>
</tr>
</tbody>
</table>
The New Real Estate Mantra
Location Near Public Transportation

Percent change in average residential sales prices relative to the region, 2006-11
The TOD Index® - A new tool for measuring TOD price performance

- National coverage with reliable data on over 2,000 fixed transit precincts with monthly data on average home sales per s.f. back to 1996

- Compares TODs, Hybrids and TADs
  - TODs – 449 station areas
  - Hybrids – 767 station areas
  - TADs – 817 station areas
  - Total – 2,033 station areas in database across 20+ metropolitan areas in USA

- Index comparable to National Indices, including Zillow, S&P Case-Schiller, and any other Wall Street REIT stocks (ie. Schwab U.S. REIT ETF, SPDR Dow Jones REIT ETF, and Vanguard REIT ETF)

- REITS invest in 19 standard real estate product types – investors have missed the benefits of TOD because longitudinal performance data did not exist

- The TOD Index® can benefit governments looking to invest in sustainable transport infrastructure and economic development but it can also benefit private investors and developers looking to take advantage of investing in TOD
The TOD Index® - Methodology

1. Rail station location data from the National TOD Database

1. Merged with Zillow Real Estate Research at the zip code level for the median Zillow Home Value Index (ZHVI)

1. Typology as defined by Renne and Ewing (2013) to identify TODs, Hybrids and TADs across all stations in the United States – What is a TOD? (see next series of slides)

2. Zip code – lowest unit of geography available to study at this time, but still worthwhile unit of geography in discriminating between home values across station typologies

3. Data smoothing applied using 6-month rolling average to adjust for seasonal variations in home sales data
WHAT IS TOD?
Define | A new name for Garden Cities?

Ebenezer Howard
Garden Cities of To-Morrow
1902
Define |

“a mixed-use community within an average 2,000-foot walking distance of a transit stop and a core commercial area. TODs mix residential, retail, office, open space, and public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle, foot or car.”

Peter Calthorpe
Next American Metropolis (1993)
How many TODs are in USA?

- Greater than 30 jobs or residents per gross acre = 1 point
- Not having 100% of land uses as either residential or commercial = 1 point
- Average block size less than 6.5 acres = 1 point

Each station was assigned a score from 0 – 3 points and then categorized as follows:

- TAD = 0 or 1 points
- Hybrid = 2 point
- TOD = 3 points

Transit-Oriented Development: An Examination of America’s Transit Precincts in 2000 & 2010

Final Report

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with

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University of Utah

Sponsoring Agency
United States Department of Transportation
Research and Innovative Technology Administration
Washington, DC

Project #: 12-06
June 2013
Example of a TOD – Arts Center Station, Atlanta
Example of a TOD – Canal Street, Downtown New Orleans
Example of a Hybrid – St. Charles Avenue, New Orleans
Challenges the convention thinking about what a TOD is!

Example of a Hybrid – Mockingbird Station and Downtown Plano

Mockingbird Station

Downtown Plano
Example of a TAD – Reliant Park Station
How do TODs perform as compared to non-TODs terms of sustainable travel outcomes and H+T household costs?

### Percent of Commuters on Sustainable Modes (2010)

- **TAD**: 15.6%
  - Bicycling or Walking: 4.9%
  - Public Transportation: 10.7%
- **Hybrid**: 27.4%
  - Bicycling or Walking: 8.7%
  - Public Transportation: 18.7%
- **TOD**: 52.9%
  - Bicycling or Walking: 34.4%
  - Public Transportation: 18.5%
- **All Station Precincts**: 33.2%
  - Bicycling or Walking: 22.0%
  - Public Transportation: 11.2%

### Percentage of Household Budget on Housing + Transportation Costs

- **TAD**: 47.5% (2000), 49.5% (2010)
- **Hybrid**: 42.0% (2000), 43.4% (2010)
- **TOD**: 38.4% (2000), 36.8% (2010)
- **All Station Precincts**: 42.6% (2000), 42.9% (2010)

### Table 3: Median Household Budget in 2010

<table>
<thead>
<tr>
<th></th>
<th>TADs</th>
<th>TODs</th>
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<tbody>
<tr>
<td>Median Household Income</td>
<td>$68,409</td>
<td>$51,335</td>
</tr>
<tr>
<td>Housing + Transportation Costs</td>
<td>$33,862</td>
<td>$18,891</td>
</tr>
<tr>
<td>Amount Remaining for All Other Purchases</td>
<td>$34,547</td>
<td>$32,444</td>
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</tbody>
</table>
Thank You

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