Land value uplift, valuation of streets and multi-sectoral projects

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Dr John Nellthorp (J.Nellthorp@its.leeds.ac.uk)
Street improvements:

- better design
- better maintenance & operation.
Context

- Local authority budget pressures and ‘small state’
- Move towards investment in infrastructure
- Regional devolution ...
E.g. Northern Powerhouse / Transport for the North (TfN) area

- 16 million people, £290bn GVA, 7.2 million jobs:
The North is as big as the Bay Area

San Francisco Bay Area population, 7.6 million

Businesses are looking for creative, skilled people, a place to do business, and excellent connectivity.
Sustainable growth?

What could we be investing in to ensure economic growth which benefits all sections of our society?
Sustainable growth?

What could we be investing in to ensure economic growth which benefits all sections of our society?

- skills
- the **place** we live in
- **connectivity**
- ...
The place we live in

Streets and urban realm
The **place** we live in

Neighbourhoods and local centres
The **place** we live in

Homes and business premises
Connectivity

- Access to employment
- Effective commuter transport
- Walking and cycling infrastructure
- Connectivity across the North
- International connectivity
Research

• valuation of street design - DfT (2011)
• valuation of environmental quality and cleanliness of streets - Defra (2013)
• valuation of urban realm - TfL (2016)
• land value uplift - West Yorkshire Transport Research Innovation Fund (2016-7)
What is a good street?

- Citizens are willing to pay significant amounts of money to have streets designed differently:

Atkins and ITS (2011)
Valuation via Stated Preference (SP) analysis, or via Hedonic Pricing (HP) studies in the property market:

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Ballpark value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package of measures</td>
<td>£30-50 per resident user, per annum</td>
</tr>
<tr>
<td>... of which:</td>
<td></td>
</tr>
<tr>
<td>Pedestrianisation or pedestrian priority</td>
<td>~ £25</td>
</tr>
<tr>
<td>Materials/detailing</td>
<td>~ £10</td>
</tr>
</tbody>
</table>
What is a good street?

- Are citizens interested in paying extra tax for this?
  - probably not in local government funding environment of 2017 (fieldwork was done in 2010)
  - but indicates what citizens place value on
  - and what choices they want made on their behalf.
What is a good street?

• Citizens are willing to pay for:
  – green infrastructure
  – clean and well-maintained streets.
E.g. innovative Stated Choice and Priority Ranking research in urban/suburban/semi-rural areas in England (for Defra, 2013):

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Value estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street cleansing *</td>
<td>+1 point on a 0..10 scale</td>
</tr>
<tr>
<td>Street trees</td>
<td>+1 point on a 0..10 scale</td>
</tr>
<tr>
<td>Street lighting</td>
<td>+1 point on a 1..3 scale</td>
</tr>
</tbody>
</table>

* includes graffiti & fly-posting removal, dog fouling, litter, fly-tipping, odour, chewing gum.
What does this mean in terms of Benefit:Cost Ratio (BCR)?

- based on the Defra research above:

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Value per resident per annum</th>
<th>Cost per resident per annum</th>
<th>BCR</th>
<th>Previous studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street cleansing *</td>
<td>£160</td>
<td>£16.30</td>
<td>10:1</td>
<td>–</td>
</tr>
<tr>
<td>Street trees</td>
<td>£35</td>
<td>£0.89</td>
<td>39:1</td>
<td>Macpherson (2003): up to 24:1</td>
</tr>
</tbody>
</table>
What does this mean in terms of Benefit:Cost Ratio (BCR)?

- Comparison: Davis report (DfT, 2014) on walking and cycling investments:
  - including health benefits and external effects
  - BCRs range from 1.3 to 12.7
  - average BCR 5.62.

- Relatively small research field, but promising signs re. value for money.
Putting all the above together.

TfL is investing heavily in urban realm improvements - other regional authorities too.
• Perceived benefits and property market impact (land value uplift) look promising (as above).
• Full health benefits may not be perceived.
• Economic stimulus requires further investigation.
• Further research ongoing (TfL and WY TRIF).
• Property market effects of improved connectivity (accessibility) are basically understood (if not reliably quantified).
• Typical pattern of uplift for rail and mass transit:
Land Value Uplift

• Studies for TfL and WY TRIF found:
  – scope to better understand and measure the value of connectivity and urban realm improvements through property market *modelling*;
  – initial models found *value premia related to place quality*, beyond accessibility and neighbourhood effects;
  – potential to forecast LVU as an input to *value capture*;
  – *regional and local authorities gain better understanding of value created - will businesses actually accept value capture? - calibrate new value capture better*;
  – issues around *additionality to the transport benefits to be addressed*. 
Concluding observation:

- an over-arching problem here is the **valuation of multi-sectoral projects**: transport; urban realm; housing; business space;

- where to measure the benefits (in which market) is an issue

... this is now another focus of research.

Discussion / questions?
Additional slide
• What happens to Land Values in one segment of the city if we improve accessibility (transport) in another segment of the city?